APPENDIX A
PRDI Investigation Results

Appendix A-1
Upland Investigation

APPENDIX A-1
PRE-REMEDIAL DESIGN UPLAND INVESTIGATION SUMMARY

Pre-Remedial Design Investigation (PRDI) activities supporting the upland cleanup action were completed during the summer and fall of 2018. The upland portion of the PRDI investigation was completed in accordance with the August 22, 2018 *Pre-Remedial Design Investigation Project Plans – Upland* (Upland Work Plan) and the October 17, 2018 *Addendum to the Upland Work Plan* prepared by GeoEngineers, Inc. (GeoEngineers) and approved by Washington State Department of Ecology (Ecology). PRDI activities included:

- Evaluating the extent of light nonaqueous phase liquids (LNAPL) to refine the footprint of the In-Situ Stabilization (ISS) remediation element described in the Haley Remedial Investigation/Feasibility Study (RI/FS);
- Evaluating the extent of petroleum product in the north Cornwall area (Haley-Cornwall overlap area);
- Delineating the northern extent of upland soil and groundwater contamination;
- Completing a Site-wide groundwater sampling event; and
- Completing a subsurface ground penetrating radar (GPR) survey to explore for debris, utilities and other buried features of interest.

The PRDI activities, results and findings are described below, followed by supporting figures and tables. PRDI exploration logs are provided in Attachment A-1-1 and laboratory analytical documentation is provided in Attachment A-1-2. Laboratory data validation and review reports are provided in Attachment A-1-3.

1.0 LNAPL EXTENT AND ISS FOOTPRINT REFINEMENT

The upland field work for ISS footprint refinement included advancing direct-push borings ISS1 through ISS35 to confirm the area and depth of planned ISS (Figure A-1-1). The borings were completed by Cascade Drilling in August, September and November 2018. Continuous soil cores were obtained from the borings to a maximum depth of 20 feet below ground surface (bgs) to observe subsurface conditions, conduct field screening for the presence of LNAPL, and obtain soil samples for laboratory analytical testing. A total of 63 soil samples were collected for laboratory analysis of total petroleum hydrocarbons (TPH) and nine samples were submitted for analysis of total organic carbon (TOC), polycyclic aromatic hydrocarbons (PAHs), and pentachlorophenol (PCP). Laboratory testing was completed by OnSite Environmental Inc. TPH analysis for the November 2018 soil samples was completed by Libby Environmental using an on-site mobile laboratory. Testing results for soil samples are presented in Table A-1-1, PRDI Soil Analytical Data.

1.1. TPH Testing Results

TPH concentration data for ISS boring soil samples and from previous soil sampling events are presented in Figures A-1-2 through A-1-5. These figures group soil samples by depth intervals (0 to 5 feet, 5 to 10 feet, 10 to 15 feet and greater than 15 feet bgs). The TPH analytical results are color-coded by concentration range and were evaluated to refine the area and depth of planned ISS. The refined ISS footprint is shown on the figures based on TPH concentration (discussed below) and locations where measurable petroleum product has been observed in monitoring wells, as discussed in the Environmental Data Resources, Inc. (EDR) text.

Free product mobility testing was conducted during the Haley RI/FS to estimate the TPH concentration that represents the residual level for LNAPL in Haley soil. Mobility testing results suggest that the residual saturation concentration for LNAPL in soil may be greater than 17,770 milligrams per kilogram (mg/kg) TPH. This information provided a general guideline to estimate the general footprint of potentially mobile LNAPL near the Haley shoreline. For purposes of selecting the footprint of ISS, a TPH concentration of 15,000 mg/kg was used as a conservative estimate above which LNAPL may potentially be mobile.

TPH analytical data indicate that petroleum concentrations within about 150 feet of the shoreline exceed 15,000 mg/kg at the location of the existing sheet pile barrier and, to a lesser extent to the south of the barrier (Figures A-1-3 and A-1-4). These elevated petroleum concentrations occur between depths ranging from 4 to 13 feet bgs. The ISS soil boring (and other) data delineate the lateral extent of potentially mobile nonaqueous phase liquid (NAPL) to the north, south and east. This information provides the key basis of design for the lateral and vertical extent of ISS application, as further described in the EDR text.

TPH was also detected at concentrations of 15,000 mg/kg or greater in soil at locations farther upgradient. The data suggest these elevated TPH areas are outliers that are not connected to nearshore areas of potentially mobile NAPL. For example, the relatively limited extent of elevated petroleum concentrations in ISS22 (10 to 15 feet bgs) and ISS23 (5 to 10 feet bgs) is delineated by downgradient soil borings. The most significant upgradient TPH occurrence exceeding 15,000 mg/kg occurs in the northeastern portion of the Cornwall property. Elevated TPH in this area also is delineated as a separate occurrence by surrounding soil borings including the downgradient direction, as discussed further in Section 2.0.

1.1.1. Upland Petroleum Smear Zone

The term “smear zone” refers to the upper portion of the saturated soil zone, where LNAPL has been “smeared” as a result of seasonal and tidal fluctuations of the groundwater table. ISS soil boring cores were observed for visual indicators of LNAPL during the upland PRDI to reevaluate the extent of the upland petroleum smear zone described in the RI/FS. The presence of a medium to heavy sheen, or visible petroleum product in soil was used to identify conditions indicative of the smear zone. The smear zone represents the general extent of LNAPL-affected soil at the Haley Site. Most of the LNAPL in the smear zone is not mobile as indicated by free product mobility testing described above.

Figure A-1-6 presents the estimated smear zone thickness described in the RI/FS and Figure A-1-7 presents updated thickness contours incorporating sheen and product observations from the ISS borings. The updated smear zone extent figure is generally consistent with the previous interpretation, noting that observations from the ISS borings indicated a slightly extended southwest margin of the smear zone where previous information was limited. The northern and southern ends of the smear zone are also now better defined based on observations from the ISS borings, and the variability of the smear zone thickness is defined with greater detail at many locations.

1.1.2. TOC, PAH and PCP Testing Results

The following soil samples were selected from mid- to deeper depth intervals of the following ISS borings for laboratory analysis of TOC, PAHs and PCP:

Boring	Sample Depth in Feet bgs	Within ISS Area	East (Upgradient) of ISS Area	North of ISS Area	South of ISS Area
ISS1	15 to 16		X		
ISS8	6 to 8	X			
	11 to 13	X			
ISS12	15 to 16.5		X		
ISS18	10 to 13			X	
ISS20	8 to 9				X
ISS22	10 to 12		X		
	13 to 15		X		
ISS23	11 to 12		X		

The sample from boring ISS8 is within the planned ISS application area and was selected to provide additional chemical characterization to evaluate the suitability of the ISS mix design. Samples from other ISS borings were selected to further assess the lateral boundary of the ISS area and to further characterize soils remaining in these areas following ISS application. Analytical results are summarized in Table A-1-1, and on Figures A-1-8 through A-1-15 for 1- and 2-methylnaphthalene, Figures A-1-16 through A-1-19 for PCP and Figures A-1-20 through A-1-23 for total carcinogenic polycyclic aromatic hydrocarbons (cPAHs) (toxicity equivalent [TEQ]). The figures are presented by depth interval and include previous soil sample testing results in addition to the results from the ISS samples.

As expected, the highest 1- and 2-methylnaphthalene and PAH concentrations of the samples from the ISS borings were detected in the ISS8 sample (6 to 8 feet bgs) that had a TPH concentration of 26,000 micrograms per kilogram (µg/kg) (Figure A-1-3). The concentrations of 1- and 2-methylnaphthalene in this sample were 420,000 and 700,000 µg/kg, respectively (Figures A-1-9 and A-1-13). Concentrations of individual PAHs ranged up to 57,000 µg/kg (phenanthrene in the ISS8 sample from 6 to 8 feet bgs). This sample also had the highest total cPAH concentration of 470 µg/kg TEQ (Figure A-1-21). ISS application is planned in this area to reduce contaminant leaching and groundwater flow through nearshore soils with these constituent concentrations.

Concentrations of 1- and 2-methylnaphthalene and PAHs were substantially lower in the samples collected from the ISS soil borings outside areas with potentially mobile LNAPL. Of the ISS soil samples analyzed, the highest 1- and 2-methylnaphthalene concentrations were detected in the ISS23 sample from 11 to 12 feet bgs at 53,000 and 51,000 µg/kg, respectively (Figures A-1-10 and A-1-14). Concentrations of these constituents in other ISS soil samples ranged from 660 to 18,000 µg/kg for 1-methylnaphthalene and 1,000 to 23,000 µg/kg for 2-methylnaphthalene. The highest total cPAH concentration in these peripheral ISS borings was 240 µg/kg detected in the ISS18 sample from 10 to 13 feet bgs (Figure A-1-22), with concentrations in the remaining samples ranging from 14 to 140 µg/kg. These testing results indicated that soils beyond the ISS footprint contain PAH concentrations that are suitable for containment beneath the planned low-permeability upland cap.

No PCP was detected in any of the ISS soil samples.

TOC concentrations ranged up to 45 percent and indicated the presence of substantial wood waste in the ISS18, ISS22 (10 to 12-foot sample) and ISS23 samples, which was not unexpected.

2.0 HALEY-CORNWALL OVERLAP AREA PETROLEUM PRODUCT EVALUATION

Depth to water/product and product thickness monitoring were completed in Haley wells on August 30, 2018 as part of the quarterly Site-wide monitoring program. General findings and trends from quarterly monitoring are discussed in Section 1.0 of the EDR. Monitoring results from the August 30, 2018 event are summarized on Figure A-1-25 including substantial product thicknesses measured in monitoring wells CL-MW-103 and CL-MW-6 in the north part of the Cornwall site. Measured product thicknesses in CL-MW-103 and CL-MW-6 at that time were 1.51 and 2.43 feet, respectively. In contrast, product thicknesses since that time have consistently remained between 0 to 0.02 feet during monitoring in November 2018, December 2018, March 2019 and June 2019. Previous monitoring did not encounter product thicknesses approaching those noted in August 2018. Table A-1-2 provides product thickness measurements for CL-MW-103 and CL-MW-6. The representativeness of the August 2018 thickness measurements is uncertain and the product observed in CL-MW-103 is thicker and dissimilar to LNAPL related to past Haley wood-treatment operations.

Elevated TPH concentrations of 14,700 mg/kg to 32,400 mg/kg were detected in soil samples previously collected between 5 and 15 feet below ground surface from borings CL-SB-102, CL-SB-103 and monitoring well boring CL-MW-103 in the north Cornwall area (Figure A-1-3 and Figure A-1-4). Additional push probe borings ISS24 through ISS33 shown on these figures were advanced in November 2018 to further investigate the extent of elevated TPH concentrations and petroleum product occurrence in this area and the downgradient area to the northwest. TPH concentrations from ISS and previous soil samples exceeded 15,000 mg/kg in the areas shown on Figure A-1-3 and A-1-4. The elevated TPH concentrations and product occurrence in the north Cornwall area appear to be isolated from the Haley LNAPL area for ISS to the northwest. The north Cornwall area will continue to be monitored to confirm the suitability of the technologies currently identified for remediation, or potential modifications if needed.

3.0 NORTHERN EXTENT OF UPLAND CONTAMINATION DELINEATION

The northern extent of upland soil contamination required additional delineation for PAHs, PCP and dioxins/furans (D/F). A spatial data gap also existed for non-carcinogenic PAHs in groundwater near the western (seaward) edge of the upland area. To address these data gaps, additional soil and groundwater sampling and analysis were completed to confirm how far north low-permeability upland capping is needed. Sample testing results are presented for soil samples in Table A-1-1. Groundwater sample testing results from monitoring well HS-MW-20 are reported as part of the Site-wide groundwater sampling event summarized below in Section 4.0.

Six soil borings identified as NER01 through NER06 on Figure A-1-1 were completed by Cascade Drilling in August 2018 to collect soil samples for laboratory analysis. Boring NER1 was completed using hollow-stem auger drilling equipment that also facilitated installation of new groundwater monitoring well HS-MW-20 at this location. The remaining NER borings were completed using direct-push methods. The borings were advanced to a maximum depth of 15 feet bgs, with refusal in hard ground conditions encountered during drilling of NER3 (11 feet bgs), NER5 (13 feet bgs) and NER6 (13 feet bgs).

Samples were collected from the NER borings for laboratory analysis of PCP and PAHs, with samples from NER4 through NER6 (northern transect) held pending results for samples from borings NER1 through NER3 (southern transect) and eight D/F near-surface samples identified as SS1 through SS8 on Figure A-1-1. Samples from the NER northern transect borings were not analyzed after receiving results from the southern transect and D/F surface samples.

3.1. PAH, PCP and D/F Testing Results

As presented in Table A-1-1, concentrations of 1- and 2-methylnaphthalene and total cPAH (TEQ) exceeded their respective cleanup levels in the NER boring samples collected at depths up to 10 to 11 feet bgs. Concentrations of 1- and 2-methylnaphthalene ranged up to 0.82 and 0.77 mg/kg, respectively. Detected total cPAH concentrations ranged up to 0.062 mg/kg. No PCP was detected in any of the NER boring samples analyzed. Total D/F TEQ concentrations in six of the eight near-surface samples exceeded the cleanup level, with detected concentrations of up to 119 picograms per gram (pg/g). Sample testing results for PAH and PCP constituents from the NER southern transect borings are posted on Figures A-1-8 through A-1-23. Sample testing results for D/F from samples collected from near-surface samples are posted on Figure A-1-24.

The laboratory testing results for the NER boring and near-surface samples indicated the need to extend the low-permeability upland cap to the northern edge of the Haley property, as described further in the EDR.

4.0 SITE-WIDE GROUNDWATER SAMPLING EVENT

Haley Site groundwater quality was most recently characterized prior to the upland PRDI during a Site-wide monitoring event in 2012, with results reported in the RI/FS. A Site-wide groundwater sampling event was completed in late August and early September 2018 to obtain updated analytical data for the EDR. Groundwater samples were collected from 22 monitoring wells identified on Figure A-1-26 for laboratory analysis of TPH, PAHs and PCP. Groundwater samples collected from monitoring wells TL-MW-11, TL-MW-14 and TL-MW-16 were also submitted for laboratory analysis of D/F. Analytical testing results are presented in Table A-1-3, PRDI Groundwater Analytical Data, and are posted on Figures A-1-27 through A-1-31. Results from the 2012 sampling event are also posted on these figures for comparison.

Site wells were monitored for depth to water/product and product thickness during the Site-wide groundwater sampling event as part of routine quarterly monitoring. Monitoring wells with measurable product were not sampled for chemical analysis. Groundwater elevation and product thickness trends are described in the EDR text.

4.1. TPH, PAH, PCP and D/F Testing Results

As expected, TPH concentrations were highest in groundwater samples from monitoring wells near the western (shoreward) edge of the central Site area and to the east (upgradient) of the sheet pile wall, as presented on Figure A-1-27. TPH concentrations ranged up to 9.1 mg/kg (well RW-6). The higher TPH groundwater concentrations occur within the ISS application footprint with relatively high TPH soil concentrations and potentially mobile LNAPL. Detected TPH concentrations were comparatively higher than the 2012 concentrations at several locations near the upland bank and behind the sheet pile wall. TPH concentrations decreased compared to 2012 levels in monitoring wells HS-MW-4 and HS-MW-5 near the

upgradient boundary of the Site. TPH was not detected in monitoring well HS-MW-20 installed during the PRDI.

PAH constituents were detected in 13 of the 22 wells sampled. Concentrations of 1- and 2-methylnaphthalene exceeded cleanup levels in several wells toward the central shoreline area and in wells HS-MW-7 and HS-MW-8 farther inland, as presented on Figure A-1-28 and Figure A-1-29. Concentrations of these constituents ranged up to 340 micrograms per liter (µg/L) (well HS-MW-8). Concentrations of these constituents were consistent with 2012 concentrations in well HS-MW-7, increased in well TL-MW-7, and decreased in several other wells, notably TL-MW-9, TL-MW-13, TL-MW-14 and HS-MW-6 at the shoreline edge, and in HS-MW-4 and HS-MW-5 near the upgradient boundary of the Site.

For other PAHs, concentrations of at least one of the constituents acenaphthene, benzo(a)anthracene, and total cPAH TEQ exceeded their respective cleanup levels in groundwater samples from eight wells:

- Acenaphthene concentrations ranged up to 10 µg/L in well HS-MW-7 and TL-MW-7 samples;
- Benzo(a)anthracene ranged up to 0.36 µg/L in the well TL-MW-7 sample; and
- Total cPAHs ranged up to 0.42 µg/L in the well TL-MW-7 sample.

Elevated PAH concentrations were most prevalent in wells RW-5, RW-6 and TL-MW-7. Wells where these constituents exceeded cleanup levels are located within the planned ISS application footprint (HS-MW-6, TL-MW-7, RW-5, RW-6, and TL-MW-11), and upgradient (HS-MW-4, HS-MW-7, and HS-MW-8). These results were not unexpected and were comparable to the 2012 results. PAH constituents were not detected in monitoring well HS-MW-20 installed during the PRDI.

Notably, no PCP was detected in any of the wells (Figure A-1-30).

Testing results for D/F in groundwater samples from wells TL-MW-11, TL-MW-14 and TL-MW-16 exceeded the total D/F TEQ cleanup level, with the highest concentration of 128 picograms per liter (pg/L) detected in the sample from well TL-MW-16 (Figure A-1-31).

The analytical results from the PRDI Site-wide monitoring event were generally consistent with the anticipated conditions and provided key information for technical analyses supporting ISS, upland capping, and sediment capping components of the remedial action.

5.0 GPR SURVEY

A GPR survey was completed by Applied Professional Services Inc. on September 17, 2018 in portions of the ISS footprint and other locations in the central portion of the Site. The objective of the GPR survey was to evaluate the extent and type of subsurface debris, underground utilities and shallow subsurface foundation remnants and other structures. The GPR technique was not successful in identifying subsurface features of interest.

A linear north-south GPR signature was identified in the south central part of the site and the west access road about 4 to 5 feet bgs, but the operator could not determine what this linear feature was, other than indicating that a live power utility was not suspected. The signal terminated to the north and is unlikely to

be another utility. No other GPR anomalies were identified along the access road or elsewhere in the survey area.

Attachments:

Table A-1-1. PRDI Soil Analytical Data

Table A-1-2. Product Thickness Measurements in Cornwall Landfill Monitoring Wells

Table A-1-3. PRDI Groundwater Analytical Data

Figure A-1-1. 2018 PRDI Explorations

Figure A-1-2. TPH in Soil (0-5 Ft Below Ground Surface)

Figure A-1-3. TPH in Soil (5-10 Ft Below Ground Surface)

Figure A-1-4. TPH in Soil (10-15 Ft Below Ground Surface)

Figure A-1-5. TPH in Soil (>15 Ft Below Ground Surface)

Figures A-1-6 and A-1-7. Upland Smear Zone Thickness

Figure A-1-8. 1-Methylnaphthalene in Soil (0-5 Ft Below Ground Surface)

Figure A-1-9. 1-Methylnaphthalene in Soil (5-10 Ft Below Ground Surface)

Figure A-1-10. 1-Methylnaphthalene in Soil (10-15 Ft Below Ground Surface)

Figure A-1-11. 1-Methylnaphthalene in Soil (>15 Ft Below Ground Surface)

Figure A-1-12. 2-Methylnaphthalene in Soil (0-5 Ft Below Ground Surface)

Figure A-1-13. 2-Methylnaphthalene in Soil (5-10 Ft Below Ground Surface)

Figure A-1-14. 2-Methylnaphthalene in Soil (10-15 Ft Below Ground Surface)

Figure A-1-15. 2-Methylnaphthalene in Soil (>15 Ft Below Ground Surface)

Figure A-1-16. Pentachlorophenol in Soil (0-5 Ft Below Ground Surface)

Figure A-1-17. Pentachlorophenol in Soil (5-10 Ft Below Ground Surface)

Figure A-1-18. Pentachlorophenol in Soil (10-15 Ft Below Ground Surface)

Figure A-1-19. Pentachlorophenol in Soil (>15 Ft Below Ground Surface)

Figure A-1-20. Total cPAH in Soil (0-5 Ft Below Ground Surface)

Figure A-1-21. Total cPAH in Soil (5-10 Ft Below Ground Surface)

Figure A-1-22. Total cPAH in Soil (10-15 Ft Below Ground Surface)

Figure A-1-23. Total cPAH in Soil (>15 Ft Below Ground Surface)

Figure A-1-24. Total Dioxin/Furan in Near Surface Soil

Figure A-1-25. LNAPL Occurrence in Wells

Figure A-1-26. August/September 2018 Site-Wide Monitoring Event Wells

Figure A-1-27. TPH in Groundwater

Figure A-1-28. 1-Methylnaphthalene in Groundwater

Figure A-1-29. 2-Methylnaphthalene in Groundwater

Figure A-1-30. Pentachlorophenol in Groundwater

Figure A-1-31. Dioxin TEQ in Groundwater

Attachment A-1-1. PRDI Exploration Logs

Attachment A-1-2. Laboratory Analytical Documentation

Attachment A-1-3. Laboratory Data Validation and Review Reports

Table A-1-1

PRDI Soil Analytical Data

R.G. Haley Site

Bellingham, Washington

			Location	ISS01			ISS03	ISS3A			ISS04		
			Sample ID	DP2018-ISS1-6-8	DP2018-ISS1-10-12	DP2018-ISS1-15-16	DP2018-ISS3-7-10	DP2018-ISS3A-7-9	DP2018-ISS3A-10-13	DP2018-ISS3A-15-18	DP2018-ISS4-10-13	DP2018-ISS4-15-16.5	DP2018-ISS4-17-19
			Depth (ft bgs)	6-8 ft	10-12 ft	15-16 ft	7-10 ft	7-9 ft	10-13 ft	15-18 ft	10-13 ft	15-16.5 ft	17-19 ft
			Date Sampled	08/29/18	08/29/18	08/29/18	08/28/18	08/28/18	08/28/18	08/28/18	08/29/18	08/29/18	08/29/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
Total Organic Carbon	SW9060	%	NA	–	–	**4.1**	–	–	–	–	–	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	**12000**	**34**	**2100**	**1200**	150 U	**910**	**160**	**2200**	30 U	**88**
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	**1300 J**	63 U	**490 J**	**410 J**	**890**	**1600**	**300**	**1300**	61 U	60 U
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	**13000**	**66**	**2600**	**1600**	**970**	**2500**	**460**	**3500**	46 U	**120**
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	0.0063 U	–	–	–	–	–	–	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	**16**	–	–	–	–	–	–	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	**23**	–	–	–	–	–	–	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	**1.1**	–	–	–	–	–	–	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	**0.26**	–	–	–	–	–	–	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	**0.035**	–	–	–	–	–	–	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	**0.029**	–	–	–	–	–	–	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	**0.053**	–	–	–	–	–	–	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	**0.015**	–	–	–	–	–	–	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	**0.033**	–	–	–	–	–	–	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	**0.060**	–	–	–	–	–	–	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	**0.0054**	–	–	–	–	–	–	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	**0.21**	–	–	–	–	–	–	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	**1.1**	–	–	–	–	–	–	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	**0.024**	–	–	–	–	–	–	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	**0.40**	–	–	–	–	–	–	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	**2.2**	–	–	–	–	–	–	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	**0.26**	–	–	–	–	–	–	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	**0.043**	–	–	–	–	–	–	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–

			Location	ISS01			ISS03	ISS3A			ISS04		
			Sample ID	DP2018-ISS1-6-8	DP2018-ISS1-10-12	DP2018-ISS1-15-16	DP2018-ISS3-7-10	DP2018-ISS3A-7-9	DP2018-ISS3A-10-13	DP2018-ISS3A-15-18	DP2018-ISS4-10-13	DP2018-ISS4-15-16.	DP2018-ISS4-17-19
			Depth (ft bgs)	6-8 ft	10-12 ft	15-16 ft	7-10 ft	7-9 ft	10-13 ft	15-18 ft	10-13 ft	15-16.5 ft	17-19 ft
			Date Sampled	08/29/18	08/29/18	08/29/18	08/28/18	08/28/18	08/28/18	08/28/18	08/29/18	08/29/18	08/29/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons

ft = feet

mg/Kg = milligrams per kilogram

NA = not applicable

ND = not detected

pg/g = picograms per gram

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

			Location	ISS06		ISS07				ISS08			
			Sample ID	DP2018-ISS6-11-13	DP2018-ISS6-16-18	DP2018-ISS7-6-7	DP2018-ISS7-8-9	DP2018-ISS7-10-12	DP2018-ISS7-15-16	DP2018-ISS8-6-8	DP2018-ISS8-10-11	DP2018-ISS8-11-13	DP2018-ISS8-15-18
			Depth (ft bgs)	11-13 ft	16-18 ft	6-7 ft	8-9 ft	10-12 ft	15-16 ft	6-8 ft	10-11 ft	11-13 ft	15-18 ft
			Date Sampled	08/29/18	08/29/18	08/29/18	08/29/18	08/29/18	08/29/18	08/28/18	08/28/18	08/28/18	08/28/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	**5.8**	–	**0.31**	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	29 U	30 U	30 U	**260 J**	**110**	**780**	**25000**	**6800**	**110**	**70**
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	57 U	61 U	**84**	**360**	**88**	**130 J**	**1300 J**	**440 J**	55 U	60 U
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	43 U	46 U	**99**	**620**	**200**	**910**	**26000**	**7200**	**140**	**100**
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	–	–	0.0063 U	–	0.0063 U	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	–	–	**420**	–	**4.8**	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	–	–	**700**	–	**7.4**	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**24**	–	**0.25**	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**3.5**	–	**0.053**	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**0.48**	–	0.0050 U	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**0.34**	–	0.0050 U	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**0.39**	–	0.0050 U	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**0.15**	–	0.0050 U	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**0.21**	–	0.0050 U	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**0.75**	–	**0.0069**	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**0.046**	–	0.0050 U	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**2.4**	–	**0.022**	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**27**	–	**0.28**	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**0.20**	–	0.0050 U	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**2.8**	–	**0.038**	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**57**	–	**0.64**	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	**4.2**	–	**0.042**	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	–	–	**0.47**	–	**0.0038**	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–

			Location	ISS06		ISS07				ISS08			
			Sample ID	DP2018-ISS6-11-13	DP2018-ISS6-16-18	DP2018-ISS7-6-7	DP2018-ISS7-8-9	DP2018-ISS7-10-12	DP2018-ISS7-15-16	DP2018-ISS8-6-8	DP2018-ISS8-10-11	DP2018-ISS8-11-13	DP2018-ISS8-15-18
			Depth (ft bgs)	11-13 ft	16-18 ft	6-7 ft	8-9 ft	10-12 ft	15-16 ft	6-8 ft	10-11 ft	11-13 ft	15-18 ft
			Date Sampled	08/29/18	08/29/18	08/29/18	08/29/18	08/29/18	08/29/18	08/28/18	08/28/18	08/28/18	08/28/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons

ft = feet

mg/Kg = milligrams per kilogram

NA = not applicable

ND = not detected

pg/g = picograms per gram

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

			Location	ISS09		ISS10		ISS11		ISS12	
			Sample ID	DP2018-ISS9-5-8	DP2018-ISS9-10-14	DP2018-ISS10-7-8	DP2018-ISS10-10-12	DP2018-ISS11-5-6	DP2018-ISS11-19-20	DP2018-ISS12-10-13	DP2018-ISS12-15-16
			Depth (ft bgs)	5-8 ft	10-14 ft	7-8 ft	10-12 ft	5-6 ft	19-20 ft	10-13 ft	15-16.5 ft
			Date Sampled	08/28/18	08/28/18	08/27/18	08/27/18	08/28/18	08/28/18	08/27/18	08/27/18
			Matrix	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**								
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	–	**0.62**
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	**1100**	**43**	**8400**	**11000**	**3600**	27 U	**9600**	**700**
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	**72 J**	60 U	**460 J**	**640 J**	**240 J**	54 U	**450 J**	60 U
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	**1200**	**73**	**8900**	**12000**	**3800**	41 U	**10000**	**730**
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	–	–	–	0.0063 U
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	–	–	–	**8.4**
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	–	–	–	**6.4**
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.58**
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.12**
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.016**
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.010**
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.014**
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	0.0050 U
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.0071**
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.024**
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	0.0050 U
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.072**
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.55**
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.0067**
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.098**
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**1.2**
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	**0.11**
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	–	–	–	**0.014**
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–

			Location	ISS09		ISS10		ISS11		ISS12	
			Sample ID	DP2018-ISS9-5-8	DP2018-ISS9-10-14	DP2018-ISS10-7-8	DP2018-ISS10-10-12	DP2018-ISS11-5-6	DP2018-ISS11-19-20	DP2018-ISS12-10-13	DP2018-ISS12-15-16
			Depth (ft bgs)	5-8 ft	10-14 ft	7-8 ft	10-12 ft	5-6 ft	19-20 ft	10-13 ft	15-16.5 ft
			Date Sampled	08/28/18	08/28/18	08/27/18	08/27/18	08/28/18	08/28/18	08/27/18	08/27/18
			Matrix	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**								
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons

ft = feet

mg/Kg = milligrams per kilogram

NA = not applicable

ND = not detected

pg/g = picograms per gram

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

			Location	ISS13				ISS14		ISS15		ISS16	
			Sample ID	DP2018-ISS13-5-8	DP2018-ISS13-10-12	DP2018-ISS13-15-18	DP2018-ISS13-18.5-1	DP2018-ISS14-6-8	DP2018-ISS14-10-12	DP2018-ISS15-8-9	DP2018-ISS15-11-13	DP2018-ISS16-5-7	DP2018-ISS16-10-12
			Depth (ft bgs)	5-8 ft	10-12 ft	15-18 ft	18.5-19 ft	6-8 ft	10-12 ft	8-9 ft	11-13 ft	5-7 ft	10-12 ft
			Date Sampled	08/27/18	08/27/18	08/27/18	08/27/18	08/29/18	08/29/18	08/27/18	08/27/18	08/29/18	08/29/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	**1500**	**160**	**460**	27 U	28 U	31 U	30 U	30 U	29 U	57 U
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	**270**	63 U	**290**	54 U	56 U	62 U	61 U	59 U	58 U	110 U
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	**1800**	**190**	**750**	41 U	42 U	47 U	45 U	45 U	44 U	84 U
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	–	–	–	–	–	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	–	–	–	–	–	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	–	–	–	–	–	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–

			Location	ISS13				ISS14		ISS15		ISS16	
			Sample ID	DP2018-ISS13-5-8	DP2018-ISS13-10-12	DP2018-ISS13-15-18	DP2018-ISS13-18.5-1	DP2018-ISS14-6-8	DP2018-ISS14-10-12	DP2018-ISS15-8-9	DP2018-ISS15-11-13	DP2018-ISS16-5-7	DP2018-ISS16-10-12
			Depth (ft bgs)	5-8 ft	10-12 ft	15-18 ft	18.5-19 ft	6-8 ft	10-12 ft	8-9 ft	11-13 ft	5-7 ft	10-12 ft
			Date Sampled	08/27/18	08/27/18	08/27/18	08/27/18	08/29/18	08/29/18	08/27/18	08/27/18	08/29/18	08/29/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons

ft = feet

mg/Kg = milligrams per kilogram

NA = not applicable

ND = not detected

pg/g = picograms per gram

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

			Location	ISS17		ISS18		ISS19		ISS20		
			Sample ID	DP2018-ISS17-5-7	DP2018-ISS17-10-13	DP2018-ISS18-10-13	DP2018-ISS18-15-16	DP2018-ISS19-10-12	DP2018-ISS19-17-19	DP2018-ISS20-8-9	DP2018-ISS20-10-12	DP2018-ISS20-16-17
			Depth (ft bgs)	5-7 ft	10-13 ft	10-13 ft	15-16 ft	10-12 ft	17-19 ft	8-9 ft	10-12 ft	16-17 ft
			Date Sampled	08/27/18	08/27/18	08/27/18	08/27/18	08/29/18	08/29/18	08/29/18	08/30/18	08/30/18
			Matrix	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**									
Total Organic Carbon	SW9060	%	NA	–	–	**21**	–	–	–	**0.093**	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	**46 J**	**300 J**	**730 J**	**250 J**	59 UI	30 U	**740**	31 U	32 U
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	**160**	**1100**	**1400**	**480**	**220**	59 U	61 U	62 U	63 U
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	**210**	**1400**	**2100**	**730**	**250**	45 U	**770**	47 U	48 U
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	0.0063 U	–	–	–	0.0063 U	–	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	**18**	–	–	–	**11**	–	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	**3.4**	–	–	–	**16**	–	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	**1.0**	–	–	–	**0.79**	–	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	**0.19**	–	–	–	**0.14**	–	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	**0.18**	–	–	–	**0.017**	–	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	**0.18**	–	–	–	**0.0084**	–	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	**0.19**	–	–	–	**0.012**	–	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	**0.069**	–	–	–	0.0050 U	–	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	**0.12**	–	–	–	0.0050 U	–	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	**0.19**	–	–	–	**0.026**	–	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	**0.022**	–	–	–	0.0050 U	–	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	**0.48**	–	–	–	**0.077**	–	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	**0.91**	–	–	–	**0.78**	–	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	**0.11**	–	–	–	0.0050 U	–	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	**1.5**	–	–	–	**0.17**	–	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	**0.65**	–	–	–	**1.7**	–	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	**0.50**	–	–	–	**0.13**	–	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	**0.24**	–	–	–	**0.012**	–	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–

			Location	ISS17		ISS18		ISS19		ISS20		
			Sample ID	DP2018-ISS17-5-7	DP2018-ISS17-10-13	DP2018-ISS18-10-13	DP2018-ISS18-15-16	DP2018-ISS19-10-12	DP2018-ISS19-17-19	DP2018-ISS20-8-9	DP2018-ISS20-10-12	DP2018-ISS20-16-17
			Depth (ft bgs)	5-7 ft	10-13 ft	10-13 ft	15-16 ft	10-12 ft	17-19 ft	8-9 ft	10-12 ft	16-17 ft
			Date Sampled	08/27/18	08/27/18	08/27/18	08/27/18	08/29/18	08/29/18	08/29/18	08/30/18	08/30/18
			Matrix	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**									
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons
ft = feet
mg/Kg = milligrams per kilogram
NA = not applicable
ND = not detected
pg/g = picograms per gram
RL = reporting limit
TEQ = toxicity equivalent
U = Not detected
-- = Not analyzed
Bold text indicates detected value
Highlighted text indicates detected results greater than the cleanup level

			Location	ISS21			ISS22					ISS23	
			Sample ID	DP2018-ISS21-5-7	DP2018-ISS21-10-11	DP2018-ISS21-15-17	DP2018-ISS22-5-7	DP2018-ISS22-10-12	DP2018-ISS22-13-14	DP2018-ISS22-15-16	DP2018-ISS22-18.5-20	DP2018-ISS23-6-7.5	DP2018-ISS23-11-12
			Depth (ft bgs)	5-7 ft	10-11.5 ft	15-17 ft	5-7 ft	10-12 ft	13-14 ft	15-16 ft	18.5-20 ft	6-7.5 ft	11-12 ft
			Date Sampled	08/30/18	08/30/18	08/30/18	08/30/18	08/29/18	08/29/18	08/30/18	08/30/18	08/30/18	08/30/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
Total Organic Carbon	SW9060	%	NA	–	–	–	–	15	1.5	–	–	–	45
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	120	120 J	1000 J	600	4000 J	1300 J	34 UI	50	17000	2200
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	60 U	230	2500	420	11000	2700	83	88	1800 J	1600
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	150	350	3500	1000	15000	4000	100	140	19000	3800
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	0.0063 U	0.0063 U	–	–	–	0.0063 U
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	3.6	0.66	–	–	–	53
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	5.3	1.0	–	–	–	51
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.094	0.052	–	–	–	2.7
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.049	0.014	–	–	–	0.54
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.26	0.0076	–	–	–	0.061
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.070	0.0050 U	–	–	–	0.032
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.22	0.0080	–	–	–	0.11
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.042	0.0050 U	–	–	–	0.023
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.053	0.0050 U	–	–	–	0.037
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.46	0.013	–	–	–	0.16
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.039	0.0050 U	–	–	–	0.011 UI
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.67	0.029	–	–	–	0.63
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.13	0.050	–	–	–	3.1
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.051	0.0050 U	–	–	–	0.037
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	2.7	0.097	–	–	–	1.9
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.24	0.12	–	–	–	7.2
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	0.66	0.027	–	–	–	0.51
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	0.14	0.0049	–	–	–	0.057
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–

			Location	ISS21			ISS22					ISS23	
			Sample ID	DP2018-ISS21-5-7	P2018-ISS21-10-11	DP2018-ISS21-15-17	DP2018-ISS22-5-7	DP2018-ISS22-10-12	P2018-ISS22-13-14	DP2018-ISS22-15-16	P2018-ISS22-18.5-2	DP2018-ISS23-6-7.5	DP2018-ISS23-11-12
			Depth (ft bgs)	5-7 ft	10-11.5 ft	15-17 ft	5-7 ft	10-12 ft	13-14 ft	15-16 ft	18.5-20 ft	6-7.5 ft	11-12 ft
			Date Sampled	08/30/18	08/30/18	08/30/18	08/30/18	08/29/18	08/29/18	08/30/18	08/30/18	08/30/18	08/30/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons

ft = feet

mg/Kg = milligrams per kilogram

NA = not applicable

ND = not detected

pg/g = picograms per gram

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

			Location	ISS24				ISS25			ISS26			
			Sample ID	DP 2018 ISS-24 5.5-7	2018 ISS-24 5.5-7.5	DP 2018 ISS-24 7.5-9	P 2018 ISS-24 10-1	DP 2018 ISS-25 2-3	DP 2018 ISS-25 6-8	P 2018 ISS-25 12-1	DP 2018 ISS-26 2-4	DP 2018 ISS-26 5-7	2018 ISS-26 5-7 D	DP 2018 ISS-26 10-1
			Depth (ft bgs)	5.5-7.5 ft	5.5-7.5 ft	7.5-9 ft	10-12 ft	2-3 ft	6-8 ft	12-14 ft	2-4 ft	5-7 ft	5-7 ft	10-12 ft
			Date Sampled	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18
			Matrix	S	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**											
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	**10400**	**9850**	**217**	**406**	50.0 U	50.0 U	**85.0**	**42500**	**3990**	**4470**	**225**
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	2500 U	2500 U	250 U	250 U	250.0 U	250.0 U	250.0 U	2500 U	250 U	250 U	250 U
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	**11600**	**11100**	**342**	**531**	150.0 U	150.0 U	**210**	**43800**	**4120**	**4600**	**350**
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	–	–	–	–	–	–	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	–	–	–	–	–	–	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	–	–	–	–	–	–	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–

			Location	ISS24				ISS25			ISS26			
			Sample ID	DP 2018 ISS-24 5.5-7	2018 ISS-24 5.5-7.5	DP 2018 ISS-24 7.5-9	P 2018 ISS-24 10-1	DP 2018 ISS-25 2-3	DP 2018 ISS-25 6-8	P 2018 ISS-25 12-1	DP 2018 ISS-26 2-4	DP 2018 ISS-26 5-7	2018 ISS-26 5-7 D	DP 2018 ISS-26 10-1
			Depth (ft bgs)	5.5-7.5 ft	5.5-7.5 ft	7.5-9 ft	10-12 ft	2-3 ft	6-8 ft	12-14 ft	2-4 ft	5-7 ft	5-7 ft	10-12 ft
			Date Sampled	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18	11/07/18
			Matrix	S	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**											
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons
ft = feet
mg/Kg = milligrams per kilogram
NA = not applicable
ND = not detected
pg/g = picograms per gram
RL = reporting limit
TEQ = toxicity equivalent
U = Not detected
-- = Not analyzed
Bold text indicates detected value
Highlighted text indicates detected results greater than the cleanup level

			Location	ISS27			ISS28				ISS29		
			Sample ID	DP 2018 ISS-27 1.5-2	DP 2018 ISS-27 5-6	DP 2018 ISS-27 11-1	DP 2018 ISS-28 5-6	DP 2018 ISS-28 5-6 D	DP 2018 ISS-28 10-1	DP 2018 ISS-28 15-1	DP 2018 ISS-29 7-8	DP 2018 ISS-29 10-1	DP 2018 ISS-29 15-1
			Depth (ft bgs)	1.5-2.5 ft	5-6 ft	11-12 ft	5-6 ft	5-6 ft	10-11 ft	15-16 ft	7-8 ft	10-11 ft	15-16 ft
			Date Sampled	11/07/18	11/07/18	11/07/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	**11400**	**2860**	50.0 U	**2710**	**2870**	50.0 U	50.0 U	**4520**	**54.0**	**112**
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	**659**	**1120**
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	**22900**	**2980**	150 U	**2840**	**3000**	150 U	150 U	**4640**	**713**	**1230**
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	–	–	–	–	–	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	–	–	–	–	–	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	–	–	–	–	–	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–

			Location	ISS27			ISS28				ISS29		
			Sample ID	DP 2018 ISS-27 1.5-2	DP 2018 ISS-27 5-6	DP 2018 ISS-27 11-1	DP 2018 ISS-28 5-6	DP 2018 ISS-28 5-6 D	DP 2018 ISS-28 10-1	DP 2018 ISS-28 15-1	DP 2018 ISS-29 7-8	DP 2018 ISS-29 10-1	DP 2018 ISS-29 15-1
			Depth (ft bgs)	1.5-2.5 ft	5-6 ft	11-12 ft	5-6 ft	5-6 ft	10-11 ft	15-16 ft	7-8 ft	10-11 ft	15-16 ft
			Date Sampled	11/07/18	11/07/18	11/07/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons

ft = feet

mg/Kg = milligrams per kilogram

NA = not applicable

ND = not detected

pg/g = picograms per gram

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

			Location	ISS30			ISS31				ISS32		
			Sample ID	DP 2018 ISS-30 8-9	P 2018 ISS-30 10-1	DP 2018 ISS-30 16-1	DP 2018 ISS-31 6-7	P 2018 ISS-31 11-1	P 2018 ISS-31 15-1	2018 ISS-31 15-16	DP 2018 ISS-32 0-1	P 2018 ISS-32 10-1	P 2018 ISS-32 12.5-
			Depth (ft bgs)	8-9 ft	10-11 ft	16-17 ft	6-7 ft	11-12 ft	15-16 ft	15-16 ft	0-1 ft	10-11 ft	12.5-13 ft
			Date Sampled	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	500 U	50.0 U	50.0 U	**810**	50.0 U	50.0 U	50.0 U	500 U	**37900**	50.0 U
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	**6960**	250 U	250 U	250 U	250 U	250 U	250 U	2500 U	2500 U	250 U
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	**7210**	150 U	150 U	**935**	150 U	150 U	150 U	1500 U	**39200**	150 U
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	–	–	–	–	–	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	–	–	–	–	–	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	–	–	–	–	–	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–

			Location	ISS30			ISS31				ISS32		
			Sample ID	DP 2018 ISS-30 8-9	P 2018 ISS-30 10-1	P 2018 ISS-30 16-1	DP 2018 ISS-31 6-7	P 2018 ISS-31 11-1	P 2018 ISS-31 15-1	2018 ISS-31 15-16	DP 2018 ISS-32 0-1	P 2018 ISS-32 10-1	P 2018 ISS-32 12.5-
			Depth (ft bgs)	8-9 ft	10-11 ft	16-17 ft	6-7 ft	11-12 ft	15-16 ft	15-16 ft	0-1 ft	10-11 ft	12.5-13 ft
			Date Sampled	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18	11/08/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons

ft = feet

mg/Kg = milligrams per kilogram

NA = not applicable

ND = not detected

pg/g = picograms per gram

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

			Location	ISS33				ISS34			ISS35		
			Sample ID	DP 2018 ISS-33 1-2	DP 2018 ISS-33 6-7	P 2018 ISS-33 11-12	2018 ISS-33 11-12 D	DP 2018 ISS-34 6-7	P 2018 ISS-34 11-1	P 2018 ISS-34 17-1	DP 2018 ISS-35 7-8	P 2018 ISS-35 10-1	P 2018 ISS-35 15-1
			Depth (ft bgs)	1-2 ft	6-7 ft	11-12 ft	11-12 ft	6-7 ft	11-12 ft	17-18 ft	7-8 ft	10-11 ft	15-16 ft
			Date Sampled	11/08/18	11/08/18	11/08/18	11/09/18	11/09/18	11/09/18	11/09/18	11/09/18	11/09/18	11/09/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	50.0 U	**118**	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	**785**	50.0 U	50.0 U
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	150 U	**243**	150 U	150 U	150 U	150 U	150 U	**910**	150 U	150 U
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	–	–	–	–	–	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	–	–	–	–	–	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	–	–	–	–	–	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–	–	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–

			Location	ISS33				ISS34			ISS35		
			Sample ID	DP 2018 ISS-33 1-2	DP 2018 ISS-33 6-7	P 2018 ISS-33 11-1	2018 ISS-33 11-12	DP 2018 ISS-34 6-7	P 2018 ISS-34 11-1	P 2018 ISS-34 17-1	DP 2018 ISS-35 7-8	P 2018 ISS-35 10-1	P 2018 ISS-35 15-1
			Depth (ft bgs)	1-2 ft	6-7 ft	11-12 ft	11-12 ft	6-7 ft	11-12 ft	17-18 ft	7-8 ft	10-11 ft	15-16 ft
			Date Sampled	11/08/18	11/08/18	11/08/18	11/09/18	11/09/18	11/09/18	11/09/18	11/09/18	11/09/18	11/09/18
			Matrix	S	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**										
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons
ft = feet
mg/Kg = milligrams per kilogram
NA = not applicable
ND = not detected
pg/g = picograms per gram
RL = reporting limit
TEQ = toxicity equivalent
U = Not detected
-- = Not analyzed
Bold text indicates detected value
Highlighted text indicates detected results greater than the cleanup level

			Location	NER_01	NER_01	NER_01	NER_02	NER_02	NER_02	NER_03	NER_03	NER_03
			Sample ID	SA2018-NER1-11.9-12	HSA2018-NER1-2.0-3.0	HSA2018-NER1-5.3-6.0	DP2018-NER2-10-11	DP2018-NER2-1-3	DP2018-NER2-7-9	DP2018-NER3-10-11	DP2018-NER3-2-3	DP2018-NER3-6-8
			Depth (ft bgs)	11.9-12.5 ft	2-3 ft	5.3-6 ft	10-11 ft	1-3 ft	7-9 ft	10-11 ft	2-3 ft	6-8 ft
			Date Sampled	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18
			Matrix	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**									
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	–	–	–	–	–	–	–	–	–
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	–	–	–	–	–	–	–	–	–
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	–	–	–	–	–	–	–	–	–
Pentachlorophenol	SW8151	mg/Kg	0.0063	0.0063 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	**0.017**	**0.010**	0.0050 U	**0.072**	**0.61**	**0.011**	**0.24**	**0.71**	**0.82**
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	**0.022**	**0.013**	0.0050 U	**0.066**	**0.57**	**0.015**	**0.10**	**0.64**	**0.77**
Acenaphthene	SW8270SIM	mg/Kg	NA	**0.023**	0.0050 U	0.0050 U	0.0050 U	**0.013**	**0.0097**	**0.012**	**0.019**	0.031 U
Acenaphthylene	SW8270SIM	mg/Kg	NA	**0.018**	0.0050 U	0.0050 U	0.0050 U	**0.019**	**0.034**	**0.0064**	**0.021**	0.031 U
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	**0.17**	**0.0091**	0.0050 U	**0.012**	**0.034**	**0.041**	**0.013**	**0.026**	**0.034**
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	**0.19**	**0.013**	0.0050 U	**0.013**	**0.026**	**0.046**	**0.011**	**0.012**	0.031 U
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	**0.19**	**0.018**	0.0050 U	**0.017**	**0.023**	**0.053**	**0.013**	**0.0075**	0.031 U
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	**0.069**	**0.0052**	0.0050 U	0.0050 U	**0.0083**	**0.018**	0.0050 U	0.0050 U	0.031 U
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	**0.11**	**0.016**	0.0050 U	**0.013**	**0.017**	**0.042**	**0.0086**	**0.0084**	0.031 U
Chrysene	SW8270SIM	mg/Kg	NA	**0.18**	**0.018**	0.0050 U	**0.025**	**0.028**	**0.049**	**0.021**	**0.018**	0.031 U
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	**0.024**	0.0050 U	0.0050 U	0.0050 U	0.0050 U	**0.0057**	0.0050 U	**0.0065**	0.031 U
Fluoranthene	SW8270SIM	mg/Kg	NA	**0.41**	**0.024**	0.0050 U	**0.024**	**0.061**	**0.16**	**0.063**	**0.034**	**0.052**
Fluorene	SW8270SIM	mg/Kg	NA	**0.025**	0.0050 U	0.0050 U	**0.0070**	**0.049**	**0.0081**	**0.035**	**0.071**	**0.070**
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	**0.11**	**0.011**	0.0050 U	**0.0080**	**0.013**	**0.035**	**0.0053**	0.0050 U	0.031 U
Naphthalene	SW8270SIM	mg/Kg	NA	**0.081**	**0.018**	0.0050 U	**0.049**	**0.37**	**0.28**	**0.080**	**0.40**	**0.55**
Phenanthrene	SW8270SIM	mg/Kg	NA	**0.24**	**0.022**	0.0050 U	**0.029**	**0.13**	**0.15**	**0.19**	**0.13**	**0.13**
Pyrene	SW8270SIM	mg/Kg	NA	**0.43**	**0.028**	0.0050 U	**0.028**	**0.082**	**0.15**	**0.032**	**0.059**	**0.084**
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	**0.25**	**0.018**	0.0038 U	**0.018**	**0.034**	**0.062**	**0.015**	**0.017**	**0.025**
2,3,7,8-TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–

			Location	NER_01	NER_01	NER_01	NER_02	NER_02	NER_02	NER_03	NER_03	NER_03
			Sample ID	SA2018-NER1-11.9-12	HSA2018-NER1-2.0-3.0	HSA2018-NER1-5.3-6.0	DP2018-NER2-10-11	DP2018-NER2-1-3	DP2018-NER2-7-9	DP2018-NER3-10-11	DP2018-NER3-2-3	DP2018-NER3-6-8
			Depth (ft bgs)	11.9-12.5 ft	2-3 ft	5.3-6 ft	10-11 ft	1-3 ft	7-9 ft	10-11 ft	2-3 ft	6-8 ft
			Date Sampled	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18	08/31/18
			Matrix	S	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**									
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/g	NA	–	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	–	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons
ft = feet
mg/Kg = milligrams per kilogram
NA = not applicable
ND = not detected
pg/g = picograms per gram
RL = reporting limit
TEQ = toxicity equivalent
U = Not detected
-- = Not analyzed
Bold text indicates detected value
Highlighted text indicates detected results greater than the cleanup level

			Location	SS1	SS2	SS3	SS4	SS5	SS6	SS7	SS8
			Sample ID	HS 2018-SS1-0.25-0.5	HS 2018-SS2-0.25-0.5	HS 2018-SS3-0-0.5	HS 2018-SS4-0.5-0.75	HS 2018-SS5-0.5-0.75	HS 2018-SS6-0-0.5	HS 2018-SS7-0.5-0.75	HS 2018-SS8-0.25-0.5
			Depth (ft bgs)	0.25-0.5 ft	0.25-0.5 ft	0-0.5 ft	0.5-0.75 ft	0.5-0.75 ft	0-0.5 ft	0.5-0.75 ft	0.25-0.5 ft
			Date Sampled	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18
			Matrix	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**								
Total Organic Carbon	SW9060	%	NA	–	–	–	–	–	–	–	–
Diesel-range hydrocarbons	NWTPH-DX	mg/Kg	NA	–	–	–	–	–	–	–	–
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/Kg	NA	–	–	–	–	–	–	–	–
Total Petroleum Hydrocarbons	CALC	mg/Kg	1534	–	–	–	–	–	–	–	–
Pentachlorophenol	SW8151	mg/Kg	0.0063	–	–	–	–	–	–	–	–
1-Methylnaphthalene	SW8270SIM	mg/Kg	0.042	–	–	–	–	–	–	–	–
2-Methylnaphthalene	SW8270SIM	mg/Kg	0.041	–	–	–	–	–	–	–	–
Acenaphthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Acenaphthylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Benzo(a)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Benzo(a)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Benzo(b)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Benzo(j,k)fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Benzo(g,h,i)perylene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Chrysene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Dibenzo(a,h)anthracene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Fluoranthene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Fluorene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Indeno(1,2,3-c,d)pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Naphthalene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Phenanthrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Pyrene	SW8270SIM	mg/Kg	NA	–	–	–	–	–	–	–	–
Total cPAH TEQ (ND=0.5RL)	CALC	mg/Kg	0.0076	–	–	–	–	–	–	–	–
2,3,7,8-TCDD	EPA1613	pg/g	NA	**0.816 J**	**1.47**	**1.62**	0.190 U	0.159 U	**1.6**	0.140 U	0.163 U
1,2,3,7,8-PeCDD	EPA1613	pg/g	NA	**5.43**	**7.77**	**25.7**	**0.797 J**	0.277 U	**20.2**	**0.76 J**	**1.18 J**
1,2,3,4,7,8-HxCDD	EPA1613	pg/g	NA	**10.8**	**16.5**	**58.5**	**2.06 J**	**0.635 J**	**43.9**	**1.49 J**	**1.71 J**
1,2,3,6,7,8-HxCDD	EPA1613	pg/g	NA	**55.4**	**130**	**171**	**41.5**	**5.94**	**123**	**17.6**	**29.3**
1,2,3,7,8,9-HxCDD	EPA1613	pg/g	NA	**25.5**	**44.8**	**114**	**8.88**	**1.75 J**	**83.1**	**4.59 J**	**6.97**
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/g	NA	**1440**	**3680**	**3050**	**1190**	**184**	**2340**	**511**	**878**
OCDD	EPA1613	pg/g	NA	**15800**	**45500**	**19100**	**15100**	**2120**	**16500**	**6400**	**10600**
2,3,7,8-TCDF	EPA1613	pg/g	NA	**0.735 J**	**1.75**	**2.3**	**0.82 J**	0.142 U	**2.01**	**0.33 J**	**0.584 J**
1,2,3,7,8-PeCDF	EPA1613	pg/g	NA	**1.79 J**	**4.2 J**	**7.79**	**1.66 J**	**0.243 J**	**5.62**	**0.72 J**	**1.03 J**
2,3,4,7,8-PeCDF	EPA1613	pg/g	NA	**4.39 J**	**10.1**	**19.8**	**3.06 J**	**0.671 J**	**13.4**	**1.33 J**	**2.22 J**
1,2,3,4,7,8-HxCDF	EPA1613	pg/g	NA	**8.46**	**18.2**	**32.6**	**5.54**	**1.07 J**	**26.5**	**2.25 J**	**3.84 J**
1,2,3,6,7,8-HxCDF	EPA1613	pg/g	NA	**5.05**	**8.54**	**25.1**	**2.34 J**	**0.547 J**	**20.9**	**1.21 J**	**1.93 J**
1,2,3,7,8,9-HxCDF	EPA1613	pg/g	NA	**2.71 J**	**7.02**	**10.1**	**2.72 J**	**0.624 J**	**7.91**	**0.975 J**	**2.00 J**
2,3,4,6,7,8-HxCDF	EPA1613	pg/g	NA	**7.53**	**15.1**	**36.7**	**4.36 J**	**0.815 J**	**28.5**	**1.95 J**	**3.19 J**
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/g	NA	**168**	**407**	**401**	**159**	**21.7**	**381**	**60.1**	**96.4**

			Location	SS1	SS2	SS3	SS4	SS5	SS6	SS7	SS8
			Sample ID	HS 2018-SS1-0.25-0.5	HS 2018-SS2-0.25-0.5	HS 2018-SS3-0-0.5	HS 2018-SS4-0.5-0.75	HS 2018-SS5-0.5-0.75	HS 2018-SS6-0-0.5	HS 2018-SS7-0.5-0.75	HS 2018-SS8-0.25-0.5
			Depth (ft bgs)	0.25-0.5 ft	0.25-0.5 ft	0-0.5 ft	0.5-0.75 ft	0.5-0.75 ft	0-0.5 ft	0.5-0.75 ft	0.25-0.5 ft
			Date Sampled	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18
			Matrix	S	S	S	S	S	S	S	S
Parameter	**Method**	**Units**	**Cleanup Levels**								
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/g	NA	**9.13**	**20.5**	**23.2**	**8.10**	**1.24 J**	**22.9**	**3.37 J**	**4.69 J**
OCDF	EPA1613	pg/g	NA	**612**	**1700**	**754**	**687**	**93.5**	**947**	**262**	**408**
Total TCDD	EPA1613	pg/g	NA	**12.9**	**30.6**	**20.3**	**0.578 J**	**0.235 J**	**53.3**	**0.648 J**	**0.346 J**
Total TCDF	EPA1613	pg/g	NA	**10.8**	**17.5**	**52.2 J**	**4.07**	**1.16**	**46.1 J**	**2.16**	**3.43**
Total PeCDD	EPA1613	pg/g	NA	**45.1**	**84.5**	**112**	**6.65**	**0.81 J**	**142**	**3.87 J**	**5.51 J**
Total PeCDF	EPA1613	pg/g	NA	**47.9**	**89.3**	**309 J**	**24.4**	**6.06**	**227 J**	**12.8**	**19.9**
Total HxCDD	EPA1613	pg/g	NA	**404**	**913**	**937**	**250**	**39.5**	**775**	**114**	**190**
Total HxCDF	EPA1613	pg/g	NA	**255 J**	**631 J**	**850 J**	**228**	**34.3**	**692 J**	**93.4 J**	**153 J**
Total HpCDD	EPA1613	pg/g	NA	**2860**	**7590**	**5450**	**2450**	**372**	**4180**	**1070**	**1800**
Total HpCDF	EPA1613	pg/g	NA	**663**	**1770**	**1140**	**717**	**94.0**	**1190**	**261**	**409**
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/g	13	**40.3**	**91.8**	**119**	**27.0**	**4.31**	**92.2**	**12.0**	**20.0**

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons
ft = feet
mg/Kg = milligrams per kilogram
NA = not applicable
ND = not detected
pg/g = picograms per gram
RL = reporting limit
TEQ = toxicity equivalent
U = Not detected
-- = Not analyzed
Bold text indicates detected value
Highlighted text indicates detected results greater than the cleanup level

Table A-1-2

Product Thickness Measurements in Cornwall Landfill Monitoring Wells

R.G. Haley Site

Bellingham, Washington

Date	Monitoring Well	
	CL-MW-6	CL-MW-103
11/10/2001	0.01	0.02
9/23/2013	0.02	Trace[1]
12/17/2013	0	Trace[1]
6/21/2013	Trace	Trace[1]
9/23/2013	0.02	Trace[1]
3/21/2014	0	Trace[1]
7/7/2014	0	Trace[1]
10/2/2014	0.02	Trace[1]
12/18/2014	0	0
3/24/2015	0	0
9/23/2015	0	0.02
12/28/2015	0	0
4/21/2016	0	Trace
6/22/2016	--	Trace
9/22/2016	0	Trace
1/17/2017	--	Trace
3/29/2017	--	Trace
Pre-Remedial Design Investigation completed in the summer/fall 2018		
12/19/2018	2.43	1.51
12/19/2018	0.02	0.02
3/22/2019	0	0.02
6/18/2019	0.02	0.01
9/27/2019	0.01	0.02
12/20/2019	0	0
3/31/2020	0.01	0.01
6/24/2020	0	0.02

Notes:

[1] Staining found on interface probe. Thickness of product unable to be determined.

-- Measurement not collected

Table A-1-3

PRDI Groundwater Analytical Data

R.G. Haley Site

Bellingham, Washington

				Well ID	HS-MW-4	HS-MW-5	HS-MW-6	HS-MW-7	HS-MW-8	HS-MW-9	HS-MW-15	HS-MW-16
				Sample ID	HS-MW-4-08292018	HS-MW-5-08292018	HS-MW-6-08282018	HS-MW-7-08292018	HS-MW-8-08302018	HS-MW-9-08292018	HS-MW-15-08282018	HS-MW-16-08282018
				Date Sampled	08/29/18	08/29/18	08/28/18	08/29/18	08/30/18	08/29/18	08/28/18	08/28/18
Parameter	**Method**	**Units**	**Cleanup Levels**									
Diesel-range hydrocarbons	NWTPH-DX	mg/L	NA		**1.1**	0.26 U	**1.5 J**	**3.9 J**	**3.7 J**	0.26 U	0.25 U	0.25 U
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/L	NA		**1.7**	0.41 U	0.47 U	**0.43**	0.40 U	0.41 U	0.40 U	0.41 U
Total Petroleum Hydrocarbons	CALC	mg/L	NA		**2.8**	0.34 U	**1.7**	**4.3**	**3.9**	0.34 U	0.33 U	0.33 U
Pentachlorophenol	SW8151	µg/L	0.04		0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U
1-Methylnaphthalene	SW8270SIM	µg/L	15		**11**	0.10 U	**24**	**300**	**340**	0.10 U	0.10 U	0.10 U
2-Methylnaphthalene	SW8270SIM	µg/L	15		**4.2**	0.10 U	**0.60**	**240**	**340**	0.10 U	0.10 U	0.10 U
Acenaphthene	SW8270SIM	µg/L	5.3		**2.8**	0.10 U	**5.5**	**10**	**8.8**	0.10 U	0.10 U	0.10 U
Acenaphthylene	SW8270SIM	µg/L	NA		**0.59**	0.10 U	1.0 U	**1.5**	**1.5**	0.10 U	0.10 U	0.10 U
Benzo(a)anthracene	SW8270SIM	µg/L	0.01		**0.030**	0.010 U	0.010 U	**0.015**	**0.018**	0.010 U	0.010 U	0.010 U
Benzo(a)pyrene	SW8270SIM	µg/L	NA		**0.027**	0.010 U	0.010 U	0.010 U	**0.015**	0.010 U	0.010 U	0.010 U
Benzo(b)fluoranthene	SW8270SIM	µg/L	NA		**0.046**	0.010 U	0.010 U	0.010 U	**0.021**	0.010 U	0.010 U	0.010 U
Benzo(j,k)fluoranthene	SW8270SIM	µg/L	NA		0.011 U	0.010 U	0.010 U	0.010 U	0.0093 U	0.010 U	0.010 U	0.010 U
Benzo(g,h,i)perylene	SW8270SIM	µg/L	NA		**0.060**	0.010 U	0.010 U	0.010 U	**0.017**	0.010 U	0.010 U	0.010 U
Chrysene	SW8270SIM	µg/L	NA		**0.11**	0.010 U	0.010 U	**0.015**	**0.028**	0.010 U	0.010 U	0.010 U
Dibenzo(a,h)anthracene	SW8270SIM	µg/L	NA		0.011 U	0.010 U	0.010 U	0.010 U	0.0093 U	0.010 U	0.010 U	0.010 U
Fluoranthene	SW8270SIM	µg/L	NA		**0.15**	0.10 U	0.10 U	**0.14**	**0.18**	0.10 U	0.10 U	0.10 U
Fluorene	SW8270SIM	µg/L	NA		**3.2**	0.10 U	**2.9**	**7.2**	**6.9**	0.10 U	0.10 U	0.10 U
Indeno(1,2,3-c,d)pyrene	SW8270SIM	µg/L	NA		**0.035**	0.010 U	0.010 U	0.010 U	**0.015**	0.010 U	0.010 U	0.010 U
Naphthalene	SW8270SIM	µg/L	NA		**0.25**	0.10 U	**0.79**	**4.5**	**5.4**	0.10 U	0.10 U	0.10 U
Phenanthrene	SW8270SIM	µg/L	NA		**4.5**	0.10 U	**0.23**	**4.8**	**5.2**	0.10 U	0.10 U	0.10 U
Pyrene	SW8270SIM	µg/L	NA		**0.69**	0.10 U	0.10 U	0.10 U	**0.24**	0.10 U	0.10 U	0.10 U
Total cPAH TEQ (ND=0.5RL)	CALC	µg/L	0.02		**0.040**	0.0076 U	0.0076 U	**0.0087**	**0.022**	0.0076 U	0.0076 U	0.0076 U
2,3,7,8-TCDD	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/L	NA		–	–	–	–	–	–	–	–

			Well ID	HS-MW-4	HS-MW-5	HS-MW-6	HS-MW-7	HS-MW-8	HS-MW-9	HS-MW-15	HS-MW-16
			Sample ID	HS-MW-4-08292018	HS-MW-5-08292018	HS-MW-6-08282018	HS-MW-7-08292018	HS-MW-8-08302018	HS-MW-9-08292018	HS-MW-15-08282018	HS-MW-16-08282018
			Date Sampled	08/29/18	08/29/18	08/28/18	08/29/18	08/30/18	08/29/18	08/28/18	08/28/18
Parameter	**Method**	**Units**	**Cleanup Levels**								
2,3,4,6,7,8-HxCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/L	32	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbon

ft = feet

J = Estimated value

mg/L = milligrams per liter

µg/L = milligrams per liter

NA = not applicable

ND = not detected

pg/L = picogram per liter

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

			Well ID	HS-MW-17	HS-MW-20	MW-16D	MW-16S	RW-5	RW-6	TL-MW-1	TL-MW-7
			Sample ID	HS-MW-17-08282018	HS-MW-20-09042018	MW-16D-08272018	MW-16S-08272018	RW-5-09042018	RW-6-09042018	TL-MW-1-09042018	TL-MW-7-08302018
			Date Sampled	08/28/18	09/04/18	08/27/18	08/27/18	09/04/18	09/04/18	09/04/18	08/30/18
Parameter	**Method**	**Units**	**Cleanup Levels**								
Diesel-range hydrocarbons	NWTPH-DX	mg/L	NA	0.34 U	0.25 U	**0.80**	**0.67**	**4.7**	**7.3**	**1.6**	**11 J**
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/L	NA	0.41 U	0.41 U	**0.53**	**0.47**	**0.71 J**	**1.8 J**	**0.67 J**	**0.93 J**
Total Petroleum Hydrocarbons	CALC	mg/L	NA	0.38 U	0.33 U	**1.3**	**1.1**	**5.4**	**9.1**	**2.3**	**12**
Pentachlorophenol	SW8151	µg/L	0.04	0.040 U	0.0088 U	0.040 U	0.040 U	0.0089 U	0.0094 U	0.0095 U	0.040 U
1-Methylnaphthalene	SW8270SIM	µg/L	15	0.10 U	0.10 U	**0.22**	**0.18**	**99**	**36**	**38**	**260**
2-Methylnaphthalene	SW8270SIM	µg/L	15	0.10 U	0.10 U	0.10 U	0.10 U	**89**	**22**	**0.50**	**130**
Acenaphthene	SW8270SIM	µg/L	5.3	0.10 U	0.10 U	**0.40**	0.10 U	**5.0**	**1.8**	**2.9**	**10**
Acenaphthylene	SW8270SIM	µg/L	NA	0.10 U	0.10 U	0.10 U	0.10 U	**1.3**	**0.42**	**0.41**	**2.6**
Benzo(a)anthracene	SW8270SIM	µg/L	0.01	0.010 U	0.010 U	0.010 U	0.010 U	**0.18**	**0.081**	0.011 U	**0.36**
Benzo(a)pyrene	SW8270SIM	µg/L	NA	0.010 U	0.010 U	0.010 U	0.010 U	**0.18**	**0.066**	0.011 U	**0.31**
Benzo(b)fluoranthene	SW8270SIM	µg/L	NA	0.010 U	0.010 U	0.010 U	0.010 U	**0.19**	**0.090**	0.011 U	**0.36**
Benzo(j,k)fluoranthene	SW8270SIM	µg/L	NA	0.010 U	0.010 U	0.010 U	0.010 U	**0.053**	**0.022**	0.011 U	**0.091**
Benzo(g,h,i)perylene	SW8270SIM	µg/L	NA	0.010 U	0.010 U	0.010 U	0.010 U	**0.15**	**0.078**	0.011 U	**0.24**
Chrysene	SW8270SIM	µg/L	NA	0.010 U	0.010 U	0.010 U	0.010 U	**0.15**	**0.10**	0.011 U	**0.38**
Dibenzo(a,h)anthracene	SW8270SIM	µg/L	NA	0.010 U	0.010 U	0.010 U	0.010 U	**0.018**	0.010 U	0.011 U	**0.037**
Fluoranthene	SW8270SIM	µg/L	NA	0.10 U	0.10 U	0.10 U	0.10 U	**0.38**	**0.24**	0.11 U	**0.99**
Fluorene	SW8270SIM	µg/L	NA	0.10 U	0.10 U	**0.19**	0.10 U	**3.9**	**1.8**	**0.39**	**10**
Indeno(1,2,3-c,d)pyrene	SW8270SIM	µg/L	NA	0.010 U	0.010 U	0.010 U	0.010 U	**0.15**	**0.068**	0.011 U	**0.23**
Naphthalene	SW8270SIM	µg/L	NA	0.10 U	0.10 U	0.10 U	0.10 U	**2.4**	**1.4**	**0.64**	**3.8**
Phenanthrene	SW8270SIM	µg/L	NA	0.10 U	0.10 U	0.10 U	0.10 U	**4.0**	**2.4**	**0.12**	**14**
Pyrene	SW8270SIM	µg/L	NA	0.10 U	0.10 U	0.10 U	0.10 U	**0.60**	**0.54**	0.11 U	**1.2**
Total cPAH TEQ (ND=0.5RL)	CALC	µg/L	0.02	0.0076 U	0.0076 U	0.0076 U	0.0076 U	**0.24**	**0.094**	0.0083 U	**0.42**
2,3,7,8-TCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
OCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
2,3,7,8-TCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,7,8-PeCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
2,3,4,7,8-PeCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,4,7,8-HxCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,6,7,8-HxCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,7,8,9-HxCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–

			Well ID	HS-MW-17	HS-MW-20	MW-16D	MW-16S	RW-5	RW-6	TL-MW-1	TL-MW-7
			Sample ID	HS-MW-17-08282018	HS-MW-20-09042018	MW-16D-08272018	MW-16S-08272018	RW-5-09042018	RW-6-09042018	TL-MW-1-09042018	TL-MW-7-08302018
			Date Sampled	08/28/18	09/04/18	08/27/18	08/27/18	09/04/18	09/04/18	09/04/18	08/30/18
Parameter	**Method**	**Units**	**Cleanup Levels**								
2,3,4,6,7,8-HxCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
OCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total TCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total TCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total PeCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total PeCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total HxCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total HxCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total HpCDD	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total HpCDF	EPA1613	pg/L	NA	–	–	–	–	–	–	–	–
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/L	32	–	–	–	–	–	–	–	–

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbon

ft = feet

J = Estimated value

mg/L = milligrams per liter

µg/L = milligrams per liter

NA = not applicable

ND = not detected

pg/L = picogram per liter

RL = reporting limit

TEQ = toxicity equivalent

U = Not detected

-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level

				Well ID	TL-MW-9	TL-MW-11	TL-MW-13	TL-MW-14	TL-MW-14	TL-MW-15	TL-MW-16
				Sample ID	TL-MW-9-09042018	TL-MW-11-09042018	TL-MW-13-09042018	DUP-09042018	TL-MW-14-09042018	TL-MW-15-08312018	TL-MW-16-09042018
				Date Sampled	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18	08/31/18	09/04/18
Parameter	**Method**	**Units**	**Cleanup Levels**								
Diesel-range hydrocarbons	NWTPH-DX	mg/L	NA		**1.4**	**0.36**	0.26 U	**0.27**	**0.26**	**0.93 J**	**0.55**
Lube Oil-range Hydrocarbons	NWTPH-DX	mg/L	NA		**1.2 J**	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Total Petroleum Hydrocarbons	CALC	mg/L	NA		**2.6**	**0.57**	0.34 U	**0.48**	**0.47**	**1.1**	**0.76**
Pentachlorophenol	SW8151	µg/L	0.04		0.0089 U	0.0089 U	0.0089 U	0.0089 U	0.0089 U	0.040 U	0.0089 U
1-Methylnaphthalene	SW8270SIM	µg/L	15		0.10 U	**0.56**	0.10 U	**1.1**	**1.2**	**0.79**	0.10 U
2-Methylnaphthalene	SW8270SIM	µg/L	15		0.10 U	**0.13**	0.10 U	0.10 U	0.10 U	0.098 U	0.10 U
Acenaphthene	SW8270SIM	µg/L	5.3		0.10 U	**0.61**	0.10 U	**0.18**	**0.19**	**0.37**	0.10 U
Acenaphthylene	SW8270SIM	µg/L	NA		0.10 U	**0.10**	0.10 U	0.10 U	0.10 U	0.098 U	0.10 U
Benzo(a)anthracene	SW8270SIM	µg/L	0.01		0.010 U	**0.018**	0.010 U	0.010 U	0.010 U	0.0098 U	0.010 U
Benzo(a)pyrene	SW8270SIM	µg/L	NA		0.010 U	**0.019**	0.010 U	0.010 U	0.010 U	0.0098 U	0.010 U
Benzo(b)fluoranthene	SW8270SIM	µg/L	NA		0.010 U	**0.022**	0.010 U	0.010 U	0.010 U	0.0098 U	0.010 U
Benzo(j,k)fluoranthene	SW8270SIM	µg/L	NA		0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.0098 U	0.010 U
Benzo(g,h,i)perylene	SW8270SIM	µg/L	NA		0.010 U	**0.015**	0.010 U	0.010 U	0.010 U	0.0098 U	0.010 U
Chrysene	SW8270SIM	µg/L	NA		0.010 U	**0.018**	0.010 U	0.010 U	0.010 U	0.0098 U	0.010 U
Dibenzo(a,h)anthracene	SW8270SIM	µg/L	NA		0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.0098 U	0.010 U
Fluoranthene	SW8270SIM	µg/L	NA		0.10 U	**0.13**	0.10 U	0.10 U	0.10 U	0.098 U	0.10 U
Fluorene	SW8270SIM	µg/L	NA		0.10 U	**0.62**	0.10 U	0.10 U	0.10 U	0.098 U	0.10 U
Indeno(1,2,3-c,d)pyrene	SW8270SIM	µg/L	NA		0.010 U	**0.014**	0.010 U	0.010 U	0.010 U	0.0098 U	0.010 U
Naphthalene	SW8270SIM	µg/L	NA		0.10 U	**0.11**	0.10 U	0.10 U	0.10 U	**0.21**	0.10 U
Phenanthrene	SW8270SIM	µg/L	NA		0.10 U	**0.15**	0.10 U	0.10 U	0.10 U	0.098 U	0.10 U
Pyrene	SW8270SIM	µg/L	NA		0.10 U	**0.10**	0.10 U	0.10 U	0.10 U	0.098 U	0.10 U
Total cPAH TEQ (ND=0.5RL)	CALC	µg/L	0.02		0.0076 U	**0.026**	0.0076 U	0.0076 U	0.0076 U	0.0074 U	0.0076 U
2,3,7,8-TCDD	EPA1613	pg/L	NA		–	10.0 U	–	10.0 U	10.0 U	–	10.0 U
1,2,3,7,8-PeCDD	EPA1613	pg/L	NA		–	10.0 U	–	10.0 U	10.0 U	–	10.0 U
1,2,3,4,7,8-HxCDD	EPA1613	pg/L	NA		–	10.0 U	–	10.0 U	10.0 U	–	10.0 U
1,2,3,6,7,8-HxCDD	EPA1613	pg/L	NA		–	**39.8**	–	**67.2**	**49.6**	–	**139**
1,2,3,7,8,9-HxCDD	EPA1613	pg/L	NA		–	10.0 U	–	**28.7**	**16.4 J**	–	**25.8**
1,2,3,4,6,7,8-HpCDD	EPA1613	pg/L	NA		–	**1130**	–	**3750**	**2300**	–	**5000**
OCDD	EPA1613	pg/L	NA		–	**12400**	–	**33200**	**25500**	–	**64900**
2,3,7,8-TCDF	EPA1613	pg/L	NA		–	10.0 U	–	10.0 U	10.0 U	–	10.0 U
1,2,3,7,8-PeCDF	EPA1613	pg/L	NA		–	10.0 U	–	10.0 U	10.0 U	–	10.0 U
2,3,4,7,8-PeCDF	EPA1613	pg/L	NA		–	10.0 U	–	10.0 U	10.0 U	–	10.0 U
1,2,3,4,7,8-HxCDF	EPA1613	pg/L	NA		–	**21.8 J**	–	**11.6 J**	**12.3 J**	–	**47.9**
1,2,3,6,7,8-HxCDF	EPA1613	pg/L	NA		–	**22.2 J**	–	10.0 U	10.0 U	–	**51.5**
1,2,3,7,8,9-HxCDF	EPA1613	pg/L	NA		–	10.0 U	–	10.0 U	10.0 U	–	**16.2 J**

			Well ID	TL-MW-9	TL-MW-11	TL-MW-13	TL-MW-14	TL-MW-14	TL-MW-15	TL-MW-16
			Sample ID	TL-MW-9-09042018	TL-MW-11-09042018	TL-MW-13-09042018	DUP-09042018	TL-MW-14-09042018	TL-MW-15-08312018	TL-MW-16-09042018
			Date Sampled	09/04/18	09/04/18	09/04/18	09/04/18	09/04/18	08/31/18	09/04/18
Parameter	**Method**	**Units**	**Cleanup Levels**							
2,3,4,6,7,8-HxCDF	EPA1613	pg/L	NA	--	10.0 U	--	10.0 U	10.0 U	--	**22.3 J**
1,2,3,4,6,7,8-HpCDF	EPA1613	pg/L	NA	--	**282**	--	**192**	**210**	--	**1170**
1,2,3,4,7,8,9-HpCDF	EPA1613	pg/L	NA	--	**16.9 J**	--	**12.5 J**	**12.7 J**	--	**71.6**
OCDF	EPA1613	pg/L	NA	--	**1510**	--	**1170**	**1260**	--	**8970**
Total TCDD	EPA1613	pg/L	NA	--	10.0 U	--	10.0 U	10.0 U	--	10.0 U
Total TCDF	EPA1613	pg/L	NA	--	**79.8 J**	--	10.0 U	10.0 U	--	10.0 U
Total PeCDD	EPA1613	pg/L	NA	--	10.0 U	--	**358**	**205**	--	**26.0**
Total PeCDF	EPA1613	pg/L	NA	--	**174 J**	--	**23.4**	**28.3 J**	--	**165 J**
Total HxCDD	EPA1613	pg/L	NA	--	**117**	--	**1320**	**695**	--	**569**
Total HxCDF	EPA1613	pg/L	NA	--	**677 J**	--	**260**	**298 J**	--	**1710 J**
Total HpCDD	EPA1613	pg/L	NA	--	**2010**	--	**7360**	**4500**	--	**8830**
Total HpCDF	EPA1613	pg/L	NA	--	**1260**	--	**830**	**900**	--	**5710**
Total Dioxin/Furan TEQ (ND=0.5DL) - Human/Mammal	EPA1613	pg/L	32	--	**41.0**	--	**74.8**	**55.2**	--	**128**

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbon

ft = feet

J = Estimated value

mg/L = milligrams per liter

µg/L = milligrams per liter

NA = not applicable

ND = not detected

pg/L = picogram per liter

RL = reporting limit

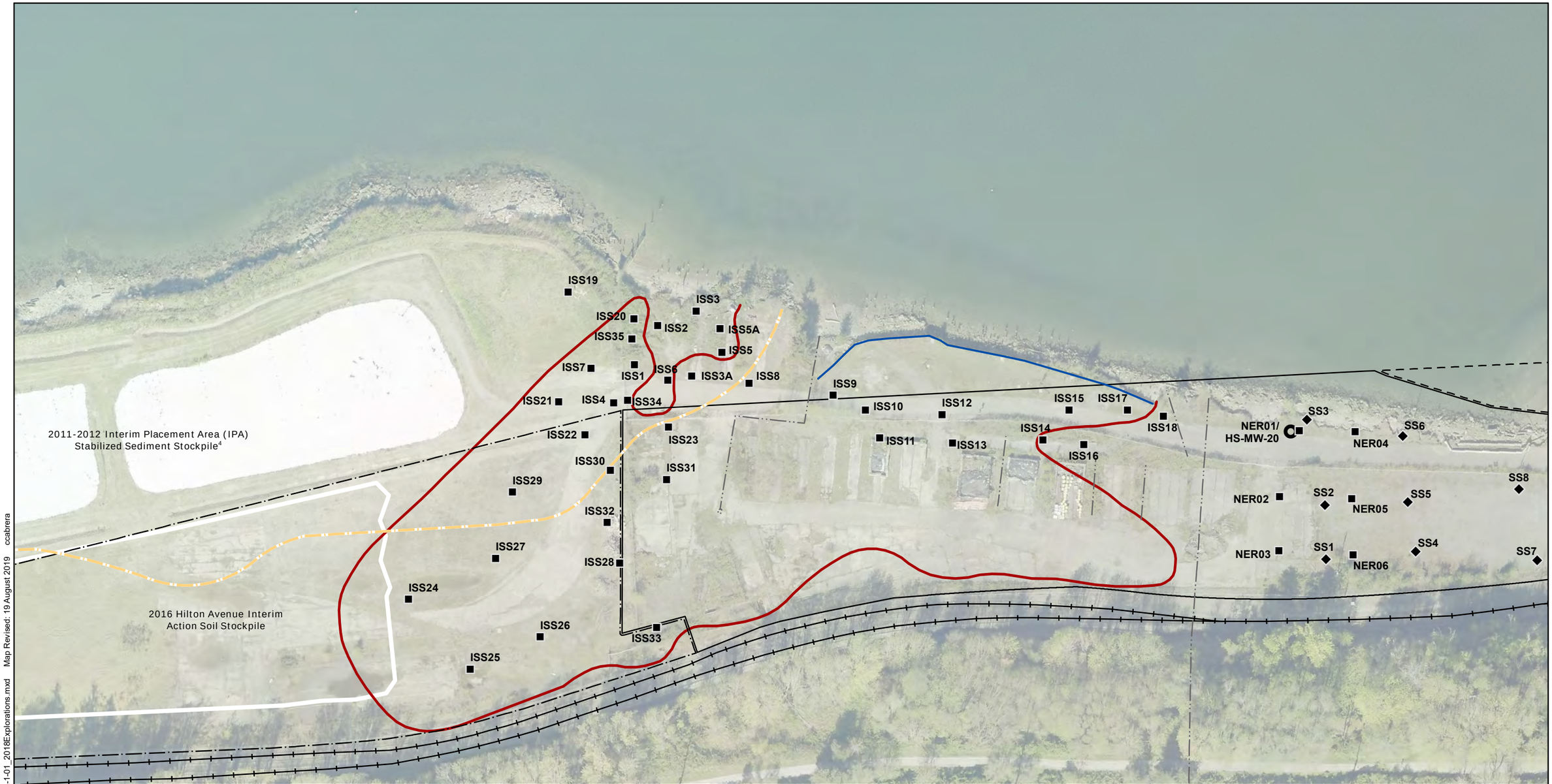
TEQ = toxicity equivalent

U = Not detected

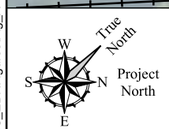
-- = Not analyzed

Bold text indicates detected value

Highlighted text indicates detected results greater than the cleanup level



Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-01_2018Explorations.mxd Map Revised: 19 August 2019 ccabrera



0 50 100
Feet

- PRDI (2018) Direct Push Exploration
- Surface Sample
- HS-MW-20 Well
- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Estimated Petroleum Smear Zone Footprint

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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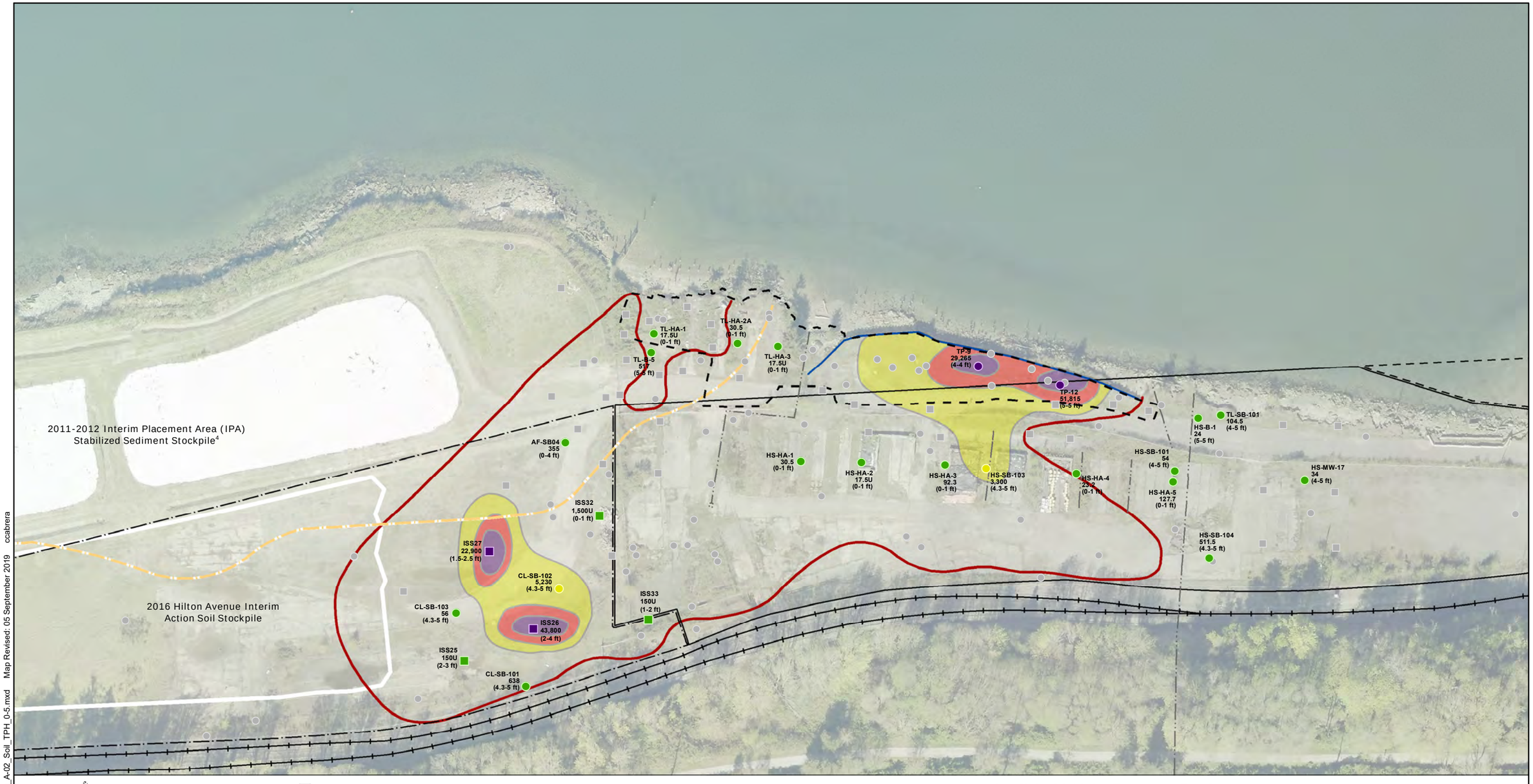
2018 PRDI Explorations

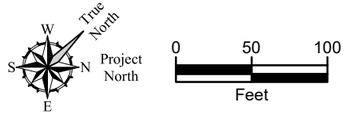
R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-1



Path: P:\0035611\GIS\MXDs\2018_EDRFigures\Fig_A-02_Soil_TPH_0-5.mxd Map Revised: 05 September 2019 ccabrera



Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

PRDI (2018) Direct Push Soil Exploration
Previous Soil Exploration

TPH (Sum Diesel Plus Lube Oil)
Total TPH Concentrations in mg/kg as shown

No Soil Samples Collected
Result > 15,000 mg/kg
Result > 10,000 and ≤ 15,000 mg/kg
Result > 1,534 and ≤ 10,000 mg/kg
Result ≤ 1,534 mg/kg
TPH Concentration Contour

City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Projected ISS Footprint
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

April 9, 2019 In-Process Draft, Subject to Revision

TPH in Soil (0-5ft Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-2

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

TPH in Soil
(5-10 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-3

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-04_Soil_TPH_10-15.mxd Map Revised: 20 August 2019 ccabrera

W True North S N Project North E

0 50 100 Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

PRDI (2018) Direct Push Exploration
Previous Soil Exploration

TPH (Sum Diesel Plus Lube Oil)
Total TPH Concentrations in mg/kg as shown

- No Soil Samples Collected
- Result > 15,000 mg/kg
- Result > 10,000 and ≤ 15,000 mg/kg
- Result > 1,534 and ≤ 10,000 mg/kg
- Result ≤ 1,534 mg/kg
- TPH Concentration Contour

- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Projected ISS Footprint
- Petroleum Smear Zone Footprint Based on PRDI

U Not Detected Above Analytical Reporting Limit

TPH in Soil
(10-15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-4

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-05_Soil_TPH_15.mxd Map Revised: 20 August 2019 ccabrera

W True North S Project North N E

0 50 100
Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

- PRDI (2018) Direct Push Exploration
- Previous Soil Exploration

TPH (Sum Diesel Plus Lube Oil)
Total TPH Concentrations in mg/kg as shown

- No Soil Samples Collected
- Result > 15,000 mg/kg
- Result > 10,000 and ≤ 15,000 mg/kg
- Result > 1,534 and ≤ 10,000 mg/kg
- Result ≤ 1,534 mg/kg
- TPH Concentration Contour

- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Projected ISS Footprint
- Estimated Petroleum Smear Zone Footprint

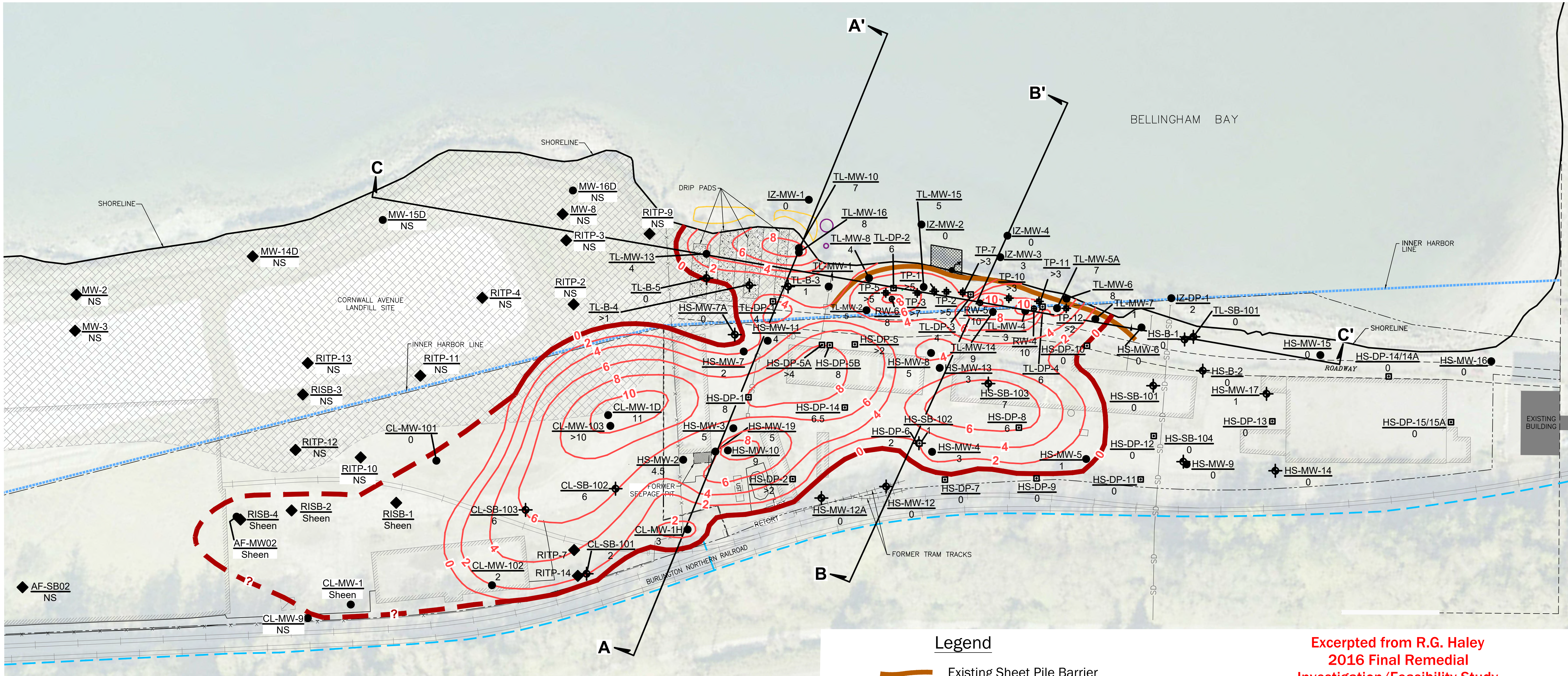
U Not Detected Above Analytical Reporting Limit

TPH in Soil (>15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-5



Legend

8 —— 8	Smear Zone Thickness (feet) Based on Moderate or Heavy Sheen in Soil (from Haley RI)
— — ——	Estimated Extent of Petroleum Smear Zone (Dashed Portion Based on Cornwall RI, See Section 6)
TL-MW-16 / 8 ●	Exploratory Borehole for Monitoring Well Approximate Smear Zone Thickness (feet)
HS-MW-1 ●	Monitoring Well
HS/SB/SP ⌖	Boring
HS-DP-4 ▣	Direct Push Boring
RITP-12 / NS ◆	Cornwall RI Test Pit or Boring Sheen or No Sheen (NS) Observed
A A'	Smear Zone Cross Section Location shown in Figures 6-5 to 6-7
	Existing Sheet Pile Barrier
	Estimated Extent of Upland Refuse
	Former Buildings and Structures
	2001 Sediment Removal Area
	2000 Petroleum Seep
	Sheen Emerging from Sediment (2012/2013)
	Sheen Emerging from Sediment (2006)
	City Owned Property, Former R.G. Haley International
	Cornwall Property
	Inner Harbor Line
	Drainage Ditch

Excerpted from R.G. Haley 2016 Final Remedial Investigation/Feasibility Study (Figure 6-4) without Modification

W True North S N Project North E

120 0 120
Feet

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Data Source: CAD files RGHALEY_SVx_base20x.dwg" dated 7-17-2012, "R2000geoeng_haleybase50x" revised 07/28/04 by Pacific Survey & Engineering Inc., file "Fig3-8" dated August 2002 by Landau Associates, and files "027500201T1LM" and "027500201T1A" dated 03/29/04 by GeoEngineers.

Upland Smear Zone Thickness

R.G. Haley Site
Bellingham, Washington

GEOENGINEERS

Figure A-1-6

P:\0\0356114\CAD\08\Task 300 Engineering Design\Report Figures\Appendix A\Fig A-6 Upland Smear Zone Thickness.dwg TAB:6-2 Smear Zone Date Exported: 07/02/19 - 13:35 by tmichaud

True North

Project North

0 50 100

Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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3. Stockpiles are covered with white plastic protective sheeting.

■ PRDI (2018) Direct Push Exploration

● Previous Exploration

City Owned Property, Former R.G. Haley International

Cornwall Property

Port of Bellingham Property

Sheet Pile Wall

Storm Drain

Cornwall Approximate Landward Boundary of Landfill Refuse

Estimated Petroleum Smear Zone Footprint

2 Smear Zone Thickness (feet) Based on Moderate or Heavy Sheen in Soil

2 Approximate Smear Zone Thickness in Feet (Thickness in Previous Explorations From Haley RI Figure 6-4)

Upland Smear Zone Thickness

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-7

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-07_UplandSmearZoneThickness.mxd Map Revised: 19 August 2019 ccabrera

W True North S Project North N E

0 50 100 Feet

- PRDI (2018) Direct Push Exploration
- Surface Sample
- Previous Soil Exploration

1-Methylnaphthalene
1-Methylnaphthalene Concentrations in µg/kg as shown

- No Soil Samples Collected
- Result ≥10x Cleanup Level
- Result >1x and < 10x Cleanup Level
- Result ≤ 42 µg/kg Cleanup Level

- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Estimated Petroleum Smear Zone Footprint

U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

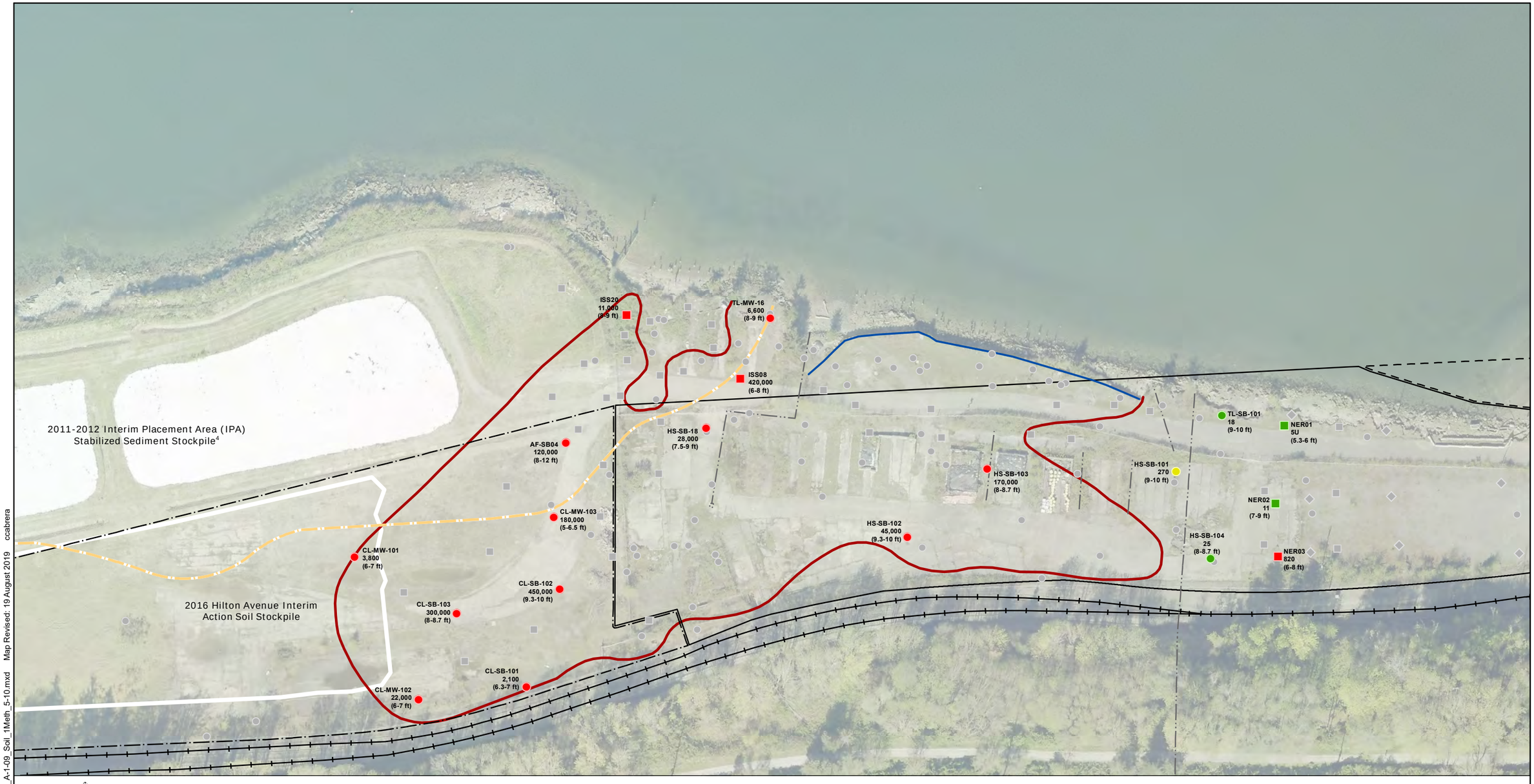
1-Methylnaphthalene in Soil (0-5 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-8

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-08_Soil_1Meth_0-5.mxd Map Revised: 19 August 2019 ccabrera



Path: P:\00356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-09_Soil_1Meth_5-10.mxd Map Revised: 19 August 2019 ccabrera

True North
Project North
W
N
S
E
0 50 100
Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

- PRDI (2018) Direct Push Exploration
- Surface Sample
- Previous Soil Exploration

1-Methylnaphthalene
1-Methylnaphthalene Concentrations in µg/kg as shown

- No Soil Samples Collected
- Result ≥10x Cleanup Level
- Result >1x and < 10x Cleanup Level
- Result ≤ 42 µg/kg Cleanup Level

- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Estimated Petroleum Smear Zone Footprint

U Not Detected Above Analytical Reporting Limit

1-Methylnaphthalene in Soil (5-10 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-9

- PRDI (2018) Direct Push Exploration
- Surface Sample
- Previous Soil Exploration

1-Methylnaphthalene
1-Methylnaphthalene Concentrations in µg/kg as shown

- No Soil Samples Collected
- Result ≥10x Cleanup Level
- Result >1x and < 10x Cleanup Level
- Result ≤ 42 µg/kg Cleanup Level

- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Estimated Petroleum Smear Zone Footprint

U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

1-Methylnaphthalene in Soil (10-15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-10

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-10_Soil_1Meth_10-15.mxd Map Revised: 19 August 2019 ccabrera

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-11_Soil_1Meth_15.mxd Map Revised: 19 August 2019 ccabrera

W True North S N Project North E

0 50 100 Feet

PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

1-Methylnaphthalene
1-Methylnaphthalene Concentrations in µg/kg as shown
No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 42 µg/kg Cleanup Level

City Owned Property,
Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward
Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

1-Methylnaphthalene in Soil (>15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-11

W True North S Project North N E

0 50 100 Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

2-Methylnaphthalene
2-Methylnaphthalene Concentrations in µg/kg as shown
No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 41 µg/kg Cleanup Level

City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

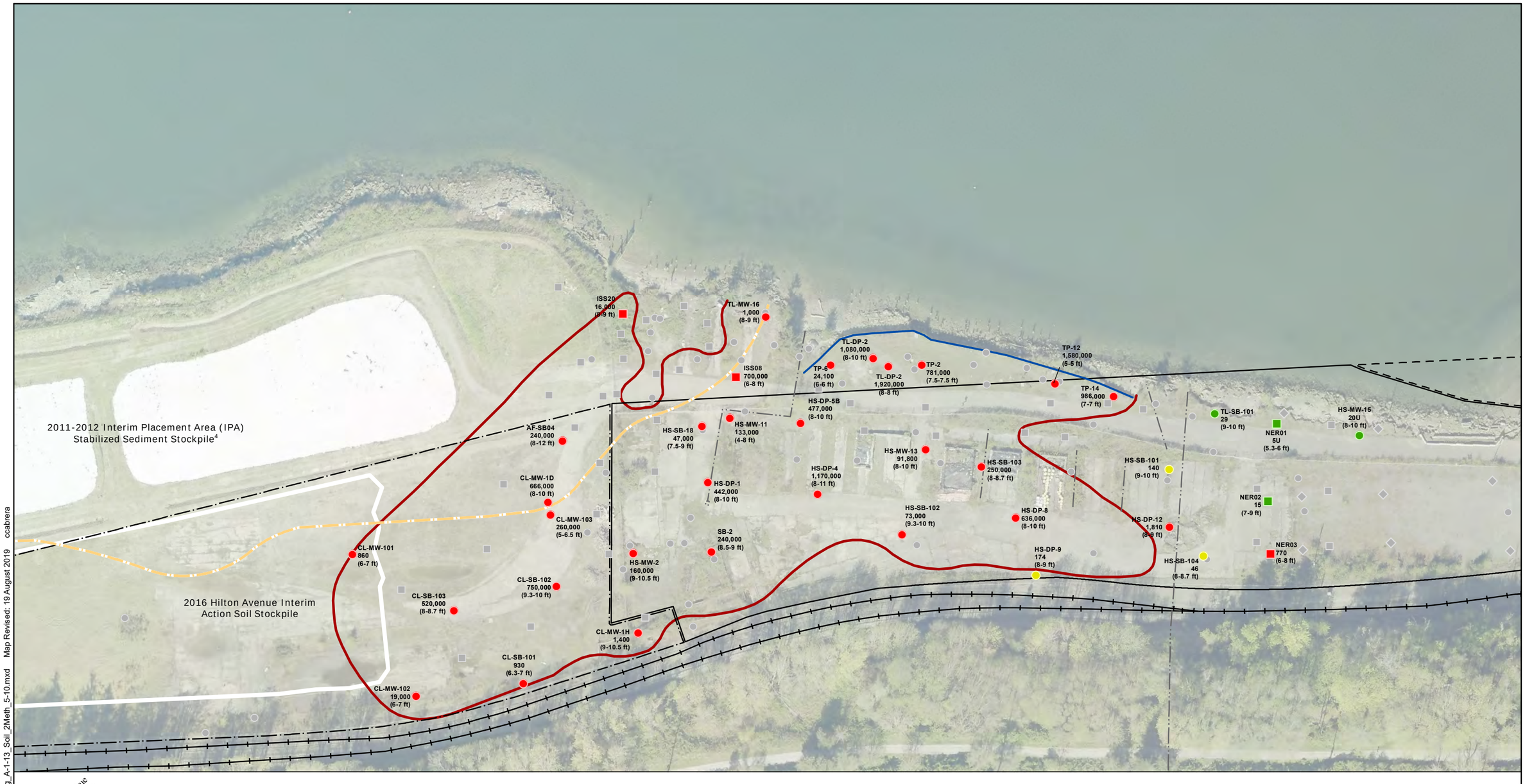
2-Methylnaphthalene in Soil (0-5 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-12

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-12_Soil_2Meth_0-5.mxd Map Revised: 19 August 2019 ccabrera



PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

2-Methylnaphthalene
2-Methylnaphthalene Concentrations in µg/kg as shown

No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 41 µg/kg Cleanup Level

City Owned Property,
Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward
Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

2-Methylnaphthalene in Soil (5-10 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-13

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-13_Soil_2Meth_5-10.mxd Map Revised: 19 August 2019 ccabrera

- PRDI (2018) Direct Push Exploration
- Surface Sample
- Previous Soil Exploration

2-Methylnaphthalene
2-Methylnaphthalene Concentrations in µg/kg as shown

- No Soil Samples Collected
- Result ≥10x Cleanup Level
- Result >1x and < 10x Cleanup Level
- Result ≤ 41 µg/kg Cleanup Level

- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Estimated Petroleum Smear Zone Footprint

U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

2-Methylnaphthalene in Soil (10-15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-14

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-14_Soil_2Meth_10-15.mxd Map Revised: 19 August 2019 ccabrera

PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

2-Methylnaphthalene
2-Methylnaphthalene Concentrations in µg/kg as shown
No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 41 µg/kg Cleanup Level

City Owned Property,
Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward
Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

2-Methylnaphthalene in Soil (>15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-15

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-15_Soil_2Meth_15.mxd Map Revised: 19 August 2019 ccabrera

Path: P:\0035611\4\GIS\MXDs\2018_EDRFigures\Fig_A-1-16_Soil_PCP_0-5.mxd Map Revised: 19 August 2019 ccabrera

W True North S N Project North E

0 50 100 Feet

PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

Pentachlorophenol
Pentachlorophenol Concentrations in µg/kg as shown

No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 6.3 µg/kg Cleanup Level

City Owned Property,
Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward
Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint

U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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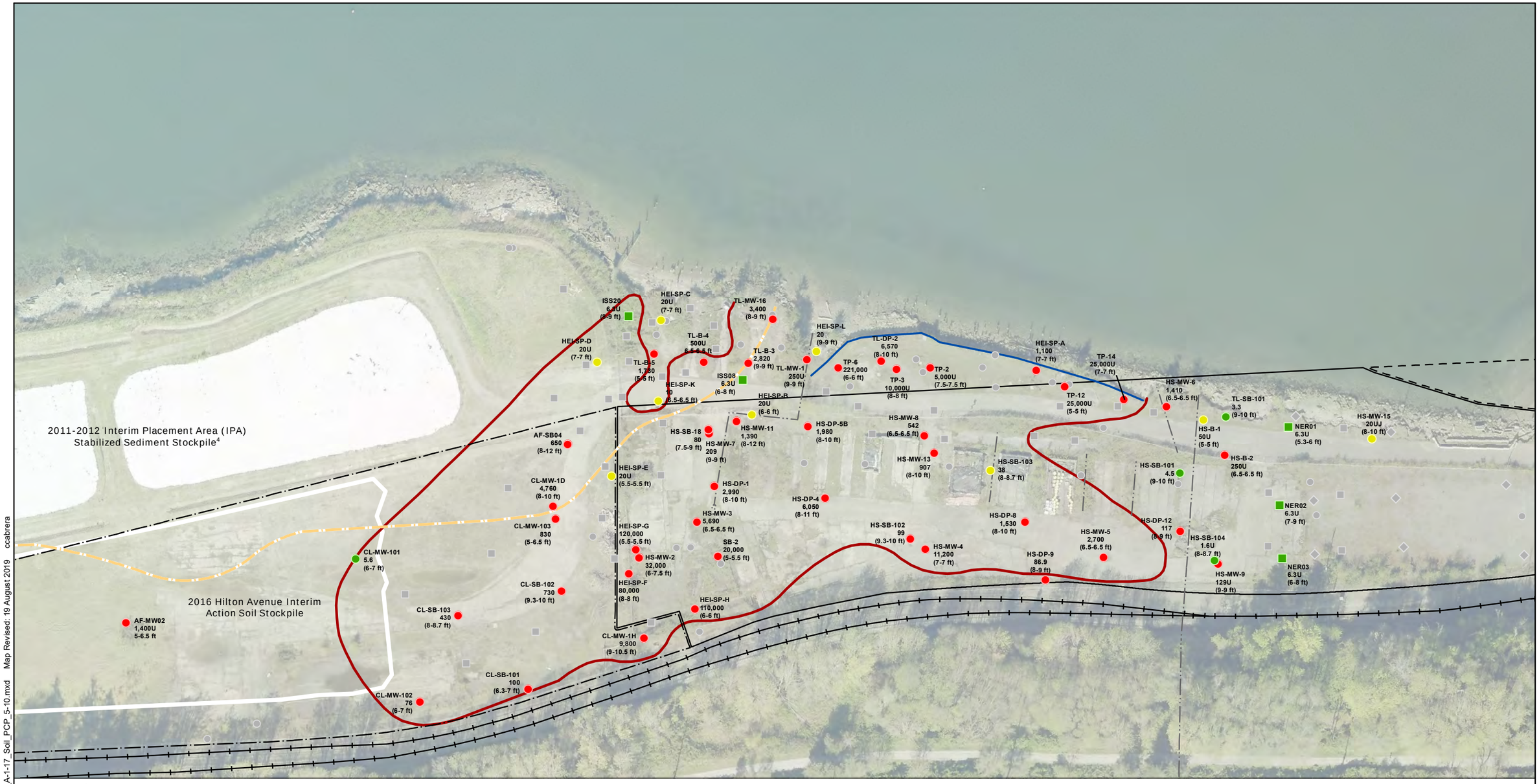
3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.

Pentachlorophenol in Soil (0-5 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-16



PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

Pentachlorophenol
Pentachlorophenol Concentrations in µg/kg as shown

No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 6.3 µg/kg Cleanup Level

City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint

U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

Pentachlorophenol in Soil (5-10 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-17

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-17_Soil_PCP_5-10.mxd Map Revised: 19 August 2019 ccabrera

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-18_Soil_PCP_10-15.mxd Map Revised: 19 August 2019 ccabrera

True North
W
N
S
E
Project North

0 50 100
Feet

PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

Pentachlorophenol
Pentachlorophenol Concentrations in µg/kg as shown

No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 6.3 µg/kg Cleanup Level

City Owned Property,
Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward
Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint

U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

Pentachlorophenol in Soil (10-15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-18

PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

Pentachlorophenol
Pentachlorophenol Concentrations in µg/kg as shown

No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 6.3 µg/kg Cleanup Level

City Owned Property,
Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward
Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

Pentachlorophenol in Soil (>15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-19

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

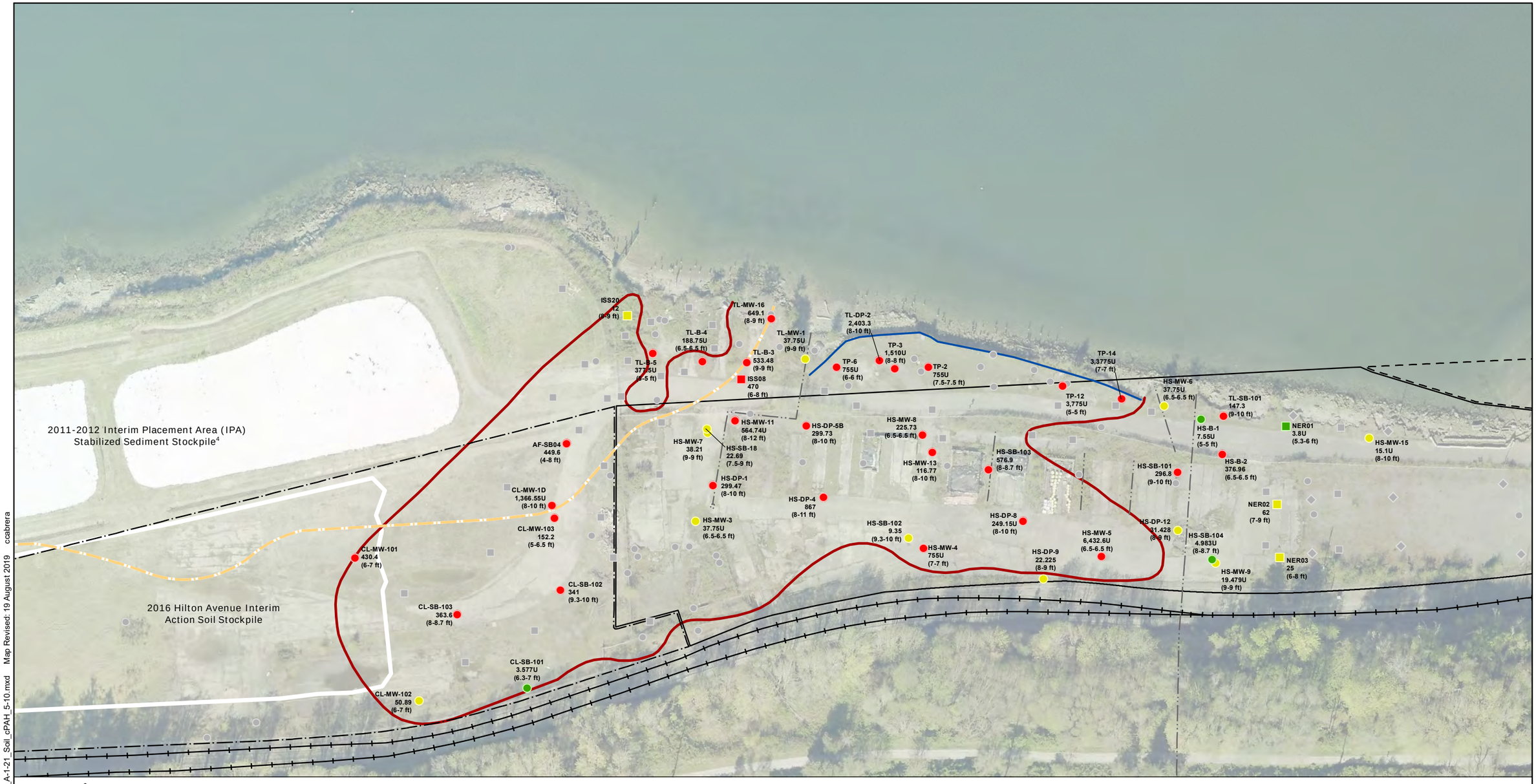
Total cPAH in Soil (0-5 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-20

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-20_Soil_cPAH_0-5.mxd Map Revised: 19 August 2019 ccabrera



PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

cPAH TEQ
cPAH TEQ Concentrations in µg/kg as shown
No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 7.6 µg/kg Cleanup Level

City Owned Property,
Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward
Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

Total cPAH in Soil
(5-10 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-21

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-21_Soil_cPAH_5-10.mxd Map Revised: 19 August 2019 ccabrera

W True North S N Project North E

0 50 100 Feet

PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

cPAH TEQ
cPAH TEQ Concentrations in µg/kg as shown
No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 7.6 µg/kg Cleanup Level

City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

Total cPAH in Soil (10-15 Ft Below Ground Surface)

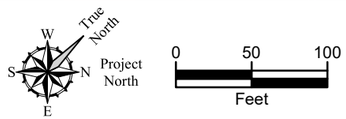
R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-22

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-22_Soil_cPAH_10-15.mxd Map Revised: 19 August 2019 ccabrera

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-23_Soil_cPAH_15.mxd Map Revised: 19 August 2019 ccabrera



PRDI (2018) Direct Push Exploration
Surface Sample
Previous Soil Exploration

cPAH TEQ
cPAH TEQ Concentrations in µg/kg as shown
No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 7.6 µg/kg Cleanup Level

City Owned Property,
Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward
Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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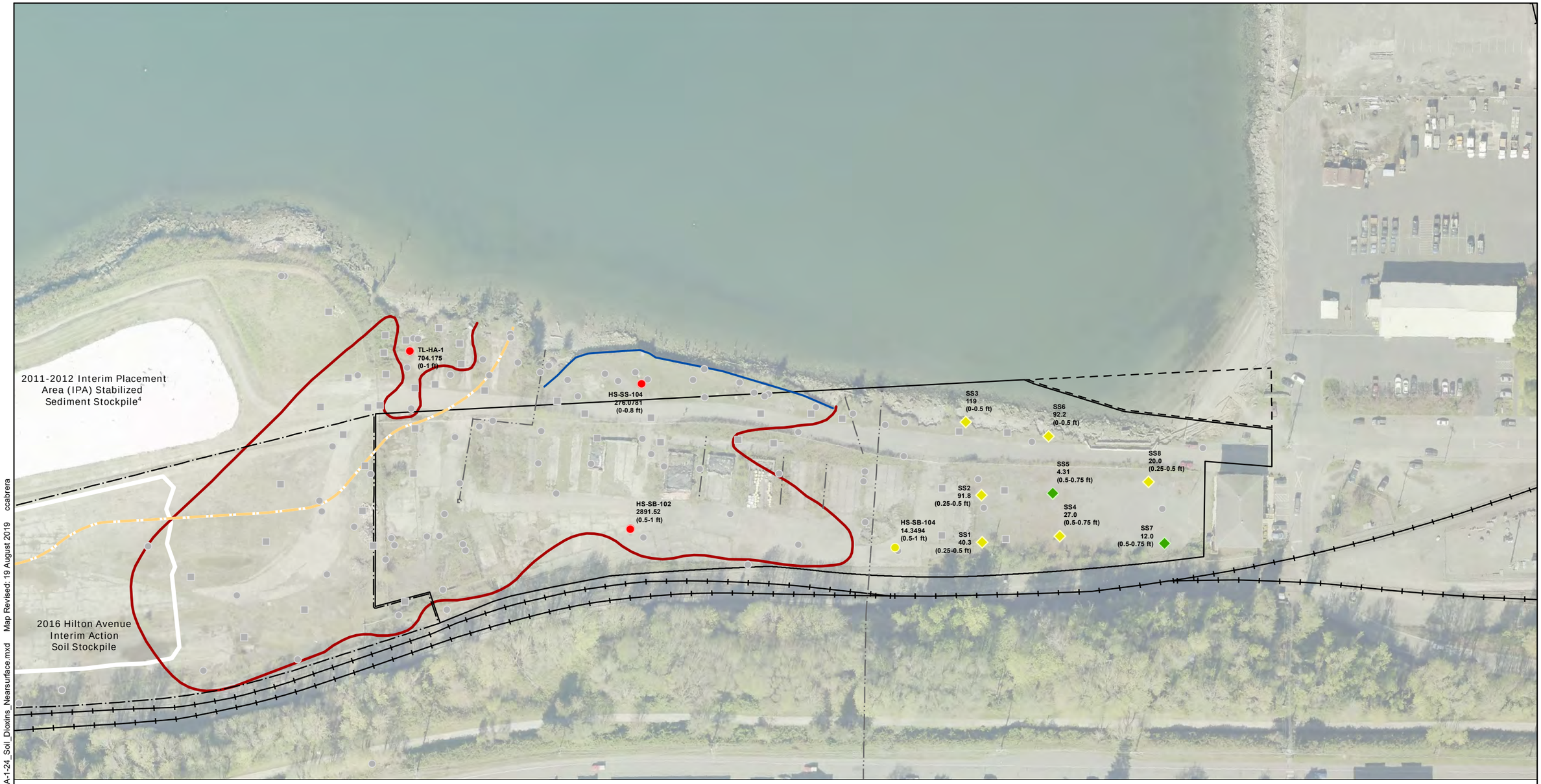
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

Total cPAH in Soil (>15 Ft Below Ground Surface)

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-23



Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-24_Soil_Dioxins_Nearsurface.mxd Map Revised: 19 August 2019 ccabrera

W True North S Project North N E

0 50 100 Feet

PRDI (2018) Direct Push Exploration
Near Surface Sample
Previous Soil Exploration

Total Dioxin/Furan TEQ
Total Dioxin/Furan TEQ Concentrations in ng/kg as shown

No Soil Samples Collected
Result ≥10x Cleanup Level
Result >1x and < 10x Cleanup Level
Result ≤ 13 ng/kg Cleanup Level

All PRDI samples collected within 0.75 feet of ground surface

City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Note: If multiple samples were analyzed within 5 foot depth zone, sample with highest concentration only is shown.
4. Stockpiles are covered with white plastic protective sheeting.

Total Dioxin/Furan in Near Surface Soil

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-24

Map Revised: 20 August 2019 ccabrera

Path: P:\003561141GIS\MXDs\2018_EDR\Figures\Fig_A-1-25_Wells.mxd

True North / Project North

0 50 100 Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
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3. Stockpiles are covered with white plastic protective sheeting.

- Measurable LNAPL in Well (August 2018) (2.43 ft) Measured Product Thickness
- Trace LNAPL(<0.01 ft) in Well (August 2018)
- Historical LNAPL in Well
- Historical Trace LNAPL in Well
- LNAPL Never Observed
- Abandoned or Not Located

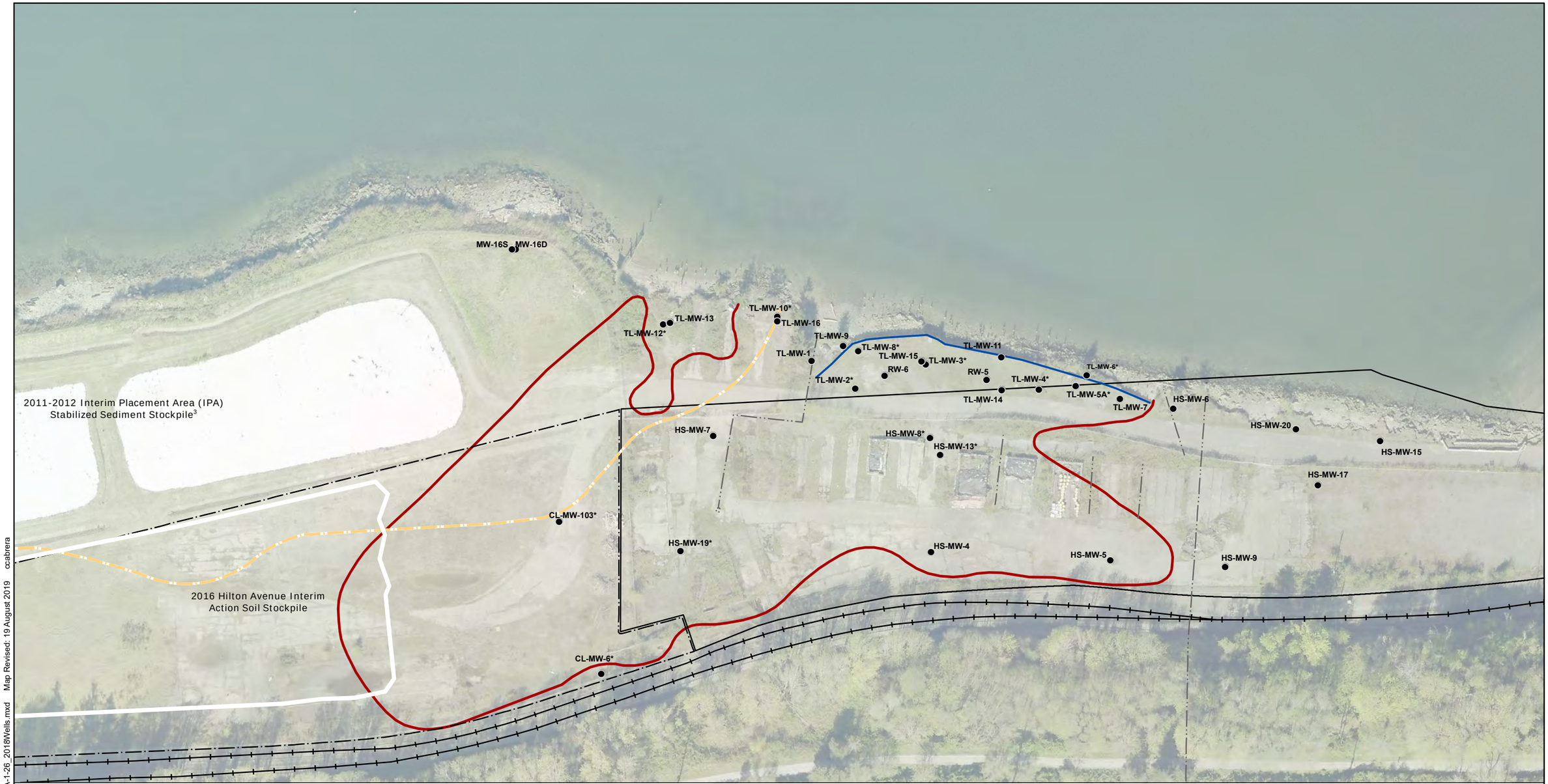
- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Estimated Petroleum Smear Zone Footprint

LNAPL Occurrence In Wells

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-25



Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Stockpiles are covered with white plastic protective sheeting.

- Well Sampled in August/September 2018
  * = wells not sampled because product present
- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Estimated Petroleum Smear Zone Footprint

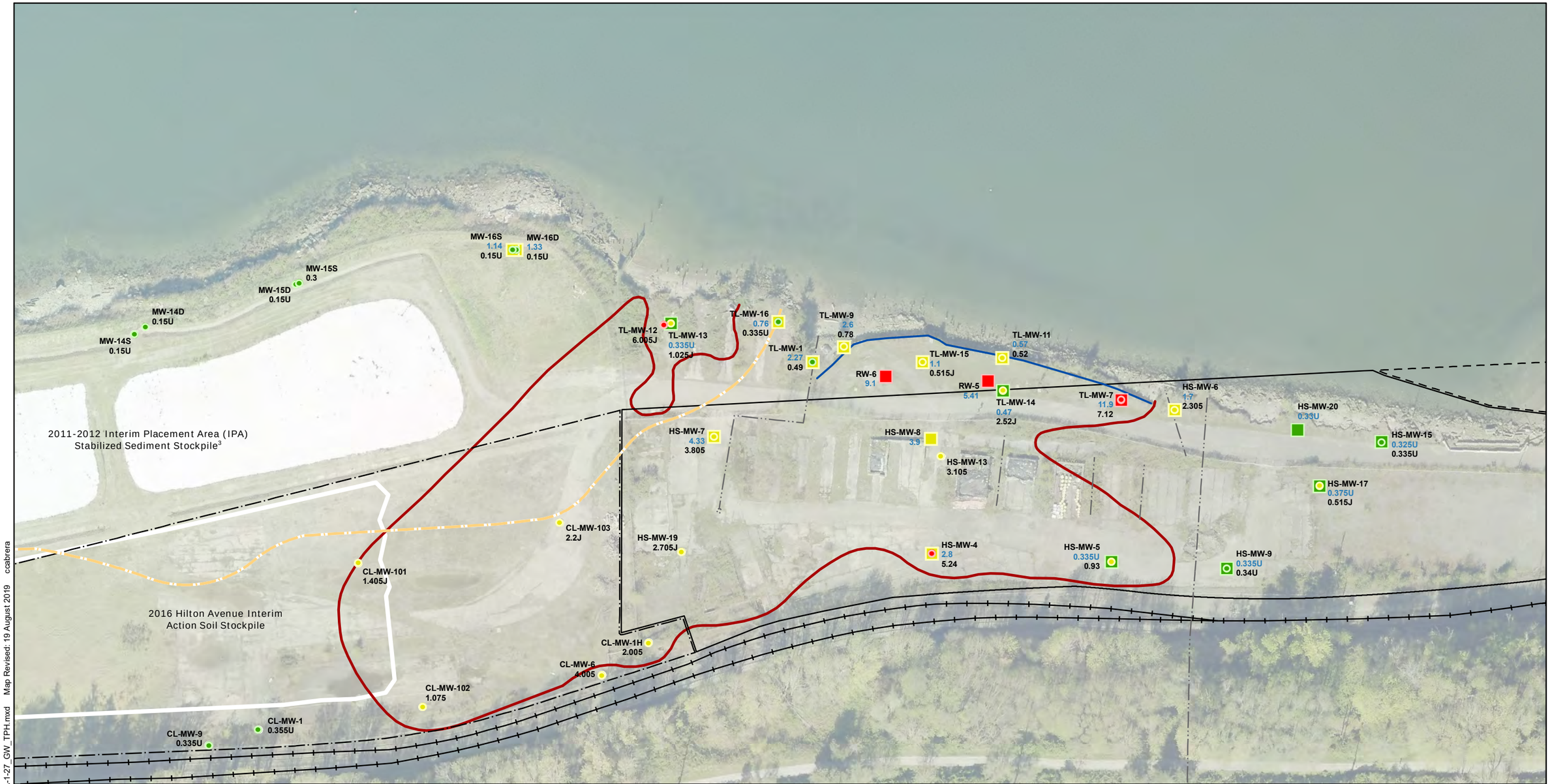
August/September 2018 Site-Wide Monitoring Event Wells

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-26

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-26_2018Wells.mxd Map Revised: 19 August 2019 cc:abrera



Path: P:\0035611\GIS\MXDs\2018_EDRFigures\Fig_A-1-27_GW_TPH.mxd Map Revised: 19 August 2019 ccabrera

W True North S N Project North E

0 50 100
Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Stockpiles are covered with white plastic protective sheeting.

2018 Groundwater Samples
3.9 Concentration in mg/L
2012 Groundwater Samples
1.075 Concentration in mg/L

TPH
TPH Concentrations in mg/L as shown
No Groundwater Sample Collected
Result ≥ 5 mg/L
Result > 0.5 mg/L and < 5 mg/L
Result ≤ 0.5 mg/L

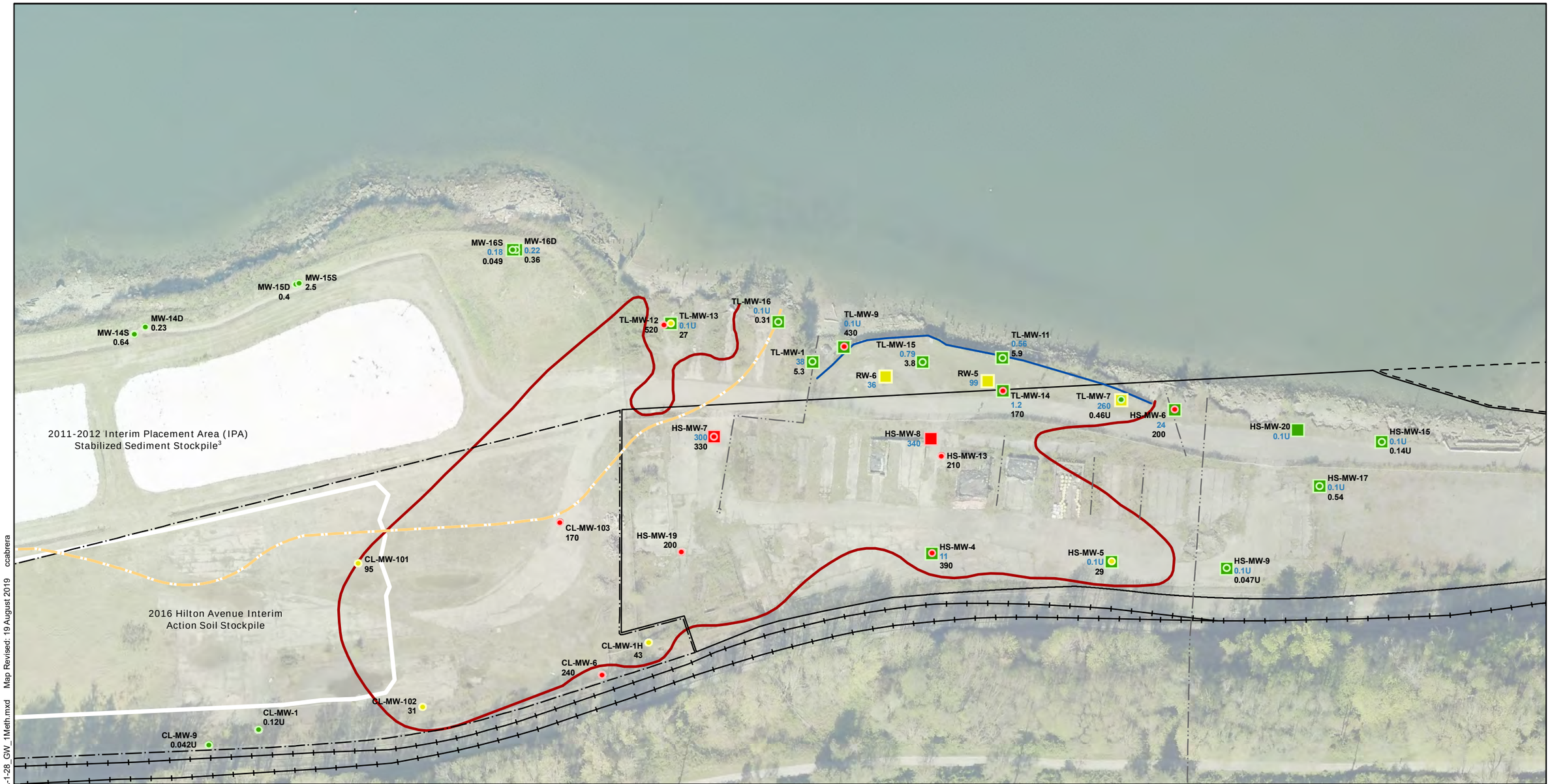
City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

TPH in Groundwater

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-27



Path: P:\0035611\GIS\MXDs\2018_EDRFigures\Fig_A-1-28_GW_1Meth.mxd Map Revised: 19 August 2019 ccabrera

True North
Project North
W
N
S
E
0 50 100
Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Stockpiles are covered with white plastic protective sheeting.

2018 Groundwater Samples
38 Concentration in mg/L
2012 Groundwater Samples
38 Concentration in mg/L

1-Methylnaphthalene
1-Methylnaphthalene Concentrations in µg/L as shown
No Groundwater Sample Collected
Result ≥ 150 µg/L
Result > 15 µg/L and < 150 µg/L
Result ≤ 15 µg/L Cleanup Level

City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

1-Methylnaphthalene in Groundwater

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-28

Path: P:\0\0356114\GIS\MXDs\2018_EDRFigures\Fig_A-1-29_GW_2Meth.mxd Map Revised: 19 August 2019 ccabrera

W True North S N Project North E

0 50 100
Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc.
3. Stockpiles are covered with white plastic protective sheeting.

2018 Groundwater Samples
4.2 Concentration in mg/L
2012 Groundwater Samples
200 Concentration in mg/L

2-Methylnaphthalene
2-Methylnaphthalene Concentrations in µg/L as shown
No Groundwater Sample Collected
Result ≥150 µg/L
Result > 15 µg/L and < 150 µg/L
Result ≤ 15 µg/L Cleanup Level

City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

2-Methylnaphthalene in Groundwater

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-29

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Stockpiles are covered with white plastic protective sheeting.

- 2018 Groundwater Samples
- 0.04U — Concentration in mg/L
- 2012 Groundwater Samples
- 0.23 — Concentration in mg/L

Pentachlorophenol
Pentachlorophenol Concentrations in µg/L as shown

- No Groundwater Sample Collected
- Result ≥ 0.4 µg/L
- Result > 0.04 µg/Lx and < 0.4 µg/L
- Result ≤ 0.04 µg/L Cleanup Level

- City Owned Property, Former R.G. Haley International
- Cornwall Property
- Port of Bellingham Property
- Sheet Pile Wall
- Storm Drain
- Cornwall Approximate Landward Boundary of Landfill Refuse
- Estimated Petroleum Smear Zone Footprint
- U — Not Detected Above Analytical Reporting Limit

Pentachlorophenol in Groundwater

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-30

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-30_GW_PCP.mxd Map Revised: 19 August 2019 ccabrera

W True North S N Project North E

0 50 100
Feet

Data Source: Aerial from City of Bellingham GIS, 2016.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc.
3. Stockpiles are covered with white plastic protective sheeting.

2018 Groundwater Samples
41 Concentration in mg/L
2012 Groundwater Samples
6.76722 Concentration in mg/L

Dioxin TEQ
Dioxin TEQ Concentrations in pg/L as shown
No Groundwater Sample Collected
Result ≥ 320 pg/L
Result > 32 pg/L and < 320 pg/L
Result ≤ 32 pg/L Cleanup Level

City Owned Property, Former R.G. Haley International
Cornwall Property
Port of Bellingham Property
Sheet Pile Wall
Storm Drain
Cornwall Approximate Landward Boundary of Landfill Refuse
Estimated Petroleum Smear Zone Footprint
U Not Detected Above Analytical Reporting Limit

Dioxin TEQ in Groundwater

R.G. Haley Site
Bellingham, Washington

GeoEngineers

Figure A-1-31

Path: P:\0\0356114\GIS\MXDs\2018_EDRFiguresFig_A-1-31_GW_Dioxin.mxd Map Revised: 19 August 2019 ccabrera

ATTACHMENT A-1-1
PRDI Exploration Logs

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	SOD	Sod/Forest Duff
	TS	Topsoil

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata

Approximate contact between soil strata

Material Description Contact

Contact between geologic units

Contact between soil of the same geologic unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

"P" indicates sampler pushed using the weight of the drill rig.

"WOH" indicates sampler pushed using the weight of the hammer.

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DD	Dry density
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

Key to Exploration Logs

GeoEngineers

Attachment A-1

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/31/2018	8/31/2018	19	BA	RM	Cascade Drilling	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	
Surface Elevation (ft) Vertical Datum	12 NAVD88	Top of Casing Elevation (ft)	
Latitude Longitude	48.7418 -122.491	Horizontal Datum	WGS84

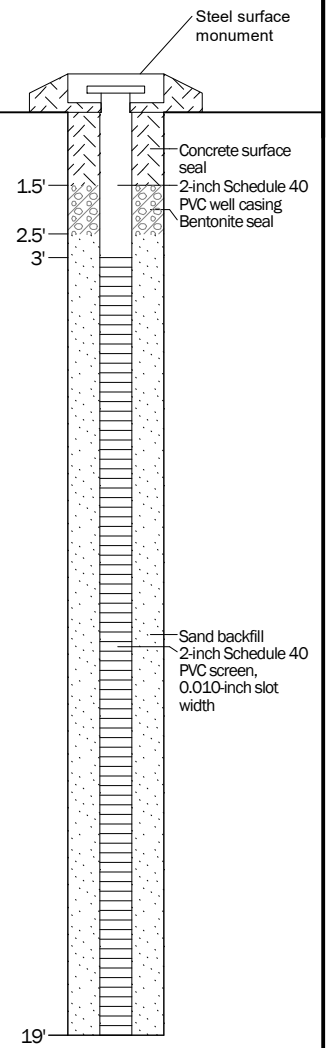
A 2-in well was installed on 8/31/2018 to a depth of 19 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
8/31/2018	6.52	5.48

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0		45			1			SP-SM	Brown fine to coarse sand with occasional gravel	NS	<1
10			0	7		2			SP	Drill cuttings observed - brown silty sand with occasional gravel and organic matter in drill cuttings	NS	<1
									SP	Fine sand with occasional gravel		
									SP	Gray-tan fine to medium sand (direct-push adjacent to MW20 due to no recovery)		
	5		7	85		3			SP	Gray sand with occasional gravel, fines (very moist)	NS	<1
5									WD	No recovery, hard to drill, possible concrete or other debris		
	10								SP	Dark gray coarse sand with fines (moist)		
0			6	50/6"		4					SS	85.7
										Wood debris on end of sample at 12 to 12½ feet (Hydrocarbon odor)		
	15											
-5			2	32		5			WD	Wood debris - very wet sandy silt with occasional gravel	25.1	NS

WELL LOG



Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Monitoring Well HS-MW-20 and HSA2018-NER1

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-2
Sheet 1 of 1

Drilled: Start 8/31/2018 End 8/31/2018	Total Depth (ft): 15	Logged By: SMS Checked By: RM	Driller: Cascade Drilling	Drilling Method: Direct-push	
Surface Elevation (ft): 13 Vertical Datum: NAVD88		Hammer Data: NA		Drilling Equipment: Geoprobe	
Latitude: 48.7417 Longitude: -122.4908		System Datum: WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
10	0		48			DP2018-NER2-1-3		GP	Gray fine to coarse gravel with fine to coarse sand and occasional concrete pieces			
								SP	Black fine to coarse sand with coal, trace silt and occasional silt interbeds approximately 1-inch-thick (moist)	NS	<1	
								NR	No recovery			
	5		48					SP	Black fine to coarse sand with coal, trace silt and occasional silt interbeds approximately 1-inch-thick (moist)	SS	<1	
5						DP2018-NER2-7-9		WD	Brown wood chips and sawdust, trace silt Moist to wet Becomes wet, slight staining	SS	<1	Groundwater observed at approximately 7 feet below ground surface during drilling
								NR	No recovery			
	10		36			DP2018-NER2-10-11		SP	Brown/gray fine to coarse sand with occasional fine gravel and trace silt (wet)	SS	2.1	
0								WD	Large wood debris, multiple wood types (lumber pile) (wet)	SS	<1	
								NR	No recovery			
-5	15											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-NER2

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-3
Sheet 1 of 1

Drilled Start 8/31/2018 End 8/31/2018	Total Depth (ft) 11	Logged By SMS Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 14 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7416 Longitude -122.4906		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
10	0	36				GP-GM	Brown fine to coarse gravel with silt and fine to coarse sand (moist)			
						GP	Gray fine to coarse gravel with fine to coarse sand and trace silt (moist)	SS	<1	
				DP2018-NER3-2-3		SP	Black fine to coarse sand with coal and trace silt (moist)			
						NR	No recovery			
5	5	39				SP	Black fine to coarse sand with coal and trace silt (moist)	SS	<1	
				DP2018-NER3-6-8			Becomes moist to wet			
						WD	Brown sawdust over wood debris (wet)	NS	<1	Groundwater observed at approximately 7 feet below ground surface during drilling
						NR	No recovery			
0	10	12		DP2018-NER3-10-11		WD	Sawdust and wood chips with trace silt (wet)	SS	<1	
							Boring terminated at approximately 11 feet below ground surface due to refusal on very dense (SP-SM)			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-NER3

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled	Start 8/31/2018	End 8/31/2018	Total Depth (ft)	15	Logged By	SMS	Driller	Cascade Drilling	Drilling Method	Direct-push
					Checked By	RM				

Surface Elevation (ft) Vertical Datum	12 NAVD88	Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude Longitude	48.7419 -122.4908	System Datum	WGS84	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
10	0		42			DP2018-NER4 1-2		SP-SM	Brown fine to coarse sand with silt and occasional fine gravel (moist)	NS	1.1	Driller noted small voids from 0 to 2 feet
								SM	Gray silty fine sand (very dense, moist)	NS	<1	
								NR	No recovery			
	5		30					SP-SM	Brown fine sand with silt and occasional medium to coarse sand (moist)	NS	1.1	
5						DP2018-NER4 6-7.5		SP-SM	Gray fine to coarse sand with silt and occasional fine gravel (wet) Color change to gray and becomes wet	SS	1.5	Groundwater observed at approximately 6 feet below ground surface during drilling
								NR	No recovery			
	10		24			DP2018-NER4 10-12		SP	Gray fine to coarse sand with fine gravel and trace silt (wet)	NS	<1	
0								WD	Brown wood debris (log)	NS	68.9	Hydrocarbon odor
								ML	Brown silt with wood chips			
								WD	Wood debris			
								NR	No recovery			
	15											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-NER4

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-5
Sheet 1 of 1

Drilled Start 8/31/2018 End 8/31/2018	Total Depth (ft) 13	Logged By SMS Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 13 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7418 Longitude -122.4906		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		45					AC	Asphalt and gravel			
								SP-SM	Brown fine to coarse sand with silt and occasional fine gravel (moist)			
						DP2018-NER5 2-3.5		GP	Gray fine to coarse gravel with fine to coarse sand and trace silt (moist)	SS	<1	
								SP	Brown fine sand with occasional medium to coarse sand and fine gravel (moist)			
								NR	No recovery			
	5		42					SP-SM	Brown fine to coarse sand with silt and occasional fine gravel (moist)	NS	<1	
						DP2018-NER5 6-7.5				SS	1.3	Groundwater observed at approximately 6 feet below ground surface during drilling
								ML	Dark brown/black silt with sawdust and brick fragments (wet)	SS	1.1	
								WD	Brown sawdust with wood chips, occasional silt in matrix (wet)			
								NR	No recovery			
	10		30					SP-SM	Gray/brown fine to coarse sand with silt and occasional fine gravel (moist) (sluff?)	SS	14.7	
						DP2018-NER5 10.5-12		GP	Gray fine gravel with fine to coarse sand and trace silt (wet)			
								WD	Brown sawdust with wood chips and trace silt (wet)			
								SP-SM	Gray fine sand with silt (very dense, moist)			
								NR	No recovery			
									Boring terminated at approximately 13 feet below ground surface due to refusal on very dense (SP-SM)			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Date:2/28/19 Path:\\GEOENGINEERS.COM\WAN\PROJECTS\0\0356114\GINT\035611408.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_STANDARD_NO_GW

Log of Boring DP2018-NER5

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled Start 8/31/2018 End 8/31/2018	Total Depth (ft) 13	Logged By SMS Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 14 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7417 Longitude -122.4904		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		42					GP	Gray 3/4-inch-minus gravel			
								SP-SM	Brown fine to coarse sand with silt (moist)			
						DP2018-NER6 1.5-3		SP	Brown fine to coarse sand with occasional fine gravel and trace silt (moist)	SS	<1	
10								NR	No recovery			
	5		36					SP-SM	Brown fine to coarse sand with silt and occasional fine gravel (moist)	NS	<1	
								SP	Dark brown fine to coarse sand, some staining (wet)	SS	<1	Groundwater observed at approximately 6 feet below ground surface during drilling
								ML	Black silt with sawdust, stained (wet)			
						DP2018-NER6 7-8		WD	Brown sawdust with wood chips	HS	335	
5								NR	No recovery			
	10		30			DP2018-NER6 10-11		WD	Brown sawdust with wood chips (wet)	HS	45.6	
								SP	Brown fine to coarse sand with occasional wood chips, stained (wet)	NS	<1	
						DP2018-NER6 11.5-12.5		SP-SM	Gray fine sand with silt (very dense, moist)			
								NR	No recovery			
									Boring terminated at approximately 13 feet below ground surface due to refusal			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-NER6

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled Start 9/29/2018 End 9/29/2018	Total Depth (ft) 17	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7406 Longitude -122.4931		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
15	0		36					SM	Brown silty fine to coarse sand with occasional fine gravel (moist)	NS	<1	
								WD	Wood chips	SS	<1	
					DP2018-ISS-1-2-3			ML	Dark gray silt with fine to coarse sand and occasional fine gravel, some staining observed below wood chips			
								NR	No recovery			
10	5		36					SM	Tan silty fine to coarse sand (moist)			
								WD	Large wood debris			
					DP2018-ISS-1-6-8			ML	Gray silt with fine to coarse sand (moist to wet)	SS	2.9	
								SP	Rock	HS	223	Groundwater observed at approximately 7 feet below ground surface during drilling
									Black stained fine sand with trace silt (moist)			
								NR	No recovery			
5	10		30		DP2018-ISS-1-10-11			SP	Gray fine sand with trace silt and occasional processed wood debris (wet)	HS	39.6	
								WD	Sawdust			
								NR	No recovery			
0	15		12		DP2018-ISS-1-15-16			WD	Wood debris and sawdust	SS	1.0	
								NR	No recovery			

Boring terminated at approximately 17 feet below ground surface due to refusal on large wood debris

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Date:2/28/19 Path:\\GEOENGINEERS.COM\WAN\PROJECTS\0\0356114\GINT\035611408.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_STANDARD_NO_GW

Log of Boring DP2018-ISS1

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled Start 8/29/2018 End 8/29/2018	Total Depth (ft) 5	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 15 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7408 Longitude -122.4931		System Datum WGS84		Groundwater not observed at time of exploration	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36					SOD	Grass	NS	<1	
								GP-GM	Brown fine to coarse gravel with fine to coarse sand and silt (moist)	NS	<1	
								SP				
								ML	Red/brown fine to coarse sand with wood chips, plastic, glass and coal	NS	<1	
									Gray silt with fine sand and occasional fine gravel			
-10	5							NR	Consistent refusal on large wood debris on four attempts			

Boring DP2018-ISS-2 unable to be completed because of refusal

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

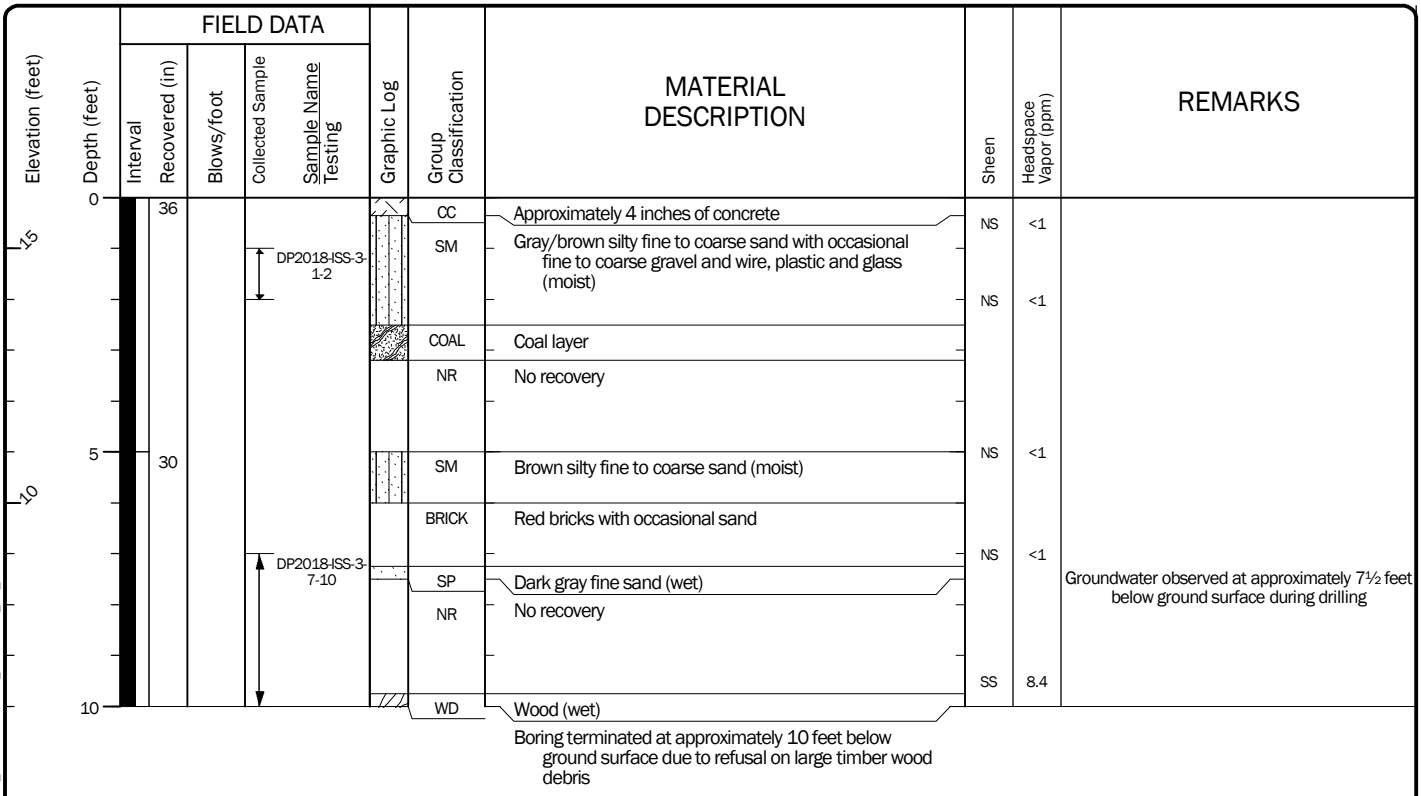
Log of Boring DP2018-ISS2

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-9
Sheet 1 of 1

Drilled Start 8/28/2018 End 8/28/2018	Total Depth (ft) 10	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7409 Longitude -122.493		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					



Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS3

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-10
Sheet 1 of 1

Drilled: Start 8/28/2018 End 8/28/2018	Total Depth (ft): 20	Logged By: PDR Checked By: RM	Driller: Cascade Drilling	Drilling Method: Direct-push	
Surface Elevation (ft): 16 Vertical Datum: NAVD88		Hammer Data: NA		Drilling Equipment: Geoprobe	
Latitude: 48.7407 Longitude: -122.4929		System Datum: WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0						CC	Concrete			
					DP2018-ISS-3A 1-2		SM	Brown silty fine to coarse sand with brick fragments, wood chips and coal (wet)	NS	1.3	Perched groundwater observed at approximately 1½ feet below ground surface during drilling
			26				NR	No recovery			
	5		48				SM	Brown fine to coarse sand with silt and occasional fine gravel (wet)	NS	1.0	
							ML	Gray silt with fine to coarse sand and occasional wood chips (moist)	NS	1.0	Bottom of perched water
					DP2018-ISS-3A 7-9				SS	1.4	
							WD	Black processed lumber (moist)			
							NR	No recovery			
	10		36		DP2018-ISS-3A 10-13		SM	Gray silty fine to coarse sand with occasional fine gravel (moist)	SS	1.0	
							WD	Black stained sawdust and processed lumber with fine sand (moist)	MS	1.8	
							SP	Dark gray fine sand with trace silt (wet)	SS	3.7	Groundwater observed at approximately 12 feet below ground surface during drilling. Apparent depth to groundwater likely depressed from drilling method
							NR	No recovery			
	15		48		DP2018-ISS-3A 15-18		SM	Dark gray silty fine sand with occasional wood chips and sawdust (wet)	HS	5.8	
									MS	5.2	
							ML	Gray silt with fine sand and wood debris (moist to wet)	NS	<1	
							NR	No recovery			
	20										

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS3A

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-11
Sheet 1 of 1

Drilled	Start 8/29/2018	End 8/29/2018	Total Depth (ft)	20	Logged By	PDR	Checked By	RM	Driller	Cascade Drilling	Drilling Method	Direct-push
Surface Elevation (ft) Vertical Datum	16 NAVD88				Hammer Data	NA			Drilling Equipment	Geoprobe		
Latitude Longitude	48.7405 -122.493				System Datum	WGS84			See "Remarks" section for groundwater observed			
Notes:												

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		48					AC	Approximately 3 inches of asphalt concrete pavement			
						DP2018-ISS-4-1-3		SP	Gray fine to coarse sand with fine to coarse gravel and trace silt (moist)	NS	1.7	
								ML	Brown silt with fine to coarse sand, wood chips and occasional fine gravel (moist)	NS	<1	
								BRICK	Brick debris with silt and fine sand (moist)	NS	<1	
								SP-SM	Gray fine to medium sand with silt (moist)			
								NR	No recovery			
	5		36			DP2018-ISS-4-5-8		SP-SM	Gray fine to coarse sand with silt (moist)	SS	<1	
										SS	<1	
								ML	Gray silt with fine sand and occasional coarse grave/fine gravel (moist)	MS	<1	
								NR	No recovery			
	10		36			DP2018-ISS-4-10-13		ML	Gray silt with brick fragments, occasional fine to coarse sand lenses and wood debris (moist)	HS	14.9	
								NR	No recovery			
	15		48			DP2018-ISS-4-15-16.5		SP-SM	Gray fine to coarse sand with silt and occasional fine gravel (wet) (oil coated)	OC	14.2	Groundwater observed at approximately 15 feet below ground surface during drilling Apparent depth to groundwater likely depressed from drilling method
								ML	Gray silt with fine to coarse sand (wet)	SS	1.3	
								NR	No recovery			
	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Date:2/28/19 Path:\\GEOENGINEERS.COM\WAN\PROJECTS\0\0356114\GINT\035611408.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_STANDARD_NO_GW

Log of Boring DP2018-ISS4

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled Start 8/28/2018 End 8/28/2018	Total Depth (ft) 10	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7408 Longitude -122.4928		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		30					CC	Approximately 5 inches of concrete pavement			
						DP2018-ISS-5-1-2.5		SP-SM	Brown/black fine to coarse sand with silt and coal (moist)	NS	<1	
								GP	Gray/black fine to coarse gravel with fine to coarse sand and trace silt (moist)	NS	<1	
								NR	No recovery			
	5		60									
								SP-SM	Brown fine to coarse sand with silt (moist)	NS	<1	
						DP2018-ISS-5-8-10		SM	Brown silty fine to coarse sand			
	10							SP	Dark bray fine to coarse sand and trace silt (moist to wet)	NS	<1	Groundwater observed at approximately 9 feet below ground surface during drilling Apparent depth to groundwater likely depressed from drilling method
									Boring terminated at approximately 10 feet below ground surface due to refusal on large wood debris (three attempts)			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS5

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-13
Sheet 1 of 1

Drilled Start 8/29/2018 End 8/29/2018	Total Depth (ft) 20	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7407 Longitude -122.4929		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		42				AC	Approximately 5 inches of asphalt concrete pavement			
					DP2018-ISS-6-1-2.5		SP-SM	Gray fine to coarse sand with silt, fine to coarse gravel and wood debris	SS	<1	
							ML	Gray silt with fine sand (moist)	NS	<1	
							NR	No recovery			
	5		42		DP2018-ISS-6-5-8		ML	Gray silt with fine sand and small wood debris	SS	<1	
							SP-SM	Brown fine to coarse sand with silt and occasional fine gravel (moist)			
							ML	Gray silt with fine sand and small wood debris	SS	<1	
							WD	Large wood debris			
							NR	No recovery			
	10		48				ML	Gray silt with fine sand, occasional medium to coarse sand and wood debris (moist)	SS	<1	
					DP2018-ISS-6-11-13		SP-SM	Fine to coarse sand with silt and wood chips - stained (wet)	SS	<1	Groundwater observed at approximately 12 feet below ground surface during drilling Apparent depth to groundwater likely depressed from drilling method
							ML	Gray silt (wet)			
							SP	Gray fine to medium sand with trace silt and wood debris (wet)	NS	<1	
							NR	No recovery			
	15		60				SP	Gray fine sand with trace silt, occasional wood chips and sawdust (wet)	NS	<1	
					DP2018-ISS-6-16-18						
							SM	Gray silty fine to medium sand (wet)	NS	<1	
							WD	Large wood debris			
	20										

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS6

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-14
Sheet 1 of 1

Drilled Start	9/29/2018	End	9/29/2018	Total Depth (ft)	20	Logged By	PDR	Driller	Cascade Drilling	Drilling Method	Direct-push
Checked By	RM										
Surface Elevation (ft) Vertical Datum	16 NAVD88			Hammer Data	NA			Drilling Equipment	Geoprobe		
Latitude	48.7405			System Datum	WGS84			See "Remarks" section for groundwater observed			
Longitude	-122.4932										

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
15	0		48					GP	Gray fine to coarse gravel with fine to coarse sand and trace silt (moist)	NS	<1	
					DP2018-ISS-7-1-3			SP-SM	Brown fine to coarse sand with silt, fine to coarse gravel and occasional cobbles (moist)	SS	<1	
								SM	Brown silty fine to coarse sand with fine to coarse gravel , brick fragments, wood chips and milled lumber	NS	<1	
								NR	No recovery			
10	5		48					GP	Gray cobbles, fine to coarse gravel with coarse sand (moist)			
					DP2018-ISS-7-6-7			SM	Brown silty fine to medium sand with glass and wood chips (moist)	SS	1.9	
					DP2018-ISS-7-8-9			SP	Gray fine sand with trace silt; thin silt interbeds (oil coated)	OC	111	
								NR	No recovery			
5	10		42		DP2018-ISS-7-10-12			SP	Gray fine sand (moist) (oil coated)	OC	42.9	
								ML	Gray silt (moist)	NS	1.2	
								WD	Brown sawdust			
								ML	Gray silt with fine to medium sand interbeds (moist)	NS	1.1	
								NR	No recovery			
0	15		48		DP2018-ISS-7-15-16			SP	Gray fine sand with trace silt (wet)	OC	35.6	Groundwater observed at approximately 15 feet below ground surface during drilling Apparent depth to groundwater likely depressed from drilling method
								ML	Gray silt (very hard); siltstone (friable)			
					DP2018-ISS-7-17-18					NS	1.7	
	20							NR	No recovery			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS7

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-15
Sheet 1 of 1

Drilled Start 8/28/2018 End 8/28/2018	Total Depth (ft) 20	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7408 Longitude -122.4927		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0							TS	Approximately 3 inches of topsoil			
								SP-SM	Approximately 3 inches of coal/burnt material	NS	<1	
						DP2018-ISS-8-1-3		ML	Brown fine to coarse sand with silt and occasional fine gravel (moist)			
									Gray silt with green discoloration (oxidation), occasional lenses of fine to coarse sand and fine gravel (moist)	SS	<1	
								NR	No recovery			
	5		36					ML	Brown to gray silt with fine to medium sand and occasional fine gravel (moist)			
						DP2018-ISS-8-6-8				HS	128	
								SP	Gray fine sand with trace silt (moist to wet) (oil coated)	OC	142	
								NR	No recovery			
	10		36			DP2018-ISS-8-10-11		SP	Dark gray fine to coarse sand with trace silt and shell fragments (wet) (oil coated and stained)	OC	196	Groundwater observed at approximately 10 feet below ground surface during drilling. Apparent depth to groundwater likely depressed from drilling method
						DP2018-ISS-8-11-13				SS	46.1	
										MS	45.2	
								ML	Gray silt with fine sand (wet)			
								NR	No recovery			
	15		60			DP2018-ISS-8-15-18		SP	Gray fine to coarse sand with trace silt and shell fragments (wet)	SS	9.2	
								SP-SM	Gray fine sand with silt and small wood chips (wet)	SS	4.3	
								WD	Sawdust, wood chips and wood debris	NS	<1	
	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS8

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-16
Sheet 1 of 1

Drilled	Start 8/28/2018	End 8/28/2018	Total Depth (ft)	20	Logged By	PDR	Checked By	RM	Driller	Cascade Drilling	Drilling Method	Direct-push
Surface Elevation (ft) Vertical Datum	16 NAVD88				Hammer Data	NA			Drilling Equipment	Geoprobe		
Latitude Longitude	48.741 -122.4924				System Datum	WGS84			See "Remarks" section for groundwater observed			
Notes:												

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
15	0		48			DP2018-ISS-9-1-4		SM	Brown silty fine to coarse sand with trace organic matter (moist)	NS	<1	
								SP-SM	Brown fine to coarse sand with silt and coal	NS	<1	
								SM	Brown/gray silty fine to coarse sand with occasional fine gravel (moist)	HS	6.2	
										MS	4.8	
								NR	No recovery			
10	5		36			DP2018-ISS-9-5-8		SM	Brown/green silty fine sand with wood debris and concrete (moist)	HS	2.4	
										HS	1.7	
								SP	Gray/black fine sand with trace silt (moist)	SS	1.8	
								NR	No recovery			
5	10		60			DP2018-ISS-9-10-14		SP	Gray fine sand with trace silt and shell fragments (wet) (marine fill)	SS	1.6	Groundwater observed at approximately 11 feet below ground surface during drilling Apparent depth to groundwater likely depressed from drilling method
										SS	<1	
									Occasional silt lenses approximately 1-inch-thick	SS	<1	
										SS	<1	
0	15		36			DP2018-ISS-9-15-18		WD	Sawdust			
								SP	Gray fine sand with trace silt and shell fragments (wet)	SS	<1	
								WD	Sawdust	NS	<1	
								WD	Large processed wood debris (moist)			
										SS	<1	
								ML	Gray silt (stiff, moist)			
								NR	No recovery			
-5	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS9

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-17
Sheet 1 of 1

Drilled Start 8/27/2018 End 8/27/2018	Total Depth (ft) 13	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.741 Longitude -122.4922		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		48				AC	Approximately 5 inches of asphalt concrete pavement			
					DP2018-ISS-10 1-4		SP-SM	Gray fine to coarse sand with silt and occasional fine gravel (moist)	SS	35.2	
								Color changes to brown/green	SS	2.9	
							NR	No recovery			
	5		42				SM	Brown/green silty fine to coarse sand (moist)	NS	3.4	
					DP2018-ISS-10 7-8			Small cobbles and wood debris (moist)	NS HS	52.3 239	
							SP	Gray fine sand with trace silt (moist)			
							NR	No recovery			
	10		24		DP2018-ISS-10 10-12		SP	Dark gray fine sand (wet) (oil coated)	OC OC	245 250	Groundwater observed at approximately 11 feet below ground surface during drilling Apparent depth to groundwater likely depressed from drilling method
							NR	No recovery			

Boring terminated at approximately 13 feet below ground surface due to refusal on unknown debris (two attempts)

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS10

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-18
Sheet 1 of 1

Drilled Start	8/28/2018	End	8/28/2018	Total Depth (ft)	20	Logged By	PDR	Driller	Cascade Drilling	Drilling Method	Direct-push
Checked By	RM										

Surface Elevation (ft) Vertical Datum	16 NAVD88	Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude Longitude	48.741 -122.4921	System Datum	WGS84	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
15	0		42					SP-SM	Brown fine to coarse sand with silt and fine to coarse gravel (moist)	NS	<1	
					DP2018-ISS-11 1-3			GP	Brown/gray fine to coarse gravel with fine to coarse sand and trace silt (moist)	NS	<1	
								SM	Brown silty fine to coarse sand with occasional fine gravel (moist)	NS	<1	
									Color change to gray/green	NS	<1	
								NR	No recovery			
10	5		42		DP2018-ISS-11 5-6			SM	Brown silty fine to coarse sand (moist)	MS	10.4	
								SP	Gray fine sand with trace silt (moist)	MS	21.2	
								TAR	Black tar with lumber chips			
								SP-SM	Black fine sand with silt (oil coated)	OC	299	
								NR	No recovery			
5	10		48					SP-SM	Black fine sand with silt and lumber chips (oil coated)	OC	89.6	
								WD	Processed lumber, logs, chips (moist)	NS	2.2	
								NR	No recovery			Groundwater observed at approximately 15 feet below ground surface during drilling. Apparent depth to groundwater likely depressed from drilling method
0	15		60					WD	Processed lumber, logs, chips (moist)	NS	<1	
					DP2018-ISS-11 19-20			SP	Gray fine sand with trace silt (very hard, moist)	NS	1.8	
-5	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS11

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-19
Sheet 1 of 1

Drilled	Start 8/27/2018	End 8/27/2018	Total Depth (ft)	20	Logged By	PDR	Checked By	RM	Driller	Cascade Drilling	Drilling Method	Direct-push
Surface Elevation (ft) Vertical Datum	15 NAVD88				Hammer Data	NA			Drilling Equipment	Geoprobe		
Latitude Longitude	48.7412 -122.492				System Datum	WGS84			See "Remarks" section for groundwater observed			
Notes:												

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		48					AC	Approximately 5 inches of asphalt concrete pavement			
					DP2018-ISS-12 1-4			SP	Gray fine to coarse sand with trace silt and occasional fine gravel (moist)	SS	4.5	
								WD	Black charred wood with fine sand (moist)	NS	<1	
								ML	Gray/brown mottled silt with occasional fine gravel and small wood fragments (moist)	SS	<1	
								NR	No recovery			
-10	5		18		DP2018-ISS-12 5-6.5			SM	Gray silty fine sand with occasional charred processed lumber	NS	<1	
								NR	No recovery			
-5	10		42		DP2018-ISS-12 10-13			SM	Brown silty fine sand (moist) (slight staining)	HS	136	
								SP	Gray fine sand (wet) (oil coated with small areas of oil wetted)	OC	152	Groundwater observed at approximately 11 feet below ground surface during drilling. Apparent depth to groundwater likely depressed from drilling method
								WD	Wood debris			
								NR	No recovery			
0	15		36		DP2018-ISS-12 15-16.5			SP	Gray fine sand (wet)	HS	365	
								WD	Large wood debris			
								NR	No recovery			
-5	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS12

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-20
Sheet 1 of 1

Drilled Start 8/27/2018 End 8/27/2018	Total Depth (ft) 20	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 14 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7411 Longitude -122.4919		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
10	0		48			DP2018-ISS-13 1-3		AC	Approximately 4 inches of asphalt concrete pavement	SS	<1	Groundwater observed at approximately 6½ feet below ground surface during drilling
								COAL	Coal (moist)			
								ML	Gray silt with fine to coarse sand and occasional fine gravel (moist)			
								SM	Gray silty fine to coarse sand with occasional fine gravel (moist)	NS	<1	
								NR	No recovery			
5	5		36			DP2018-ISS-13 5-8		SP-SM	Gray fine to coarse sand with silt (oil coated)	OC	28.6	
										HS	7.8	
								ML	Gray silt (moist)	HS	118	
								SP	Gray fine to medium sand (wet)	OC	125	
								SM	Gray silty fine to coarse sand (wet) (oil coated)			
								SP	Gray fine sand with trace silt (wet) (sawdust at very bottom of sample)	HS	17.6	
								NR	No recovery			
0	10		33			DP2018-ISS-13 10-12		SP	Gray fine sand with trace silt (wet)	MS	19.1	
								WD	Sawdust at 12 feet			
									Processed lumber debris			
								NR	No recovery			
-5	15		48			DP2018-ISS-13 15-18		SP	Gray/brown fine sand mixed with sawdust (wet) (oil coated)	OC		
										HS	16.7	
									Grades to fine to coarse sand with fine gravel (wet)			
						DP2018-ISS-13 18-19		WD	Large wood debris	NS	2.1	
								NR	Gray fine sand with trace silt (very dense, moist)			
									No recovery			
-10	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS13

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-21
Sheet 1 of 1

Drilled	Start 8/30/2018	End 8/30/2018	Total Depth (ft) 19	Logged By PDR / Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push
Surface Elevation (ft) / Vertical Datum	13 NAVD88		Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude / Longitude	48.7413 -122.4916		System Datum	WGS84	See "Remarks" section for groundwater observed	
Notes:						

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		30		DP2018-ISS-14 0.5-2		CC	Approximately 3 inches of concrete pavement	NS	1.0	Groundwater observed at approximately 6 feet below ground surface during drilling
							SP-SM	Dark brown fine to coarse sand with silt and coal (moist)			
							NR	No recovery	NS	<1	
	5		44		DP2018-ISS-14 6-8		ML	Gray silt with occasional coarse gravel (moist)	NS	<1	
							SP	Dark gray fine sand with shell fragments (wet)	NS	<1	
							WD	Large wood debris (log) (wet)	NS	<1	
							NR	No recovery			
	10		30		DP2018-ISS-14 10-12		SP	Dark gray fine sand with trace silt and shell fragments (wet)	NS	<1	
							WD	Brown large wood debris (log) (wet)			
							NR	No recovery			
	15		24		DP2018-ISS-14 15-16		SP	Dark gray fine sand with trace silt and shell fragments (wet)	NS	1.3	
							WD	Wood chips and debris (logs)			
							NR	No recovery			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS14

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-22
Sheet 1 of 1

Drilled Start 8/27/2018 End 8/27/2018	Total Depth (ft) 20	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 14 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7414 Longitude -122.4917		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		48				AC	Approximately 5 inches of asphalt concrete pavement			
					DP2018-ISS-15 1-3		SP-SM	Gray fine to coarse sand with silt and occasional fine gravel (moist)	SS	15.6	
							SP	Black coarse sand with coal (moist)	SS	<1	
10							ML	Gray/brown mottled silt with occasional fine gravel (moist)	NS	<1	
							NR	No recovery			
	5		48		DP2018-ISS-15 5-6		ML	Gray/brown mottled silt (moist)	SS	<1	
							WD	Dark brown wood debris with silt			
					DP2018-ISS-15 8-9		SP	Gray fine sand with trace silt (moist to wet)	MS	<1	
5							NR	No recovery			
	10		60				SP	Gray fine sand with trace silt (wet)	SS	<1	Groundwater observed at approximately 10 feet below ground surface during drilling. Apparent depth to groundwater likely depressed from drilling method
0							WD	Red/brown processed lumber debris with occasional sawdust (wet)			
	15		36		DP2018-ISS-15 15-17		SP	Gray fine sand with occasional shells - less than 10 percent (wet)	SS	<1	
							WD	Large wood debris			
-5							NR	No recovery			
	20										

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS15

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled	Start 8/30/2018	End 8/30/2018	Total Depth (ft)	20	Logged By	PDR	Driller	Cascade Drilling	Drilling Method	Direct-push
					Checked By	RM				

Surface Elevation (ft) Vertical Datum	13 NAVD88	Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude Longitude	48.7414 -122.4915	System Datum	WGS84	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36					CC	Approximately 4 inches of concrete pavement	NS	<1	
								ML	Brown silt with fine to coarse sand and occasional wood chips (moist)	NS	1.1	
					DP2018-ISS-16 1.5-3				Grades to gray	SS	<1	
								NR	No recovery			
	5		36		DP2018-ISS-16 5-7			ML	Gray silt with fine sand over wood debris (moist)	SS	1.0	
								SP	Gray fine sand with wood chips (wet)	SS	1.3	Groundwater observed at approximately 6 feet below ground surface during drilling
								WD	Brown processed wood chips and sawdust	NS	1.6	
								NR	No recovery			
	10		48		DP2018-ISS-16 10-12			SP	Gray fine sand with trace silt (wet)	NS	1.1	
								WD	Brown processed wood chips and sawdust (wet)			
								NR	No recovery			
	15		48		DP2018-ISS-16 15-16.5			SP	Gray fine sand (wet)	NS	1.0	
								WD	Brown sawdust (wet)	NS	2.9	
								SP-SM	Gray fine sand with silt (wet)	NS	1.0	
								NR	No recovery			
	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS16

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled Start 8/27/2018 End 8/27/2018	Total Depth (ft) 20	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 13 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7415 Longitude -122.4915		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		48					SM	Brown silty fine sand with trace organic matter (moist) (topsoil)	NS	<1	
								SP-SM	Gray fine to coarse sand with silt and fine to coarse gravel (moist)	NS	<1	
						DP2018-ISS-17 2-4		ML	Gray silt with occasional fine gravel and fine sand (moist)	SS		
								SM	Gray/brown mottled silty fine sand with occasional fine gravel (moist)	HS	54.8	
								NR	No recovery			
	5		24			DP2018-ISS-17 5-7		SP	Gray fine to medium sand with trace silt (moist)	HS	121	
								WD	Brown wood with silt (oil coated)	OC	<1	
								SP	Gray fine sand with shell fragments (moist) (marine fill)	SS	<1	
								NR	No recovery			Groundwater observed at approximately 8 feet below ground surface during drilling
	10		36			DP2018-ISS-17 10-13		SP	Gray fine sand with trace silt and shell fragments (wet)	SS	<1	
								WD	Brown/black wood pulverized with occasional sand and trace silt (wet) (stained tan-red processed lumber fill)	SS	<1	
										NS	<1	
								NR	No recovery			
	15		36			DP2018-ISS-17 15-16		SP	Gray fine to coarse sand with shell fragments - less than 10 percent	NS	1.4	
								WD	Tan processed lumber with occasional sawdust			
						DP2018-ISS-17 17-18				NS	1.6	
								NR	No recovery			
	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS17

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-25
Sheet 1 of 1

Drilled Start 8/27/2018 End 8/27/2018	Total Depth (ft) 20	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 13 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7416 Longitude -122.4914		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Depth (feet)	Elevation (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0			48					AC	Approximately 8 inches of asphalt concrete pavement			
						DP2018-ISS-18 1-4		SP-SM	Gray fine to coarse sand with silt and occasional fine gravel (loose, moist)	NS	<1	
								SM	Gray silty fine to coarse sand (loose, moist)	NS	<1	
								SP	Gray fine to medium sand with trace silt (loose, moist)	SS	<1	
								NR	No recovery			
5			36			DP2018-ISS-18 5-8		SP	Brown fine to medium sand			
								WD	Wood debris	NS	<1	
								SP-SM	Gray fine sand with silt (loose, moist to wet)			
								SM	Gray silty fine sand (moist to wet)	NS	<1	Groundwater observed at approximately 7 feet below ground surface during drilling
								WD	Black/brown processed wood debris (sawdust/pulverized)			
								NR	No recovery			
10			36			DP2018-ISS-18 10-13		SP	Brown fine to coarse sand with trace silt and brick fragments (wet)	SS	<1	
								WD	Brown/tan wood, large continuous (single piece, possible log) (wet)			
								NR	No recovery			
15			24			DP2018-ISS-18 15-16		WD	Brown/tan wood debris with occasional fine sand and silt (wet)			
								NR	No recovery			
20												

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS18

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled	Start 8/29/2018	End 8/29/2018	Total Depth (ft) 20	Logged By PDR / Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push
Surface Elevation (ft) / Vertical Datum	19 / NAVD88		Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude / Longitude	48.7406 / -122.4935		System Datum	WGS84	See "Remarks" section for groundwater observed	

Notes:

Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0		48					SM	Tan silty fine to coarse sand (moist)	NS	<1	
							GP	Gray fine to coarse gravel with fine to coarse sand and trace silt (moist)			
							WD	Wood chips/sawdust	NS	<1	
							SP-SM	Gray fine sand with silt (moist)			
							NR	No recovery			
5		36					SM	Brown fine to coarse sand with trace silt and trash (plastic, paper, tape, paint, wood debris)			
				DP2018-ISS-19 6-8			ML	Gray/green silt with occasional wood debris (moist to wet)	SS	<1	
								Grades to fine to coarse sand with brick fragments and glass			
							NR	No recovery			
10		30		DP2018-ISS-19 10-12			ML	Gray/green silt with fine sand and occasional coarse sand (wet)	SS	1.0	Groundwater observed at approximately 10 feet below ground surface during drilling. Apparent depth to groundwater likely depressed from drilling method
							NR	No recovery			
15		48					ML	Gray/green silt (moist to wet)	NS	<1	
				DP2018-ISS-19 17-19			SP	Gray fine sand (wet)	NS	<1	
							NR	No recovery			
20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS19

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-27
Sheet 1 of 1

Date:2/28/19 Path:\\GEOENGINEERS.COM\WAN\PROJECTS\0\0356114\GINT\035611408.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_LIS_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_STANDARD_NO_GW

Drilled Start 8/30/2018 End 8/30/2018	Total Depth (ft) 20	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 14 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7407 Longitude -122.4932		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
10	0		36					SP-SM	Brown fine to coarse sand with silt and organic matter (topsoil)	NS	<1	
								SM	Brown silty fine to coarse sand with plastic, glass, brick fragments and black coal (most)	NS	<1	
					DP2018-ISS-20 1.5-3			SP	Brown fine to coarse sand with trace silt and occasional fine gravel (moist)	NS	<1	
								NR	No recovery			
5	5		60					SP-SM	Brown fine to coarse sand with silt (moist)	NS	<1	
								BRICK	Concrete and brick debris			
					DP2018-ISS-20 8-9			SM	Brown silty fine sand with occasional fine gravel (wet)	HS	73.2	Groundwater observed at approximately 8½ feet below ground surface during drilling
									Grades to less silt	NS	1.8	
0								WD	Dark brown sawdust (wet)			
	10		48		DP2018-ISS-20 10-12			SP	Gray fine sand with trace silt (wet)	MS	1.4	
									Begin to see shell fragments	SS	<1	
								NR	No recovery			
-5	15		36					SP	Gray fine sand with trace silt and shell fragments (wet)			
					DP2018-ISS-20 16-17					NS	<1	
								SP-SM	Gray fine sand with silt (wet)			
								WD	Large wood debris			
-10	20							NR	No recovery			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS20

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled Start 8/30/2018 End 8/30/2018	Total Depth (ft) 20	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7404 Longitude -122.4932		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36					SP-SM	Brown silty fine sand (moist) (topsoil)	NS	<1	
								SM	Brown silty fine to coarse sand with coal and asphalt (moist)	NS	<1	
								ML	Gray silt with fine sand and occasional coarse sand and fine gravel (moist)	NS	<1	
						DP2018-ISS-21 2-3						
								NR	No recovery			
	5		30			DP2018-ISS-21 5-7		SP-SM	Dark gray fine to coarse sand with silt and coal (moist)	MS	2.8	
								ML	Gray silt with fine sand and occasional wood debris (moist)	HS	8.7	
								WD	Large wood debris (log) (moist to wet)			
								NR	No recovery			Groundwater observed at approximately 8 feet below ground surface during drilling
	10		18			DP2018-ISS-21 10-11.5		WD	Brown large wood debris	NS	<1	
								ML	Gray silt with occasional fine sand (moist)			
								NR	No recovery			
	15		30			DP2018-ISS-21 15-17		SP-SM	Gray fine to coarse sand with silt and occasional wood debris (wet)	NS	<1	
								ML	Gray silt with occasional fine sand (very hard, moist)	NS	<1	
								NR	No recovery			
	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS21

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-29
Sheet 1 of 1

Drilled	Start 8/30/2018	End 8/30/2018	Total Depth (ft) 20	Logged By PDR / Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push
Surface Elevation (ft) / Vertical Datum	16 NAVD88		Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude / Longitude	48.7404 -122.493		System Datum	WGS84	See "Remarks" section for groundwater observed	
Notes:						

Depth (feet)	Elevation (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
0	16						AC	Approximately 3 inches of asphalt concrete pavement			
		1	36		DP2018-ISS-22 0.5-2		SP-SM	Brown to gray fine to coarse sand with silt and occasional fine gravel (moist)	SS	6.8	
							ML	Gray silt with fine sand, occasional coarse sand and fine gravel (moist to wet)	NS	<1	
							NR	No recovery			
5	11	2	24		DP2018-ISS-22 5-7		ML	Gray silt with fine sand (moist to wet)	NS	<1	
									MS	2.4	
							SP	Gray fine to coarse sand (wet)			
							ML	Gray silt with fine to coarse sand (wet)			Groundwater observed at approximately 7 feet below ground surface during drilling
							NR	No recovery			
10	6	3	48		DP2018-ISS-22 10-12		SM	Gray silty fine to medium sand with sawdust and occasional fine gravel (wet)	HS	96.4	
							WD	Sawdust with occasional fine sand and silt (oil coated)	OC	40.2	
					DP2018-ISS-22 13-14		SP-SM	Dark gray fine sand with trace silt (wet) (oil coated)	OC	2.80	
							NR	No recovery			
15	1	4	60		DP2018-ISS-22 15-16		SP	Gray fine sand (wet)	MS	<1	
							SM	Gray silty fine sand and occasional shell fragments (soft, wet)			
									SS	<1	
					DP2018-ISS-22 18-2-20		ML	Gray silt with occasional fine sand (very hard, moist)	NS	<1	
20	-4										

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS22

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-30
Sheet 1 of 1

Drilled Start 8/30/2018 End 8/30/2018	Total Depth (ft) 17	Logged By PDR Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7406 Longitude -122.4928		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		42					CC	Approximately 11 inches of concrete pavement			
								SM	Dark gray silty fine to coarse sand with occasional coarse gravel (moist)	NS	<1	
								BRICK	Bricks			
					DP2018-ISS-23 2-3.5			ML	Green/brown silt with fine to coarse sand and occasional fine gravel (moist)	SS	<1	
								NR	No recovery			
	5		30					ML	Gray silt with fine sand and occasional fine gravel (moist)	SS	1.5	
					DP2018-ISS-23 6-7.5					HS	91.6	Groundwater observed at approximately 7 feet below ground surface during drilling
								NR	No recovery			
	10		36					WD	Multi-colored wood debris pile with trace fine sand (wet)	SS	1.3	
					DP2018-ISS-23 11-12							
								NR	No recovery			
	15								Large wood debris with fine to coarse sand and fine to coarse gravel (wet)	SS	1.3	
					DP2018-ISS-23 16-17							

Boring terminated at approximately 17 feet below ground surface due to refusal on lumber

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Date:2/28/19 Path:\\GEOENGINEERS.COM\WAN\PROJECTS\0\0356114\GINT\035611408.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_STANDARD_NO_GW

Log of Boring DP2018-ISS23

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled Start 11/7/2018 End 11/7/2018	Total Depth (ft) 17	Logged By SMS Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 14 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7397 Longitude -122.493		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
10	0		18			DP2018-ISS-24 1-1.5		SP-SM	Gray fine to coarse sand with occasional gravel (moist)	NS	1.5	
								NR	No recovery			
	5		48			DP2018-ISS-24 5-5.5		SP	Gray fine to coarse sand with occasional gravel (moist)	NS	1.4	
						DP2018-ISS-24 5.5-7.5		SP-SM	Gray fine sand with silt and occasional gravel (moist)	HS	385.7	
5						DP2018-ISS-24 7.5-9		SP	Dark gray fine sand with mixed wood debris (moist)	OC	60.7	
								NR	No recovery			
	10		42					SP	Brown-gray wood debris with fine to coarse sand (moist)	OC	6.5	
								SP	Gray fine to medium sand with occasional gravel (moist)	NS	1.7	
0								NR	No recovery			
	15		24			DP2018-ISS-24 15-16		SP	Gray fine to medium sand with occasional gravel (wet)	NS	<1	Groundwater observed at approximately 15 feet below ground surface during drilling Apparent depth to groundwater likely depressed from drilling method
								SP-SM	Gray fine sand with silt (dense)	NS	<1	

Boring terminated at approximately 17 feet below ground surface due to refusal

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS24

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-32
Sheet 1 of 1

Drilled Start 11/7/2018 End 11/7/2018	Total Depth (ft) 14	Logged By SMS Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 14 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7397 Longitude -122.4926		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		30					SP	Gray sand with gravel and organic matter			
								SP	Gray fine to coarse sand with gravel (moist)	NS	<1	
						DP2018-ISS-25 2-6				SS	19.0	Groundwater observed at approximately 2½ feet below ground surface during drilling Sheen on water
								SP	Gray fine sand (wet)			
10								NR	No recovery			
	5		36					SP	Gray fine to coarse sand with gravel (wet)	NS	<1	
						DP2018-ISS-25 6-8				MS	85.3	
5								SM	Gray medium to fine sand with silt (dense, wet)			
								NR	No recovery			
	10		48					SC	Gray clay with silt and occasional fine to coarse sand (dense) (oil coated locally)	MS	21.9	Groundwater observed at approximately 11 feet below ground surface during drilling Apparent depth to groundwater likely depressed from drilling method
						DP2018-ISS-25 12-14				MS	17	
0									Boring terminated at approximately 14 feet below ground surface due to refusal			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS25

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-33
Sheet 1 of 1

Drilled Start 11/7/2018 End 11/7/2018	Total Depth (ft) 14	Logged By SMS Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 14 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7399 Longitude -122.4925		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
10	0		48			DP2018-ISS-26 0-1		SP	Gray fine to coarse sand with concrete and occasional gravel (some brick fragments) (moist)	NS	<1	
						DP2018-ISS-26 1-2						
						DP2018-ISS-26 2-4		SP-SM	Brown fine to medium sand with silt, brick pieces and some dark wood chips (dark stained wood) (moist)	HS	32.8	
								NR	No recovery			
5	5		36			DP2018-ISS-26 5-7		SP-SM	Gray fine to medium sand with silt and occasional gravel (wet)	HS	78.3	Groundwater observed at approximately 5 feet below ground surface during drilling
								SP-SM	Gray fine sand with silt (wet)	MS	227	
								NR	No recovery			
0	10		36			DP2018-ISS-26 10-12		SP	Gray fine to coarse sand with occasional gravel (moist)	NS	5.6	
								SP-SM	Gray fine sand with silt and occasional gravel (dense, moist)	NS	<1	
-5								NR	No recovery			

Boring terminated at approximately 14 feet below ground surface due to refusal

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS26

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled	Start 11/7/2018	End 11/7/2018	Total Depth (ft)	20	Logged By	SMS	Driller	Cascade Drilling	Drilling Method	Direct-push
					Checked By	RM				

Surface Elevation (ft) Vertical Datum	14 NAVD88	Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude Longitude	48.74 -122.4929	System Datum	WGS84	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		30					SP	Brown fine to coarse sand with gravel and occasional cobble (moist)	NS	<1	
						DP2018-ISS-27 1.5-2.5		SC	Gray clay with fine sand, some dark staining (moist)	MS	172	Trace brown product on sleeve
								NR	No recovery			
	5		30			DP2018-ISS-27 5-6		SC	Gray clay with sand and occasional gravel (moist)	HS	53.4	
									Small concrete and brown stains then gray	HS	68.2	Groundwater observed at approximately 7 feet below ground surface during drilling
								NR	No recovery			
	10		42					CL	Gray clay with fine sand, silt and occasional gravel			
						DP2018-ISS-27 11-12				NS	<1	
										NS	<1	
								NR	No recovery			
	15		30					SP	Gray fine to coarse sand with occasional gravel and shell pieces (loose)	NS	<1	
						DP2018-ISS-27 16-17				NS	<1	
								NR	No recovery			
	20											

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS27

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled: Start 11/8/2018 End 11/8/2018	Total Depth (ft) 16.5	Logged By SMS Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 15 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7402 Longitude -122.4925		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
10	0		12		DP2018-ISS-28 0-1			SP-SM	Gray fine to coarse sand with gravel and brick fragments	NS	<1	
								NR	No recovery			
5	5		18		DP2018-ISS-28 5-6			SP-SM	Brown fine to medium sand with gravel and some brick debris (moist)	MS	32.5	
								SC	Gray fine sand-clay mix (moist)			
								NR	No recovery			Groundwater observed at approximately 7½ feet below ground surface during drilling
0	10		18		DP2018-ISS-28 10-11			SP	Brown coarse sand with gravel (wet)	SS	10.2	
								ML	Gray silt with fine sand and occasional gravel, some staining (moist)			
-5	15		18		DP2018-ISS-28 15-16				Grades to coarser sand and less gravel	SS	12.4	

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS28

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-36
Sheet 1 of 1

Drilled	Start 11/8/2018	End 11/8/2018	Total Depth (ft)	16	Logged By / Checked By	SMS / RM	Driller	Cascade Drilling	Drilling Method	Direct-push
Surface Elevation (ft) / Vertical Datum	16 / NAVD88		Hammer Data	NA	Drilling Equipment	Geoprobe				
Latitude / Longitude	48.7401 / -122.493		System Datum	WGS84	See "Remarks" section for groundwater observed					
Notes:										

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
16	0		18			DP2018-ISS-29 0-1		SP	Gray fine to coarse sand with gravel (moist)	NS	<1	
								CL	Gray brown clay with fine to coarse sand and wood chips (moist)			
								NR	No recovery			
11	5		48					SP	Gray fine to medium sand with occasional gravel and large wood debris (1-foot sliver and smaller splinters; wood stained black) (wet)	HS	72.5	Groundwater observed at 6 feet below ground surface
						DP2018-ISS-29 7-8				HS	966	
										HS	100.4	
								NR	No recovery			
6	10		24			DP2018-ISS-29 10-11		SP	Gray fine to medium sand with occasional gravel and small wood chips with some dark stains on wood (wet)	MS	35.5	
								NR	No recovery			
1	15		12			DP2018-ISS-29 15-16		SP	Gray fine to medium sand with occasional gravel (dense, wet)	MS	33.1	
									Boring terminated at approximately 16 feet below ground surface due to refusal			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS29

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled	Start 11/8/2018	End 11/8/2018	Total Depth (ft) 18	Logged By SMS / Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push
Surface Elevation (ft) / Vertical Datum	15 NAVD88		Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude / Longitude	48.7404 -122.4928		System Datum	WGS84	See "Remarks" section for groundwater observed	
Notes:						

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name / Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		30				SP-SM	Gray fine to coarse sand with black staining with occasional gravel			
					DP2018-ISS-30 1-2		SC	Black clay with fine sand and occasional gravel (moist)	NS	<1	
							SC	Gray clay with some tan brick dust (stiff, moist)			
							NR	No recovery			
-10	5		48		DP2018-ISS-30 5-6		CL	Gray clay with fine to medium sand and some tan brick dust (moist to wet)	NS	<1	
					DP2018-ISS-30 8-9		SP	Gray fine to coarse sand with wood chips and gravel, black stained (wet)	SS	5.4	Groundwater observed at approximately 7 feet below ground surface during drilling
-5							NR	No recovery			
	10		18		DP2018-ISS-30 10-11		SM	Gray fine silty sand (soft, wet)	HS	26.0	
							NR	No recovery			
0	15		24				SP-SM	Gray fine sand with silt (dense, moist)			
					DP2018-ISS-30 16-17				NS	<1	
							NR	No recovery			

Boring terminated at approximately 18 feet below ground surface due to refusal

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS30

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled: Start 11/8/2018 End 11/8/2018	Total Depth (ft): 16	Logged By: SMS Checked By: RM	Driller: Cascade Drilling		Drilling Method: Direct-push
Surface Elevation (ft) Vertical Datum: 16 NAVD88		Hammer Data: NA		Drilling Equipment: Geoprobe	
Latitude: 48.7405 Longitude: -122.4926		System Datum: WGS84		See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
15	0		42		DP2018-ISS-31 1-2			SP-SM	Brown to gray fine to medium sand with gravel and some concrete/brick -red fines (moist)	NS	<1	
										NS	<1	
								NR	No recovery			
10	5		30					SP-SM	Light gray fine to medium sand with possible concrete fines and occasional gravel (moist)	NS	<1	
					DP2018-ISS-31 6-7			SM	Dark gray silty fine sand with occasional gravel, some dark staining (moist to wet)	MS MS	74.6	
								NR	No recovery			Groundwater observed at approximately 7½ feet below ground surface during drilling
5	10		42					SP	Gray coarse sand with occasional gravel (wet)	MS	18.3	
					DP2018-ISS-31 11-12			SM	Gray fine silty sand with occasional gravel and occasional wood chips (wet)	MS	21.2	
								NR	No recovery			
0	15		12		DP2018-ISS-31 15-16			SP-SM	Gray fine to medium sand with fines/silt and occasional gravel (wet)	NS	<1	
									Boring terminated at approximately 16 feet below ground surface due to refusal			

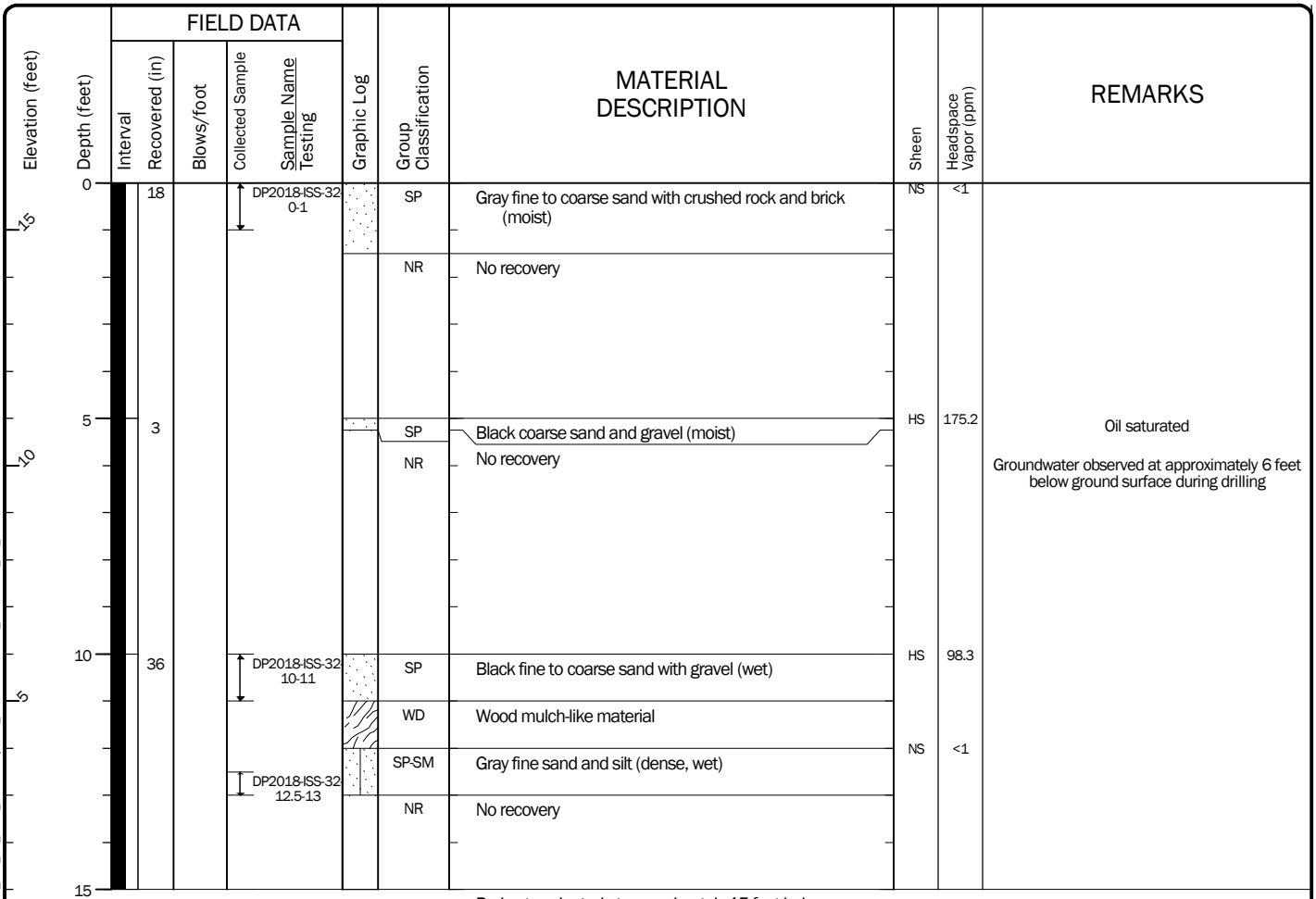
Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS31

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled Start 11/8/2018 End 11/8/2018	Total Depth (ft) 15	Logged By SMS Checked By RM	Driller Cascade Drilling	Drilling Method Direct-push	
Surface Elevation (ft) 16 Vertical Datum NAVD88		Hammer Data NA		Drilling Equipment Geoprobe	
Latitude 48.7403 Longitude -122.4927		System Datum WGS84		See "Remarks" section for groundwater observed	
Notes:					



Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS32

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-40
Sheet 1 of 1

Drilled	Start 11/8/2018	End 11/8/2018	Total Depth (ft)	15	Logged By	SMS	Driller	Cascade Drilling	Drilling Method	Direct-push
					Checked By	RM				

Surface Elevation (ft) Vertical Datum	16 NAVD88	Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude Longitude	48.7402 -122.4922	System Datum	WGS84	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
5	0		30			DP2018-ISS-33 1-2		SP	Black/gray fine to coarse sand with occasional gravel (moist)	NS	<1	
								SM	Gray silty sand with gravel, bottom 6 inches crushed red brick (moist)			
								NR	No recovery			
0	5		30			DP2018-ISS-33 6-7		ML	Gray silt with sand and gravel, some red brick mixed in top 6 inches (moist)	SS	<1	Groundwater observed at approximately 7 feet below ground surface during drilling
								NR	No recovery			
-5	10		30			DP2018-ISS-33 11-12		ML	Gray silt with sand and occasional gravel (dense)	SS	1.5	
	15								Boring terminated at approximately 15 feet below ground surface due to refusal			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Date:2/28/19 Path:\\GEOENGINEERS.COM\WAN\PROJECTS\0\0356114\GINT\035611408.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_STANDARD_NO_GW

Log of Boring DP2018-ISS33

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Drilled	Start 11/9/2018	End 11/9/2018	Total Depth (ft)	20	Logged By	SMS	Driller	Cascade Drilling	Drilling Method	Direct-push
					Checked By	RM				

Surface Elevation (ft) Vertical Datum	16 NAVD88	Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude Longitude	48.7406 -122.493	System Datum	WGS84	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		36				SP	Gray fine to coarse sand with gravel (moist)			
					DP2018-ISS-34 1-2		CL	Gray clay with fine sand and occasional gravel (moist)	NS	<1	
							NR	No recovery			
	5		30				CL	Gray clay with fine sand and occasional gravel			
					DP2018-ISS-34 6-7				NS	<1	
							CC	Tan-gray brick-concrete debris, bottom 1 inch dark brown wood chips	NS	<1	Groundwater observed at 7 feet below ground surface during drilling
							NR	No recovery			
	10		24				WD	Wood chips and sawdust			
					DP2018-ISS-34 11-12		SM	Gray fine to medium silty sand, bottom 1 inch wood chips	NS	<1	
							NR	No recovery			
	15		42				SM	Gray silty fine to medium sand with sawdust mix			
							WD	Sawdust - wood chips			
					DP2018-ISS-34 17-18		SM	Gray silty sand with clay and occasional gravel	NS	<1	
							NR	No recovery			
	20										

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Log of Boring DP2018-ISS34

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

Attachment A-42
Sheet 1 of 1

Drilled	Start 11/9/2018	End 11/9/2018	Total Depth (ft)	20	Logged By	SMS	Driller	Cascade Drilling	Drilling Method	Direct-push
					Checked By	RM				

Surface Elevation (ft) Vertical Datum	15 NAVD88	Hammer Data	NA	Drilling Equipment	Geoprobe
Latitude Longitude	48.7407 -122.4931	System Datum	WGS84	See "Remarks" section for groundwater observed	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		24					SP	Brown fine to coarse sand with intermittent dark wood chips and red brick dust	NS	<1	
						DP2018-ISS-34 1-2		CL	Tan sandy clay with occasional gravel			
								NR	No recovery			
-10	5		42					CL	Gray clay with sand, occasional gravel, some red brick powder and glass fragments	NS	<1	
										NS	<1	
								SW	Gray medium sand with little or no fines			
						DP2018-ISS-35 7-8		WD	Dark brown wood chips	MS	10.3	
-5								SM	Dark gray silty sand with some sawdust			
								NR	No recovery			
	10		60			DP2018-ISS-35 10-11		SM	Gray fine to medium sand with some silt and shell fragments	SS	91.1	
										SS	12.3	
								SM	Gray fine silty sand and shell fragments	SS	11.9	
0	15		48			DP2018-ISS-35 15-16		SM	Gray fine to medium silty sand with shell fragments	SS	<1	
										SS	<1	
										NS	<1	
								WD	Wood chips			
-5	20							NR	No recovery			

Note: See Attachment A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Google Earth. Vertical approximated based on Topographic Survey.

Date:2/28/19 Path:\\GEOENGINEERS.COM\WAN\PROJECTS\0\0356114\GINT\035611408.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEIB_ENVIRONMENTAL_STANDARD_NO_GW

Log of Boring DP2018-ISS35

GeoEngineers

Project: R.G. Haley
Project Location: Bellingham, Washington
Project Number: 0356-114-08

ATTACHMENT A-1-2
Laboratory Analytical Documentation

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 7, 2018

Sydney Bronson
GeoEngineers, Inc.
17425 NE Union Hill Road, Suite 250
Redmond, WA 98052

Re: Analytical Data for Project 0356-114-08
Laboratory Reference No. 1808-309

Dear Sydney:

Enclosed are the analytical results and associated quality control data for samples submitted on August 28, 2018.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

Case Narrative

Samples were collected on August 27, 2018 and received by the laboratory on August 28, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
RINSEATE-08272018	08-309-01	Water	8-27-18	8-28-18	
MW-16S-08272018	08-309-02	Water	8-27-18	8-28-18	
MW-16D-08272018	08-309-03	Water	8-27-18	8-28-18	

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RINSEATE-08272018**					
Laboratory ID:	08-309-01					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**MW-16S-08272018**					
Laboratory ID:	08-309-02					
Diesel Range Organics	**0.67**	0.25	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**0.47**	0.41	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				
Client ID:	**MW-16D-08272018**					
Laboratory ID:	08-309-03					
Diesel Range Organics	**0.80**	0.26	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**0.53**	0.41	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RINSEATE-08272018**					
Laboratory ID:	08-309-01					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.095	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0095	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.0095	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*53*	*21 - 110*				
Pyrene-d10	*85*	*19 - 111*				
Terphenyl-d14	*87*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-16S-08272018**					
Laboratory ID:	08-309-02					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**0.18**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*42*	*21 - 110*				
Pyrene-d10	*86*	*19 - 111*				
Terphenyl-d14	*83*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-16D-08272018**					
Laboratory ID:	08-309-03					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**0.22**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**0.40**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**0.19**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*43*	*21 - 110*				
Pyrene-d10	*94*	*19 - 111*				
Terphenyl-d14	*90*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RINSEATE-08272018**					
Laboratory ID:	08-309-01					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*60*	*17-94*				
Client ID:	**MW-16S-08272018**					
Laboratory ID:	08-309-02					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*82*	*17-94*				
Client ID:	**MW-16D-08272018**					
Laboratory ID:	08-309-03					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*71*	*17-94*				

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0831W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-326-01										
	ORIG	DUP									
Diesel Range Organics	**1.52**	**1.16**	NA	NA		NA		NA	27	NA	M
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*98*	*89*	*50-150*			

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCV0901F-V1	100	95.6	4.4	+/-15%
CCV0901F-V2	100	103	-2.7	+/-15%
CCV0901F-V3	100	102	-2.5	+/-15%
CCV0901F-V4	100	99.3	0.7	+/-15%

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0830W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*21 - 110*				
Pyrene-d10	*87*	*19 - 111*				
Terphenyl-d14	*122*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-326-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.387**	**0.424**	0.530	0.537	ND	73	79	28 - 109	9	38	
Acenaphthylene	**0.440**	**0.453**	0.530	0.537	ND	83	84	37 - 111	3	26	
Acenaphthene	**0.437**	**0.478**	0.530	0.537	ND	82	89	41 - 113	9	33	
Fluorene	**0.478**	**0.505**	0.530	0.537	ND	90	94	47 - 114	5	23	
Phenanthrene	**0.437**	**0.463**	0.530	0.537	ND	82	86	50 - 113	6	18	
Anthracene	**0.456**	**0.499**	0.530	0.537	ND	86	93	50 - 117	9	18	
Fluoranthene	**0.490**	**0.525**	0.530	0.537	ND	92	98	52 - 120	7	15	
Pyrene	**0.435**	**0.482**	0.530	0.537	ND	82	90	51 - 128	10	31	
Benzo[a]anthracene	**0.491**	**0.498**	0.530	0.537	ND	93	93	57 - 127	1	15	
Chrysene	**0.472**	**0.476**	0.530	0.537	ND	89	89	51 - 120	1	15	
Benzo[b]fluoranthene	**0.477**	**0.490**	0.530	0.537	ND	90	91	54 - 124	3	17	
Benzo(j,k)fluoranthene	**0.485**	**0.480**	0.530	0.537	ND	92	89	50 - 127	1	18	
Benzo[a]pyrene	**0.489**	**0.499**	0.530	0.537	ND	92	93	50 - 120	2	16	
Indeno(1,2,3-c,d)pyrene	**0.502**	**0.505**	0.530	0.537	ND	95	94	46 - 132	1	20	
Dibenz[a,h]anthracene	**0.509**	**0.503**	0.530	0.537	ND	96	94	49 - 129	1	18	
Benzo[g,h,i]perylene	**0.490**	**0.489**	0.530	0.537	ND	92	91	45 - 130	0	19	
Surrogate:											
2-Fluorobiphenyl						*82*	*77*	*21 - 110*			
Pyrene-d10						*88*	*89*	*19 - 111*			
Terphenyl-d14						*97*	*100*	*32 - 137*			

Date of Report: September 7, 2018
Samples Submitted: August 28, 2018
Laboratory Reference: 1808-309
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0830W1					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*75*	*17-94*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-326-03										
	MS	MSD	MS	MSD		MS	MSD				
Pentachlorophenol	**0.139**	**0.161**	0.235	0.235	ND	**59**	**68**	40-140	15	20	
Surrogate:											
DCAA						*72*	*86*	*17-94*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0356-114-08
Project Name: RG Haley, PRDI Upland Survey
Project Manager: Sydney Bronson
Sampled by:

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 08-309

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A PCP only	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A					% Moisture
1	RINSEATE-08272018	8-27-18	1530	W	6				X					X				X									
2	MW-16S-08272018	8-27-18	1414	W	6				X					X				X									
3	MW-16D-08272018	8-27-18	1243	W	6				X					X				X									

	Signature	Company	Date	Time
Relinquished		GeoEngineers	8-28-18	7:55
Received		Speedy	8/28/18	7:56
Relinquished		Speedy	8/28/18	9:07
Received		OSE	8/28/18	907
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
PCP analysis by SW8151 - special rpt limits: only report down to 0.04 ug/kg
PAH analyses by SW8270 SIM

Data Package: Standard ☐ Level III ☐ Level IV ☑

Chromatograms with final report ☑ Electronic Data Deliverables (EDDs) ☑

Sample/Cooler Receipt and Acceptance Checklist

Client: GER

Client Project Name/Number: 0356-114-08

OnSite Project Number: 08-309

Initiated by: KL

Date Initiated: 8/28/18

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	(No)	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	(N/A)	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 2		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)			
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No	1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	(Yes)	No	1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No	1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	(Yes)	No	1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No	1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)	1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4	
3.4 Have the samples been correctly preserved?	(Yes)	No	N/A	1 2 3 4	
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	(N/A)	1 2 3 4	
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4	
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4	
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4	

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- NWTPH-Diesel
- PAHs EPA 8270D/SIM
- Pentachlorophenol by EPA 8151A

NWTPH-DIESEL Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V05.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 10:29
Operator : JT
Sample : 08-309-01
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 11:05:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.517	117708131	42.603 PPM
Spiked Amount	50.000		Recovery =	85.21%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	9340455	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	25903869	7.963 PPM
5) H	Diesel Fuel #2 (06-...	14.000	24606750	8.946 PPM
6) H	Oil (06-07-18)	22.000	34734768	7.520 PPM
7) H	Oil Acid Clean (06-12...	22.000	34734768	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	22941180	8.739 PPM
9) H	Oil Combo (06-07-18)	22.000	31987878	6.250 PPM
10) H	Oil Acid Clean Combo ...	22.000	31987878	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	25138132	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	15088373	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	17964109	7.363 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	57659001	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	57659001	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	60834962	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	14810237	7.163 PPM
18) H	Oil Acid Clean MO Com...	22.000	30553991	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	30553991	5.743 PPM

(f)=RT Delta > 1/2 Window

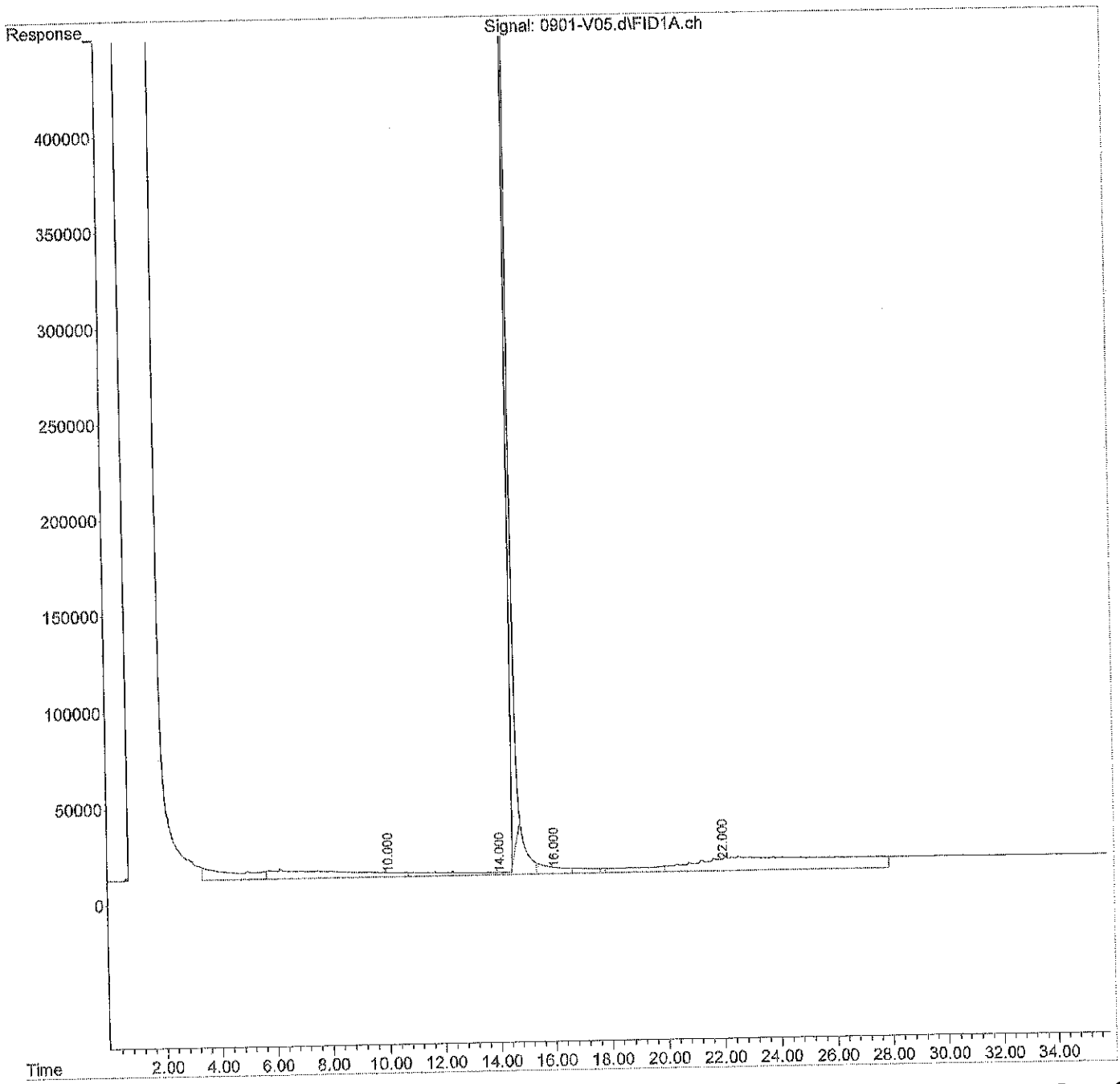
(m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V05.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 10:29
Operator : JT
Sample : 08-309-01
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 11:05:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V06.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 11:09
Operator : JT
Sample : 08-309-02
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 11:45:55 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.519	123051736	44.513 PPM
Spiked Amount	50.000		Recovery =	89.03%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	11207936	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	137856936	51.849 PPM
5) H	Diesel Fuel #2 (06-...	14.000	174857785	72.385 PPM
6) H	Oil (06-07-18)	22.000	126417263	58.611 PPM
7) H	Oil Acid Clean (06-12...	22.000	126417263	33.288 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	155023445	65.657 PPM
9) H	Oil Combo (06-07-18)	22.000	102294378	46.043 PPM
10) H	Oil Acid Clean Combo ...	22.000	102294378	23.646 PPM
11) H	Alaska 102 DF2 ()	13.025	180245765	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	56566124	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	159537050	62.893 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	260600691	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	260600691	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	264742311	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	128455155	53.596 PPM
18) H	Oil Acid Clean MO Com...	22.000	85440603	16.994 PPM
19) H	Oil MO Combo (06-07-18)	22.000	85440603	37.691 PPM

(f)=RT Delta > 1/2 Window

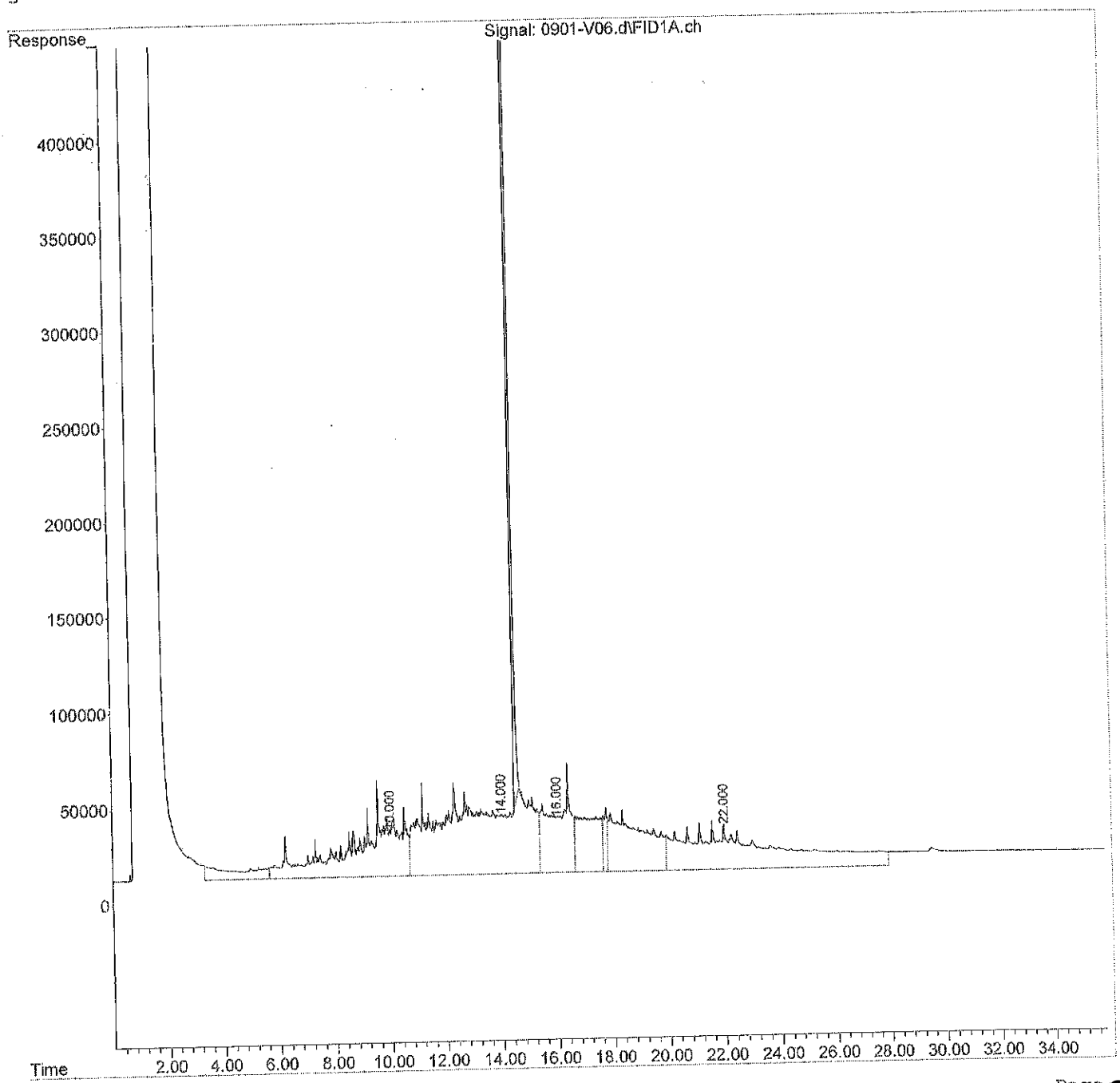
(m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V06.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 11:09
Operator : JT
Sample : 08-309-02
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 11:45:55 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V07.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 11:49
Operator : JT
Sample : 08-309-03
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 12:25:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.519	123846599	44.797 PPM
Spiked Amount	50.000		Recovery =	89.59%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	11960769	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	163916349	62.064 PPM
5) H	Diesel Fuel #2 (06-...	14.000	208607230	86.635 PPM
6) H	Oil (06-07-18)	22.000	142667427	67.667 PPM
7) H	Oil Acid Clean (06-12...	22.000	142667427	40.148 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	185496852	78.789 PPM
9) H	Oil Combo (06-07-18)	22.000	113610602	52.448 PPM
10) H	Oil Acid Clean Combo ...	22.000	113610602	28.494 PPM
11) H	Alaska 102 DF2 ()	13.025	214791866	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	62553897	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	192763776	75.926 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	302497607	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	302497607	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	307097126	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	157126002	65.311 PPM
18) H	Oil Acid Clean MO Com...	22.000	93902840	20.717 PPM
19) H	Oil MO Combo (06-07-18)	22.000	93902840	42.617 PPM

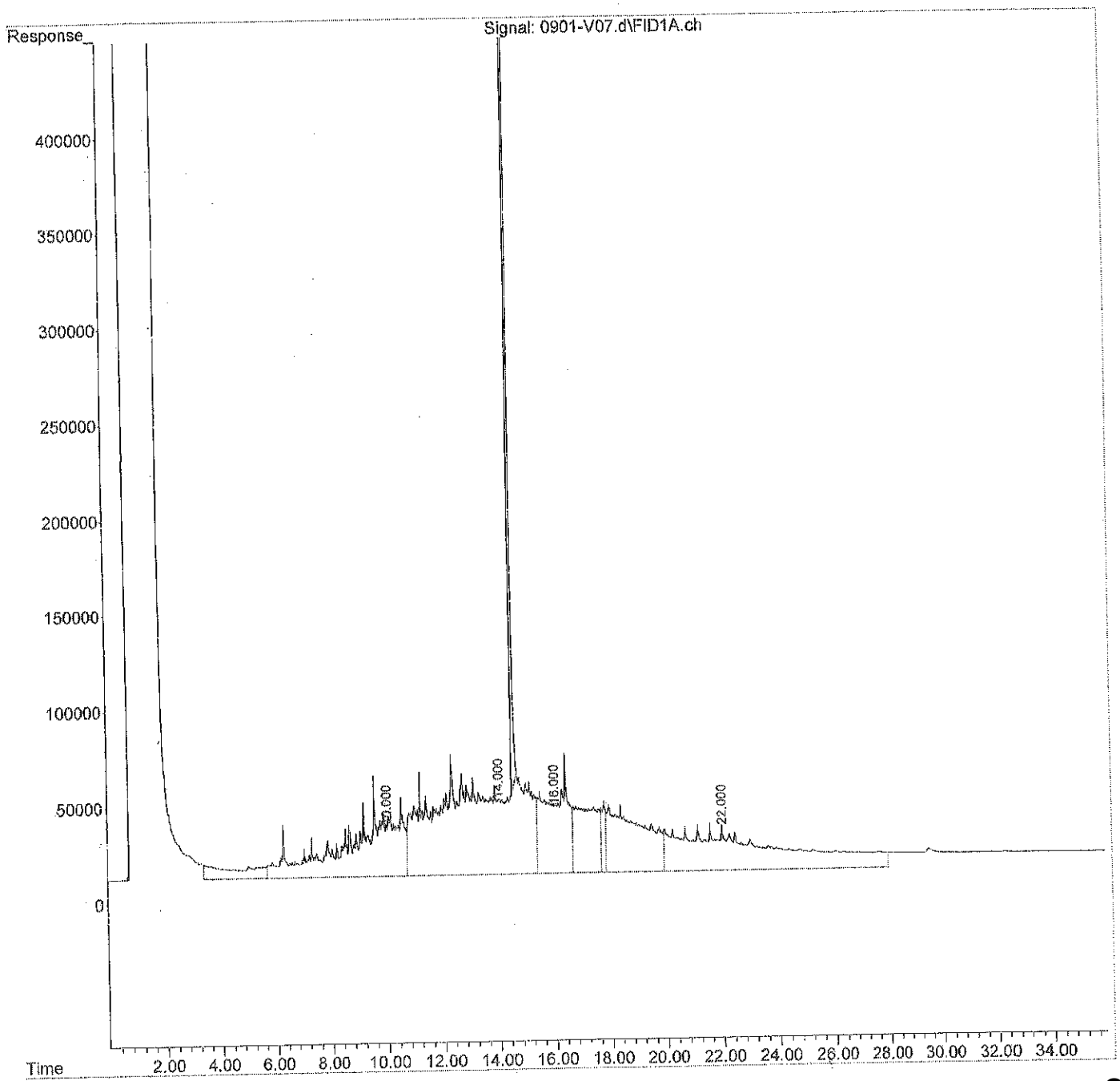
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V07.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 11:49
Operator : JT
Sample : 08-309-03
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 12:25:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V03.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 9:09
Operator : JT
Sample : MB0831W1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 09:45:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.516	105872129	38.373 PPM
Spiked Amount	50.000		Recovery =	76.75%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	8862574	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	23344268	6.960 PPM
5) H	Diesel Fuel #2 (06-...	14.000	21983013	7.838 PPM
6) H	Oil (06-07-18)	22.000	51469497	16.845 PPM
7) H	Oil Acid Clean (06-12...	22.000	51469497	1.645 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	20467301	7.673 PPM
9) H	Oil Combo (06-07-18)	22.000	48942781	15.846 PPM
10) H	Oil Acid Clean Combo ...	22.000	48942781	0.788 PPM
11) H	Alaska 102 DF2 ()	13.025	22520384	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	24552785	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	17129535	7.035 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	73542394	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	73542394	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	75896312	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	13168517	6.492 PPM
18) H	Oil Acid Clean MO Com...	22.000	47648759	0.365 PPM
19) H	Oil MO Combo (06-07-18)	22.000	47648759	15.694 PPM

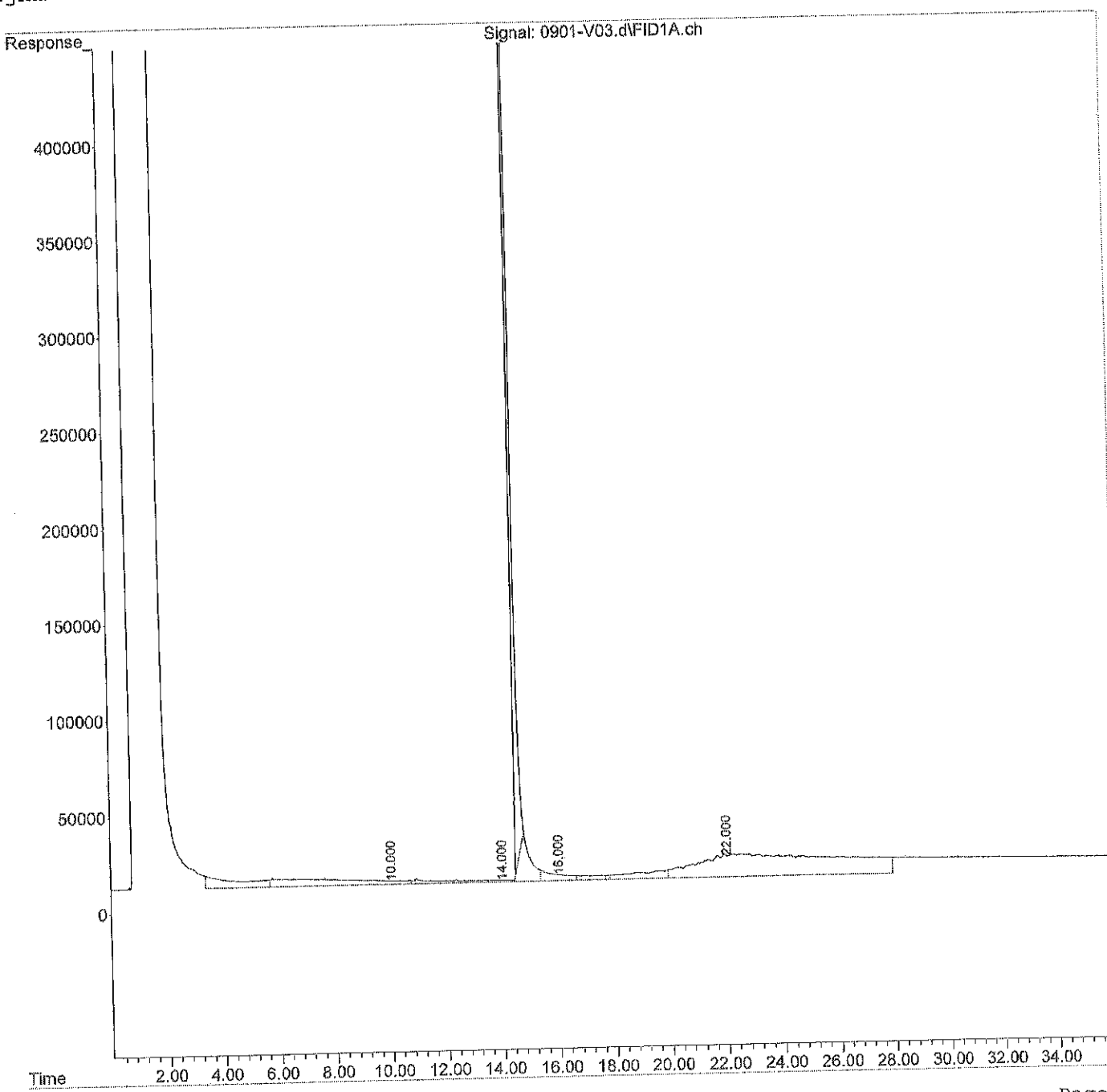
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V03.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 9:09
Operator : JT
Sample : MB0831W1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 09:45:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V08.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 12:45
Operator : JT
Sample : 08-326-01
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 13:21:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.521	135453177	48.945 PPM
Spiked Amount	50.000		Recovery =	97.89%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	16054404	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	294727670	113.342 PPM
5) H	Diesel Fuel #2 (06-...	14.000	312486836	130.495 PPM
6) H	Oil (06-07-18)	22.000	105629380	47.027 PPM
7) H	Oil Acid Clean (06-12...	22.000	105629380	24.511 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	300788356	128.471 PPM
9) H	Oil Combo (06-07-18)	22.000	89634952	38.878 PPM
10) H	Oil Acid Clean Combo ...	22.000	89634952	18.222 PPM
11) H	Alaska 102 DF2 ()	13.025	315638995	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	50179237	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	170241022	67.092 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	392873946	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	392873946	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	400723740	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	150624818	62.655 PPM
18) H	Oil Acid Clean MO Com...	22.000	79540007	14.397 PPM
19) H	Oil MO Combo (06-07-18)	22.000	79540007	34.257 PPM

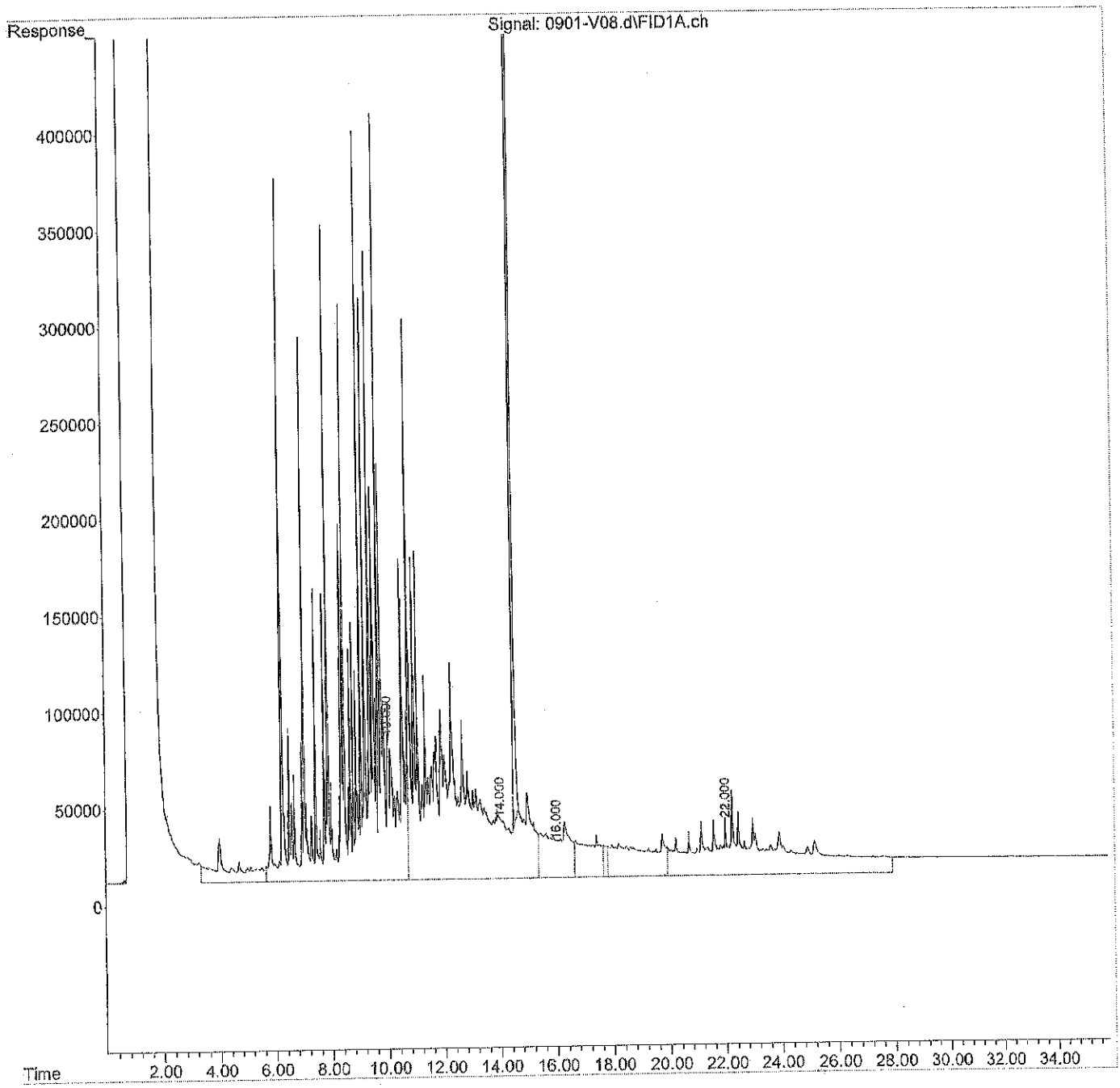
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V08.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 12:45
Operator : JT
Sample : 08-326-01
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 13:21:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V09.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 13:25
Operator : JT
Sample : 08-326-01 DUP
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 14:01:34 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.518	122900510	44.459	PPM
Spiked Amount		50.000		Recovery =	88.92%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	14821987	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	259223334	99.425	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	271332229	113.119	PPM
6)	H	Oil (06-07-18)	22.000	80271179	32.896	PPM
7)	H	Oil Acid Clean (06-12...	22.000	80271179	13.805	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	262286425	111.880	PPM
9)	H	Oil Combo (06-07-18)	22.000	68124057	26.703	PPM
10)	H	Oil Acid Clean Combo ...	22.000	68124057	9.006	PPM
11)	H	Alaska 102 DF2 ()	13.025	273766974	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	37136471	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	140254430	55.330	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	332665544	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	332665544	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	339677384	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	125883579	52.546	PPM
18)	H	Oil Acid Clean MO Com...	22.000	60330166	5.945	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	60330166	23.075	PPM

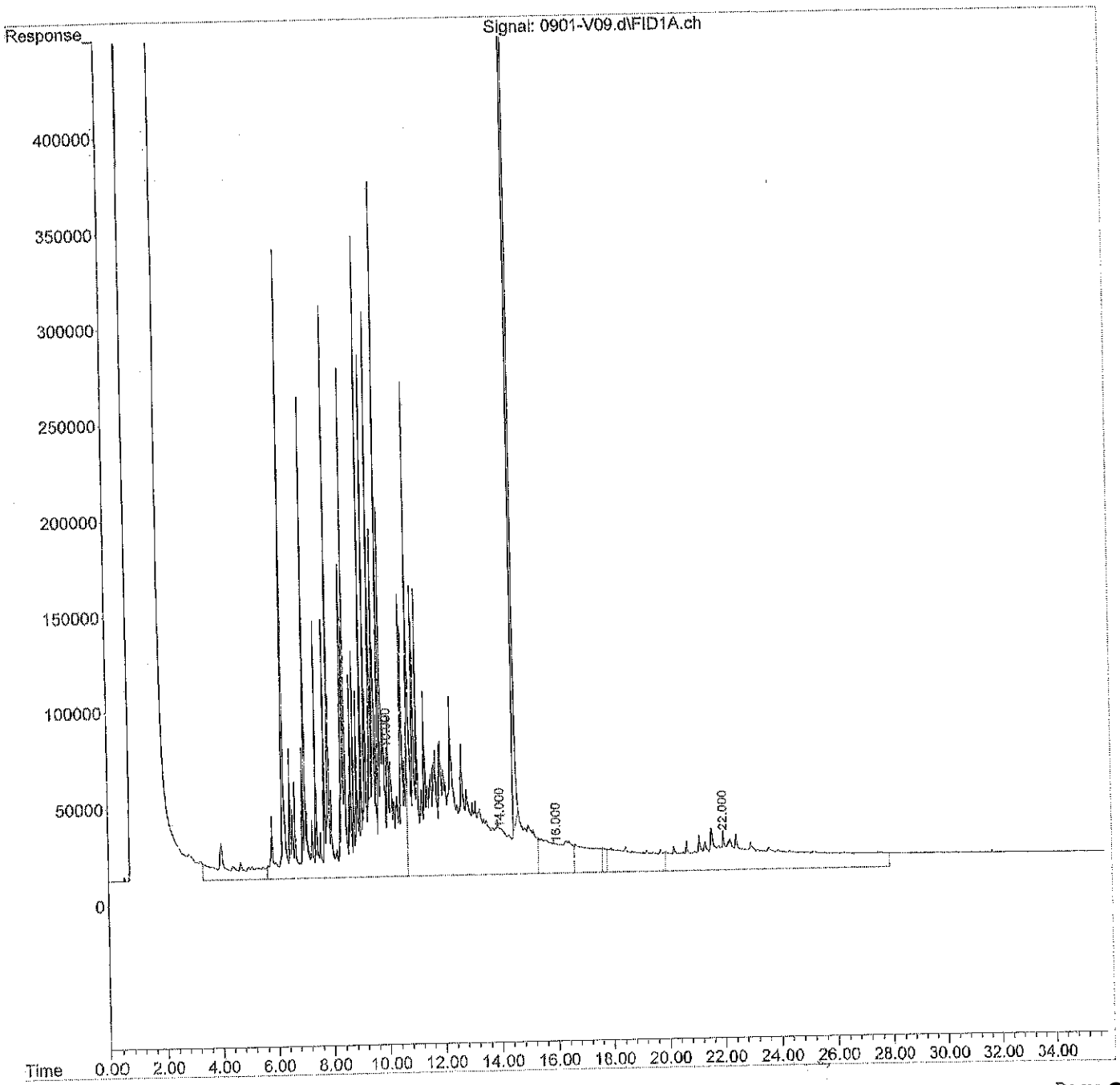
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V09.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 13:25
Operator : JT
Sample : 08-326-01 DUP
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 14:01:34 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0831-V01.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 7:46
Operator : JT
Sample : CCV0901F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 08:22:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	27582426	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	230526264	88.175	PPM
5) H	Diesel Fuel #2 (06-...	14.000	229939929	95.642	PPM
6) H	Oil (06-07-18)	22.000	48154619	14.998	PPM
7) H	Oil Acid Clean (06-12...	22.000	48154619	0.245	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	224173620	95.456	PPM
9) H	Oil Combo (06-07-18)	22.000	35374006	8.166	PPM
10) H	Oil Acid Clean Combo ...	22.000	35374006	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	231446738	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14811589	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	148038457	58.383	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	260511908	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	260511908	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	276908474	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	143020940	59.548	PPM
18) H	Oil Acid Clean MO Com...	22.000	30198171	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	30198171	5.536	PPM

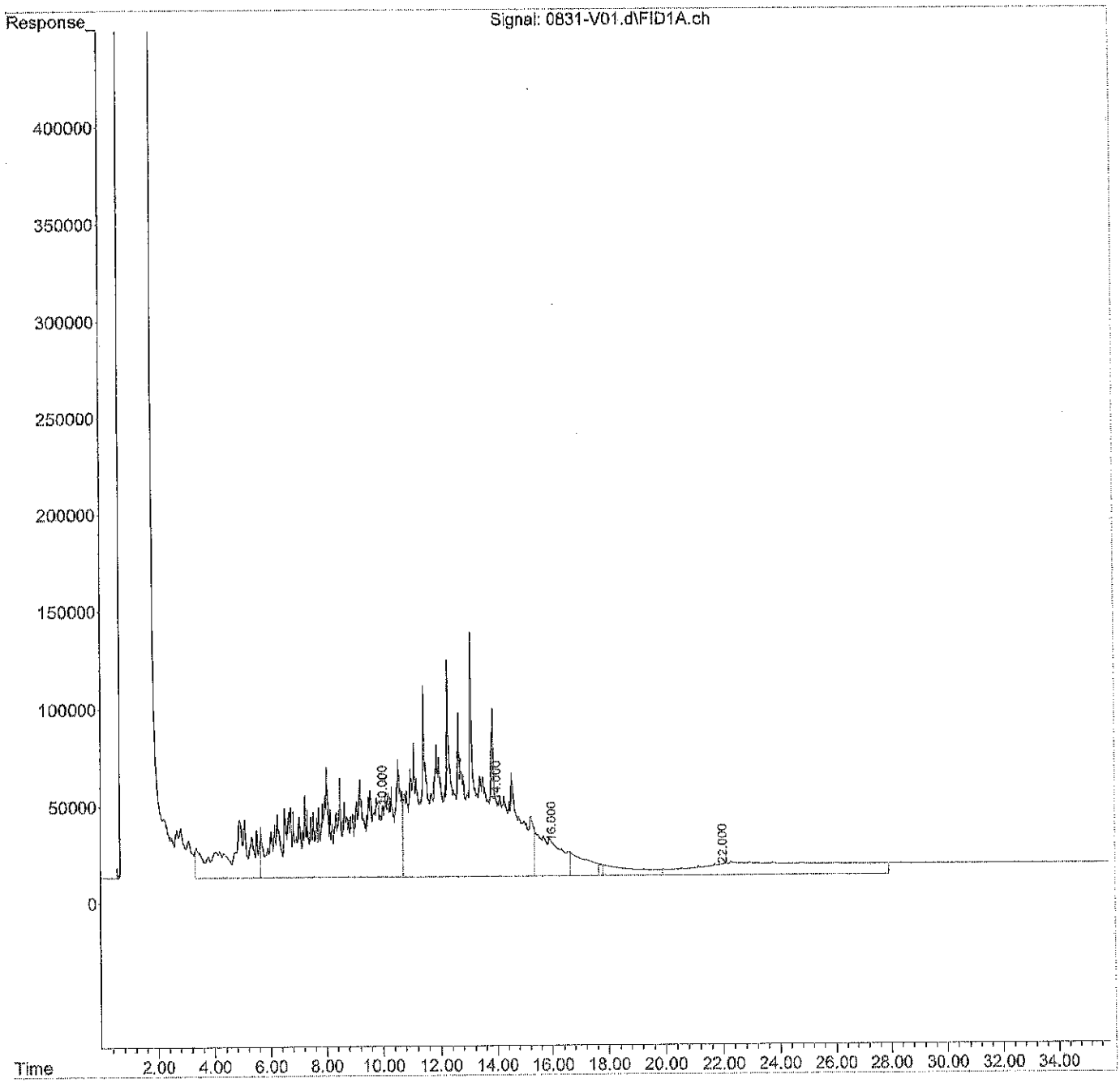
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0831-V01.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 7:46
Operator : JT
Sample : CCV0901F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 08:22:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V14.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 16:46
Operator : JT
Sample : CCV0901F-V2
Misc : SV3-29-03
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 17:22:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29509819	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	246343595	94.376	PPM
5) H	Diesel Fuel #2 (06-...	14.000	246661708	102.702	PPM
6) H	Oil (06-07-18)	22.000	54909065	18.762	PPM
7) H	Oil Acid Clean (06-12...	22.000	54909065	3.097	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	240065048	102.304	PPM
9) H	Oil Combo (06-07-18)	22.000	40736884	11.202	PPM
10) H	Oil Acid Clean Combo ...	22.000	40736884	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	248366824	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	17459637	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	159830839	63.008	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	281971653	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	281971653	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	299430410	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153849070	63.972	PPM
18) H	Oil Acid Clean MO Com...	22.000	34865972	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	34865972	8.253	PPM

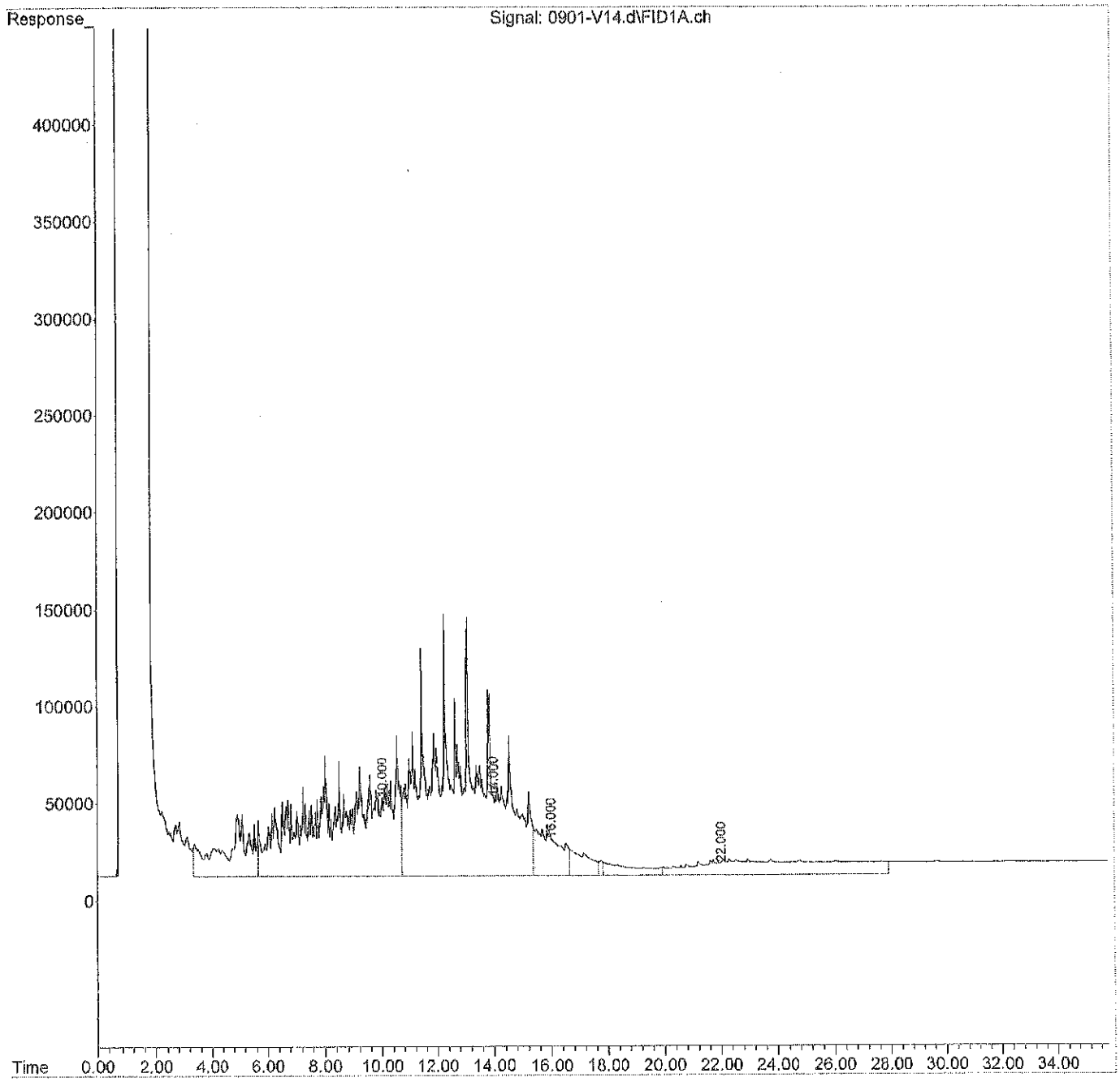
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V14.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 16:46
Operator : JT
Sample : CCV0901F-V2
Misc : SV3-29-03
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 17:22:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V23.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 22:47
Operator : JT
Sample : CCV0901F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 23:23:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29344988	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	245836872	94.177	PPM
5) H	Diesel Fuel #2 (06-...	14.000	246137923	102.481	PPM
6) H	Oil (06-07-18)	22.000	57957141	20.461	PPM
7) H	Oil Acid Clean (06-12...	22.000	57957141	4.384	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	239607017	102.107	PPM
9) H	Oil Combo (06-07-18)	22.000	43864387	12.972	PPM
10) H	Oil Acid Clean Combo ...	22.000	43864387	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	247838405	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	18422778	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	159454072	62.860	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	285165134	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	285165134	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	302334501	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153454697	63.811	PPM
18) H	Oil Acid Clean MO Com...	22.000	38049869	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	38049869	10.106	PPM

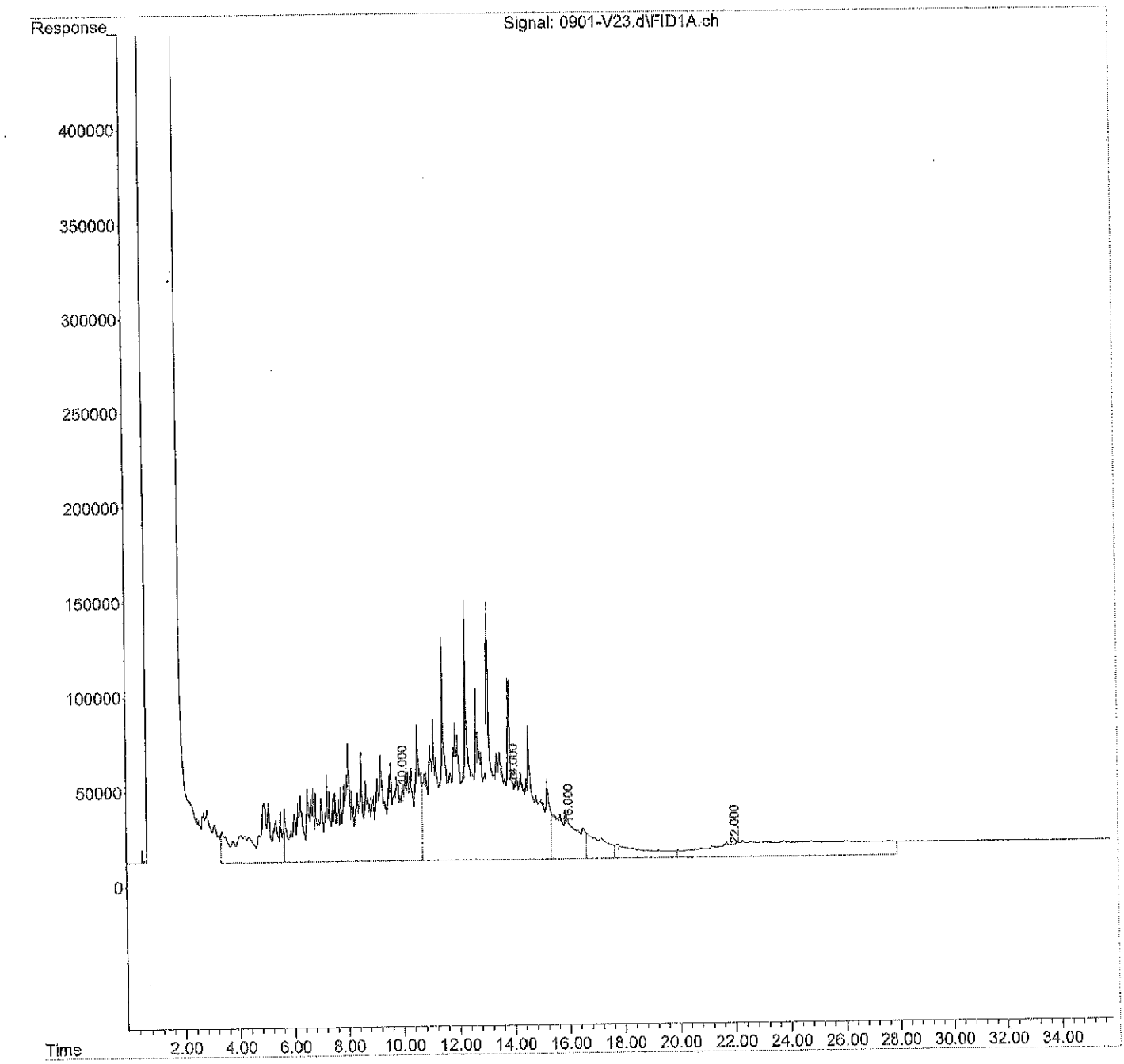
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V23.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 22:47
Operator : JT
Sample : CCV0901F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 23:23:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V29.d
Signal(s) : FID1A.ch
Acq On : 2 Sep 2018 2:47
Operator : JT
Sample : CCV0901F-V4
Misc : SV3-29-03
ALS Vial : 29 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 03:23:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	28968051	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	239145837	91.554	PPM
5) H	Diesel Fuel #2 (06-...	14.000	238555002	99.280	PPM
6) H	Oil (06-07-18)	22.000	52672199	17.516	PPM
7) H	Oil Acid Clean (06-12...	22.000	52672199	2.153	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	232451980	99.023	PPM
9) H	Oil Combo (06-07-18)	22.000	39268706	10.371	PPM
10) H	Oil Acid Clean Combo ...	22.000	39268706	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	240157006	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16451454	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	153849008	60.662	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	273010751	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	273010751	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	290086891	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	148388531	61.741	PPM
18) H	Oil Acid Clean MO Com...	22.000	33812753	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	33812753	7.640	PPM

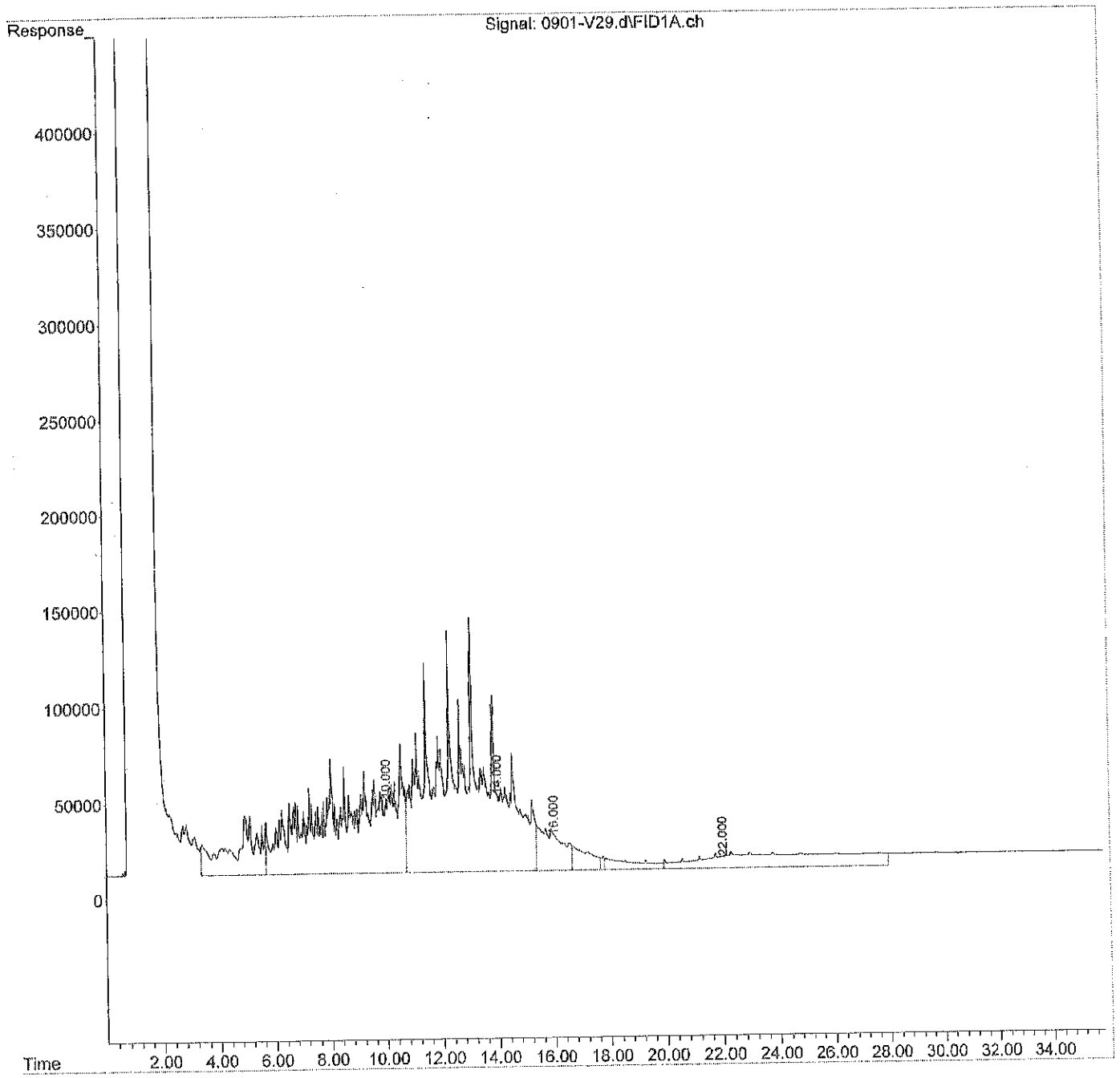
(f)=RT Delta > 1/2 Window (m)=manual int.

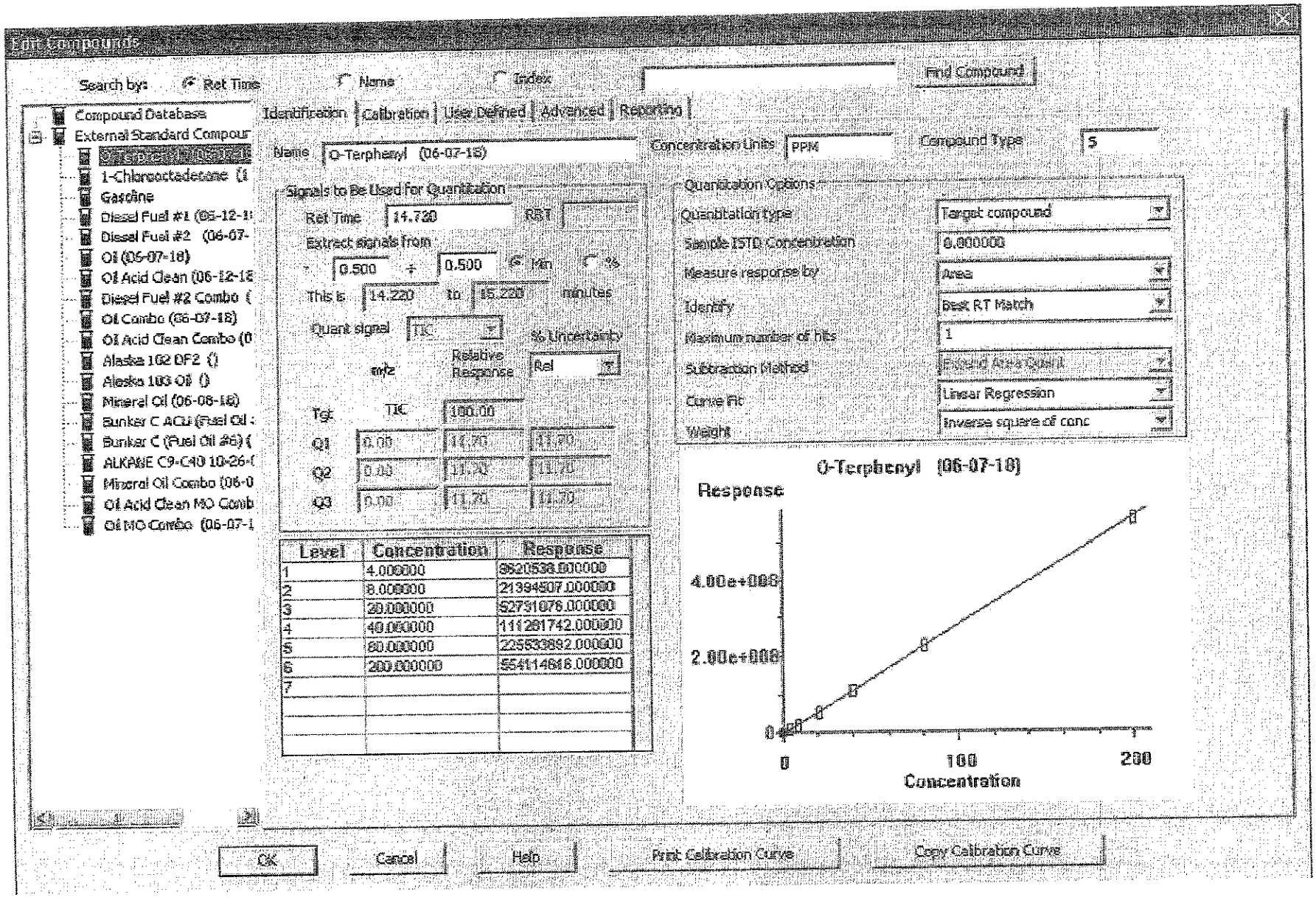
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V29.d
Signal(s) : FID1A.ch
Acq On : 2 Sep 2018 2:47
Operator : JT
Sample : CCV0901F-V4
Misc : SV3-29-03
ALS Vial : 29 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 03:23:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by: Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18)
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-06-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
O-Terphenyl (06-07-18)
Concentration Units
PPM
Compound Type
5
Signals to Be Used for Quantitation
Ret Time
14.730
RRT
Extract signals from
0.500
0.500
Min
%
This is
14.220
to
15.220
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Forced Area Option
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
4.000000
3620538.000000
2
8.000000
21394507.000000
3
20.000000
52731076.000000
4
40.000000
111261742.000000
5
80.000000
225533892.000000
6
200.000000
554114648.000000
7
O-Terphenyl (06-07-18)
Response
4.00e+008
2.00e+008
0.00
0
100
200
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.582	9620538	3.974 PPM
Spiked Amount	50.000		Recovery =	7.95%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2918914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7973112	0.934 PPM
5) H	Diesel Fuel #2 (06-...	14.000	8067167	1.963 PPM
6) H	Oil (06-07-18)	22.000	41478047	11.278 PPM
7) H	Oil Acid Clean (06-12...	22.000	41478047	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	7057774	1.895 PPM
9) H	Oil Combo (06-07-18)	22.000	40647380	11.151 PPM
10) H	Oil Acid Clean Combo ...	22.000	40647380	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	8402084	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20317087	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	7057262	3.084 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	51378922	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	51378922	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	51452820	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	4092445	2.783 PPM
18) H	Oil Acid Clean MO Com...	22.000	39796223	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	39796223	11.123 PPM

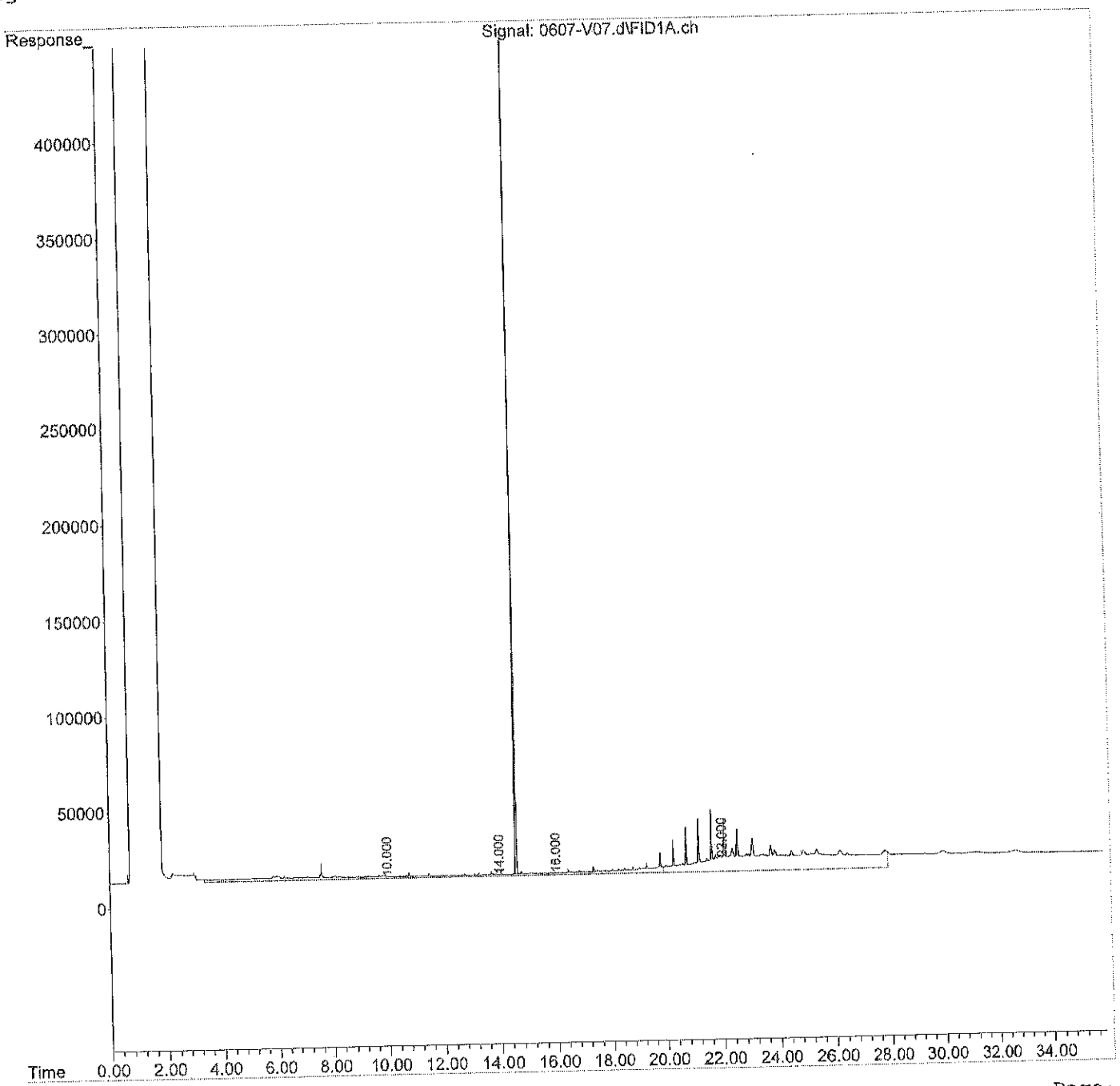
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.583	21394507	8.182 PPM
Spiked Amount	50.000		Recovery =	16.36%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2578709	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6568002	0.383 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6442554	1.277 PPM
6) H	Oil (06-07-18)	22.000	38834383	9.804 PPM
7) H	Oil Acid Clean (06-12...	22.000	38834383	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5650075	1.288 PPM
9) H	Oil Combo (06-07-18)	22.000	38215738	9.775 PPM
10) H	Oil Acid Clean Combo ...	22.000	38215738	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	6700816	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20412619	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5601139	2.513 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	47152459	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	47152459	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	47173180	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3086112	2.372 PPM
18) H	Oil Acid Clean MO Com...	22.000	37547444	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	37547444	9.814 PPM

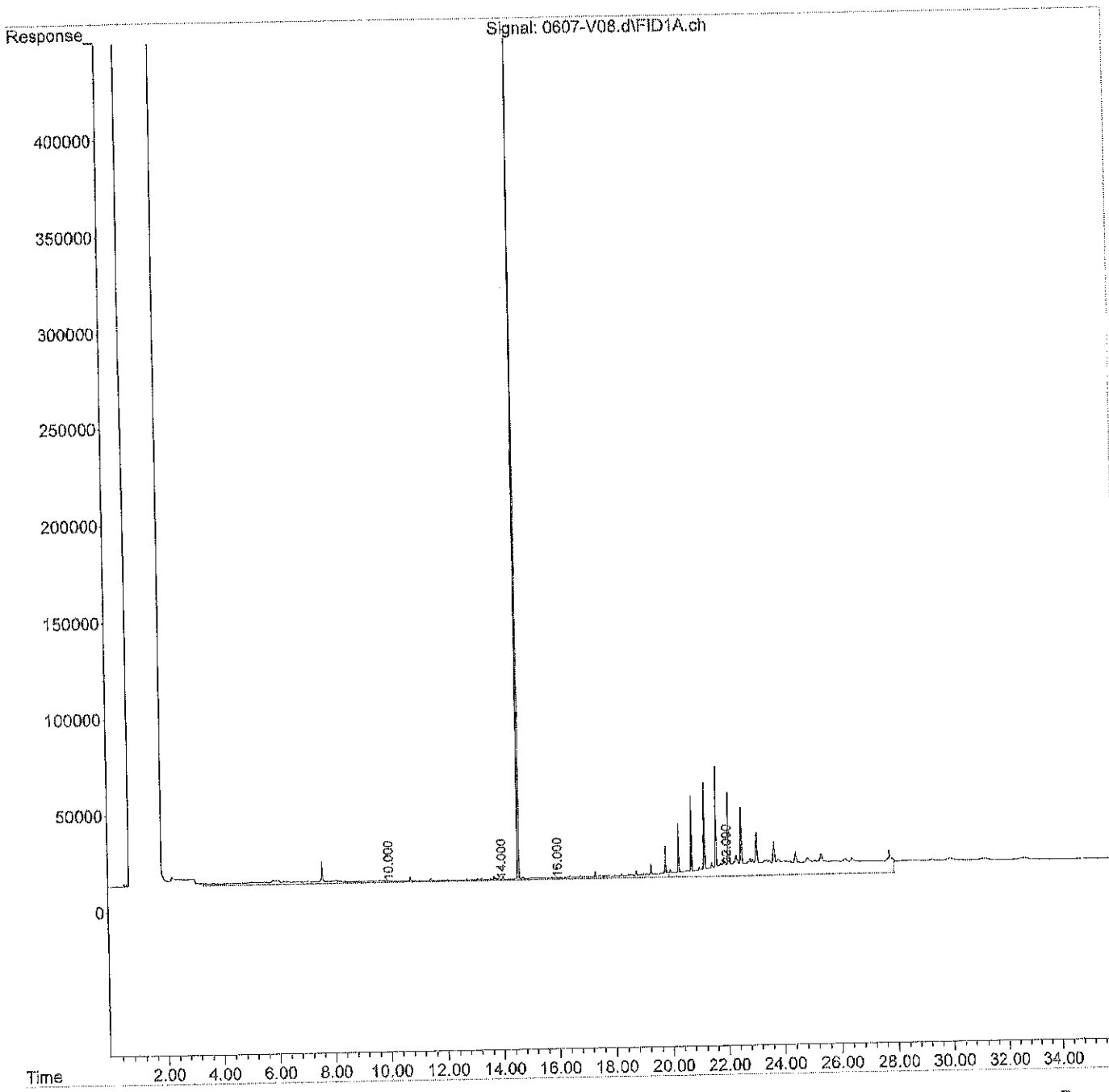
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.588	52731076	19.381 PPM
Spiked Amount	50.000		Recovery =	38.76%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2265067	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5081733	N.D. PPM
5) H	Diesel Fuel #2 (06-...	14.000	4905010	0.628 PPM
6) H	Oil (06-07-18)	22.000	32732210	6.404 PPM
7) H	Oil Acid Clean (06-12...	22.000	32732210	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4219849	0.672 PPM
9) H	Oil Combo (06-07-18)	22.000	32242464	6.394 PPM
10) H	Oil Acid Clean Combo ...	22.000	32242464	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	5118955	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	16586145	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	4326333	2.013 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	39478225	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	39478225	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	39423416	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	2320552	2.059 PPM
18) H	Oil Acid Clean MO Com...	22.000	31663541	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	31663541	6.389 PPM

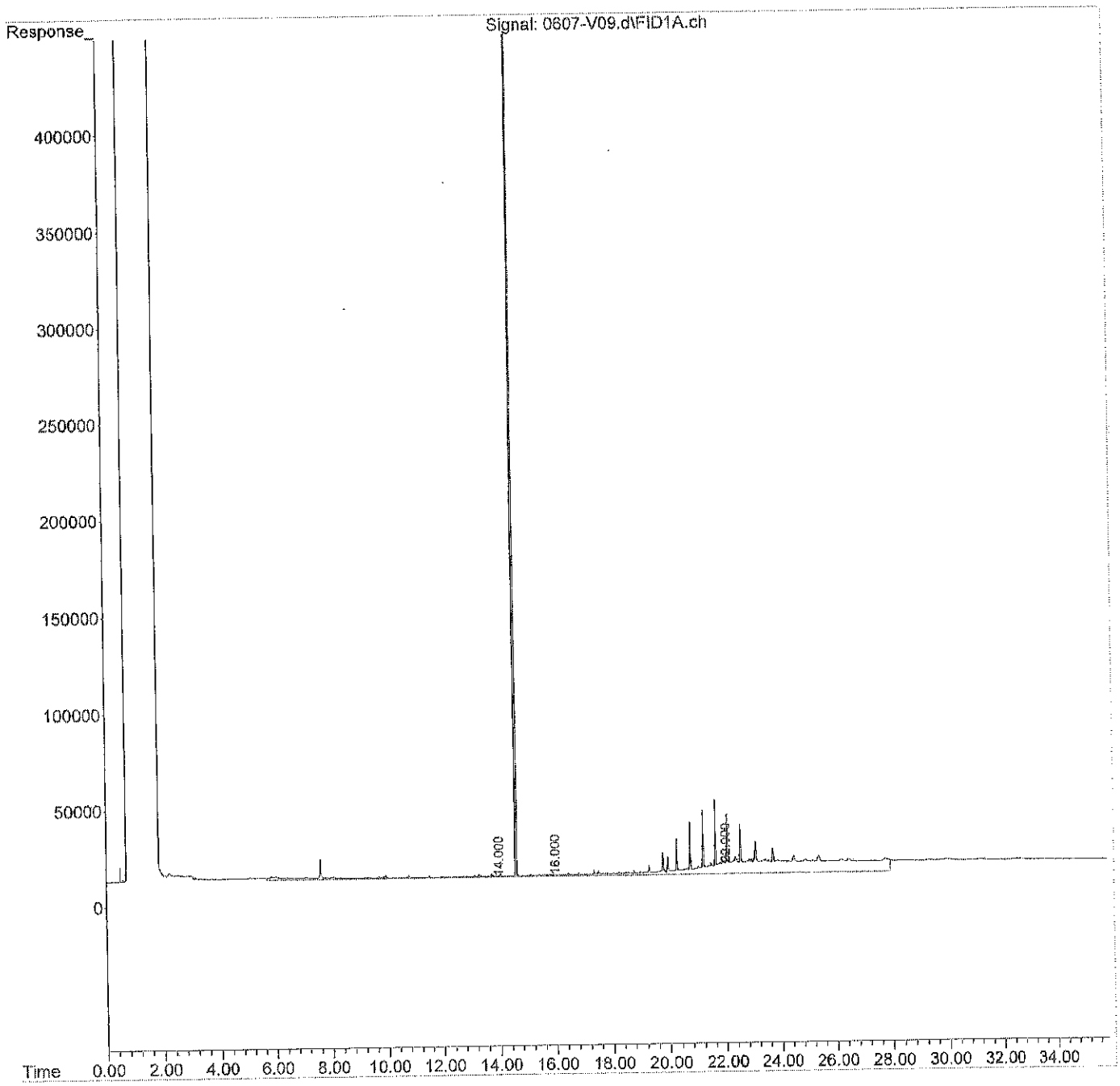
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.595	111281742	40.306 PPM
Spiked Amount	50.000		Recovery =	80.61%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2340566	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4714319	N.D. PPM
5) H	Diesel Fuel #2 (06-...	14.000	4271422	0.360 PPM
6) H	Oil (06-07-18)	22.000	31921729	5.952 PPM
7) H	Oil Acid Clean (06-12...	22.000	31921729	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	3720497	0.456 PPM
9) H	Oil Combo (06-07-18)	22.000	31518020	5.984 PPM
10) H	Oil Acid Clean Combo ...	22.000	31518020	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	4457580	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	16644658	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	3770307	1.795 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	38132311	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	38132311	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	38147075	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	1868960	1.875 PPM
18) H	Oil Acid Clean MO Com...	22.000	31056856	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	31056856	6.036 PPM

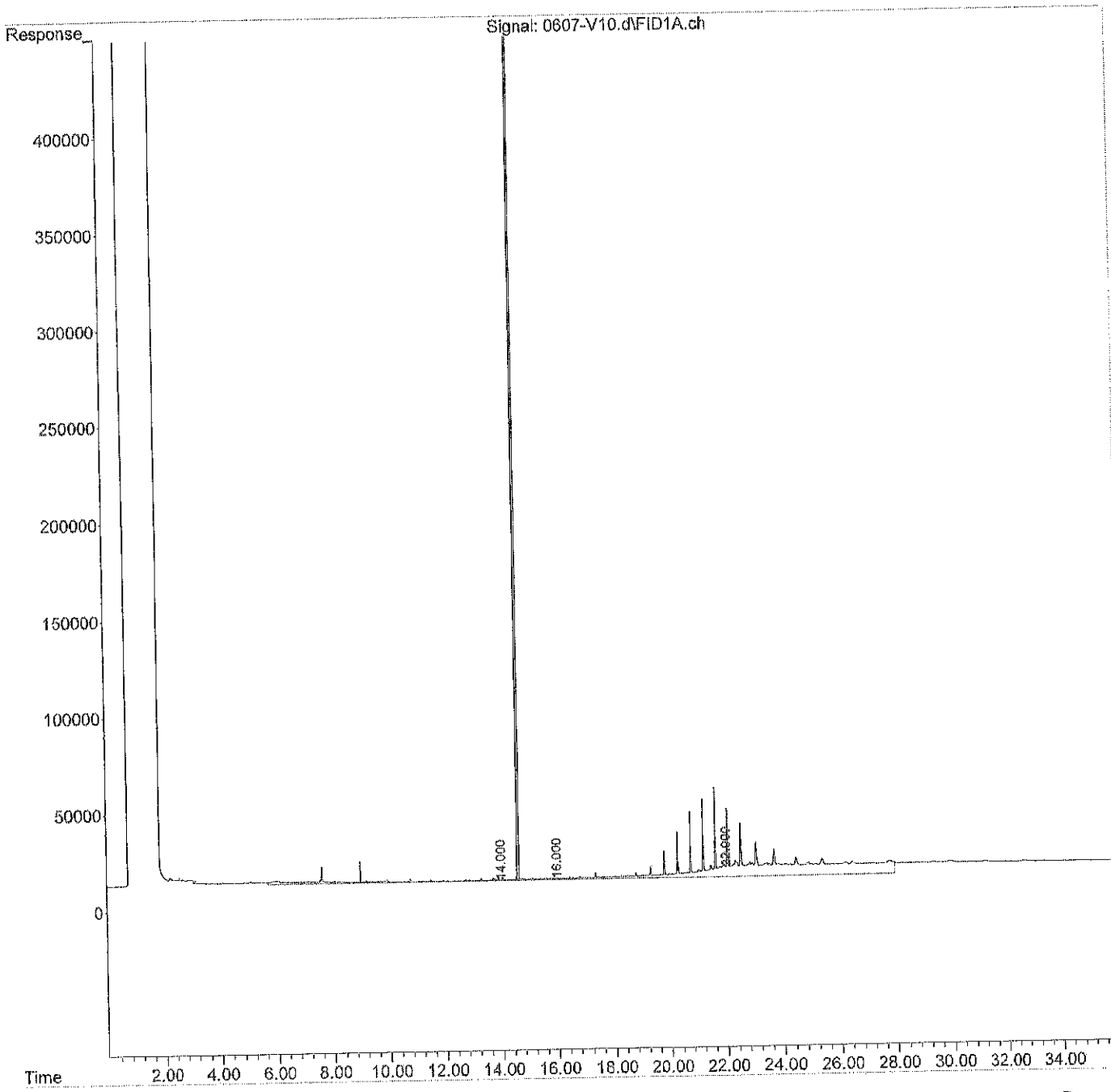
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (06-07-18)	14.608	225533892	81.138 PPM
Spiked Amount	50.000		Recovery =	162.28%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2825914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7127070	0.603 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6794365	1.426 PPM
6) H	Oil (06-07-18)	22.000	35914188	8.177 PPM
7) H	Oil Acid Clean (06-12...	22.000	35914188	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6032453	1.453 PPM
9) H	Oil Combo (06-07-18)	22.000	35297875	8.123 PPM
10) H	Oil Acid Clean Combo ...	22.000	35297875	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	7031240	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	19426371	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5449526	2.454 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	44200935	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	44200935	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	44502128	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3154382	2.400 PPM
18) H	Oil Acid Clean MO Com...	22.000	34654159	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	34654159	8.130 PPM

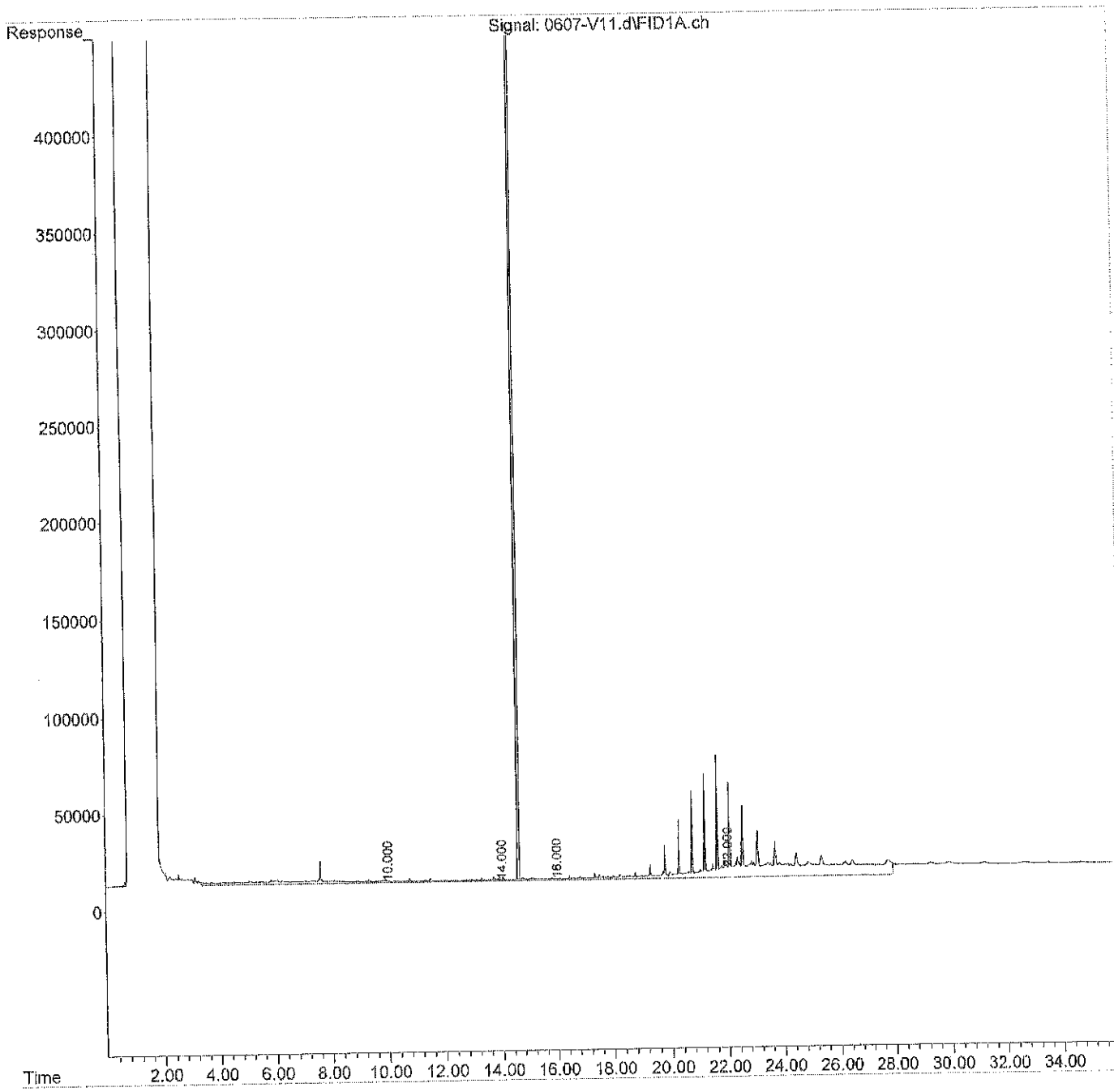
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

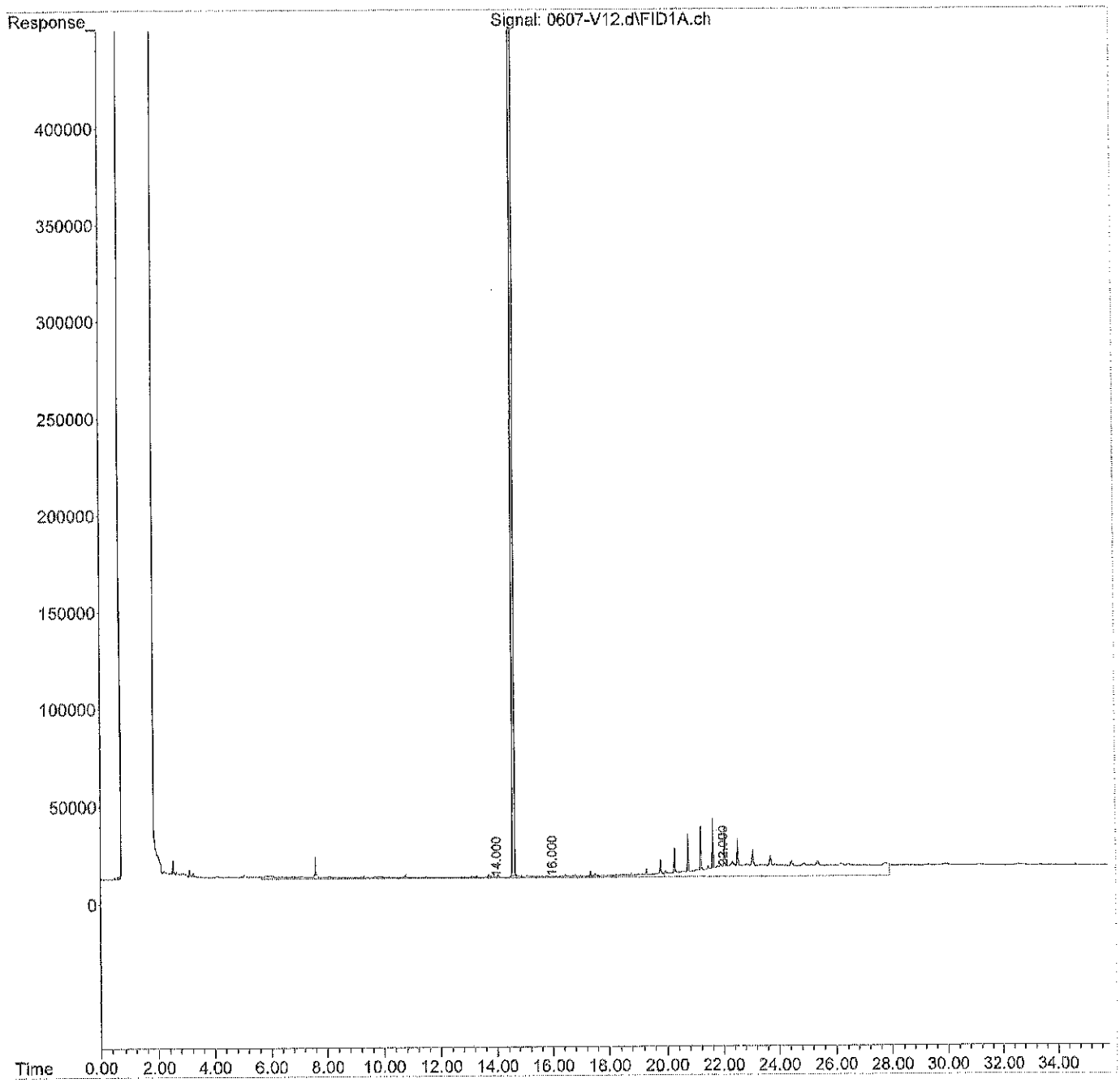
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.633	554114616	198.568	PPM
Spiked Amount	50.000		Recovery =	397.14%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	2480847	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5332885	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	4955156	0.649	PPM
6) H	Oil (06-07-18)	22.000	29536918	4.623	PPM
7) H	Oil Acid Clean (06-12...	22.000	29536918	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4340875	0.724	PPM
9) H	Oil Combo (06-07-18)	22.000	29073821	4.600	PPM
10) H	Oil Acid Clean Combo ...	22.000	29073821	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	5149935	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14577866	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	4166131	1.950	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	36280871	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	36280871	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	36345279	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2350636	2.072	PPM
18) H	Oil Acid Clean MO Com...	22.000	28553677	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28553677	4.579	PPM

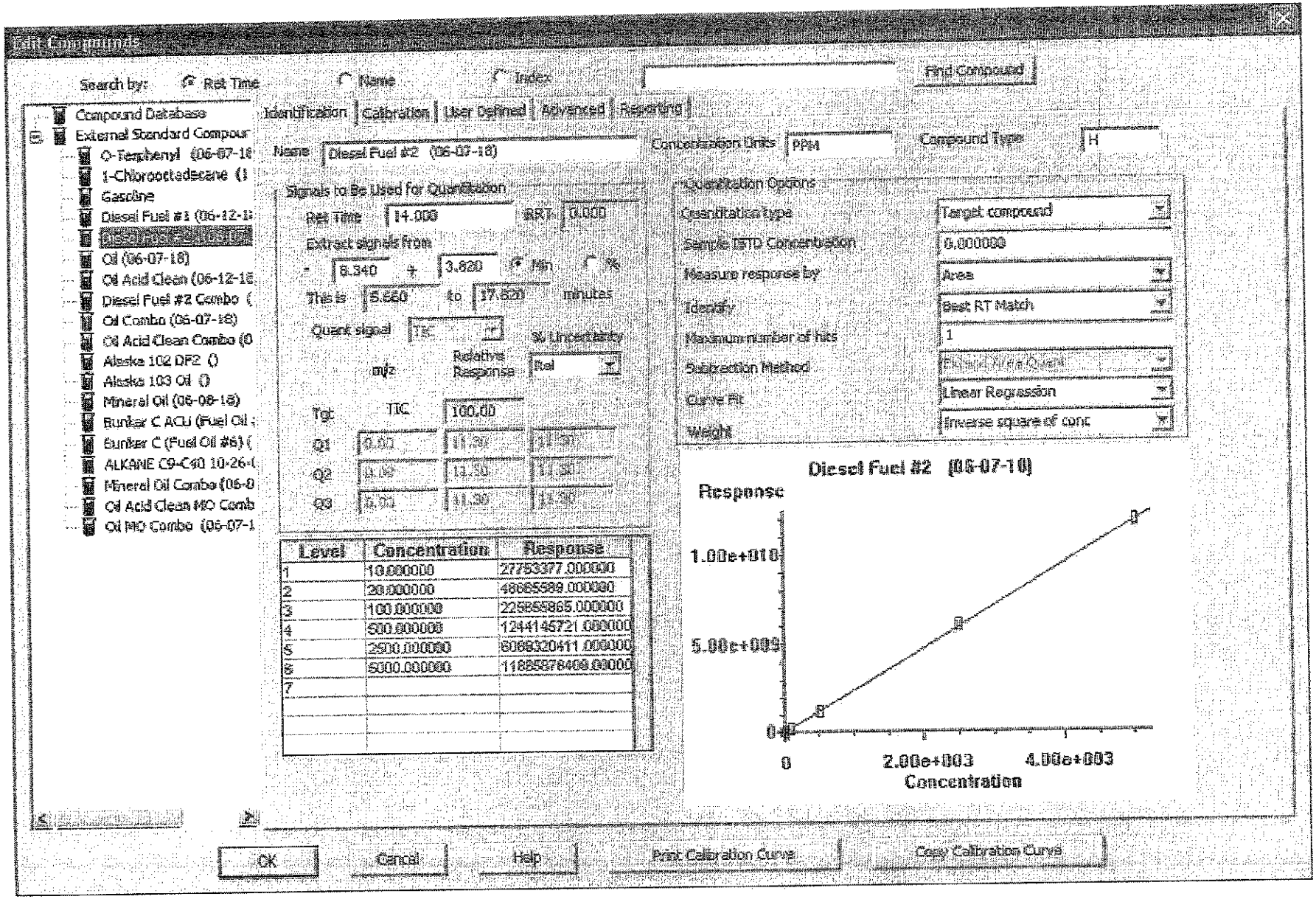
(f)=RT Delta > 1/2 Window (m)=manual int.

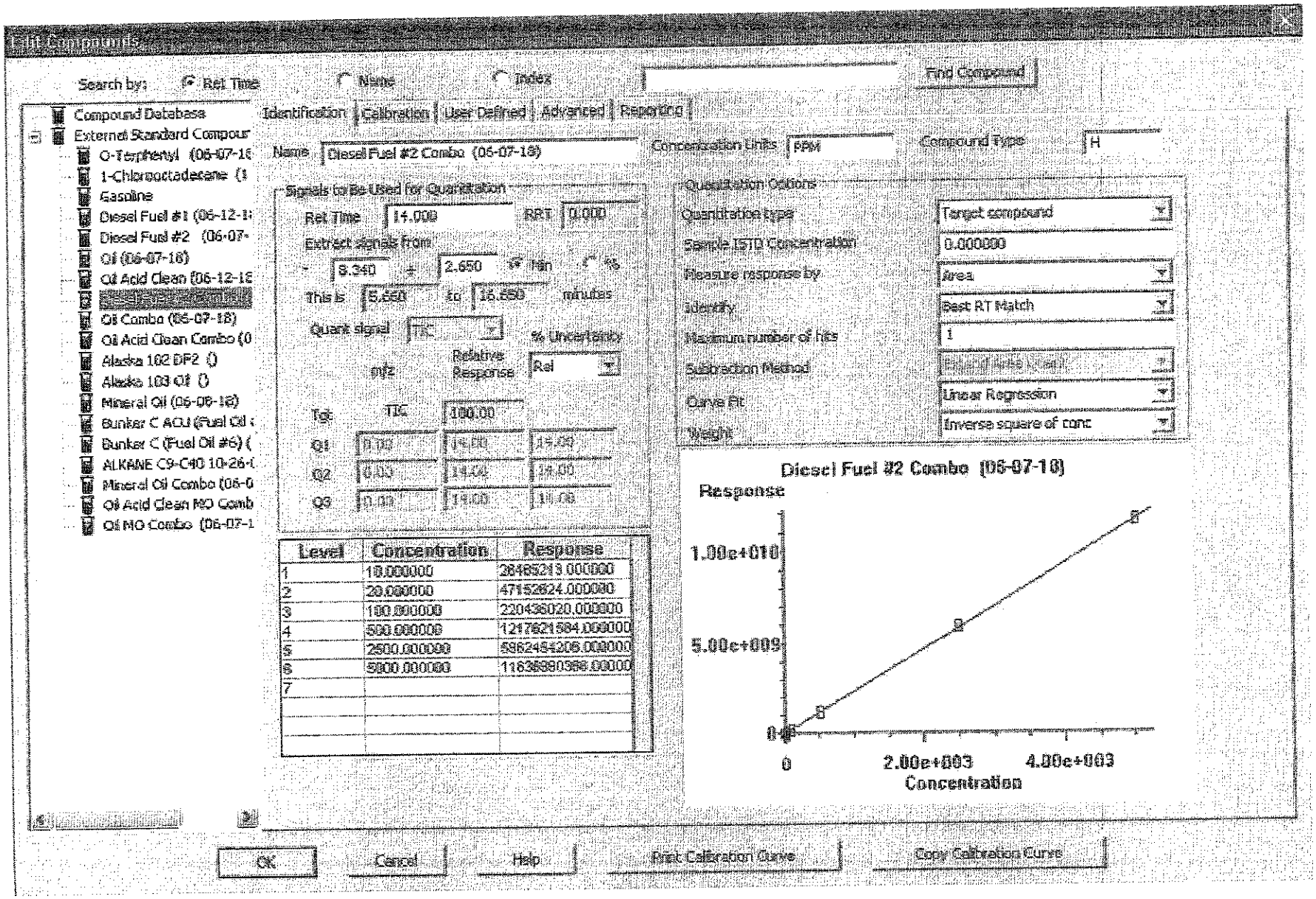
Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-18)
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
14.000
dRT
0.000
Extract signals from
8.340
3.820
Min
%
This is
5.660
to
17.820
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Diesel Fuel #2 (06-07-18)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
Level
Concentration
Response
1
10.000000
27753377.000000
2
20.000000
48665599.000000
3
100.000000
225855865.000000
4
500.000000
1244145721.000000
5
2900.000000
6068320411.000000
6
5000.000000
11885578409.000000
7
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by: Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 Combo (06-07-18)
Concentration Units
PPM
Compound Type
Signals to Be Used for Quantitation
Ret Time
14.000
RRT
Extract signals from
8.340
2.650
Min
%
This is
5.650
to
16.650
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Diesel Fuel #2 Combo (06-07-18)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
Level
Concentration
Response
1
10.000000
28485213.000000
2
20.000000
47152824.000000
3
100.000000
220436020.000000
4
500.000000
1217621584.000000
5
2500.000000
5862454206.000000
6
5800.000000
11636880388.000000
7
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.579	1768524	1.168 PPM
Spiked Amount	50.000		Recovery =	2.34%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	4133777	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	27269128	8.498 PPM
5) H	Diesel Fuel #2 (06-...	14.000	27753377	10.275 PPM
6) H	Oil (06-07-18)	22.000	31915458	5.949 PPM
7) H	Oil Acid Clean (06-12...	22.000	31915458	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	26465213	10.258 PPM
9) H	Oil Combo (06-07-18)	22.000	30005900	5.128 PPM
10) H	Oil Acid Clean Combo ...	22.000	30005900	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	28080594	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	14809319	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	19317557	7.893 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	59083420	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	59083420	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	60452306	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	17051878	8.078 PPM
18) H	Oil Acid Clean MO Com...	22.000	28888187	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	28888187	4.774 PPM

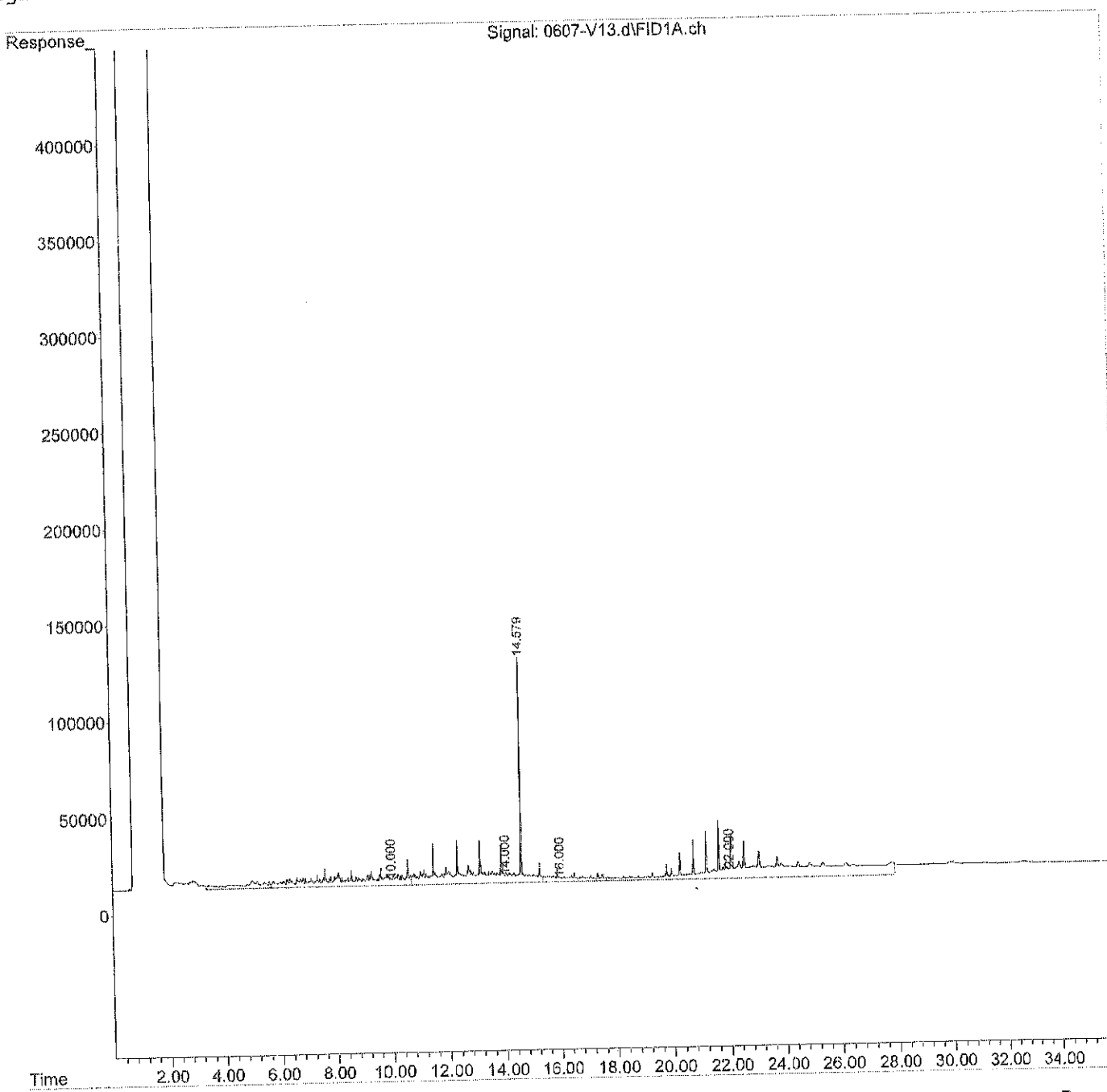
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5646580	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	48040088	16.641	PPM
5) H	Diesel Fuel #2 (06-...	14.000	48665589	19.104	PPM
6) H	Oil (06-07-18)	22.000	33762580	6.978	PPM
7) H	Oil Acid Clean (06-12...	22.000	33762580	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	47152624	19.173	PPM
9) H	Oil Combo (06-07-18)	22.000	30844064	5.602	PPM
10) H	Oil Acid Clean Combo ...	22.000	30844064	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	48992912	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15851618	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	32931233	13.233	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	80349703	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	80349703	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	82875651	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	30717015	13.662	PPM
18) H	Oil Acid Clean MO Com...	22.000	29519570	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	29519570	5.141	PPM

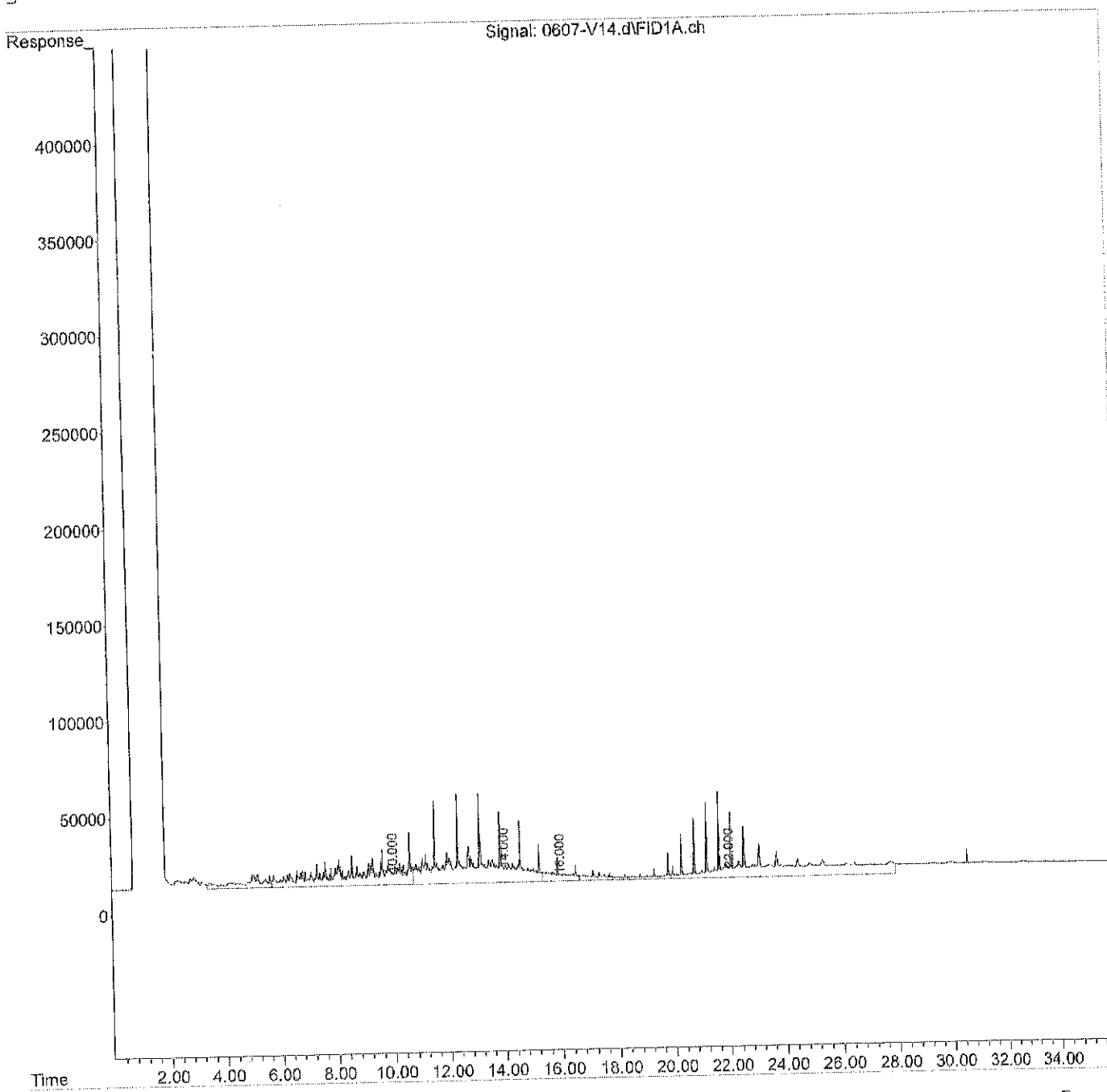
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.568	1827597	1.189	PPM
Spiked Amount		50.000		Recovery =	2.38%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	20974403	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	222453979	85.011	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	225655865	93.833	PPM
6)	H	Oil (06-07-18)	22.000	47759430	14.778	PPM
7)	H	Oil Acid Clean (06-12...	22.000	47759430	0.079	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	220436020	93.845	PPM
9)	H	Oil Combo (06-07-18)	22.000	34923076	7.911	PPM
10)	H	Oil Acid Clean Combo ...	22.000	34923076	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	226627792	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	16006487	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	147049004	57.995	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	256196607	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	256196607	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	269640605	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	143067779	59.567	PPM
18)	H	Oil Acid Clean MO Com...	22.000	30286616	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	30286616	5.588	PPM

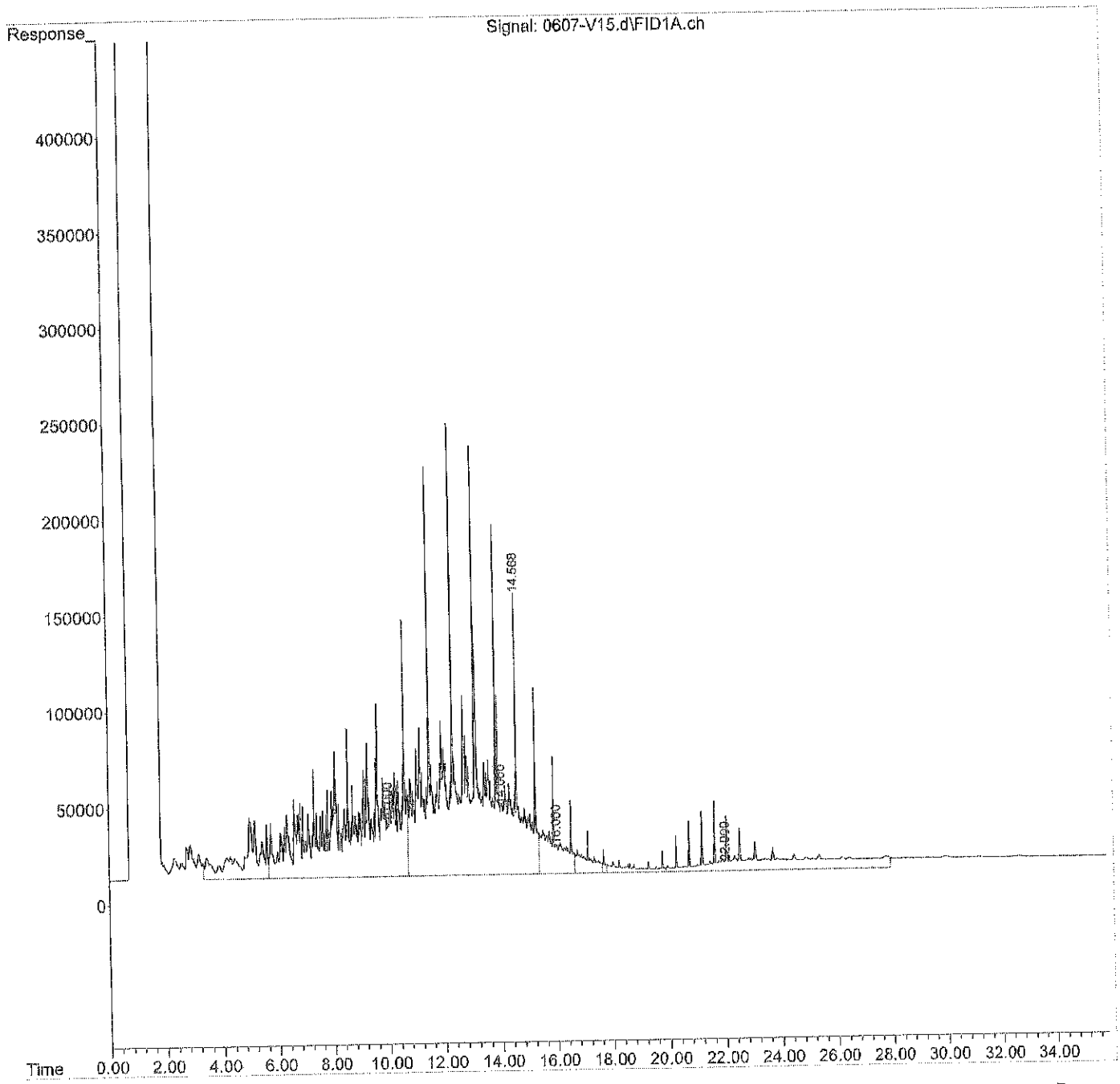
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.570	10094442	4.143	PPM
Spiked Amount	50.000		Recovery =	8.29%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.902	4101806	NoCal	PPM
3) H	Gasoline	3.500	107804991	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	1225065784	478.036	PPM
5) H	Diesel Fuel #2 (06-...	14.000	1244145721	523.861	PPM
6) H	Oil (06-07-18)	22.000	134868745	63.321	PPM
7) H	Oil Acid Clean (06-12...	22.000	134868745	36.856	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	1217621584	523.561	PPM
9) H	Oil Combo (06-07-18)	22.000	64913475	24.886	PPM
10) H	Oil Acid Clean Combo ...	22.000	64913475	7.630	PPM
11) H	Alaska 102 DF2 ()	13.025	1248540939	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	22045480	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	806013642	316.466	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1274842144	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1274842144	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1350137154	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	792702049	324.999	PPM
18) H	Oil Acid Clean MO Com...	22.000	41221857	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	41221857	11.953	PPM

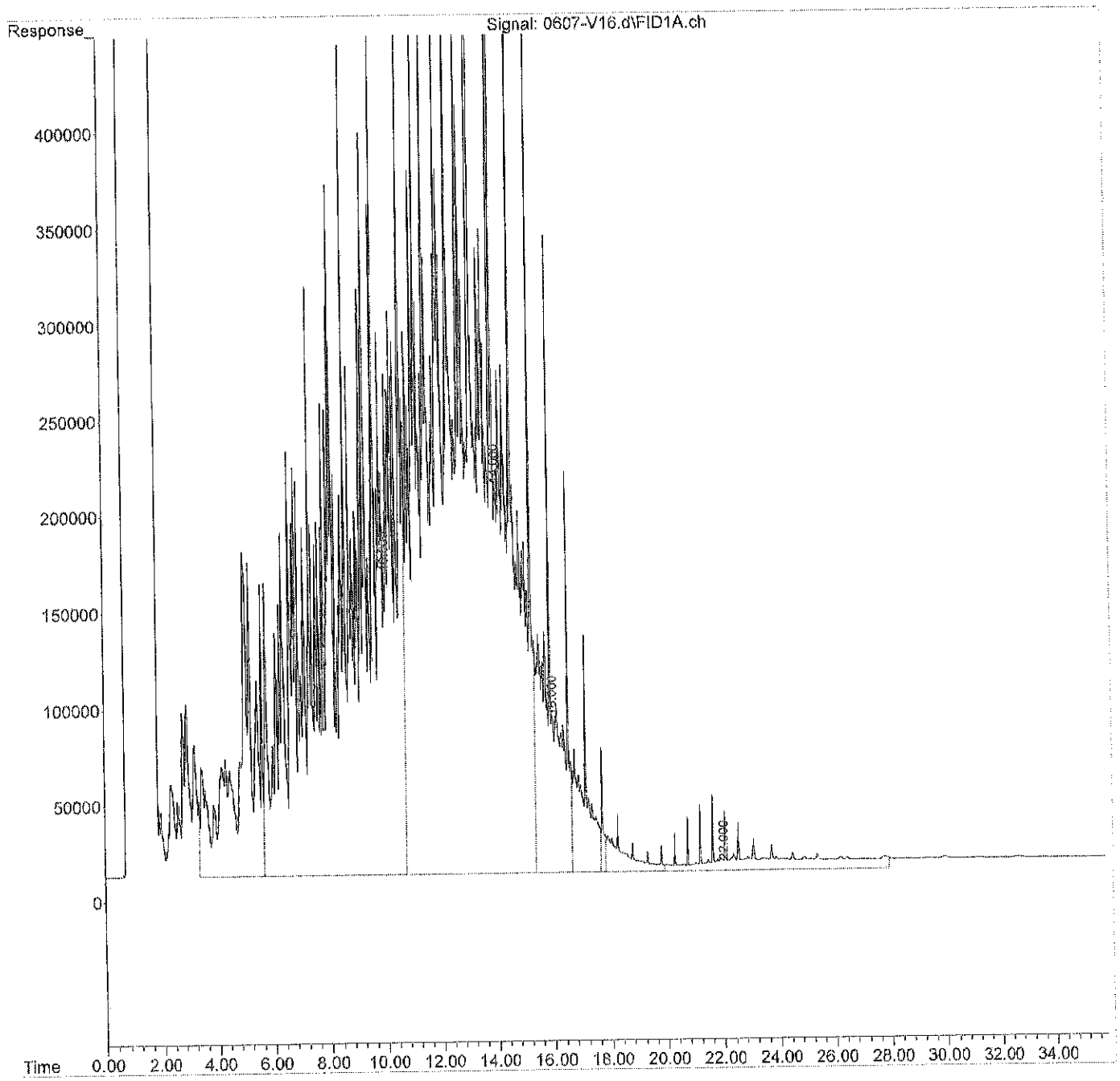
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.859	6943936	3.017	PPM
Spiked Amount	50.000		Recovery =	6.03%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.907	20022644	NoCal	PPM
3) H	Gasoline	3.500	514070408	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5991992203	2346.675	PPM
5) H	Diesel Fuel #2 (06-...	14.000	6089320411	2569.593	PPM
6) H	Oil (06-07-18)	22.000	546017303	292.438	PPM
7) H	Oil Acid Clean (06-12...	22.000	546017303	210.441	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5962454206	2568.245	PPM
9) H	Oil Combo (06-07-18)	22.000	205322242	104.356	PPM
10) H	Oil Acid Clean Combo ...	22.000	205322242	67.787	PPM
11) H	Alaska 102 DF2 ()	13.025	6110405818	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	49953834	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	3963830817	1555.086	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	6120193046	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	6120193046	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	6484678415	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	3906186074	1597.126	PPM
18) H	Oil Acid Clean MO Com...	22.000	91750432	19.770	PPM
19) H	Oil MO Combo (06-07-18)	22.000	91750432	41.364	PPM

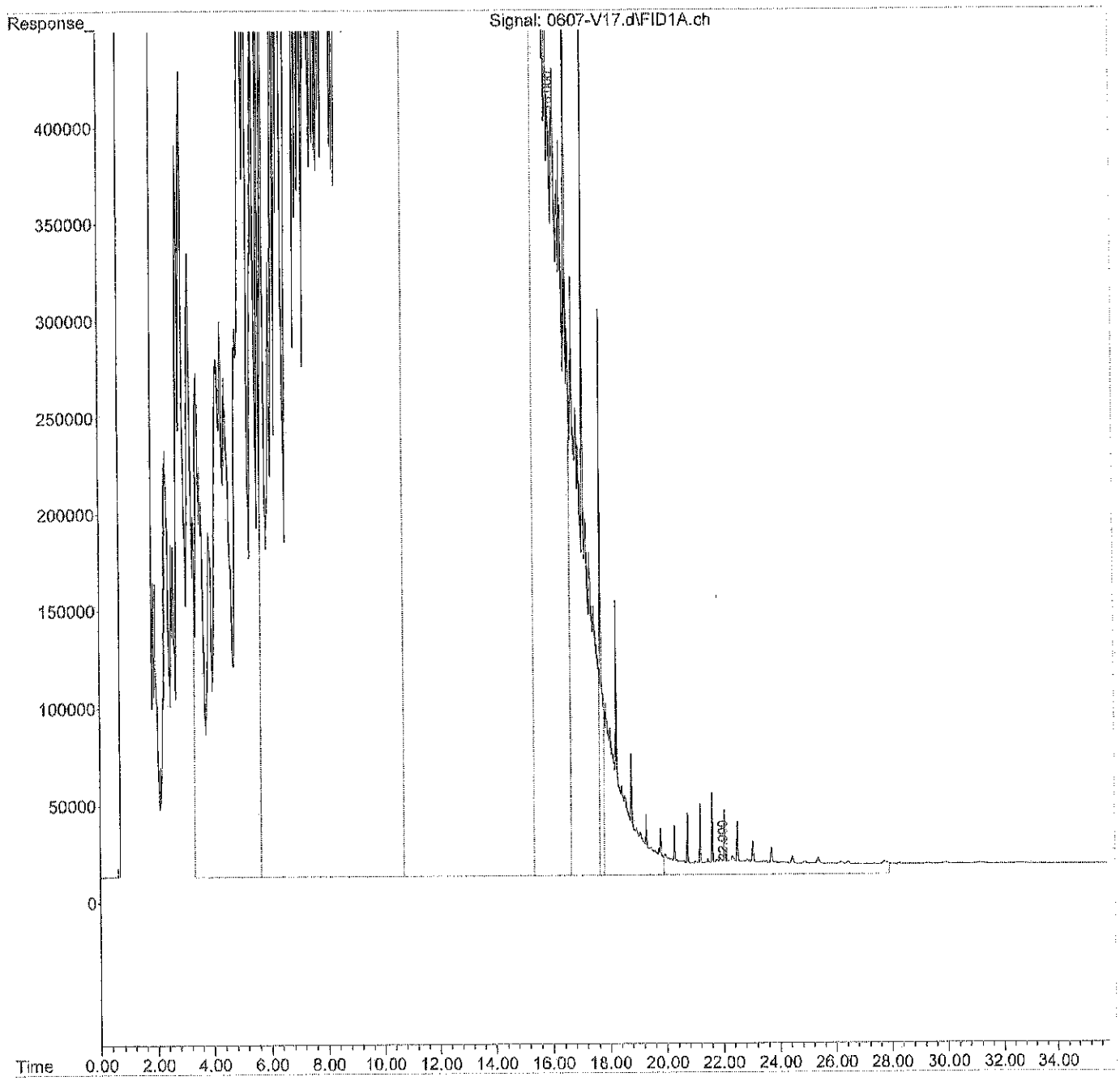
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.663	76998678	28.054	PPM
Spiked Amount	50.000		Recovery =	56.11%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.751	42430766	NoCal	PPM
3) H	Gasoline	3.500	998815431	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	11682128479	4577.214	PPM
5) H	Diesel Fuel #2 (06-...	14.000	11885878409	5017.019	PPM
6) H	Oil (06-07-18)	22.000	1050282128	573.445	PPM
7) H	Oil Acid Clean (06-12...	22.000	1050282128	423.340	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	11636990366	5013.565	PPM
9) H	Oil Combo (06-07-18)	22.000	375558313	200.709	PPM
10) H	Oil Acid Clean Combo ...	22.000	375558313	140.724	PPM
11) H	Alaska 102 DF2 ()	13.025	11928301203	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	83451915	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	7745644585	3038.462	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	11917323247	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	11917323247	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	12626887751	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	7634286594	3120.377	PPM
18) H	Oil Acid Clean MO Com...	22.000	152380955	46.447	PPM
19) H	Oil MO Combo (06-07-18)	22.000	152380955	76.656	PPM

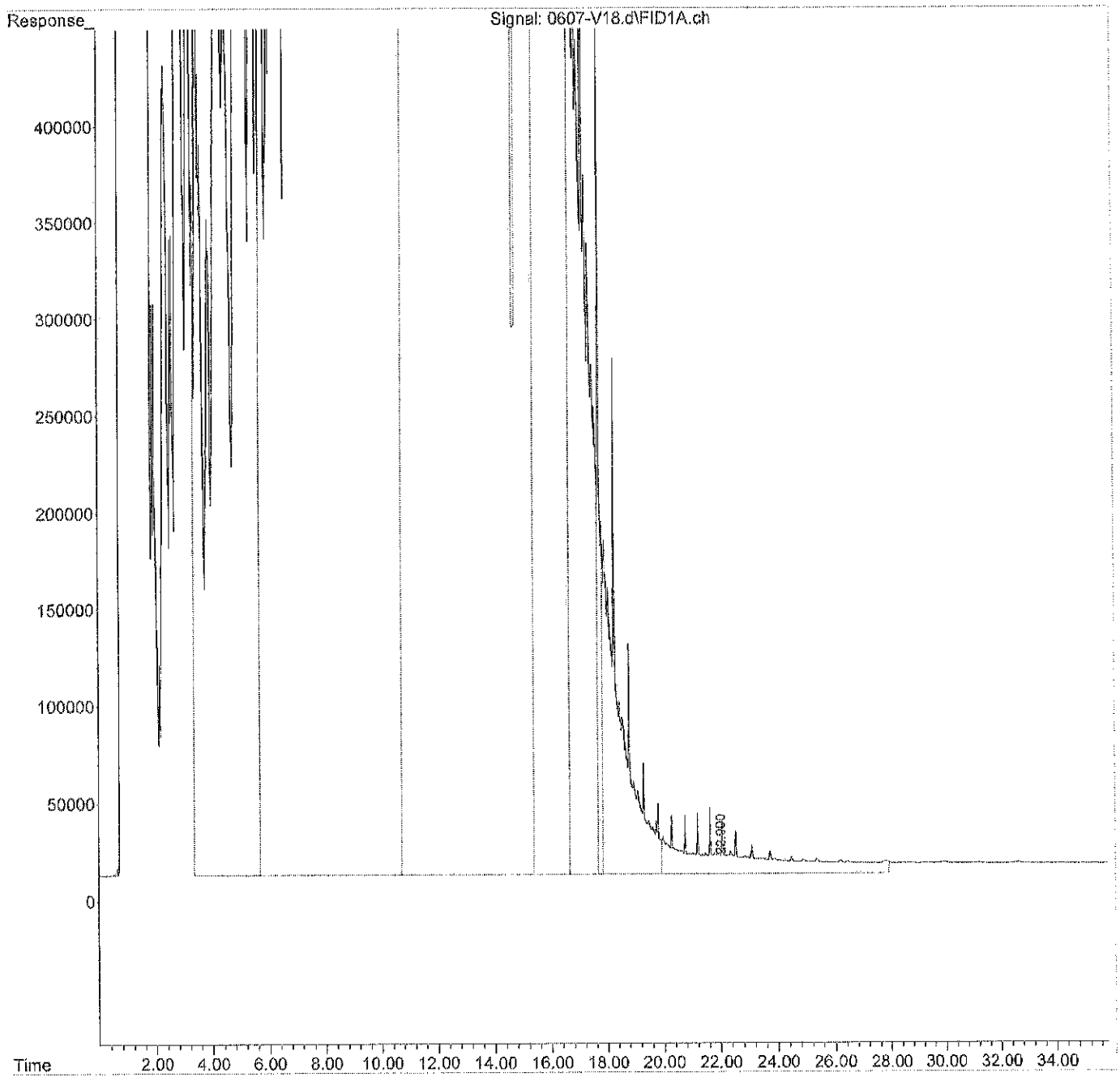
(f)=RT Delta > 1/2 Window (m)=manual int.

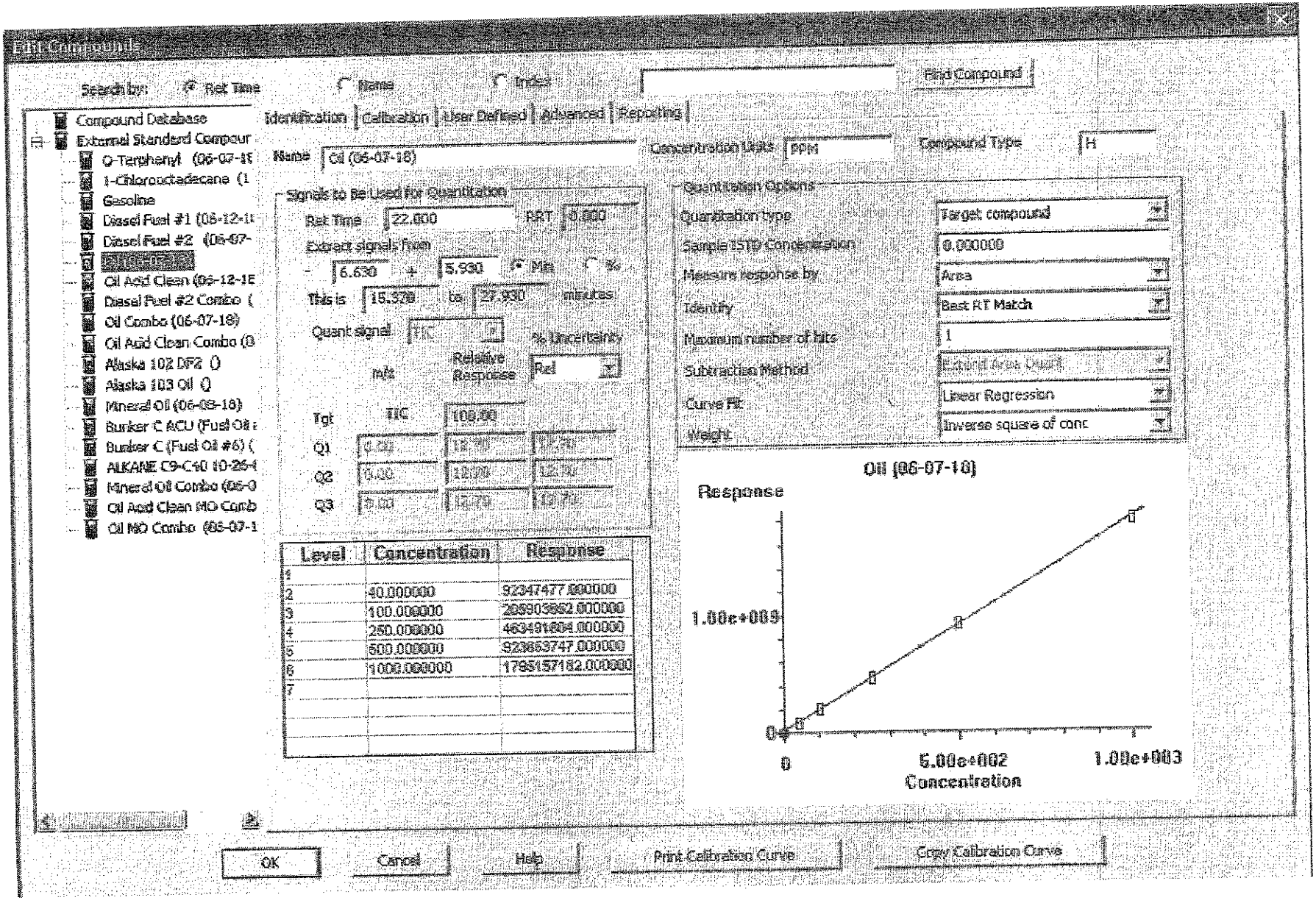
Quantitation Report (Not Reviewed)

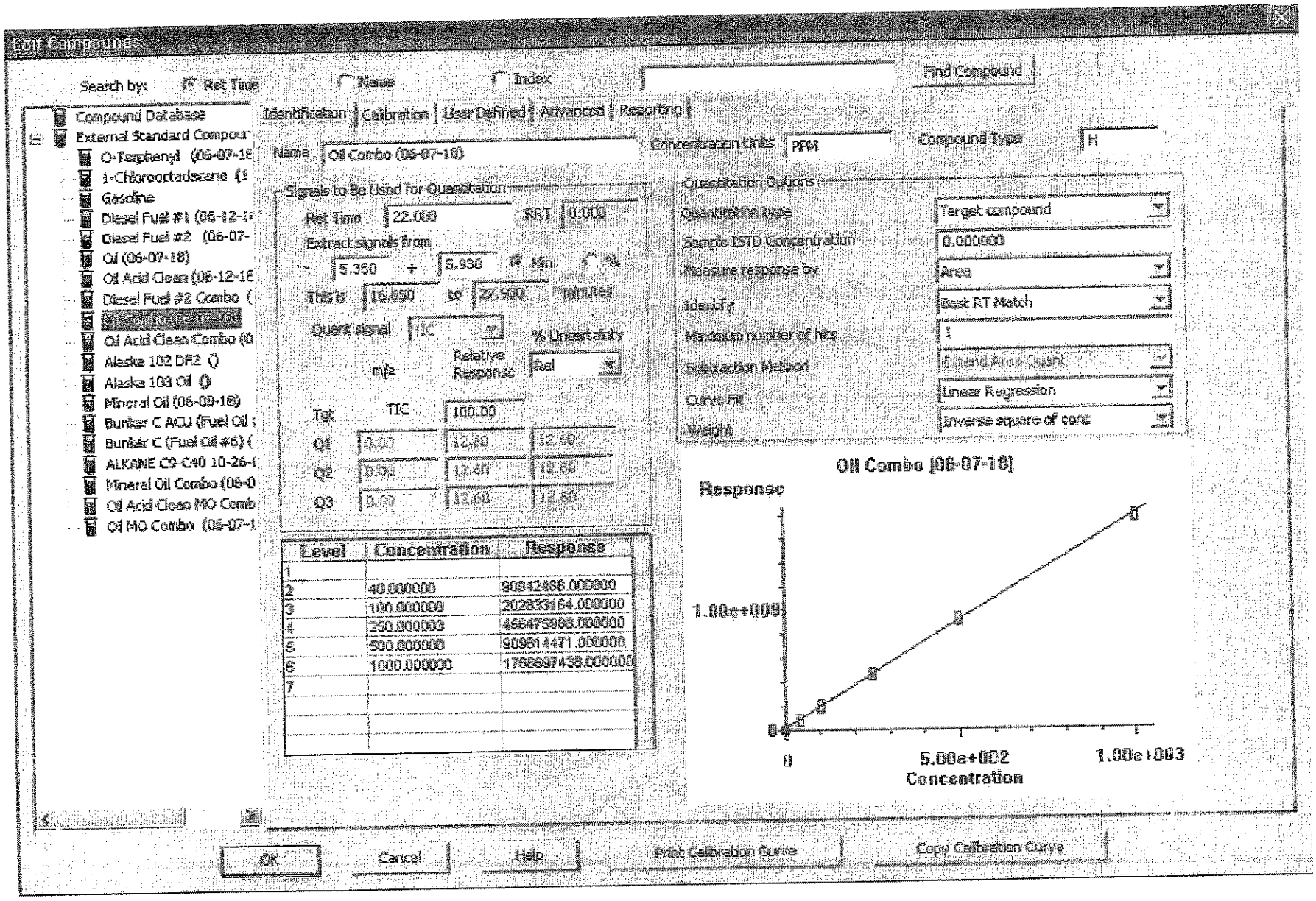
Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
Q-Terphenyl (06-07-1
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-1
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
22.000
RRT
0.000
Extract signals from
6.630
5.930
Min
%
This is
15.370
to
27.930
minutes
Quant signal
TIC
% Uncertainty
Mass
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
External Area Count
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
2
40.000000
9234747.000000
3
100.000000
20990362.000000
4
250.000000
46349184.000000
5
500.000000
92365374.000000
6
1000.000000
179515782.000000
7
Oil (06-07-18)
Response
1.00e+009
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-09-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil Combo (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
22.000
RRT
0.000
Extract signals from
5.350
5.950
Min
%
This is
16.650
to
27.930
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Abs
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Extraction method
External Area Quant
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
2
40.000000
90842468.000000
3
100.000000
202833164.000000
4
250.000000
456475988.000000
5
500.000000
909614471.000000
6
1000.000000
1756897438.000000
7
Oil Combo (06-07-18)
Response
1.00e+009
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1674771	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4349802	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	7464800	1.709	PPM
6) H	Oil (06-07-18)	22.000	92347477	39.625	PPM
7) H	Oil Acid Clean (06-12...	22.000	92347477	18.903	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4780848	0.913	PPM
9) H	Oil Combo (06-07-18)	22.000	90942488	39.618	PPM
10) H	Oil Acid Clean Combo ...	22.000	90942488	18.782	PPM
11) H	Alaska 102 DF2 ()	13.025	8451878	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	53467548	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	14998011	6.199	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	101163084	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	101163084	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	99848035	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	5450356	3.338	PPM
18) H	Oil Acid Clean MO Com...	22.000	88735126	18.443	PPM
19) H	Oil MO Combo (06-07-18)	22.000	88735126	39.609	PPM

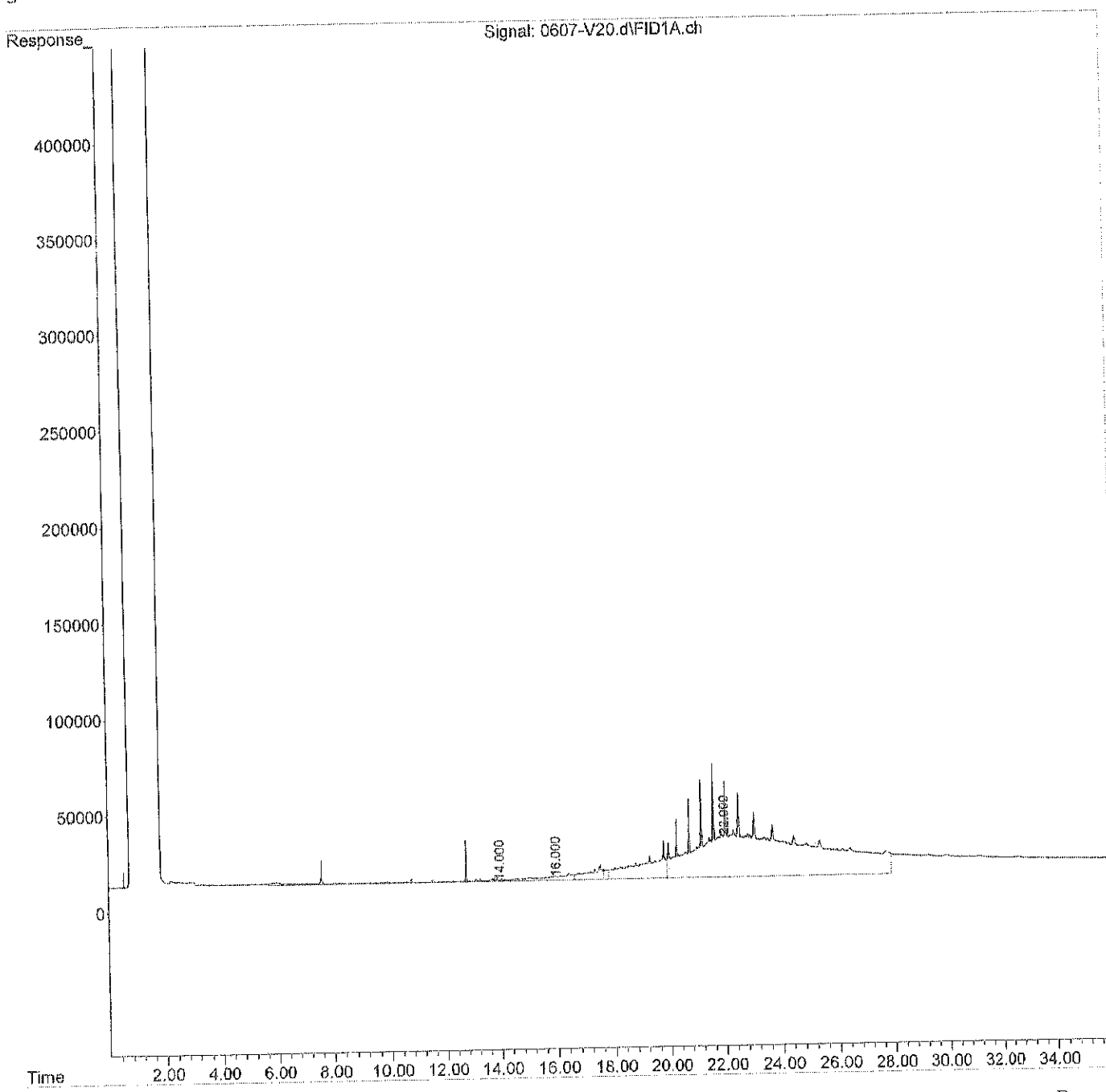
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1598184	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4418396	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	12922642	4.013	PPM
6) H	Oil (06-07-18)	22.000	205903852	102.906	PPM
7) H	Oil Acid Clean (06-12...	22.000	205903852	66.846	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6563765	1.682	PPM
9) H	Oil Combo (06-07-18)	22.000	202833164	102.947	PPM
10) H	Oil Acid Clean Combo ...	22.000	202833164	66.721	PPM
11) H	Alaska 102 DF2 ()	13.025	15328573	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	121718874	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	33706367	13.537	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	220233304	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	220233304	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	216825077	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	10255046	5.301	PPM
18) H	Oil Acid Clean MO Com...	22.000	197632815	66.358	PPM
19) H	Oil MO Combo (06-07-18)	22.000	197632815	102.996	PPM

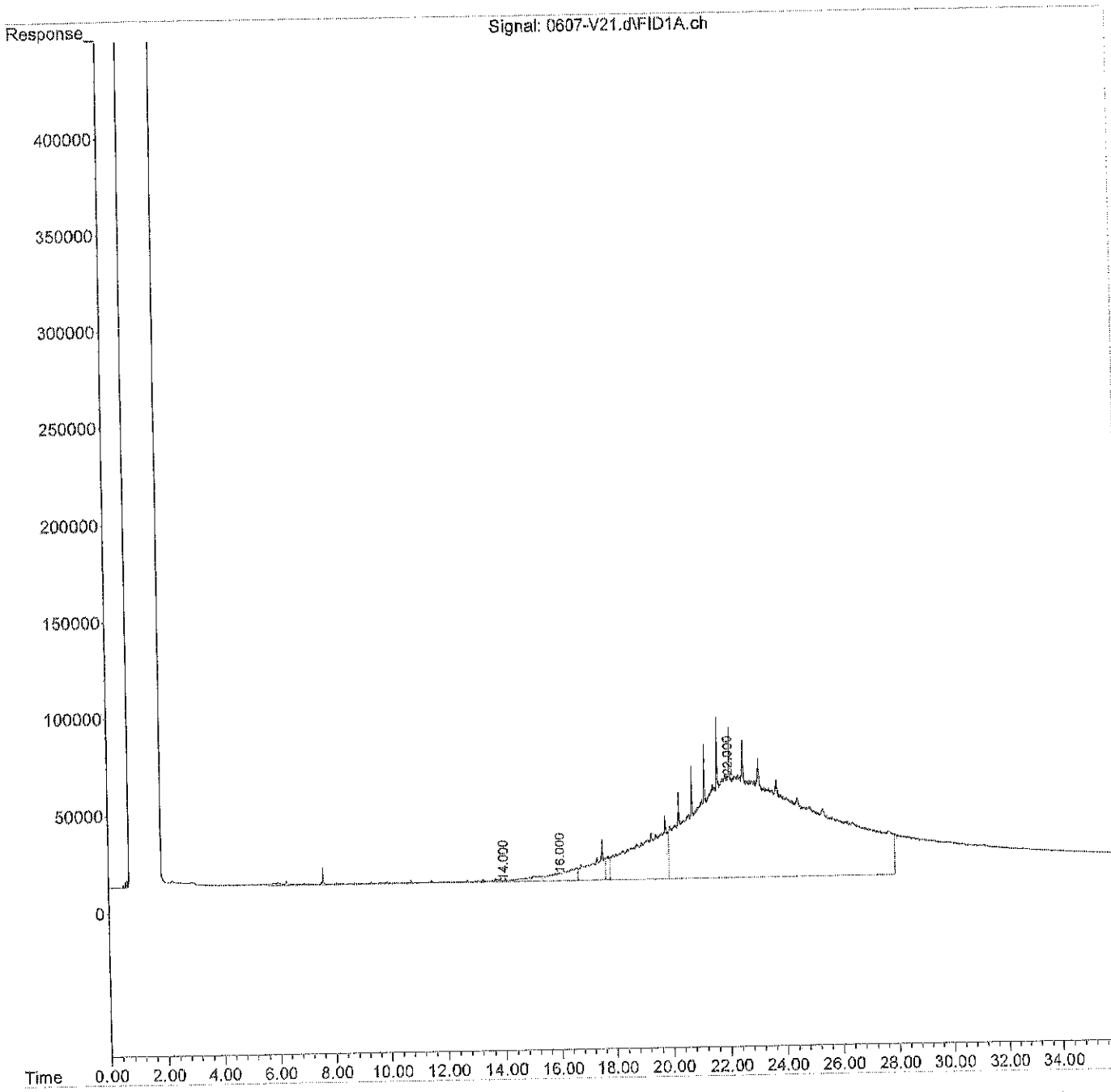
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1546027	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6218526	0.246	PPM
5) H	Diesel Fuel #2 (06-...	14.000	27255505	10.065	PPM
6) H	Oil (06-07-18)	22.000	463491604	246.449	PPM
7) H	Oil Acid Clean (06-12...	22.000	463491604	175.599	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	12350051	4.175	PPM
9) H	Oil Combo (06-07-18)	22.000	456475988	246.508	PPM
10) H	Oil Acid Clean Combo ...	22.000	456475988	175.392	PPM
11) H	Alaska 102 DF2 ()	13.025	32953847	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	276476057	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	77875662	30.862	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	491752125	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	491752125	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	483732259	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	22789674	10.423	PPM
18) H	Oil Acid Clean MO Com...	22.000	444309472	174.894	PPM
19) H	Oil MO Combo (06-07-18)	22.000	444309472	246.581	PPM

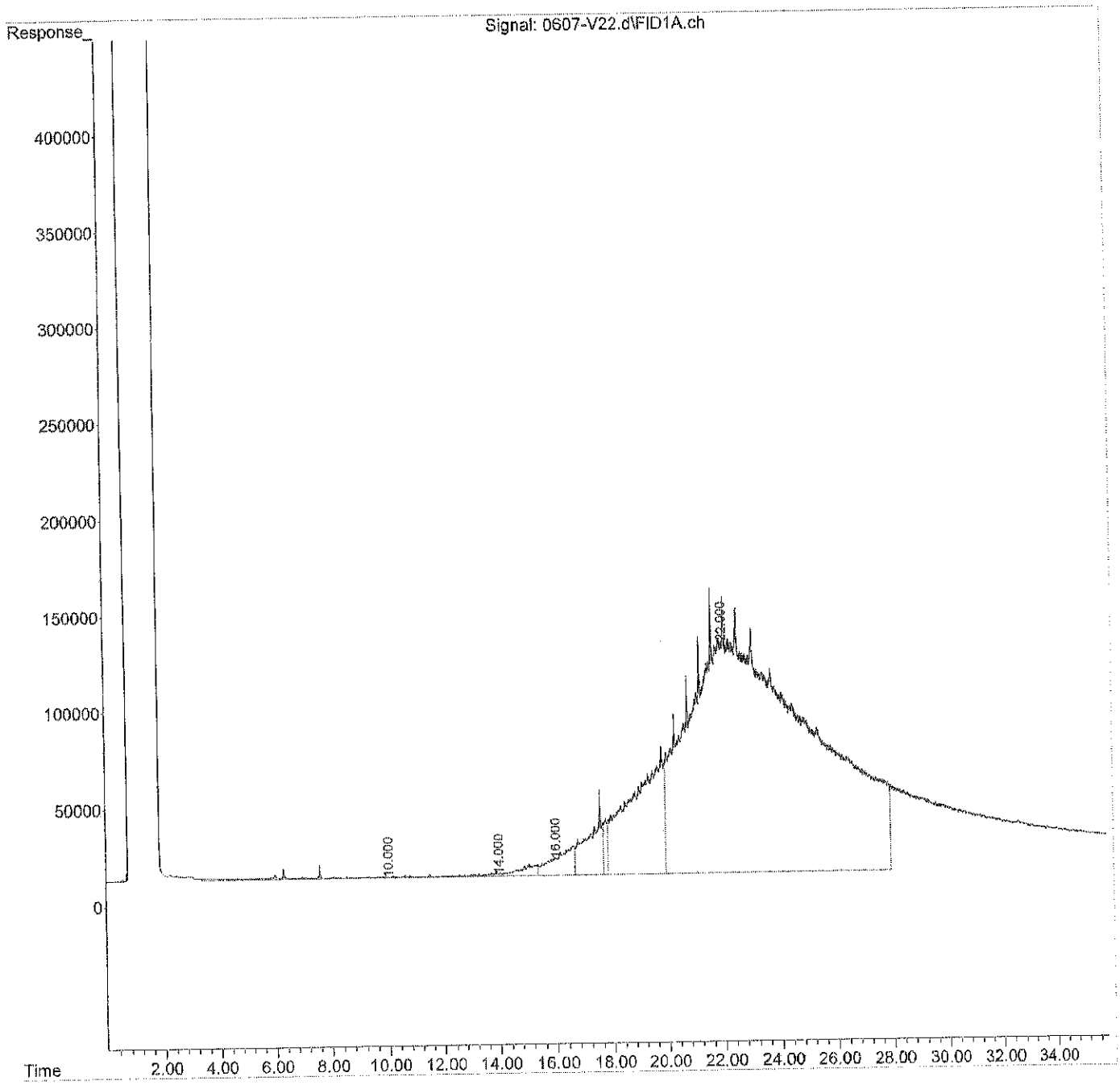
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1940705	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	10844457	2.060	PPM
5) H	Diesel Fuel #2 (06-...	14.000	54401051	21.526	PPM
6) H	Oil (06-07-18)	22.000	923853747	502.991	PPM
7) H	Oil Acid Clean (06-12...	22.000	923853747	369.962	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	23981577	9.188	PPM
9) H	Oil Combo (06-07-18)	22.000	909614471	502.982	PPM
10) H	Oil Acid Clean Combo ...	22.000	909614471	369.535	PPM
11) H	Alaska 102 DF2 ()	13.025	66004621	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	552071448	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	157156060	61.959	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	978412766	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	978412766	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	962198704	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	45999762	19.906	PPM
18) H	Oil Acid Clean MO Com...	22.000	884778027	368.698	PPM
19) H	Oil MO Combo (06-07-18)	22.000	884778027	502.968	PPM

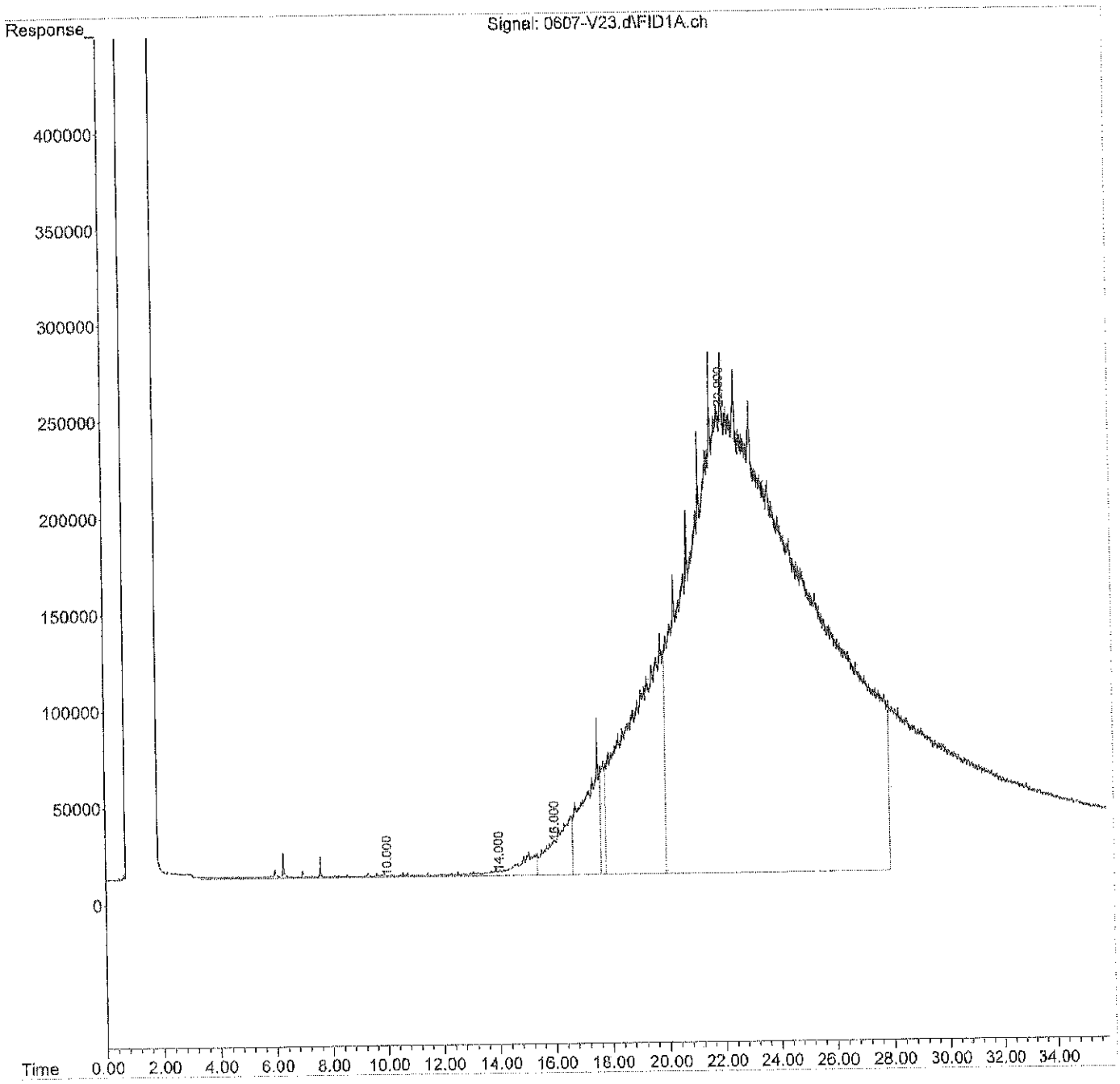
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1782145	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	17398055	4.629	PPM
5) H	Diesel Fuel #2 (06-...	14.000	105304585	43.019	PPM
6) H	Oil (06-07-18)	22.000	1795157182	988.534	PPM
7) H	Oil Acid Clean (06-12...	22.000	1795157182	737.823	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	44853790	18.182	PPM
9) H	Oil Combo (06-07-18)	22.000	1766697438	988.086	PPM
10) H	Oil Acid Clean Combo ...	22.000	1766697438	736.745	PPM
11) H	Alaska 102 DF2 ()	13.025	128211822	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	1072600956	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	308958277	121.502	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1897916566	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1897916566	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1865896028	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	90565974	38.115	PPM
18) H	Oil Acid Clean MO Com...	22.000	1717287209	734.997	PPM
19) H	Oil MO Combo (06-07-18)	22.000	1717287209	987.553	PPM

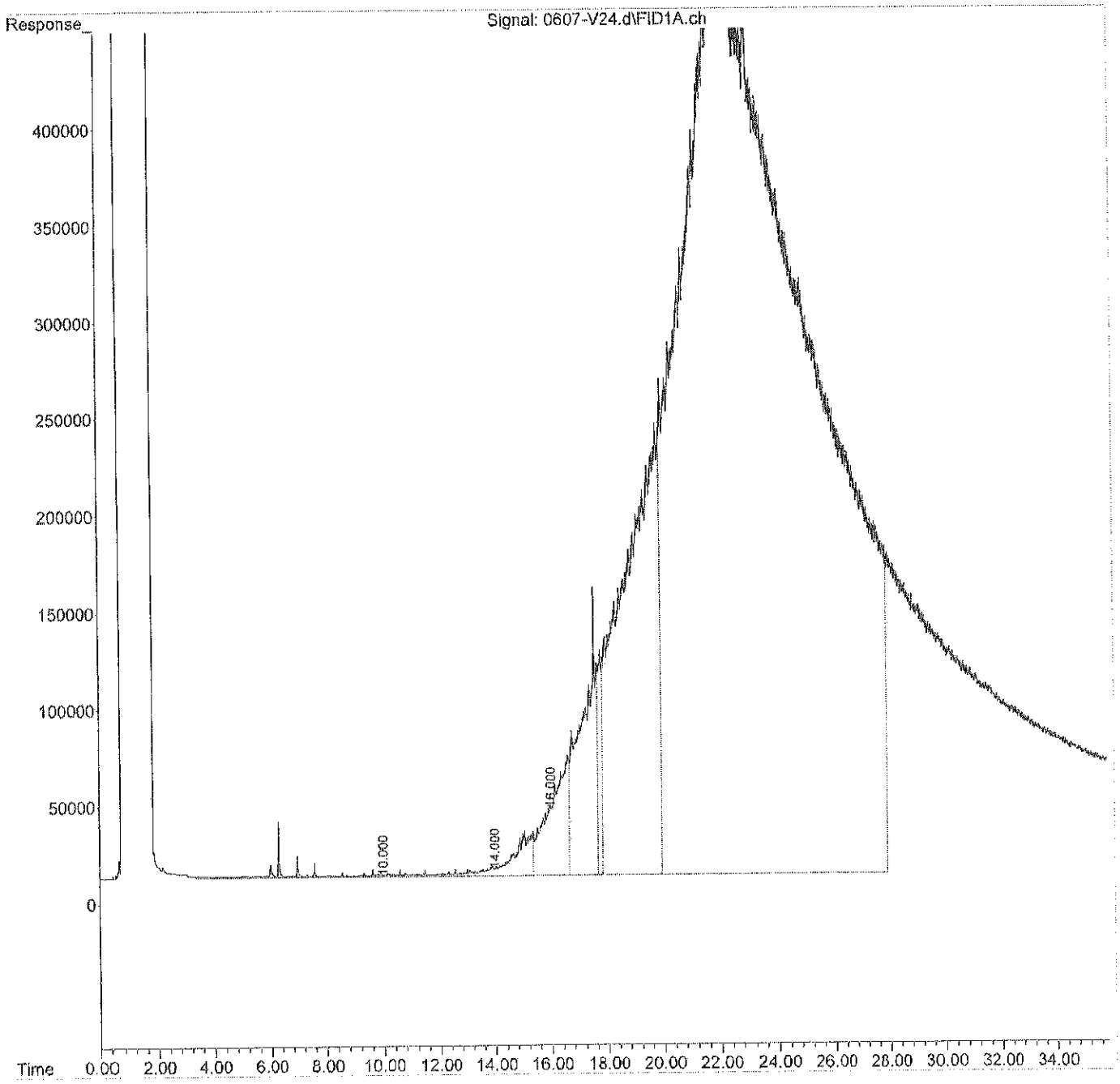
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.890	4592544	NoCal	PPM
3) H	Gasoline	3.500	23135296	NoCal	PPM
4) H	Diesel Fuel #1 (03-14...	10.000	228603455	NoCal	PPM
5) H	Diesel Fuel #2 (06-...	14.000	242935381	101.129	PPM
6) H	Oil (06-07-18)	22.000	57884255	20.420	PPM
7) H	Oil Acid Clean (03-13...	22.000	57884255	NoCal	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	236032700	100.566	PPM
9) H	Oil Combo (06-07-18)	22.000	34848739	7.869	PPM
10) H	Oil Acid Clean Combo ...	22.000	34848739	NoCal	PPM
11) H	Alaska 102 DF2 ()	13.025	244345227	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14426576	NoCal	PPM
13) H	Mineral Oil (06-01-18)	16.000	158574203	61.224	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271566231	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271566231	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	285842892	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153670430	61.811	PPM
18) H	Oil Acid Clean MO Com...	22.000	28691923	NoCal	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28691923	4.659	PPM

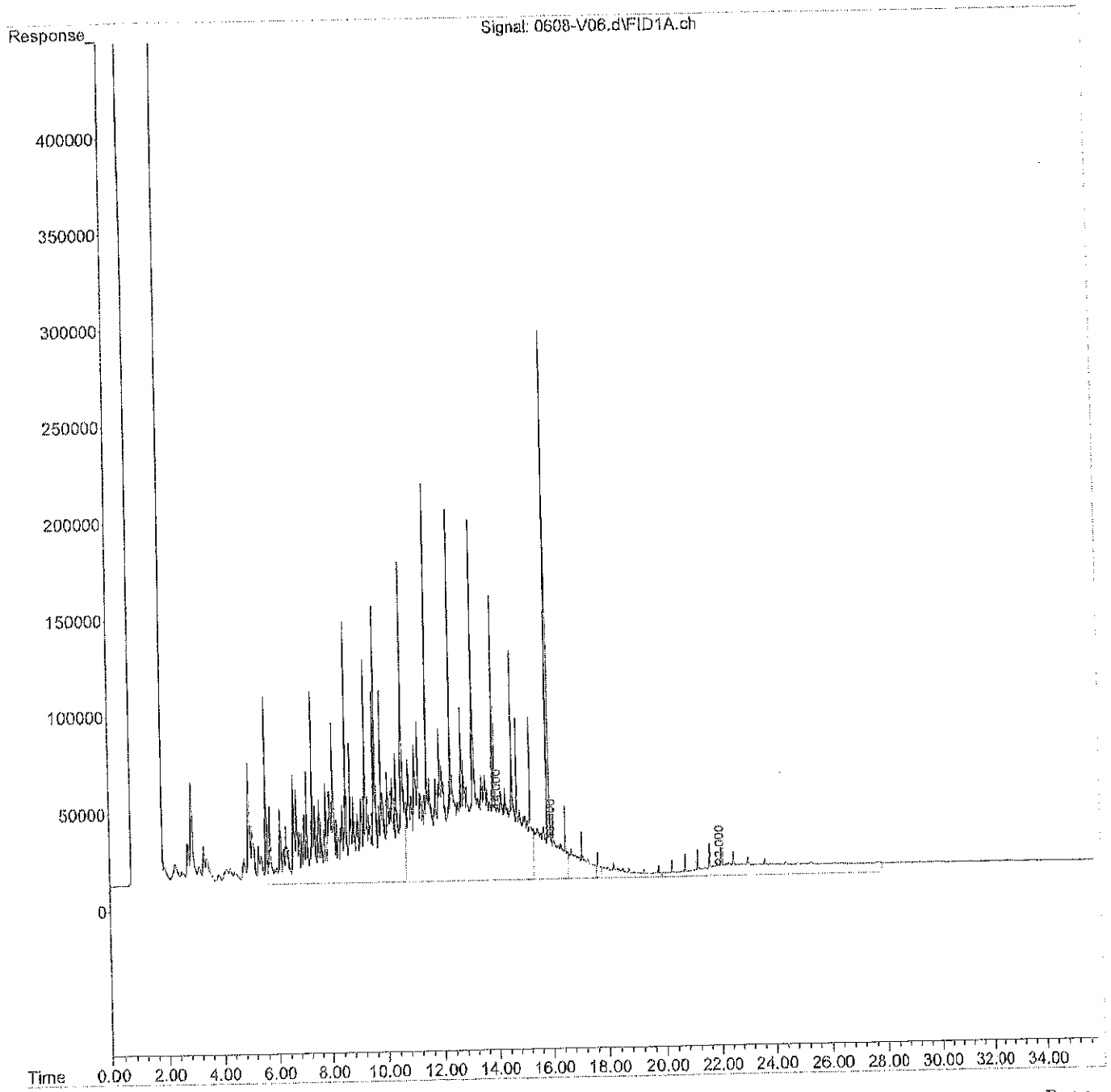
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Sequence Name: C:\msdchem\2\sequence\V180901.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180901\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info		
1)	Unlinked				
2)	RearSamp	51	0901-V51	V171204R	CCV0901R-V1
3)	Sample	1	0901-V01	V180601F	CCV0901F-V1
4)	RearSamp	52	0901-V52	V171204R	LOCCV0901R-V1
5)	Sample	2	0901-V02	V180601F	LOCCV0901F-V1
6)	RearSamp	53	0901-V53	V171204R	SPCCV0901R-V1
7)	Sample	3	0901-V03	V180601F	MB0831W1
8)	RearSamp	54	0901-V54	V171204R	MB0901W1
9)	Sample	4	0901-V04	V180601F	SB0831W1
10)	RearSamp	55	0901-V55	V171204R	SB0901W1
11)	Sample	5	0901-V05	V180601F	08-309-01
12)	RearSamp	56	0901-V56	V171204R	08-350-04
13)	Sample	6	0901-V06	V180601F	08-309-02
14)	RearSamp	57	0901-V57	V171204R	08-350-04 DUP
15)	Sample	7	0901-V07	V180601F	08-309-03
16)	RearSamp	58	0901-V58	V171204R	08-372-01
17)	Sample	8	0901-V08	V180601F	08-326-01
18)	RearSamp	59	0901-V59	V171204R	08-350-02
19)	Sample	9	0901-V09	V180601F	08-326-01 DUP
20)	RearSamp	60	0901-V60	V171204R	08-350-01
21)	Sample	10	0901-V10	V180601F	08-326-02
22)	RearSamp	61	0901-V61	V171204R	08-350-03
23)	Sample	11	0901-V11	V180601F	08-326-03
24)	RearSamp	62	0901-V62	V171204R	08-366-13
25)	Sample	12	0901-V12	V180601F	08-326-03 DUP
26)	RearSamp	63	0901-V63	V171204R	M
27)	Sample	13	0901-V13	V180601F	M
28)	RearSamp	64	0901-V64	V171204R	CCV0901R-V2
29)	Sample	14	0901-V14	V180601F	CCV0901F-V2
30)	RearSamp	65	0901-V65	V171204R	08-345-01
31)	Sample	15	0901-V15	V180601F	08-326-04
32)	RearSamp	66	0901-V66	V171204R	08-345-01 DUP
33)	Sample	16	0901-V16	V180601F	08-326-05
34)	RearSamp	67	0901-V67	V171204R	08-345-02
35)	Sample	17	0901-V17	V180601F	08-348-01
36)	RearSamp	68	0901-V68	V171204R	08-345-03
37)	Sample	18	0901-V18	V180601F	M
38)	RearSamp	69	0901-V69	V171204R	08-345-04
39)	Sample	19	0901-V19	V180601F	08-348-02
40)	RearSamp	70	0901-V70	V171204R	08-345-05
41)	Sample	20	0901-V20	V180601F	M
42)	RearSamp	71	0901-V71	V171204R	08-345-06
43)	Sample	21	0901-V21	V180601F	08-348-03

Sequence Name: C:\msdchem\2\sequence\V180901.s

	Line Type	Vial	DataFile	Method	Sample Name
44)	RearSamp	72	0901-V72	V171204R	M
45)	Sample	22	0901-V22	V180601F	M
46)	RearSamp	73	0901-V73	V171204R	CCV0901R-V3
47)	Sample	23	0901-V23	V180601F	CCV0901F-V3
48)	RearSamp	74	0901-V74	V171204R	08-383-03
49)	Sample	24	0901-V24	V180601F	08-348-04
50)	RearSamp	75	0901-V75	V171204R	08-383-02
51)	Sample	25	0901-V25	V180601F	M
52)	RearSamp	76	0901-V76	V171204R	08-383-01
53)	Sample	26	0901-V26	V180601F	08-348-05
54)	RearSamp	77	0901-V77	V171204R	M
55)	Sample	27	0901-V27	V180601F	M
56)	RearSamp	78	0901-V78	V171204R	M
57)	Sample	28	0901-V28	V180601F	M
58)	RearSamp	79	0901-V79	V171204R	CCV0901R-V4
59)	Sample	29	0901-V29	V180601F	CCV0901F-V4
60)	RearSamp	80	0901-V80	V171204R	
61)	Sample	30	0901-V30	V180601F	
62)	RearSamp	81	0901-V81	V171204R	
63)	Sample	31	0901-V31	V180601F	
64)	RearSamp	82	0901-V82	V171204R	
65)	Sample	32	0901-V32	V180601F	
66)	RearSamp	83	0901-V83	V171204R	
67)	Sample	33	0901-V33	V180601F	
68)	RearSamp	84	0901-V84	V171204R	
69)	Sample	34	0901-V34	V180601F	
70)	RearSamp	85	0901-V85	V171204R	
71)	Sample	35	0901-V35	V180601F	
72)	RearSamp	86	0901-V86	V171204R	
73)	Sample	36	0901-V36	V180601F	
74)	RearSamp	87	0901-V87	V171204R	
75)	Sample	37	0901-V37	V180601F	
76)	RearSamp	88	0901-V88	V171204R	
77)	Sample	38	0901-V38	V180601F	
78)	RearSamp	89	0901-V89	V171204R	
79)	Sample	39	0901-V39	V180601F	
80)	RearSamp	90	0901-V90	V171204R	
81)	Sample	40	0901-V40	V180601F	
82)	RearSamp	91	0901-V91	V171204R	
83)	Sample	41	0901-V41	V180601F	
84)	RearSamp	92	0901-V92	V171204R	
85)	Sample	42	0901-V42	V180601F	
86)	RearSamp	93	0901-V93	V171204R	
87)	Sample	43	0901-V43	V180601F	
88)	RearSamp	94	0901-V94	V171204R	
89)	Sample	44	0901-V44	V180601F	
90)	RearSamp	95	0901-V95	V171204R	
91)	Sample	45	0901-V45	V180601F	
92)	RearSamp	96	0901-V96	V171204R	
93)	Sample	46	0901-V46	V180601F	
94)	RearSamp	97	0901-V97	V171204R	
95)	Sample	47	0901-V47	V180601F	
96)	RearSamp	98	0901-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180901.s

	Line Type	Vial	DataFile	Method	Sample Name
97)	Sample	48	0901-V48	V180601F	
98)	RearSamp	99	0901-V99	V171204R	
99)	Sample	49	0901-V49	V180601F	
100)	RearSamp	100			
	Datafile		0901-V100		
	Method		V171204R		
101)	Sample	50	0901-V50	V180601F	

Sequence Name: C:\msdchem\2\sequence\V180607.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180607\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Unlinked		
2)	RearSamp	51	0607-V51 V171204R LOCCV0607R-V1
3)	Sample	1	0607-V01 V180601F M
4)	RearSamp	52	0607-V52 V171204R LOCCV0607R-V1
5)	Sample	2	0607-V02 V180601F M
6)	RearSamp	53	0607-V53 V171204R CCV0607R-V1
7)	Sample	3	0607-V03 V180601F 100 PPM DF2 ICV
8)	RearSamp	54	0607-V54 V171204R M
9)	Sample	4	0607-V04 V180601F CCV0607F-V1
10)	RearSamp	55	0607-V55 V171204R
11)	Sample	5	0607-V05 V180601F LOCCV0607F-V1
12)	RearSamp	56	0607-V56 V171204R DF2
13)	Sample	6	0607-V06 V180601F M
14)	RearSamp	57	0607-V57 V171204R OIL
15)	Sample	7	0607-V07 V180601F 4 PPM SURR ICAL
16)	RearSamp	58	0607-V58 V171204R M
17)	Sample	8	0607-V08 V180601F 8 PPM SURR ICAL
18)	RearSamp	59	0607-V59 V171204R M
19)	Sample	9	0607-V09 V180601F 20 PPM SURR ICAL
20)	RearSamp	60	0607-V60 V171204R M
21)	Sample	10	0607-V10 V180601F 40 PPM SURR ICAL
22)	RearSamp	61	0607-V61 V171204R M
23)	Sample	11	0607-V11 V180601F 80 PPM SURR ICAL
24)	RearSamp	62	0607-V62 V171204R M
25)	Sample	12	0607-V12 V180601F 200 PPM SURR ICAL
26)	RearSamp	63	0607-V63 V171204R M
27)	Sample	13	0607-V13 V180601F 10 PPM DF2 ICAL
28)	RearSamp	64	0607-V64 V171204R M
29)	Sample	14	0607-V14 V180601F 20 PPM DF2 ICAL
30)	RearSamp	65	0607-V65 V171204R M
31)	Sample	15	0607-V15 V180601F 100 PPM DF2 ICAL
32)	RearSamp	66	0607-V66 V171204R M
33)	Sample	16	0607-V16 V180601F 500 PPM DF2 ICAL
34)	RearSamp	67	0607-V67 V171204R M
35)	Sample	17	0607-V17 V180601F 2500 PPM DF2 ICAL
36)	RearSamp	68	0607-V68 V171204R M
37)	Sample	18	0607-V18 V180601F 5000 PPM DF2 ICAL
38)	RearSamp	69	0607-V69 V171204R M
39)	Sample	19	0607-V19 V180601F M
40)	RearSamp	70	0607-V70 V171204R M
41)	Sample	20	0607-V20 V180601F 40 PPM LO ICAL
42)	RearSamp	71	0607-V71 V171204R M
43)	Sample	21	0607-V21 V180601F 100 PPM LO ICAL

Sequence Name: C:\msdchem\2\sequence\V180607.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)	RearSamp		72	0607-V72	V171204R	M
45)	Sample		22	0607-V22	V180601F	250 PPM LO ICAL
46)	RearSamp		73	0607-V73	V171204R	M
47)	Sample		23	0607-V23	V180601F	500 PPM LO ICAL
48)	RearSamp		74	0607-V74	V171204R	M
49)	Sample		24	0607-V24	V180601F	1000 PPM LO ICAL
50)	RearSamp		75	0607-V75	V171204R	M
51)	Sample		25	0607-V25	V180601F	M
52)	RearSamp		76	0607-V76	V171204R	M
53)	Sample		26	0607-V26	V180601F	M
54)	RearSamp		77	0607-V77	V171204R	
55)	Sample		27	0607-V27	V180601F	
56)	RearSamp		78	0607-V78	V171204R	
57)	Sample		28	0607-V28	V180601F	
58)	RearSamp		79	0607-V79	V171204R	
59)	Sample		29	0607-V29	V180601F	
60)	RearSamp		80	0607-V80	V171204R	
61)	Sample		30	0607-V30	V180601F	
62)	RearSamp		81	0607-V81	V171204R	
63)	Sample		31	0607-V31	V180601F	
64)	RearSamp		82	0607-V82	V171204R	
65)	Sample		32	0607-V32	V180601F	
66)	RearSamp		83	0607-V83	V171204R	
67)	Sample		33	0607-V33	V180601F	
68)	RearSamp		84	0607-V84	V171204R	
69)	Sample		34	0607-V34	V180601F	
70)	RearSamp		85	0607-V85	V171204R	
71)	Sample		35	0607-V35	V180601F	
72)	RearSamp		86	0607-V86	V171204R	
73)	Sample		36	0607-V36	V180601F	
74)	RearSamp		87	0607-V87	V171204R	
75)	Sample		37	0607-V37	V180601F	
76)	RearSamp		88	0607-V88	V171204R	
77)	Sample		38	0607-V38	V180601F	
78)	RearSamp		89	0607-V89	V171204R	
79)	Sample		39	0607-V39	V180601F	
80)	RearSamp		90	0607-V90	V171204R	
81)	Sample		40	0607-V40	V180601F	
82)	RearSamp		91	0607-V91	V171204R	
83)	Sample		41	0607-V41	V180601F	
84)	RearSamp		92	0607-V92	V171204R	
85)	Sample		42	0607-V42	V180601F	
86)	RearSamp		93	0607-V93	V171204R	
87)	Sample		43	0607-V43	V180601F	
88)	RearSamp		94	0607-V94	V171204R	
89)	Sample		44	0607-V44	V180601F	
90)	RearSamp		95	0607-V95	V171204R	
91)	Sample		45	0607-V45	V180601F	
92)	RearSamp		96	0607-V96	V171204R	
93)	Sample		46	0607-V46	V180601F	
94)	RearSamp		97	0607-V97	V171204R	
95)	Sample		47	0607-V47	V180601F	
96)	RearSamp		98	0607-V98	V171204R	

OnSite Environmental Inc.

NWTPH-DIESEL/HCID EXTRACTION LOG

Date Extracted: 2-?-08 Time Ex: ______ am/pm

Analysis: Dx

Matrix: water

Surrogate Std. I.D. SUB 2904

Spike Std. I.D. SUB 2911

OSE Traveler #	pH	SAMPLE W/V	PRE CONC VOLUME	SUB ALIQUOT TAKEN	SUB ALIQUOT FIN. VOL.	CONC SAMPLE FIN. VOL.	AMT SUR	AMT SPIKE	CLEAN UP	Analyst	Comments Batch QA/QC
MB0831 W1	<2	500ml	100ml	20 ml	1.0ml	5.0ml	25ul	NO	NO	RD	
SB0831 W1		500ml						50ul			
08-309-01		793- 297						NO			
-02		791 299									
-03		795 304									
08-326-01		790 300									
01 DUP		790 304									
-02		793 298									
-03		797 304									
-04		789 304									
-05		789 305									
08-348-01		789 307									
08-326-03 DUP		796 297									
08-348-02		789 303									Emulsion Heavy
-03		794 300									Emulsion Heavy
-04		787 300									Emulsion Heavy
-05		791 298									

Clean-up (A)Acid cleanup (S)Silica gel cleanup

PROJECT

Continued From Page

Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Prep Date
AK 103 Ical								
40 ppm	SV2-93-01	SV2-93-23	10000 ppm	40 µl	10 ml	40 ppm	$MeCl_2$	8-4-10
100 ppm	-02			100 µl		100 ppm		
500 ppm	-03			500 µl		500 ppm		
1000 ppm	-04			1 ml		1000 ppm		
2500 ppm	-05			2.5 ml		2500 ppm		
AK103 Mix #1	SV2-93-06	SV2-66-18 SV2-66-19	Neat	5g/5g	10 g	Neat	—	8/5/10
Lube Oil Stock (Non-Acid Cleaned)	SV2-93-07	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	
AK103 Spike	SV2-93-08	↓	↓	↓	↓	↓	↓	
AK 103 Ical								
40 ppm	SV2-93-09	SV2-93-07	10,000 ppm	40 µl	10 ml	40 ppm		
100 ppm	-10			100 µl		100 ppm		
500 ppm	-11			500 µl		500 ppm		
1000 ppm	-12			1 ml		1000 ppm		
2500 ppm	-13			2.5 ml		2500 ppm		
Lube Oil Stock Acid cleaned	SV2-93-14	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	8-16-10
Lube Oil ICV	SV2-93-15	SV2-93-14	10,000 ppm	0.5 ml	50 ml	100 ppm	$MeCl_2$	↓
LO Ical								
40 ppm	SV2-93-16	SV2-89-24	40 µl →	10,000 ppm	10 ml	40 ppm	$MeCl_2$	8-18-10
100 ppm	-17		100 µl →			100 ppm		
500 ppm	-18		500 µl →			500 ppm		
1000 ppm	-19		1000 µl →			1000 ppm		
2500 ppm	-20		2500 µl →			2500 ppm		
DF2 CCV	SV2-93-21	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	8-18-10
DF2 Surr.	SV2-93-22	04403 JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-2-10
DF2 Spike	SV2-93-23	SV2-86-01	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-7-10
TOIL CCV	SV2-93-24	SV2-90-18	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	9-9-10
DF2 CCV	SV2-93-25	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	9-22-10
DF2 Surr.	SV2-93-26	~~SV2~~ 04403JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	10-01-10
1664 Spike	SV2-93-27	Lot #	163959	exp	9/21/2013		Acetone	
DF2 MDL 100ppm	SV2-93-28	SV2-93-23	10,000 ppm	1 ml	10 ml	1000 ppm	Acetone	10-14-10
LO MDL 1000ppm	SV2-93-29	SV2-89-24	10,000 ppm	1 ml	10 ml	1,000 ppm	1	1

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Signed	Date	Signed	Da

Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Date	Int.
Surrogate Mix									
4 ppm	SV3-03-01	SV3-02-06	10,000 ppm	10 µl	25 ml	4 ppm	MeCl2	11-28-12	ZT
8 ppm	SV3-03-02			20 µl		8 ppm			
20 ppm	SV3-03-03			50 µl		20 ppm			
40 ppm	SV3-03-04			100 µl		40 ppm			
80 ppm	SV3-03-05			200 µl		80 ppm			
200 ppm	SV3-03-06			500 µl		200 ppm			
FTRPH Calibration	SV3-03-07							11-30-12	ZT
DF2 Neat	SV3-03-08	Union 76	Neat					Purchase	ZT
DF2 Neat	SV3-03-09	Chevron	Neat					11/30/12	
DF2 Stock	SV3-03-10	SV3-03-08	Neat	1.0 g	100 ml	10,000 ppm	MeCl2	11-30-12	ZT
DF2 Stock	SV3-03-11	SV3-03-09	Neat	1.0 g	100 ml	10,000 ppm	MeCl2	11-30-12	ZT
DF2 Ical									
10 ppm	SV3-03-12	SV3-03-10	10 µl	10,000 ppm	10 ml	10 ppm	MeCl2	11-30-12	ZT
20 ppm	SV3-03-13		20 µl			20 ppm			
100 ppm	SV3-03-14		100 µl			100 ppm			
500 ppm	SV3-03-15		500 µl			500 ppm			
1000 ppm	SV3-03-16		1.0 ml			1000 ppm			
2500 ppm	SV3-03-17		2.5 ml			2500 ppm			
5000 ppm	SV3-03-18		5.0 ml			5000 ppm			
DF2 ICV	SV3-03-19	SV3-03-09	10,000 ppm	0.5 ml	50 ml	100 ppm	MeCl2	11-30-12	ZT
Dx Surf Micro	SV3-03-20	04403JH	Neat	0.25 g	100 ml	2500 ppm	Acetone	12-10-12	ZT
DF2 CCV	SV3-03-21	SV3-03-10	10,000 ppm	1.0 ml	100 ml	100 ppm	MeCl2	12-13-12	ZT
Lube oil Stock (Acid cleaned)	SV3-03-22	SV2-66-21	Neat	1.0 g	100 ml	10,000 ppm	MeCl2	1-7-13	ZT
Gasoline Stock	SV3-03-23	V2-17-9	Neat	0.1 g	10 ml	10,000 ppm	MeCl2	1-7-13	ZT
Single Pt. Cal.	SV3-03-24	SV3-03-22	10,000 ppm	500 µl	100 ml	50 ppm	MeCl2		
		SV3-03-23		100 µl		10 ppm			

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com

FOR LABORATORY USE ONLY

DRH-FTRPH 1 mL

FTRPH Calibration/ Window Defining Standard

500 µg/mL in Hexane

17 comps.

Lot: 211111267

Exp: Nov 22,2021

HIGHLY FLAMMABLE

STORAGE Ambient

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

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ANALYTE	LAB ID #	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT
1000 ppm MO	SV3-25-01	SV3-24-27	10,000 ppm	2.5 ml	25 ml 1000 ppm	1000 ppm	MeCl2	10.5.17	KM
5000 ppm MO	SV3-25-02	"	"	12.5 ml	"	5000 ppm	"	"	"
MinOil Spike	SV32503	SV3-17-02	NEAT	.50g	50ml	10,000 ppm	MeCl2	10-7-17	KM
20 ppm ICAL	SV3-25-04	SV3-25-3	10,000 ppm	.050 ml	25 ml	20 ppm			
100	05			.25 ml		100			
500	06			1.25 ml		500			
1000	07			2.5 ml		1000			
5000	08			12.5 ml		5000			
40 ppm LO ICAL	SV3-25-09	SV3-22-09	10,000 ppm	.100 ml	25 ml	40 ppm	MeCl2	10.9.17	KM
100 ppm LO ICAL	10			.250 ml		100			
250 ppm LO ICAL	11			.625 ml		250			
500 ppm LO ICAL	12			1.25 ml		500			
1000 ppm LO ICAL	13			2.50 ml		1000			
NOVANS STOCK	SV3-25-14	36-102	NEAT	10 ml	10 ml	1000 ppm	MeCl2	10.18.17	KM
RT STD	PRE-FINAL	5000 ppm	.1 ml	1 ml	50 ppm				
	SV3-25-14	1000 ppm	.05 ml	"	"	"	10-16-17		
RT STD	SV3-25-15	PRE-FINAL	500 ppm	.1 ml	1 ml	50 ppm	10-16-17	MeCl2	KM
		SV3-25-14	1000 ppm	.050 ml	"	"	"	"	"
DF2 STOCK	SV3-25-16	SV3-03-08	NEAT	.50 gram	50ml	10,000 ppm	MeCl2	KM 10/18/17	KM
DF2 CCV	SV3-25-17	SV3-25-16	10,000 ppm	1 ml	100 ml	100 ppm	MeCl2	KM 10-18-17	KM
10 ppm DF2 ICAL	SV3-25-18	SV3-25-16		25 µl	25 ml	10			
20	19			50 µl		20			
100	20			250 µl		100			
250	21	KM 10-18-17		500 µl 625 µl		250			
500	22			1.0 ml 1.25 ml		500			
2500	23			2.5 ml 2.5 ml & 25 ml		2500			
5000	24			12.5 ml		5000			
Dx Micro Surf	SV3-25-25	687V	NEAT	.250g	100ml	2500 ppm	Acetone	10.19.17	KM
1664 Spike	SV3-25-26	Lot #	3155504				Acetone	10-26-17	RP
1664 Spike	SV3-25-27	Lot #	3258 12				Acetone	11/29/17	CS
Dx Micro Surf	SV3-25-28	687 V	NEAT				Acetone	12/04/17	JT
DF2 ICV	SV3-25-29	SV3-21-11 ~~SV3-18-18~~	10000 ppm	500 µl	50 ml	100 ppm	MeCl2	12-6-17	JT
DF2 Spike	SV3-25-30	SV3-03-08	NEAT	0.50 g	50 ml	10,000 ppm	Acetone	12-15-17	JT

Work continued to Page

SIGNATURE DATE

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Work continued from Page

Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
1664 Spike	SV3-26-01	Lot #	091717				Acetone	12-15-17	JT
DX Surr	SV3-26-02	687V	NEAT	1.0 g	100 mL	10,000 ppm	Acetone	12-20-17	JT
LO CCV	SV3-26-03	SV3-23-04	10,000 ppm	2.0 mL	100 mL	200 ppm	$MeCl_2$	1-3-18	JT
TOIL NEAT	SV3-26-04	NA	NEAT					1-4-18	JT
DF2 CCV	SV3-26-05	SV3-25-16	10,000 ppm	1 mL	100 mL	100 ppm	$MeCl_2$	1-8-18	JT
4 ppm Surr	SV3-26-06	SV3-26-02	10,000 ppm	10 mL	25 mL	4 ppm	$MeCl_2$	1-9-18	JT
8 ppm Surr	07			20 mL		8 ppm			
20 ppm Surr	08			50 mL		20 ppm			
40 ppm Surr	09			100 mL		40 ppm			
80 ppm Surr	10			200 mL		80 ppm			
200 ppm Surr	11			500 mL		200 ppm			
LO MDL Spike	SV3-26-12	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-10-18	JT
DF2 MDL Spike	SV3-26-13	SV3-25-16	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-16-18	JT
LO MDL Spike	SV3-26-14	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-17-18	JT
LO MDL Spike	SV3-26-15	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-23-18	JT
1664 Spike	SV3 26 28	STOCK ID 041717		10 mL			ACETONE	1-31-18	RD
Gasoline Stock	SV3-26-16	V2-17-21	Neat	.1 g	10 mL	10,000 ppm	$MeCl_2$	2-6-18	TL
Single Point Cal	SV3-26-17	SV3-25-16 SV3-23-04	10,000 ppm 10,000 ppm	100 mL 500 mL	100 mL 100 mL	10 ppm 50 ppm	$MeCl_2$	2-6-18	TL
DX Micro Surr	SV3-26-18	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	2-9-18	JT
DF2 CCV	SV3-26-19	SV3-25-16	10,000 ppm	1 mL	100 mL	100 ppm	$MeCl_2$	2-20-18	JT
1664 Spike	SV3 26 20	STOCK 041717		10 mL			ACETONE	3-2-18	RD
~~10 PPM DF1 ICV~~	~~SV3-26-21~~	~~SV3-24-06~~	~~2,000 PPM~~	~~25 mL~~	~~5 mL~~	~~10 PPM~~	~~$MeCl_2$~~	~~3-13-18~~	~~JT~~
20	22	L	2,000 PPM	50 mL		20			
100	23	216091022	20,000 PPM	100 mL		100			
500	24		20000 PPM	50 mL		500			
1000	25			250 mL		1000			
2000	26			500 mL		2000			
5000	27		20,000 PPM	1000 mL		5000			

JT 2-13-18

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
10 ppm DF2 ICal	SV3-27-01	SV3-27-03	100 ppm	100 mL	1 mL	10 ppm	$MeCl_2$	3-14-18	JT
50 ppm	02	SV3-27-04	500 ppm	100 mL		50 ppm			
100 ppm	03	SV3-27-06	2,000 ppm	50 mL		100 ppm			
500 ppm	04	21609122	20,000 ppm	25 mL		500 ppm			
1000 ppm	05	↓		50 mL		1000 ppm			
2000 ppm	06			100 mL		2000 ppm			
5000 ppm	07	21609122	↓	250 mL		5000 ppm			
DB Micro Surr	SV3-27-08	687-V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	3-27-18	JT
DF2 CCV	SV3-27-09	SV3-25-16	10,000 ppm	1.0 mL	100 mL	100 ppm	$MeCl_2$	3-29-18	JT
DF2 CCV	SV3-27-10	SV3-25-16	10000 ppm	1.0 mL	100 mL	100 ppm	$MeCl_2$	4-30-18	JT
LO CCV	SV3-27-11	SV3-23-04	10,000 ppm	2.0 mL	200 mL	200 ppm	$MeCl_2$	4-30-18	JT
DX Surr	SV3-27-12	687-V	NEAT	1.0 mL	100 mL	1000 PPM	Acetone	5-3-18	JT
DX Micro Surr	SV3-27-13	687-V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	5-8-17	JT
LO Stock	SV3-27-14	SV2-93-06	NEAT	0.50 g	50 mL	10,000 ppm	$MeCl_2$	5-31-18	JT
LO CCV	SV3-27-15	SV3-27-14	10000 PPM	2.0 mL	100 mL	200 ppm	$MeCl_2$	5-31-18	JT
10 ppm DF2 ICal	SV3-27-16	SV3-25-16	10,000 ppm	25 mL	25 mL	10 ppm	$MeCl_2$	6-1-18	JT
20	17			50		20			
100	18			250		100			
500	19			1.25 mL		500			
2500	20			6.25 mL		2500			
5000	21			12.5 mL		5000			
DF2 CCV	SV3-27-22	SV3-25-16	10,000 ppm	1.0 mL	100 mL	100 ppm	$MeCl_2$		JT
40 ppm LO ICal	SV3-27-23	SV3-27-14	10,000 ppm	40 mL	40 ppm	10 mL			
100	24			100 mL	100				
250	25			250 mL	250	↔			
500	26			500 mL	500	JT			
1000	27			1.0 mL	1000	6-1-18			
20 ppm MO ECal	SV3-27-28	SV3-25-03	10,000 ppm	20 mL	10 mL	20 ppm	$MeCl_2$		
100 ppm	29			100 mL		100			
500 ppm	30			500 mL		500			
1000 ppm	31			1.0 mL	10 mL	1000			
5000 ppm	32			5.0 mL	2	5000			

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	Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
	DF2 Stock 2nd	SV3-28-01	SV3-03-09	NEAT	0.5 g	50 mL	10,000 ppm	MeCl2	6-4-18	JT
5	DF2 ICV	SV3-28-02	SV3-28-01	10,000 ppm	5 mL	50 mL	1000 ppm	L	L	L
	DF1 5x 1mL vials	SV3-28-03							6-12-18	JT
10	DF1 ICal 5000 ppm	SV3-28CM	SV3-28-03	20,000 ppm	2.5 mL	10 mL	5000 ppm	MeCl2	6-12-18	JT
	2000	05			1.0 mL		2000			
15	1000	06			0.5 mL		1000			
	500	07			0.25 mL		500			
	100	08			0.05 mL		100			
	20	09	SV3-28-05	2000 ppm	0.1 mL		20			
	10	10	L	L	0.05 mL		10			
20	DF2 Spike	SV3-28-11	SV3-03-08	NEAT	0.50 g	50 mL	10,000 ppm	Acetone	6-18-18	JT
	DF2 Mid 2nd	SV3-28-12	~~SV3-03-07~~ 687V	NEAT	0.25 g	100 mL	2500 ppm	Acetone	6-22-18	JT
	DF2 Stock	SV3-28-13	SV3-03-06	NEAT	0.500 g	50 mL	10,000 ppm	MeCl2	L	L
	DF2 ICV	SV3-28-14	SV3-28-13	10,000 ppm	1 mL	100 mL	100 ppm	MeCl2		
	4 PPM Surr Ical	SV3-28-15	SV3-27-12	10,000 ppm	10 mL	25 mL	4 ppm	MeCl2	7-3-18	JT
25	8	16			20		8			
	20	17			50		20			
	40	18			100		40			
	80	19			200		80			
	200	20			500		200			
30	1664 Spike	SV3 30-21	Stock 04-17-17		→ 10mL			Acetone	8-1-18	RD
	Single PT Cal	SV3-28-22	SV3-27-14	10,000 ppm	500 mL	100 mL	500 ppm	MeCl2	8-7-18	JT
			SV3-26-16	L	100 mL		100 ppm			
	Mineral oil VBLT	SV3-28-23	NA	NEAT					8-7-18	JT
35	Kaycee Brand									

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ANALYTE	LAB ID	STOCK ID	Stock Conc.	Stock Vol	Final Vol	Final Solvent Conc	Solvent	Date	Init
~~Mineral oil Neat~~	~~SV3-029-01 Acqu~~								
Mineral Oil Neat Seattle City Light	SV3-029-01	Acquired From SQL	NEAT	—	—	—	~~8-8-18~~	8-8-18	JT
Transformer Oil / High Performance Dielectric Fluid	SV3-029-02	—	NEAT	Acquired From Sales	Envirotech Services Inc.			8-9-18	JT
DF2 CCV	SV3-029-03	SV3-256-13	10,000 ppm	1 mL	100 mL	100 PPM	Hexane	8-9-18	JT
DX Surr	SV3-029-04	687V	NEAT	1.0 g	100 mL	10,000 ppm	Acetone	8-17-18	JT
DX Micro Surr	SV3-029-05	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	8-27-18	JT

Work continued to Page

SIGNATURE DATE

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PAHs by EPA 8270D Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830024.D
Acq On : 30 Aug 2018 5:43 pm
Operator :
Sample : 08-309-01
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 30 17:58:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	100263	2000.00	ppb	0.00
6) Acenaphthene-d10	5.013	164	50866	2000.00	ppb	0.00
10) Phenanthrene-d10	6.017	188	96942	2000.00	ppb	0.00
17) Chrysene-d12	8.021	240	90293	2000.00	ppb	0.00
21) Perylene-d12	9.420	264	90810	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.252	82	1992	41.82	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 4.18%#			
7) 2-Fluorobiphenyl	4.559	172	21920	530.02	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 53.00%			
11) Pyrene-d10	6.981	212	38084	852.90	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 85.29%			
18) Terphenyl-d14	7.149	244	36158	872.03	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 87.20%			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	365	7.03	ppb	100
4) 2-Methylnaphthalene	4.285	142	82	2.37	ppb	100
5) 1-Methylnaphthalene	4.352	142	43	1.32	ppb	100
8) Acenaphthylene	4.821	152	1094	20.38	ppb	100
9) Acenaphthene	5.021	153	62	1.85	ppb	100
12) Fluorene	5.391	166	44	1.10	ppb	100
13) Phenanthrene	6.033	178	328	5.65	ppb	100
14) Anthracene	6.068	178	91	1.58	ppb	100
15) Fluoranthene	6.836	202	349	5.51	ppb	100
16) Pyrene	6.993	202	393	6.00	ppb	100
19) Benzo[a]anthracene	8.017	228	452	1.57	ppb	100
20) Chrysene	8.040	228	205	3.60	ppb	100
22) Benzo[b]fluoranthene	9.053	252	266	4.74	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	164	2.92	ppb	100
24) Benzo[a]pyrene	9.361	252	166	3.14	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	176	3.69	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	146	2.99	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	201	3.80	ppb	100

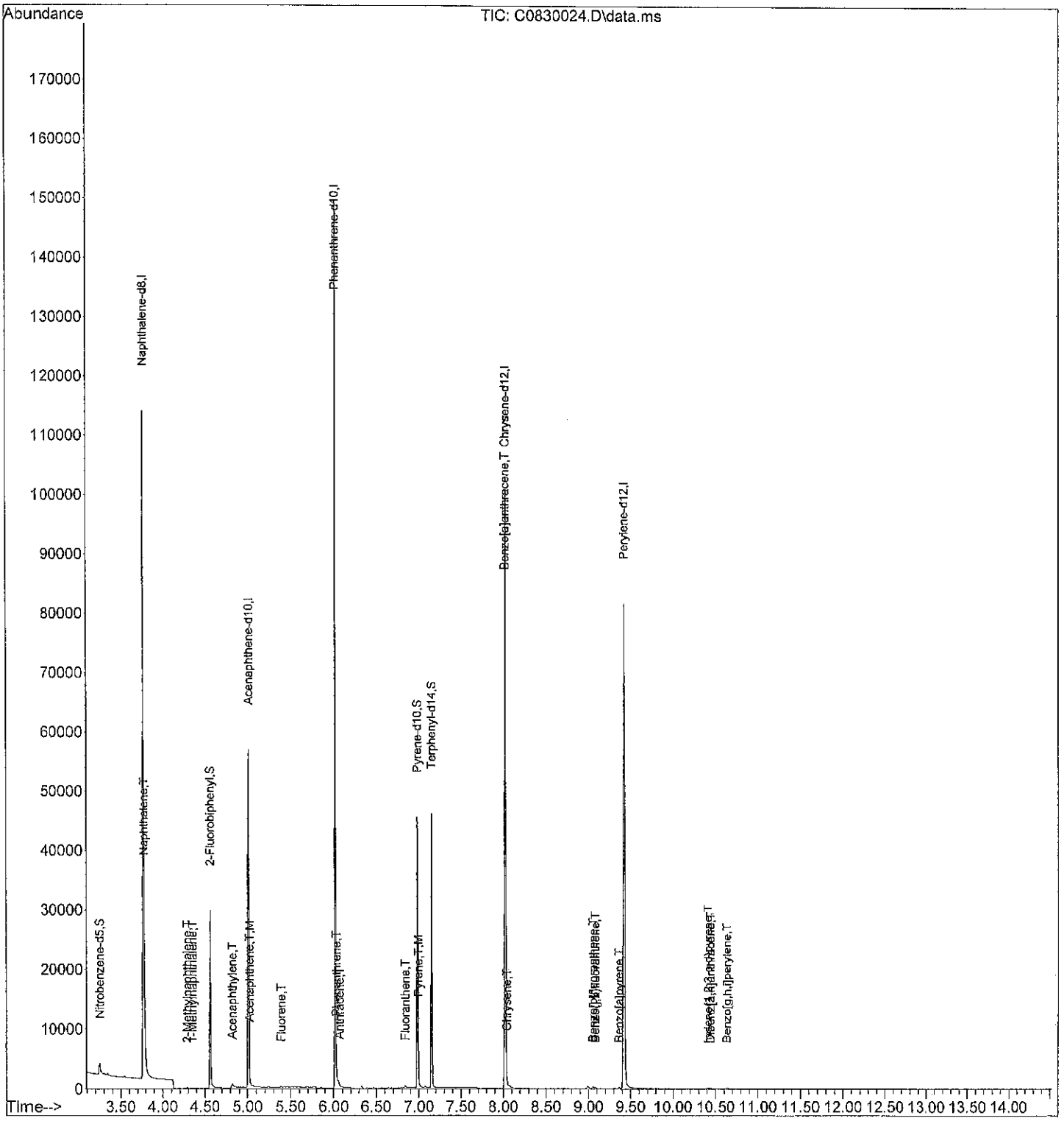
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-31-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830024.D
Acq On : 30 Aug 2018 5:43 pm
Operator :
Sample : 08-309-01
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 30 17:58:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830025.D
Acq On : 30 Aug 2018 6:05 pm
Operator :
Sample : 08-309-02
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 30 18:20:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	101871	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	88226	2000.00	ppb	0.00
10) Phenanthrene-d10	6.024	188	101787	2000.00	ppb	0.00
17) Chrysene-d12	8.043	240	93978	2000.00	ppb	0.02
21) Perylene-d12	9.458	264	93939	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	2168	44.79	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 4.48%#			
7) 2-Fluorobiphenyl	4.560	172	30314	422.59	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 42.26%			
11) Pyrene-d10	6.999	212	40486	863.53	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 86.35%			
18) Terphenyl-d14	7.156	244	35938	832.73	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 83.27%			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	2250	42.63	ppb	100
4) 2-Methylnaphthalene	4.286	142	2468	70.33	ppb	100
5) 1-Methylnaphthalene	4.353	142	5986	180.89	ppb	100
8) Acenaphthylene	4.912	152	825	8.86	ppb	100
9) Acenaphthene	5.028	153	5042	86.67	ppb	100
12) Fluorene	5.390	166	2039	48.57	ppb	100
13) Phenanthrene	6.040	178	1414	23.18	ppb	100
14) Anthracene	6.075	178	3089	51.07	ppb	100
15) Fluoranthene	6.837	202	925	13.90	ppb	100
16) Pyrene	6.837	202	925	~~13.44~~	ppb	16.73 100
19) Benzo[a]anthracene	0.000		0	~~N.D.~~		3.63
20) Chrysene	0.000		0	N.D.		3.81
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	9.352	252	117	2.14	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	0.000		0	N.D.		

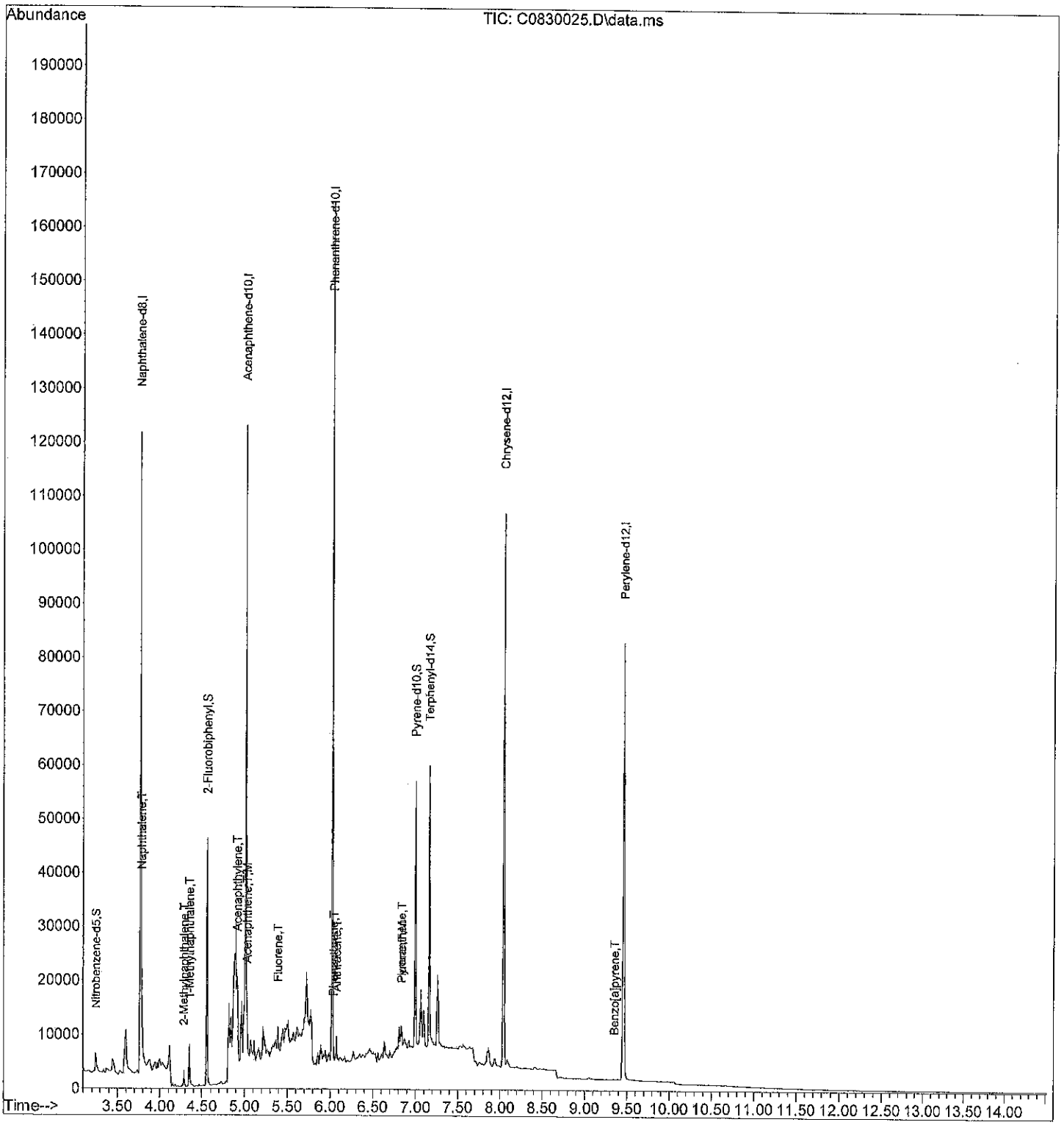
ZT
8-31-18

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830025.D
Acq On : 30 Aug 2018 6:05 pm
Operator :
Sample : 08-309-02
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 30 18:20:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830026.D
Acq On : 30 Aug 2018 6:27 pm
Operator :
Sample : 08-309-03
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Aug 30 18:42:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	106302	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	97373	2000.00	ppb	0.00
10) Phenanthrene-d10	6.028	188	106634	2000.00	ppb	0.01
17) Chrysene-d12	8.051	240	97950	2000.00	ppb	0.03
21) Perylene-d12	9.470	264	99247	2000.00	ppb	0.05
System Monitoring Compounds						
2) Nitrobenzene-d5	3.252	82	2516	49.82	ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery =	4.98%#		
7) 2-Fluorobiphenyl	4.560	172	34157	431.44	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	43.14%		
11) Pyrene-d10	6.999	212	46322	943.10	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery =	94.31%		
18) Terphenyl-d14	7.162	244	40270	895.27	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery =	89.53%		
Target Compounds						Qvalue
3) Naphthalene	3.781	128	2526	45.86	ppb	100
4) 2-Methylnaphthalene	4.287	142	2397	65.46	ppb	100
5) 1-Methylnaphthalene	4.353	142	7577	219.43	ppb	100
8) Acenaphthylene	4.912	152	1487	14.47	ppb	100
9) Acenaphthene	5.035	153	25405	395.67	ppb	100
12) Fluorene	5.398	166	8217	186.86	ppb	100
13) Phenanthrene	6.040	178	2167	33.91	ppb	100
14) Anthracene	6.079	178	4389	69.27	ppb	100
15) Fluoranthene	6.854	202	4667	66.96	ppb	100
16) Pyrene	7.011	202	2486	34.48	ppb	100
19) Benzo[a]anthracene	0.000		0	~~N.D.~~ 9.34		
20) Chrysene	0.000		0	~~N.D.~~ 7.34		
22) Benzo[b]fluoranthene	0.000		0	~~N.D.~~ 6.80		
23) Benzo(j,k)fluoranthene	0.000		0	~~N.D.~~ 7.34		
24) Benzo[a]pyrene	9.404	252	256	4.44	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	0.000		0	N.D.		

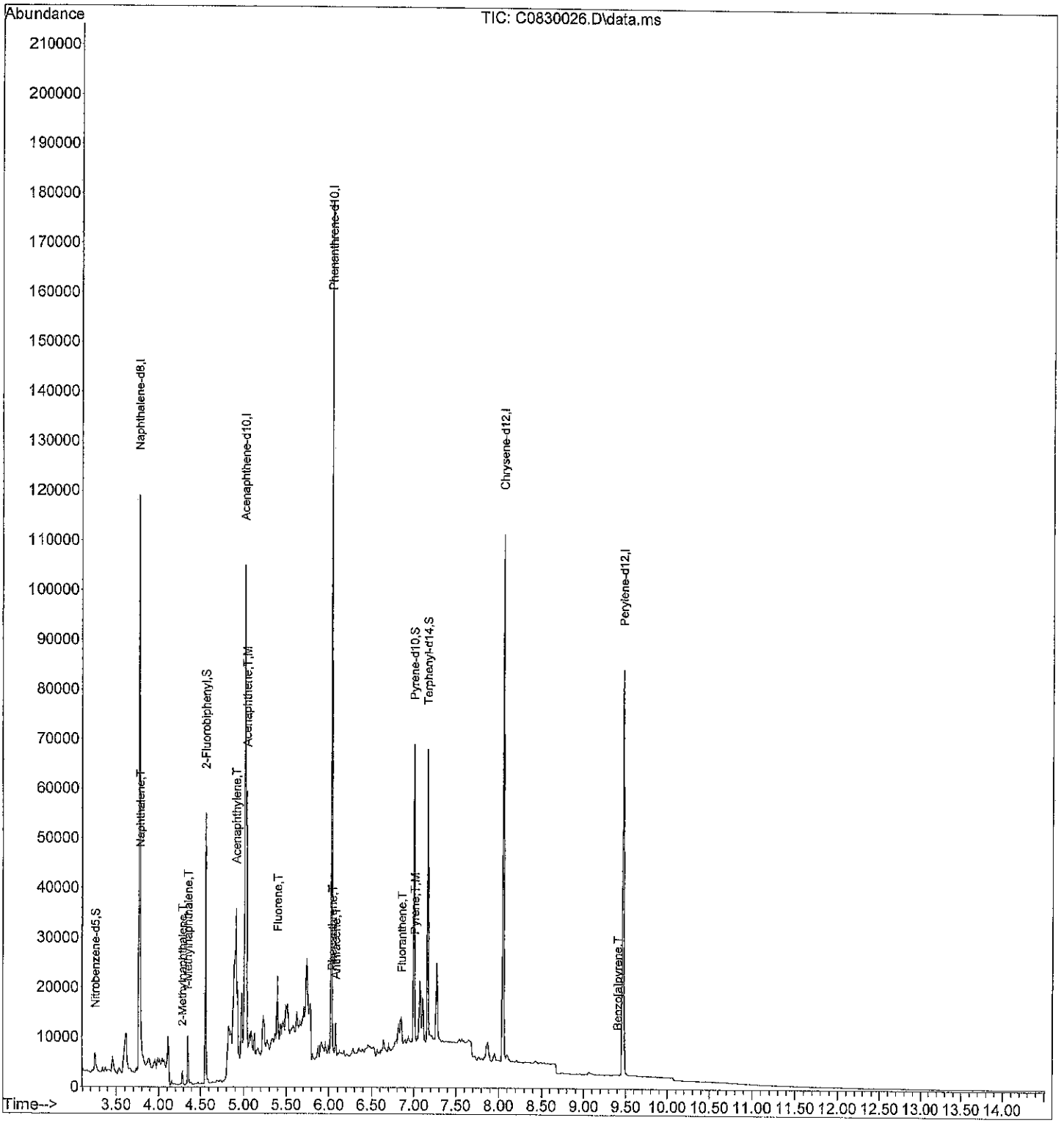
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-31-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830026.D
Acq On : 30 Aug 2018 6:27 pm
Operator :
Sample : 08-309-03
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Aug 30 18:42:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830018.D
Acq On : 30 Aug 2018 3:25 pm
Operator :
Sample : MB0830W1 RR
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 30 15:40:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

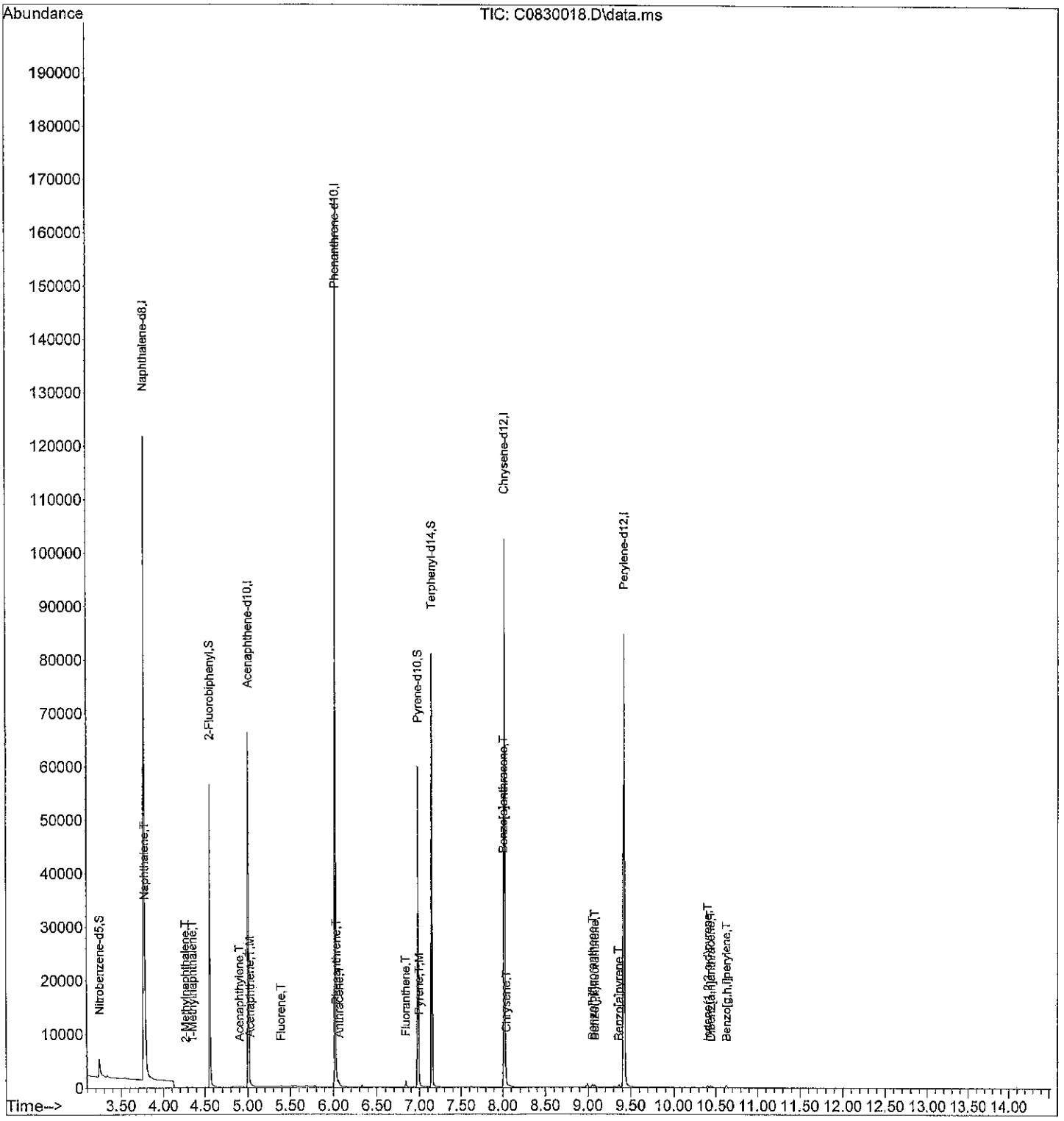
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	108426	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.006	164	55177	2000.00	ppb	-0.11
10) Phenanthrene-d10	6.017	188	103760	2000.00	ppb	-0.11
17) Chrysene-d12	8.017	240	95224	2000.00	ppb	-0.15
21) Perylene-d12	9.422	264	94472	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	2754	53.46	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 5.35%#			
7) 2-Fluorobiphenyl	4.555	172	37715	840.68	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 84.07%			
11) Pyrene-d10	6.982	212	41611	870.65	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.06%			
18) Terphenyl-d14	7.144	244	53518	1223.86	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 122.39%#			
Target Compounds						Qvalue
3) Naphthalene	3.779	128	152	2.71	ppb	100
4) 2-Methylnaphthalene	4.266	142	13	0.35	ppb	100
5) 1-Methylnaphthalene	4.352	142	43	1.22	ppb	100
8) Acenaphthylene	4.905	152	386	6.63	ppb	100
9) Acenaphthene	5.029	153	100	2.75	ppb	100
12) Fluorene	5.391	166	115	2.69	ppb	100
13) Phenanthrene	6.029	178	654	10.52	ppb	100
14) Anthracene	6.064	178	174	2.82	ppb	100
15) Fluoranthene	6.837	202	745	10.99	ppb	100
16) Pyrene	6.993	202	913	13.01	ppb	100
19) Benzo[a]anthracene	8.009	228	720	5.67	ppb	100
20) Chrysene	8.041	228	540	8.98	ppb	100
22) Benzo[b]fluoranthene	9.051	252	548	9.38	ppb	100
23) Benzo(j,k)fluoranthene	9.079	252	401	6.85	ppb	100
24) Benzo[a]pyrene	9.360	252	354	6.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	368	7.42	ppb	100
26) Dibenz[a,h]anthracene	10.442	278	325	6.40	ppb	100
27) Benzo[g,h,i]perylene	10.629	276	419	7.62	ppb	100

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

ZT
8-30-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830018.D
Acq On : 30 Aug 2018 3:25 pm
Operator :
Sample : MB0830W1 RR
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 30 15:40:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830021.D
Acq On : 30 Aug 2018 4:37 pm
Operator :
Sample : 08-326-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 30 16:52:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

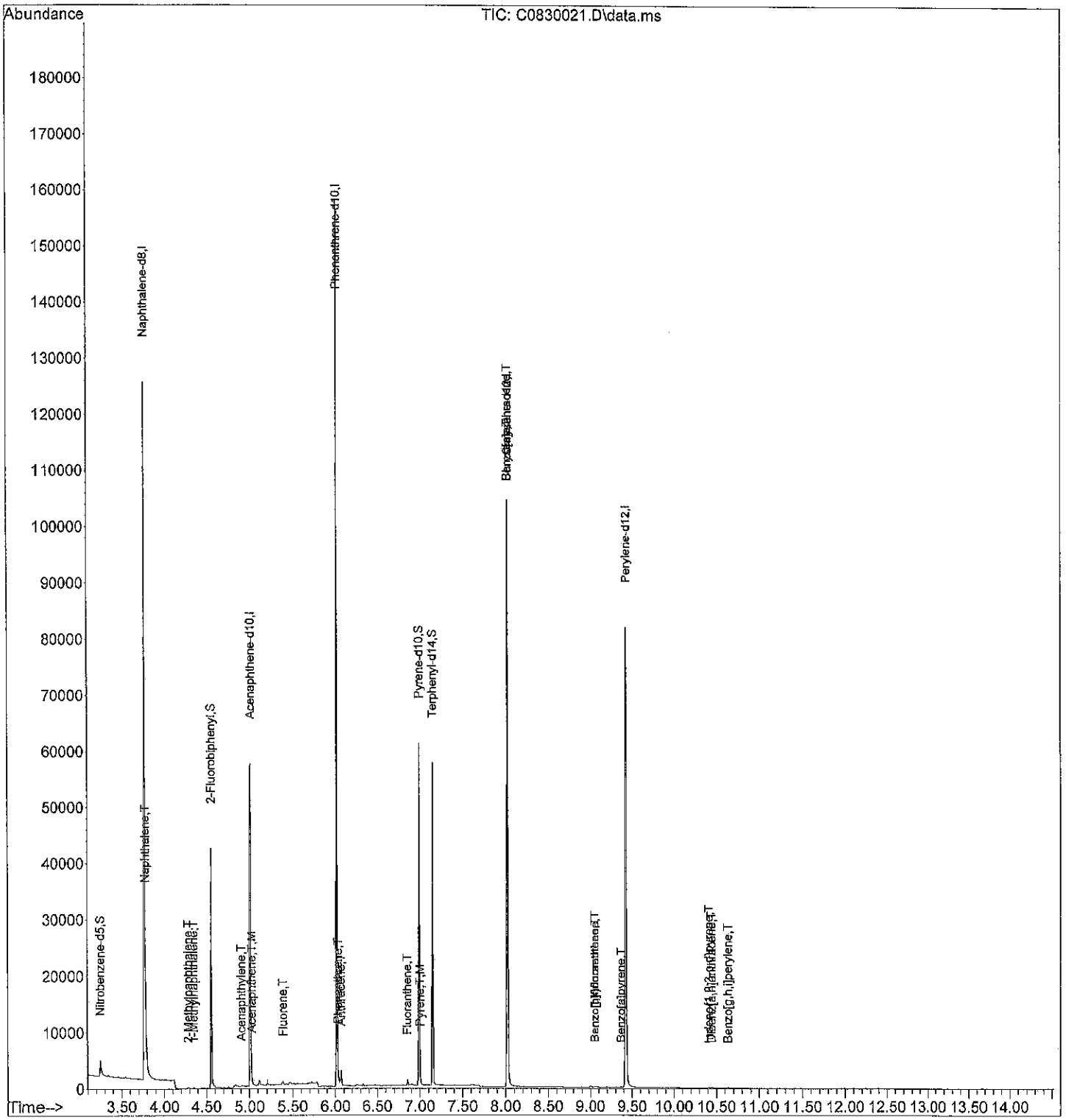
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	109039	2000.00	ppb	0.00
6) Acenaphthene-d10	5.013	164	54476	2000.00	ppb	0.00
10) Phenanthrene-d10	6.017	188	104563	2000.00	ppb	0.00
17) Chrysene-d12	8.025	240	95999	2000.00	ppb	0.00
21) Perylene-d12	9.424	264	93580	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	2245	43.33	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 4.33%#			
7) 2-Fluorobiphenyl	4.555	172	29881	674.63	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 67.46%			
11) Pyrene-d10	6.993	212	40687	844.78	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 84.48%			
18) Terphenyl-d14	7.149	244	38198	866.47	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 86.65%			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	245	4.34	ppb	100
4) 2-Methylnaphthalene	4.285	142	129	3.43	ppb	100
5) 1-Methylnaphthalene	4.352	142	70	1.98	ppb	100
8) Acenaphthylene	4.905	152	150	2.61	ppb	100
9) Acenaphthene	5.029	153	451	12.56	ppb	100
12) Fluorene	5.391	166	386	8.95	ppb	100
13) Phenanthrene	6.032	178	324	5.17	ppb	100
14) Anthracene	6.068	178	1551	24.96	ppb	100
15) Fluoranthene	6.853	202	854	12.50	ppb	100
16) Pyrene	7.004	202	896	12.67	ppb	100
19) Benzo[a]anthracene	8.021	228	408	0.35	ppb	100
20) Chrysene	8.021	228	408	~~6.73~~	ppb	1.52 100
22) Benzo[b]fluoranthene	9.053	252	87	1.50	ppb	100
23) Benzo(j,k)fluoranthene	9.053	252	87	~~1.50~~	ppb	100 1.66
24) Benzo[a]pyrene	9.365	252	100	1.84	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	114	2.32	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	150	2.98	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	125	2.30	ppb	100

ZT
8-31-18

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

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830021.D
Acq On : 30 Aug 2018 4:37 pm
Operator :
Sample : 08-326-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 30 16:52:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830022.D
Acq On : 30 Aug 2018 4:59 pm
Operator :
Sample : 08-326-03 MS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 30 17:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

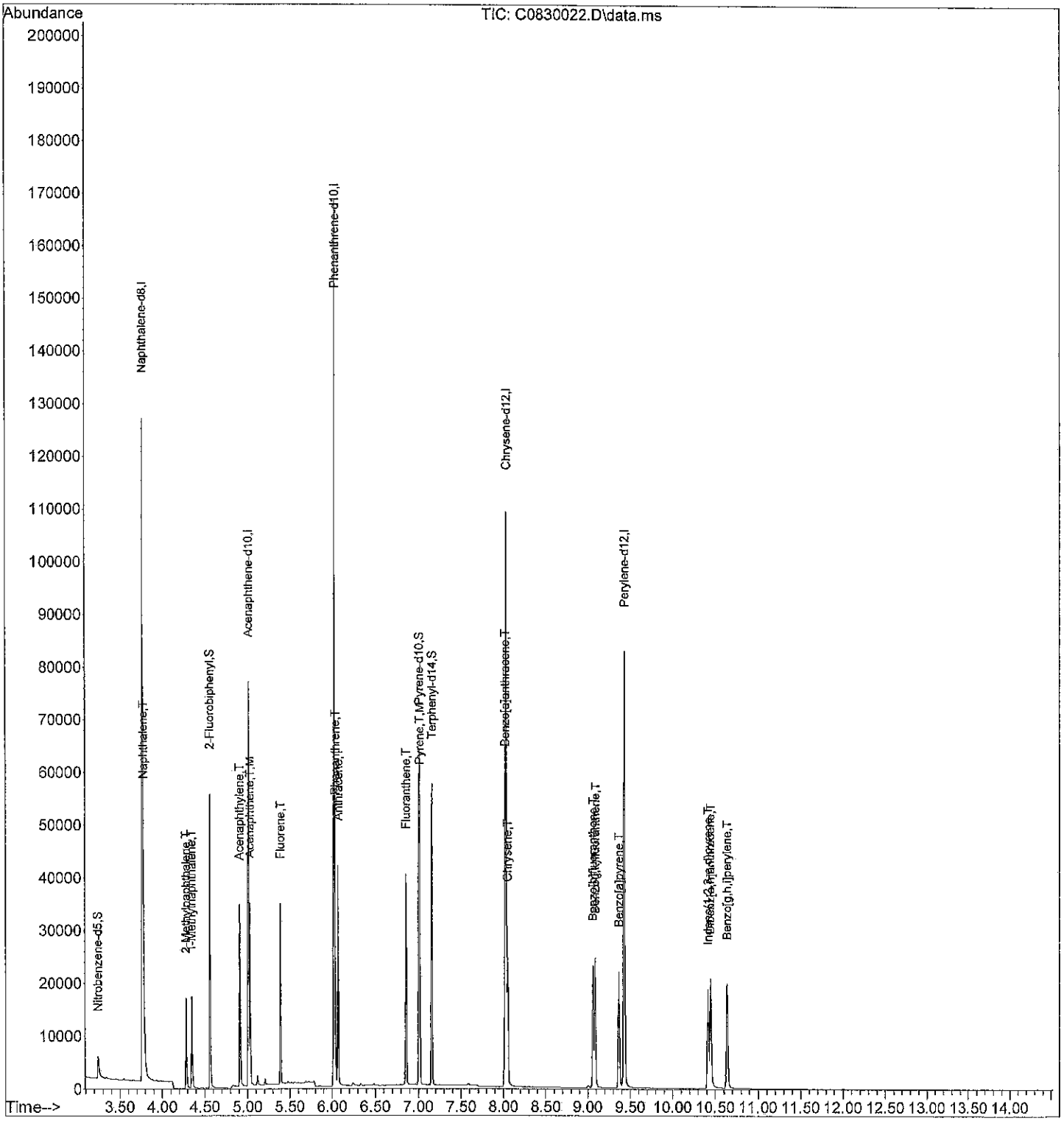
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	107315	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	55704	2000.00	ppb	0.00
10) Phenanthrene-d10	6.021	188	105332	2000.00	ppb	0.00
17) Chrysene-d12	8.028	240	95594	2000.00	ppb	0.00
21) Perylene-d12	9.427	264	92082	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	3596	70.53	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 7.05%#			
7) 2-Fluorobiphenyl	4.556	172	37284	823.21	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 82.32%			
11) Pyrene-d10	7.006	212	42497	875.92	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.59%			
18) Terphenyl-d14	7.157	244	42619	970.85	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 97.08%#			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	20281	364.76	ppb	100
4) 2-Methylnaphthalene	4.283	142	13129	355.17	ppb	100
5) 1-Methylnaphthalene	4.349	142	12633	362.39	ppb	100
8) Acenaphthylene	4.904	152	24386	414.73	ppb	100
9) Acenaphthene	5.028	153	15150	412.46	ppb	100
12) Fluorene	5.390	166	19566	450.43	ppb	100
13) Phenanthrene	6.032	178	26025	412.33	ppb	100
14) Anthracene	6.068	178	26941	430.45	ppb	100
15) Fluoranthene	6.855	202	31790	461.77	ppb	100
16) Pyrene	7.012	202	29241	410.61	ppb	100
19) Benzo[a]anthracene	8.016	228	27938	463.47	ppb	100
20) Chrysene	8.047	228	26847	444.85	ppb	100
22) Benzo[b]fluoranthene	9.056	252	25634	450.25	ppb	100
23) Benzo(j,k)fluoranthene	9.088	252	26082	457.42	ppb	100
24) Benzo[a]pyrene	9.369	252	24701	461.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.414	276	22865	472.94	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	23784	480.16	ppb	100
27) Benzo[g,h,i]perylene	10.636	276	24748	461.92	ppb	100

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

ZT
8-31-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830022.D
Acq On : 30 Aug 2018 4:59 pm
Operator :
Sample : 08-326-03 MS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 30 17:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830023.D
Acq On : 30 Aug 2018 5:21 pm
Operator :
Sample : 08-326-03 MSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 30 17:36:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

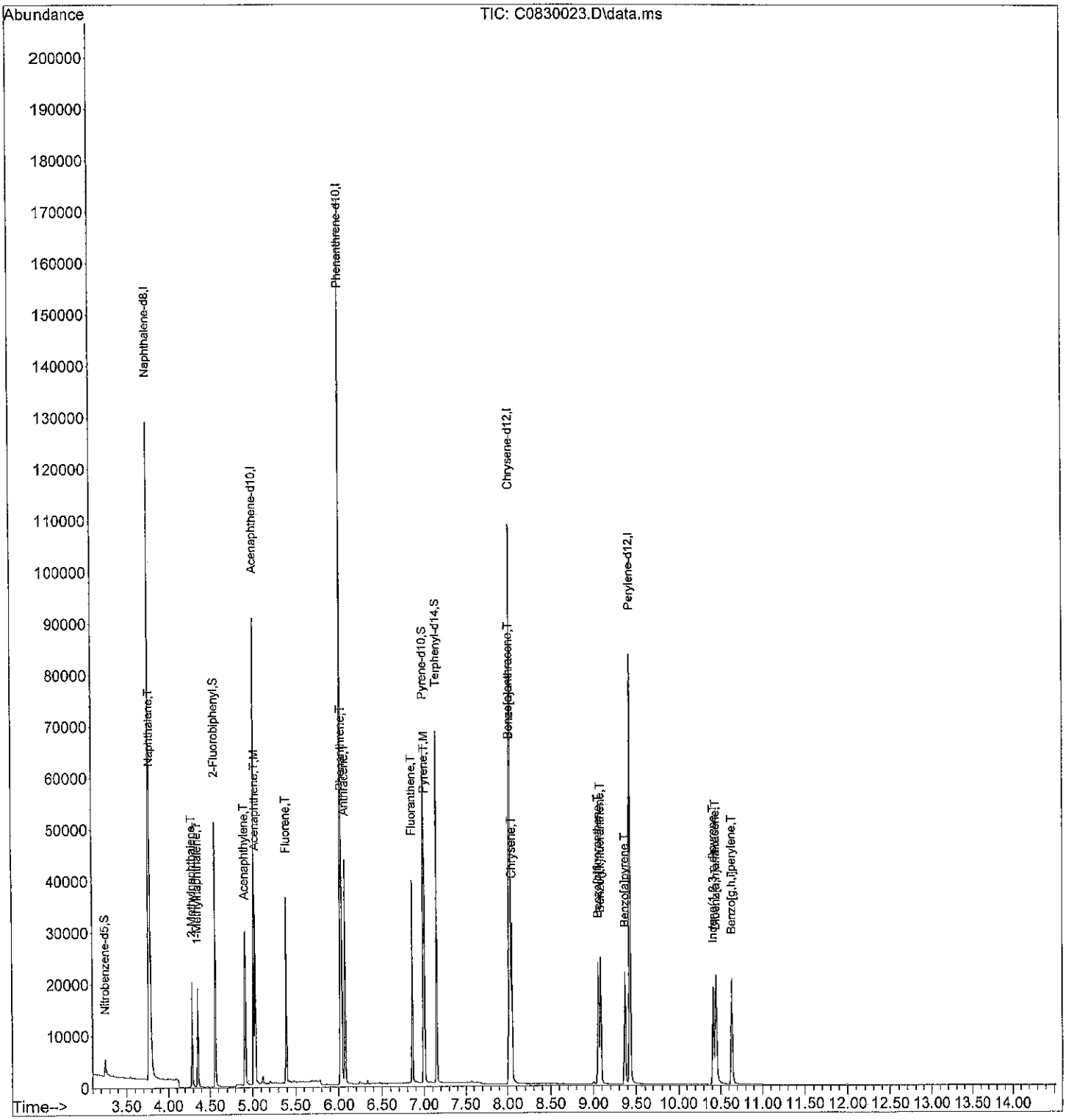
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	106899	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	56517	2000.00	ppb	0.00
10) Phenanthrene-d10	6.020	188	104342	2000.00	ppb	0.00
17) Chrysene-d12	8.028	240	94834	2000.00	ppb	0.00
21) Perylene-d12	9.427	264	91698	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	2797	55.07	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 5.51%#			
7) 2-Fluorobiphenyl	4.555	172	35428	770.98	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 77.10%			
11) Pyrene-d10	6.993	212	42535	885.02	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 88.50%			
18) Terphenyl-d14	7.150	244	43413	996.86	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 99.69%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	21859	394.67	ppb	100
4) 2-Methylnaphthalene	4.286	142	15398	418.17	ppb	100
5) 1-Methylnaphthalene	4.352	142	14349	413.22	ppb	100
8) Acenaphthylene	4.904	152	25184	422.14	ppb	100
9) Acenaphthene	5.027	153	16578	444.84	ppb	100
12) Fluorene	5.389	166	20227	470.07	ppb	100
13) Phenanthrene	6.032	178	26931	430.73	ppb	100
14) Anthracene	6.067	178	28780	464.19	ppb	100
15) Fluoranthene	6.854	202	33325	488.66	ppb	100
16) Pyrene	7.005	202	31684	449.14	ppb	100
19) Benzo[a]anthracene	8.016	228	27712	463.41	ppb	100
20) Chrysene	8.047	228	26520	442.96	ppb	100
22) Benzo[b]fluoranthene	9.056	252	25869	456.28	ppb	100
23) Benzo(j,k)fluoranthene	9.083	252	25361	446.64	ppb	100
24) Benzo[a]pyrene	9.368	252	24743	464.17	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.413	276	22640	470.25	ppb	100
26) Dibenz[a,h]anthracene	10.444	278	23098	468.27	ppb	100
27) Benzo[g,h,i]perylene	10.635	276	24286	455.19	ppb	100

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

ZT
8-31-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830023.D
Acq On : 30 Aug 2018 5:21 pm
Operator :
Sample : 08-326-03 MSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 30 17:36:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	93	0.00
2	S	Nitrobenzene-d5	500.000	385.568	22.9#	101	0.00
3	T	Naphthalene	500.000	510.997	-2.2	95	0.00
4	T	2-Methylnaphthalene	500.000	494.756	1.0	92	0.00
5	T	1-Methylnaphthalene	500.000	523.905	-4.8	97	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	93	0.00
7	S	2-Fluorobiphenyl	500.000	561.866	-12.4	106	0.00
8	T	Acenaphthylene	500.000	502.317	-0.5	95	0.00
9	T,M	Acenaphthene	500.000	498.060	0.4	93	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11	S	Pyrene-d10	500.000	521.177	-4.2	97	0.00
12	T	Fluorene	500.000	511.134	-2.2	96	0.00
13	T	Phenanthrene	500.000	484.729	3.1	93	0.00
14	T	Anthracene	500.000	489.372	2.1	91	0.00
15	T	Fluoranthene	500.000	498.236	0.4	94	0.00
16	T,M	Pyrene	500.000	526.531	-5.3	99	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	95	0.00
18	S	Terphenyl-d14	500.000	509.840	-2.0	99	0.00
19	T	Benzo[a]anthracene	500.000	502.185	-0.4	93	0.00
20	T	Chrysene	500.000	478.109	4.4	90	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	96	0.00
22	T	Benzo[b]fluoranthene	500.000	486.610	2.7	90	0.00
23	T	Benzo(j,k)fluoranthene	500.000	507.827	-1.6	99	0.00
24	T	Benzo[a]pyrene	500.000	466.208	6.8	88	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	491.991	1.6	93	0.00
26	T	Dibenz[a,h]anthracene	500.000	504.959	-1.0	95	0.00
27	T	Benzo[g,h,i]perylene	500.000	500.739	-0.1	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

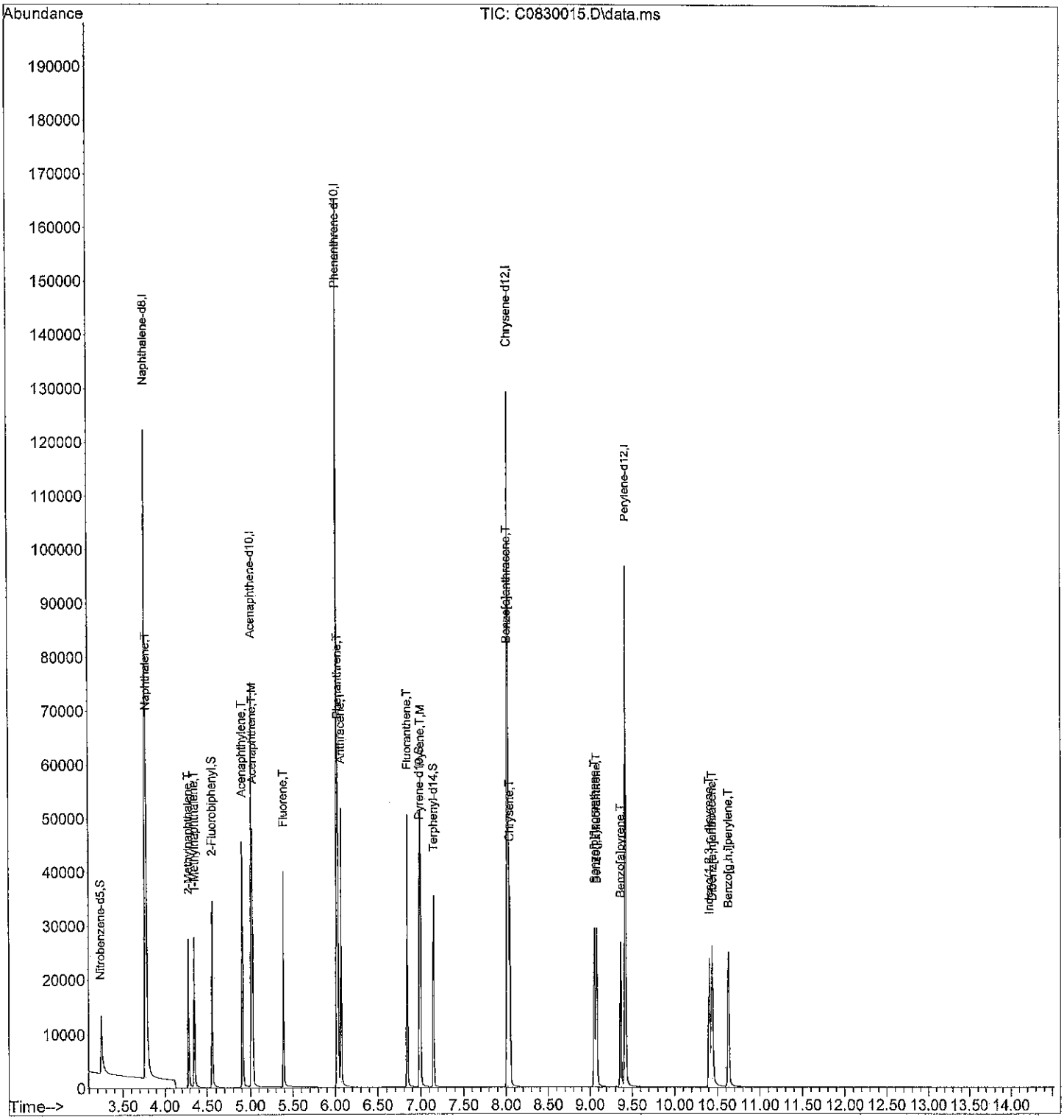
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	121192	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	60983	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.017	188	114380	2000.00	ppb	-0.11
17) Chrysene-d12	8.021	240	108137	2000.00	ppb	-0.15
21) Perylene-d12	9.424	264	107919	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.242	82	22201	385.57	ppb	-0.11
Spiked Amount 1000.000	Range 24 - 92		Recovery = 38.56%			
7) 2-Fluorobiphenyl	4.558	172	27859	561.87	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 56.19%			
11) Pyrene-d10	6.987	212	27458	521.18	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 52.12%			
18) Terphenyl-d14	7.150	244	25318	509.84	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 50.98%			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	32086	511.00	ppb	100
4) 2-Methylnaphthalene	4.285	142	20654	494.76	ppb	100
5) 1-Methylnaphthalene	4.352	142	20625	523.90	ppb	100
8) Acenaphthylene	4.905	152	32335	502.32	ppb	100
9) Acenaphthene	5.028	153	20028	498.06	ppb	100
12) Fluorene	5.391	166	24110	511.13	ppb	100
13) Phenanthrene	6.033	178	33223	484.73	ppb	100
14) Anthracene	6.068	178	33260	489.37	ppb	100
15) Fluoranthene	6.842	202	37247	498.24	ppb	100
16) Pyrene	6.999	202	40717	526.53	ppb	100
19) Benzo[a]anthracene	8.014	228	34207	502.19	ppb	100
20) Chrysene	8.045	228	32640	478.11	ppb	100
22) Benzo[b]fluoranthene	9.053	252	32469	486.61	ppb	100
23) Benzo(j,k)fluoranthene	9.081	252	33936	507.83	ppb	100
24) Benzo[a]pyrene	9.362	252	29248	466.21	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.407	276	27877	491.99	ppb	100
26) Dibenz[a,h]anthracene	10.442	278	29314	504.96	ppb	100
27) Benzo[g,h,i]perylene	10.629	276	31442	500.74	ppb	100

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

ZT
8-30-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration



Compound List Report Corey

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Thu Aug 30 16:14:45 2018
Response Via : Initial Calibration

Total Cpnds : 27

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	3.770	1.000	A	0	A	R
2	S	Nitrobenzene-d5	82	3.242	0.860	A	0	A	R
3	T	Naphthalene	128	3.781	1.003	A	0	A	R
4	T	2-Methylnaphthalene	142	4.285	1.137	A	0	A	R
5	T	1-Methylnaphthalene	142	4.352	1.154	A	0	A	R
6	I	Acenaphthene-d10	164	5.013	1.000	A	0	A	R
7	S	2-Fluorobiphenyl	172	4.558	0.909	A	0	A	R
8	T	Acenaphthylene	152	4.905	0.978	A	0	A	R
9	T	Acenaphthene	153	5.028	1.003	A	0	A	R
10	I	Phenanthrene-d10	188	6.017	1.000	A	0	A	R
11	S	Pyrene-d10	212	6.987	1.161	A	0	A	R
12	T	Fluorene	166	5.391	0.896	A	0	A	R
13	T	Phenanthrene	178	6.033	1.003	A	0	A	R
14	T	Anthracene	178	6.068	1.008	A	0	A	R
15	T	Fluoranthene	202	6.842	1.137	A	0	A	R
16	T	Pyrene	202	6.999	1.163	A	0	A	R
17	I	Chrysene-d12	240	8.021	1.000	A	0	A	R
18	S	Terphenyl-d14	244	7.150	0.891	A	0	A	R
19	T	Benzo[a]anthracene	228	8.014	0.999	L	0	A	R
20	T	Chrysene	228	8.045	1.003	A	0	A	R
21	I	Perylene-d12	264	9.424	1.000	A	0	A	R
22	T	Benzo[b]fluoranthene	252	9.053	0.961	A	0	A	R
23	T	Benzo(j,k)fluoranthene	252	9.081	0.964	A	0	A	R
24	T	Benzo[a]pyrene	252	9.362	0.993	A	0	A	R
25	T	Indeno(1,2,3-c,d)pyrene	276	10.407	1.104	A	0	A	R
26	T	Dibenz[a,h]anthracene	278	10.442	1.108	A	0	A	R
27	T	Benzo[g,h,i]perylene	276	10.629	1.128	A	0	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

CSIM0830.M Sat Sep 01 12:39:56 2018

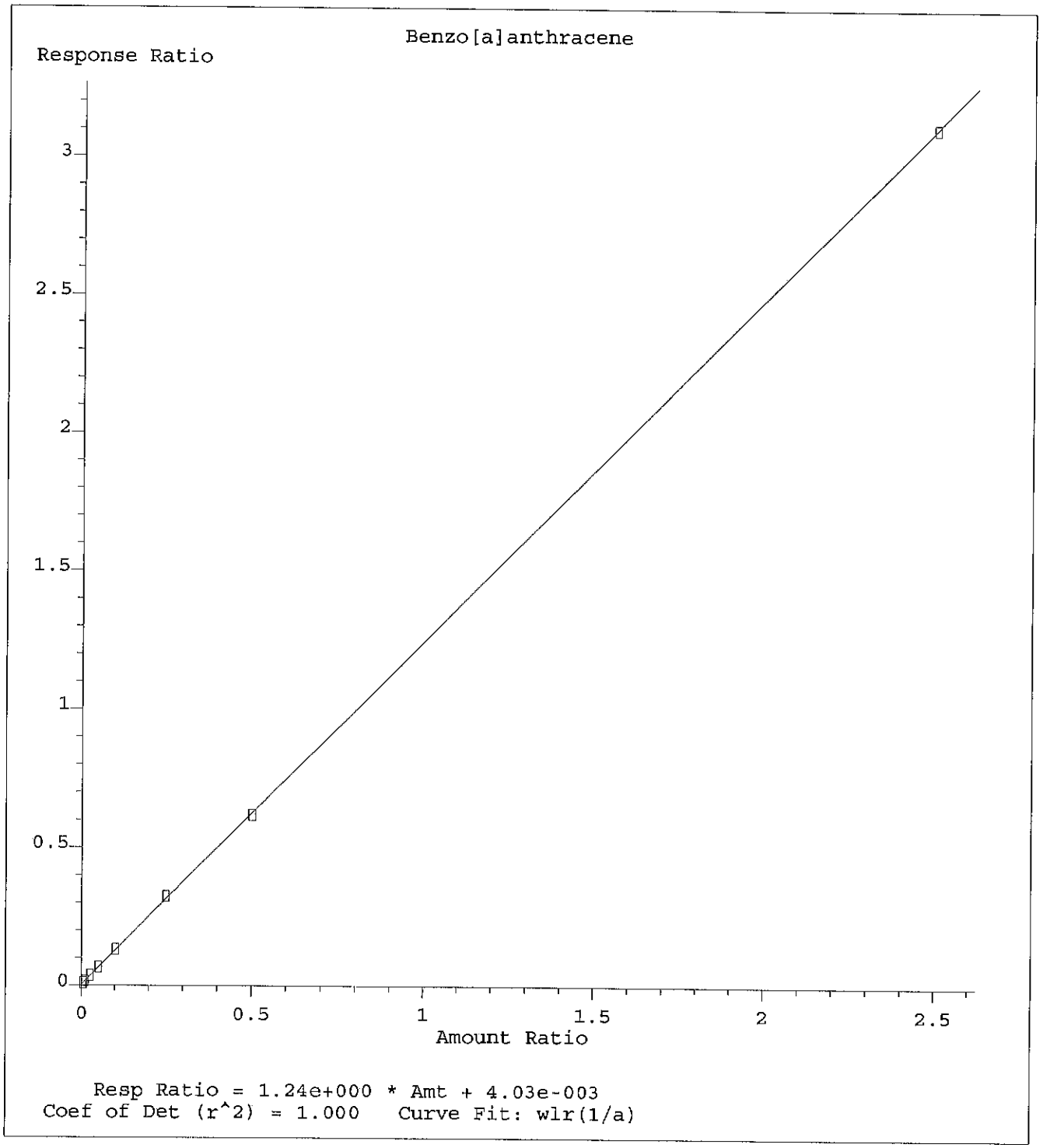
Response Factor Report Corey

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Thu Aug 30 16:14:45 2018
Response Via : Initial Calibration

Calibration Files
10 =C0830007.D 20 =C0830008.D 50 =C0830009.D 100 =C0830010.D 200 =C0830011.D 500 =C0830012.D 1000=C0830013.D
5000=C0830014.D

		Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1)	I	Naphthalene-d8	----------ISTD----------									
2)	S	Nitrobenzene-d5	0.424	2.951	0.747	1.216	0.675	0.325	0.313	0.950	98.58	
3)	T	Naphthalene	1.038	1.035	1.069	1.028	1.041	1.036	1.033	1.009	1.036	1.61
4)	T	2-Methylnaphth...	0.704	0.671	0.718	0.691	0.699	0.687	0.664	0.678	0.689	2.59
5)	T	1-Methylnaphth...	0.645	0.646	0.682	0.658	0.657	0.655	0.625	0.629	0.650	2.76
6)	I	Acenaphthene-d10	----------ISTD----------									
7)	S	2-Fluorobiphenyl	1.670	1.646	1.696	1.569	1.611	1.606	1.545	1.665	1.626	3.22
8)	T	Acenaphthylene	2.175	2.338	2.181	2.000	2.118	2.088	2.009	1.980	2.111	5.69
9)	T,M	Acenaphthene	1.347	1.488	1.370	1.240	1.296	1.318	1.274	1.216	1.319	6.50
10)	I	Phenanthrene-d10	----------ISTD----------									
11)	S	Pyrene-d10	0.934	0.913	0.954	0.919	0.913	0.933	0.905	0.900	0.921	1.95
12)	T	Fluorene	0.875	0.845	0.878	0.843	0.810	0.827	0.783	0.739	0.825	5.69
13)	T	Phenanthrene	1.327	1.230	1.264	1.190	1.176	1.171	1.125	1.104	1.198	6.11
14)	T	Anthracene	1.211	1.193	1.240	1.183	1.183	1.201	1.152	1.145	1.188	2.58
15)	T	Fluoranthene	1.382	1.292	1.370	1.301	1.300	1.306	1.273	1.233	1.307	3.71
16)	T,M	Pyrene	1.442	1.338	1.404	1.341	1.339	1.359	1.309	1.286	1.352	3.70
17)	I	Chrysene-d12	----------ISTD----------									
18)	S	Terphenyl-d14	1.123	0.905	0.955	0.877	0.885	0.897	0.875	0.830	0.918	9.76
19)	T	Benzo[a]anthra...	1.976	1.589	1.479	1.341	1.310	1.294	1.237	1.243	1.433	17.46
20)	T	Chrysene	1.344	1.254	1.321	1.246	1.264	1.281	1.210	1.181	1.263	4.25
21)	I	Perylene-d12	----------ISTD----------									
22)	T	Benzo[b]fluora...	1.311	1.212	1.261	1.218	1.187	1.280	1.199	1.225	1.237	3.49
23)	T	Benzo(j,k)fluo...	1.281	1.223	1.296	1.197	1.254	1.216	1.217	1.222	1.238	2.83
24)	T	Benzo[a]pyrene	1.218	1.141	1.189	1.130	1.132	1.172	1.138	1.182	1.163	2.76
25)	T	Indeno(1,2,3-c...	1.132	1.010	1.062	1.000	1.020	1.059	1.023	1.095	1.050	4.37
26)	T	Dibenz[a,h]ant...	1.109	1.044	1.098	1.007	1.057	1.093	1.072	1.127	1.076	3.62
27)	T	Benzo[g,h,i]pe...	1.251	1.154	1.200	1.126	1.137	1.164	1.132	1.146	1.164	3.63

(#) = Out of Range



Method Name: C:\MSDCHEM\1\METHODS\CSIM0830.M
Calibration Table Last Updated: Thu Aug 30 16:14:45 2018

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830007.D
Acq On : 30 Aug 2018 11:02 am
Operator :
Sample : 10 PPB
Misc : SV5-047-29
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 30 11:16:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	143494	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	71270	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	131245	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	119153	2000.00	ppb	-0.14
21) Perylene-d12	9.428	264	119411	2000.00	ppb	-0.16
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	4.556	172	595	9.32	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.93%#		
11) Pyrene-d10	6.983	212	613	9.66	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.97%#		
18) Terphenyl-d14	7.146	244	669	11.77	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery =	1.18%#		
Target Compounds						Qvalue
3) Naphthalene	3.780	128	745	9.82	ppb	100
4) 2-Methylnaphthalene	4.287	142	505	9.58	ppb	100
5) 1-Methylnaphthalene	4.353	142	463	9.23	ppb	100
8) Acenaphthylene	4.912	152	775	9.14	ppb	100
9) Acenaphthene	5.028	153	480	9.19	ppb	100
12) Fluorene	5.390	166	574	9.80	ppb	100
13) Phenanthrene	6.033	178	871	10.16	ppb	100
14) Anthracene	6.068	178	795	9.28	ppb	100
15) Fluoranthene	6.838	202	907	9.67	ppb	100
16) Pyrene	6.995	202	946	9.80	ppb	100
19) Benzo[a]anthracene	8.017	228	1177	7.06	ppb	100
20) Chrysene	8.044	228	801	9.63	ppb	100
22) Benzo[b]fluoranthene	9.053	252	783	9.27	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	765	9.29	ppb	100
24) Benzo[a]pyrene	9.365	252	727	9.11	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	676	9.08	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	662	8.78	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	747	9.36	ppb	100

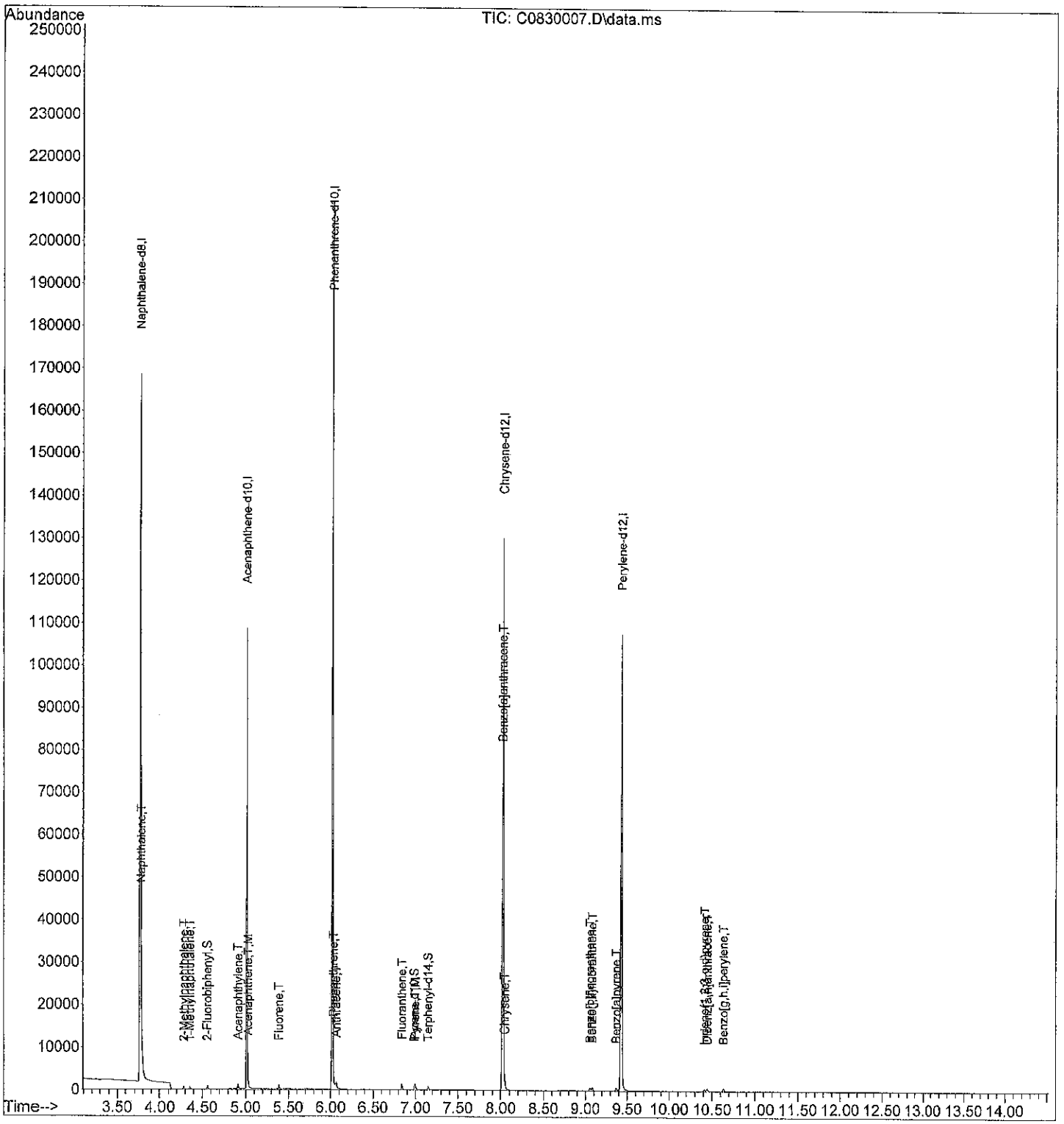
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830007.D
Acq On : 30 Aug 2018 11:02 am
Operator :
Sample : 10 PPB
Misc : SV5-047-29
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 30 11:16:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830008.D
Acq On : 30 Aug 2018 11:23 am
Operator :
Sample : 20 PPB
Misc : SV5-047-28
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 30 11:38:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	143234	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.014	164	68528	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	130385	2000.00	ppb	-0.10
17) Chrysene-d12	8.025	240	119131	2000.00	ppb	-0.14
21) Perylene-d12	9.424	264	118529	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	608	29.74	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 2.97%#			
7) 2-Fluorobiphenyl	4.558	172	1128	18.39	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 1.84%#			
11) Pyrene-d10	6.987	212	1190	18.87	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 1.89%#			
18) Terphenyl-d14	7.150	244	1078	18.98	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 1.90%#			
Target Compounds						Qvalue
3) Naphthalene	3.782	128	1482	19.57	ppb	100
4) 2-Methylnaphthalene	4.285	142	961	18.26	ppb	100
5) 1-Methylnaphthalene	4.352	142	925	18.48	ppb	100
8) Acenaphthylene	4.906	152	1602 ~~2182~~	26.77	ppb	100
9) Acenaphthene	5.029	153	1020	20.30	ppb	100
12) Fluorene	5.391	166	1102	18.94	ppb	100
13) Phenanthrene	6.033	178	1604	18.83	ppb	100
14) Anthracene	6.068	178	1555	18.27	ppb	100
15) Fluoranthene	6.842	202	1684	18.07	ppb	100
16) Pyrene	6.999	202	1744	18.19	ppb	100
19) Benzo[a]anthracene	8.017	228	1893	15.70	ppb	100
20) Chrysene	8.044	228	1494	17.96	ppb	100
22) Benzo[b]fluoranthene	9.057	252	1437	17.13	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	1450	17.73	ppb	100
24) Benzo[a]pyrene	9.365	252	1352	17.08	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	1197	16.20	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	1237	16.53	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	1368	17.27	ppb	100

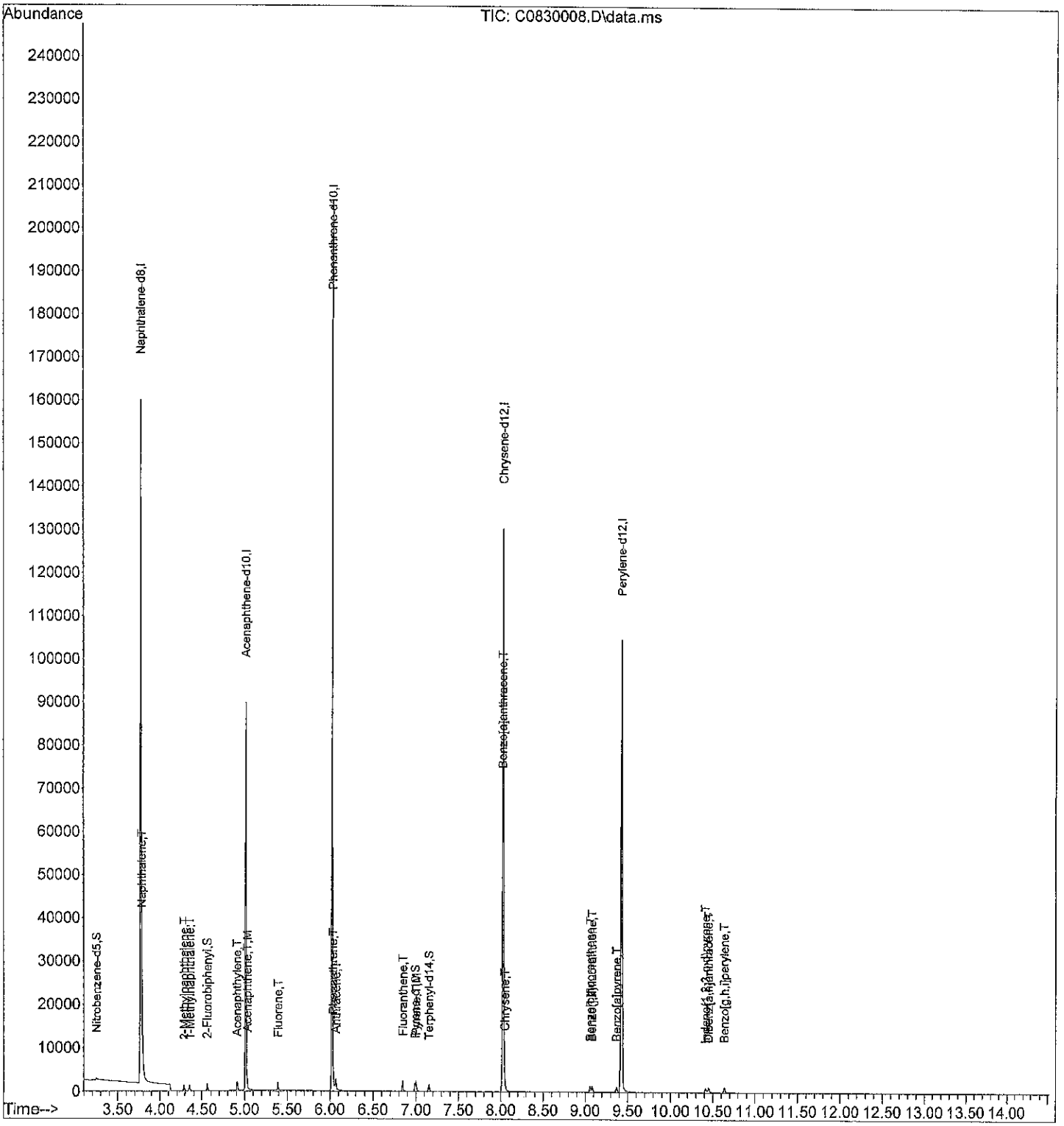
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830008.D
Acq On : 30 Aug 2018 11:23 am
Operator :
Sample : 20 PPB
Misc : SV5-047-28
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 30 11:38:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830009.D
Acq On : 30 Aug 2018 11:45 am
Operator :
Sample : 50 PPB
Misc : SV5-047-27
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 30 12:00:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	138246	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	69005	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	127889	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	117749	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	117571	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	10200	516.90	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 51.69%			
7) 2-Fluorobiphenyl	4.556	172	2926	47.36	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 4.74%#			
11) Pyrene-d10	6.988	212	3050	49.32	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 4.93%#			
18) Terphenyl-d14	7.150	244	2811	50.06	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 5.01%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	3696	50.57	ppb	100
4) 2-Methylnaphthalene	4.287	142	2482	48.87	ppb	100
5) 1-Methylnaphthalene	4.353	142	2357	48.79	ppb	100
8) Acenaphthylene	4.904	152	3763	45.84	ppb	100
9) Acenaphthene	5.028	153	2364	46.73	ppb	100
12) Fluorene	5.390	166	2807	49.20	ppb	100
13) Phenanthrene	6.032	178	4042	48.38	ppb	100
14) Anthracene	6.067	178	3964	47.48	ppb	100
15) Fluoranthene	6.843	202	4380	47.91	ppb	100
16) Pyrene	6.999	202	4490	47.74	ppb	100
19) Benzo[a]anthracene	8.016	228	4353	46.00	ppb	100
20) Chrysene	8.044	228	3888	47.30	ppb	100
22) Benzo[b]fluoranthene	9.056	252	3705	44.53	ppb	100
23) Benzo(j,k)fluoranthene	9.084	252	3810	46.98	ppb	100
24) Benzo[a]pyrene	9.364	252	3494	44.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.409	276	3121	42.60	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	3227	43.48	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	3526	44.87	ppb	100

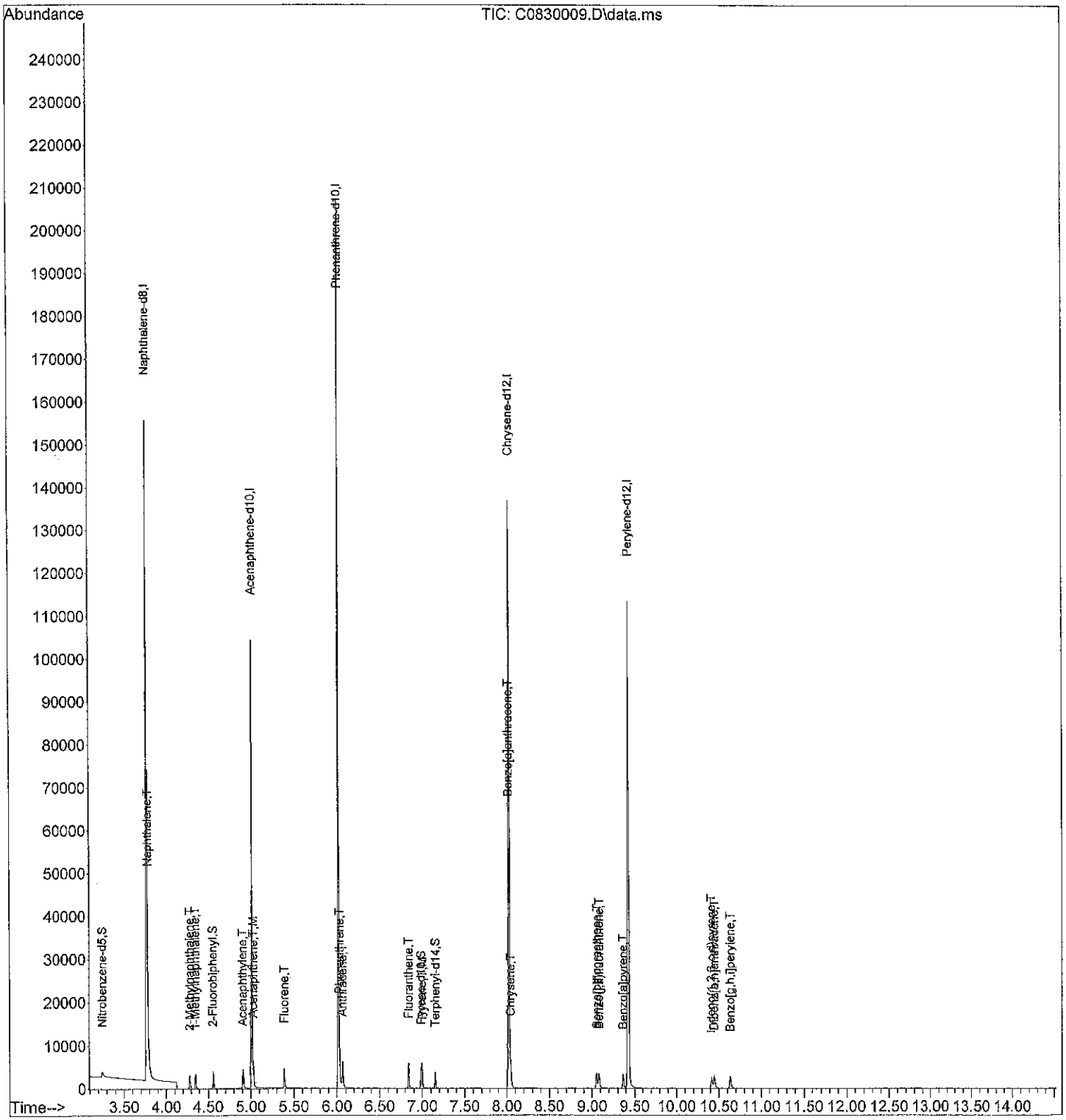
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830009.D
Acq On : 30 Aug 2018 11:45 am
Operator :
Sample : 50 PPB
Misc : SV5-047-27
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 30 12:00:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830010.D
Acq On : 30 Aug 2018 12:07 pm
Operator :
Sample : 100 PPB
Misc : SV5-047-26
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 30 12:22:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	135124	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	70294	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.020	188	127515	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	118297	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	117723	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	5045	261.57	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 26.16%			
7) 2-Fluorobiphenyl	4.556	172	5515	87.63	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 8.76%#			
11) Pyrene-d10	6.982	212	5857	94.98	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 9.50%#			
18) Terphenyl-d14	7.145	244	5188	91.97	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 9.20%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	6944	97.20	ppb	100
4) 2-Methylnaphthalene	4.287	142	4667	94.02	ppb	100
5) 1-Methylnaphthalene	4.353	142	4445	94.14	ppb	100
8) Acenaphthylene	4.905	152	7031	84.08	ppb	100
9) Acenaphthene	5.028	153	4359	84.59	ppb	100
12) Fluorene	5.390	166	5372	94.43	ppb	100
13) Phenanthrene	6.032	178	7585	91.05	ppb	100
14) Anthracene	6.067	178	7540	90.58	ppb	100
15) Fluoranthene	6.837	202	8296	91.01	ppb	100
16) Pyrene	6.994	202	8551	91.18	ppb	100
19) Benzo[a]anthracene	8.012	228	7930	89.21	ppb	100
20) Chrysene	8.044	228	7368	89.21	ppb	100
22) Benzo[b]fluoranthene	9.052	252	7170	86.07	ppb	100
23) Benzo(j,k)fluoranthene	9.079	252	7044	86.74	ppb	100
24) Benzo[a]pyrene	9.364	252	6654	84.62	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	5887	80.24	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	5930	79.80	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	6626	84.22	ppb	100

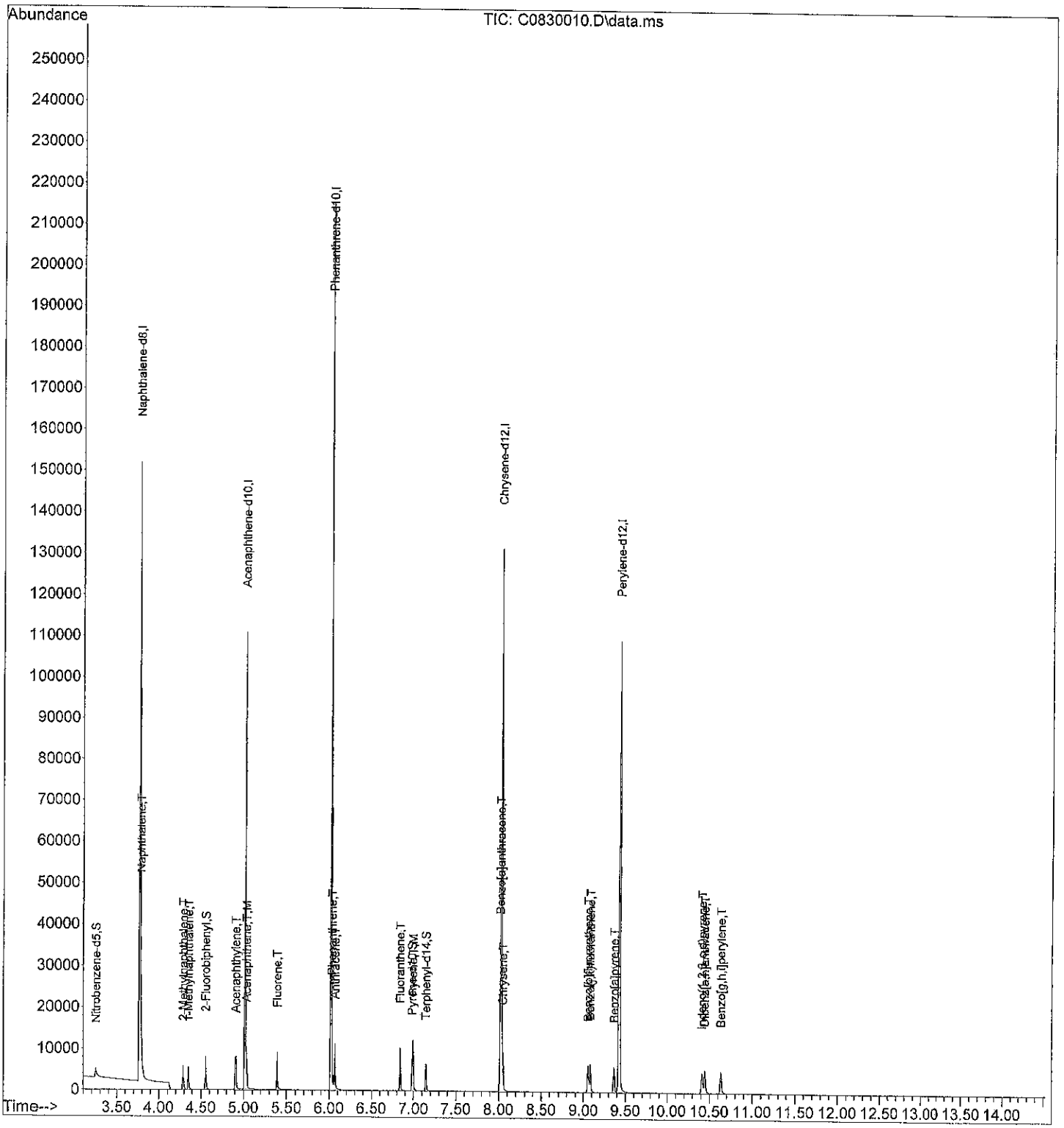
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830010.D
Acq On : 30 Aug 2018 12:07 pm
Operator :
Sample : 100 PPB
Misc : SV5-047-26
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 30 12:22:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830011.D
Acq On : 30 Aug 2018 12:29 pm
Operator :
Sample : 200 PPB
Misc : SV5-047-25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 30 12:43:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	132200	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.014	164	67339	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	125973	2000.00	ppb	-0.10
17) Chrysene-d12	8.022	240	116882	2000.00	ppb	-0.15
21) Perylene-d12	9.424	264	116674	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	16073	851.78	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 85.18%			
7) 2-Fluorobiphenyl	4.559	172	10851	179.99	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 18.00%#			
11) Pyrene-d10	6.982	212	11496	188.71	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 18.87%#			
18) Terphenyl-d14	7.150	244	10348	185.66	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 18.57%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	13762	196.90	ppb	100
4) 2-Methylnaphthalene	4.286	142	9235	190.17	ppb	100
5) 1-Methylnaphthalene	4.352	142	8690	188.12	ppb	100
8) Acenaphthylene	4.906	152	14265	178.08	ppb	100
9) Acenaphthene	5.029	153	8726	176.76	ppb	100
12) Fluorene	5.391	166	10198	181.45	ppb	100
13) Phenanthrene	6.033	178	14813	179.98	ppb	100
14) Anthracene	6.068	178	14898	181.16	ppb	100
15) Fluoranthene	6.843	202	16374	181.83	ppb	100
16) Pyrene	6.993	202	16866	182.04	ppb	100
19) Benzo[a]anthracene	8.014	228	15307	181.09	ppb	100
20) Chrysene	8.045	228	14771	181.02	ppb	100
22) Benzo[b]fluoranthene	9.054	252	13845	167.70	ppb	100
23) Benzo(j,k)fluoranthene	9.081	252	14636	181.86	ppb	100
24) Benzo[a]pyrene	9.362	252	13209	169.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	11896	163.60	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	12332	167.45	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	13262	170.08	ppb	100

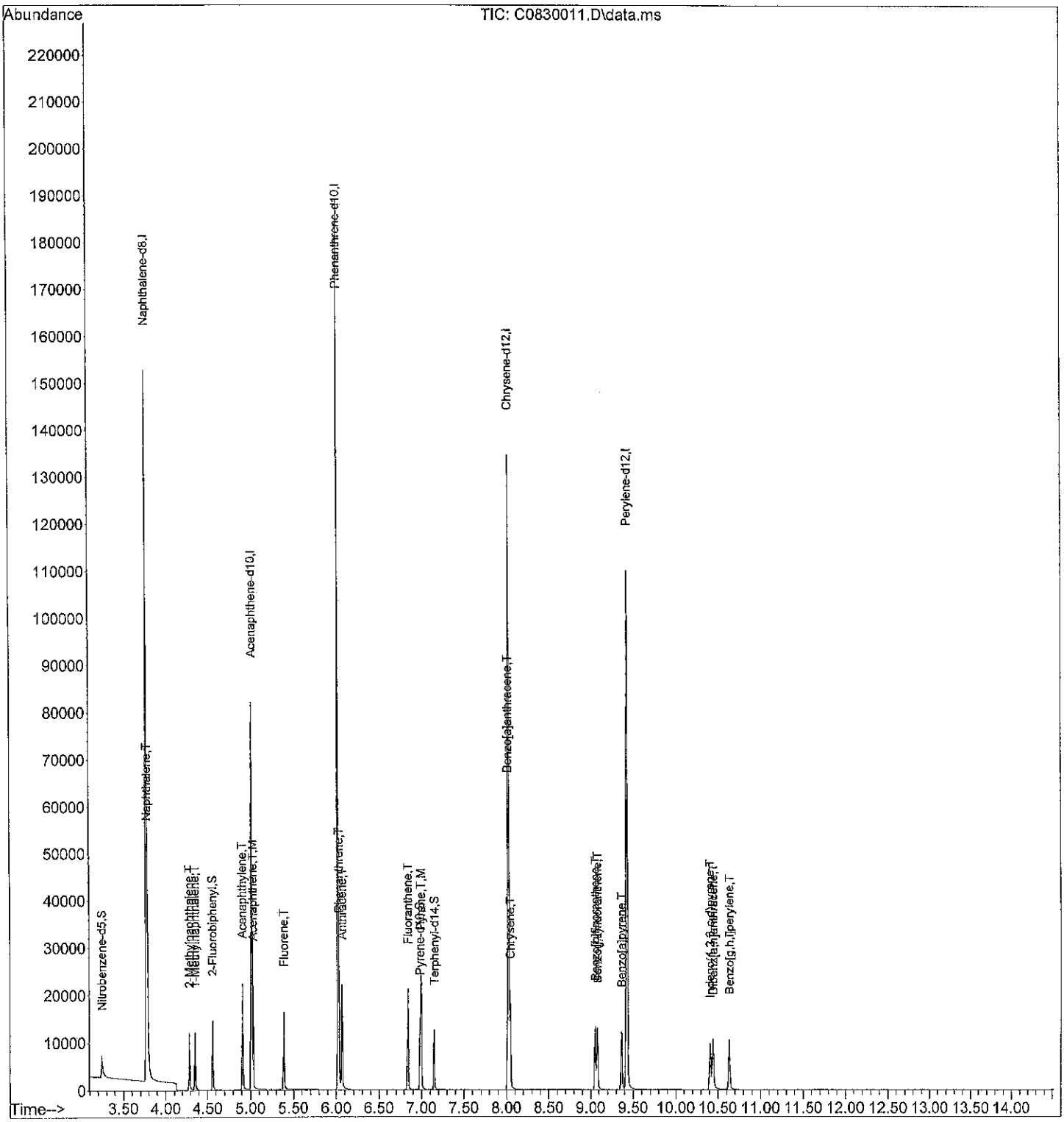
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830011.D
Acq On : 30 Aug 2018 12:29 pm
Operator :
Sample : 200 PPB
Misc : SV5-047-25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 30 12:43:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830012.D
Acq On : 30 Aug 2018 12:51 pm
Operator :
Sample : 500 PPB
Misc : SV5-047-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 30 13:05:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	130439	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	65226	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	121626	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	113679	2000.00	ppb	-0.14
21) Perylene-d12	9.423	264	112904	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	22027	1183.07	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 118.31%#			
7) 2-Fluorobiphenyl	4.556	172	26186	448.42	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 44.84%			
11) Pyrene-d10	6.982	212	28370	482.35	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 48.23%			
18) Terphenyl-d14	7.145	244	25502	470.45	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 47.04%			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	33788	489.94	ppb	100
4) 2-Methylnaphthalene	4.286	142	22400	467.49	ppb	100
5) 1-Methylnaphthalene	4.353	142	21356	468.55	ppb	100
8) Acenaphthylene	4.905	152	34044	438.77	ppb	100
9) Acenaphthene	5.029	153	21490	449.42	ppb	100
12) Fluorene	5.391	166	25138	463.26	ppb	100
13) Phenanthrene	6.032	178	35602	448.03	ppb	100
14) Anthracene	6.068	178	36505	459.77	ppb	100
15) Fluoranthene	6.837	202	39718	456.83	ppb	100
16) Pyrene	6.994	202	41312	461.83	ppb	100
19) Benzo[a]anthracene	8.012	228	36775	457.80	ppb	100
20) Chrysene	8.044	228	36399	458.63	ppb	100
22) Benzo[b]fluoranthene	9.053	252	36118	452.08	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	34331	440.82	ppb	100
24) Benzo[a]pyrene	9.365	252	33067	438.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	29897	424.90	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	30851	432.90	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	32845	435.28	ppb	100

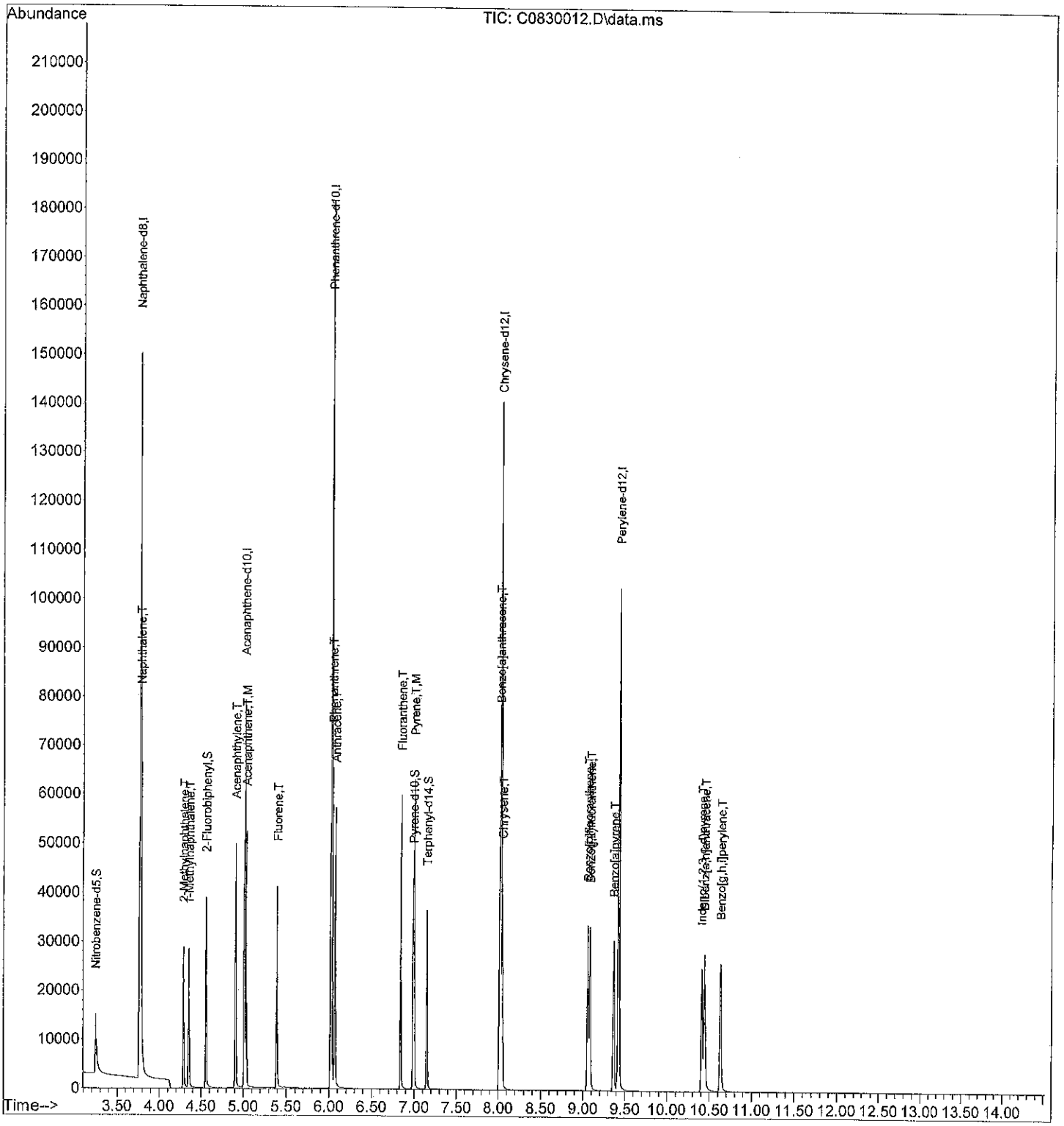
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830012.D
Acq On : 30 Aug 2018 12:51 pm
Operator :
Sample : 500 PPB
Misc : SV5-047-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 30 13:05:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830013.D
Acq On : 30 Aug 2018 1:12 pm
Operator :
Sample : 1000 PPB
Misc : SV5-047-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 30 13:27:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

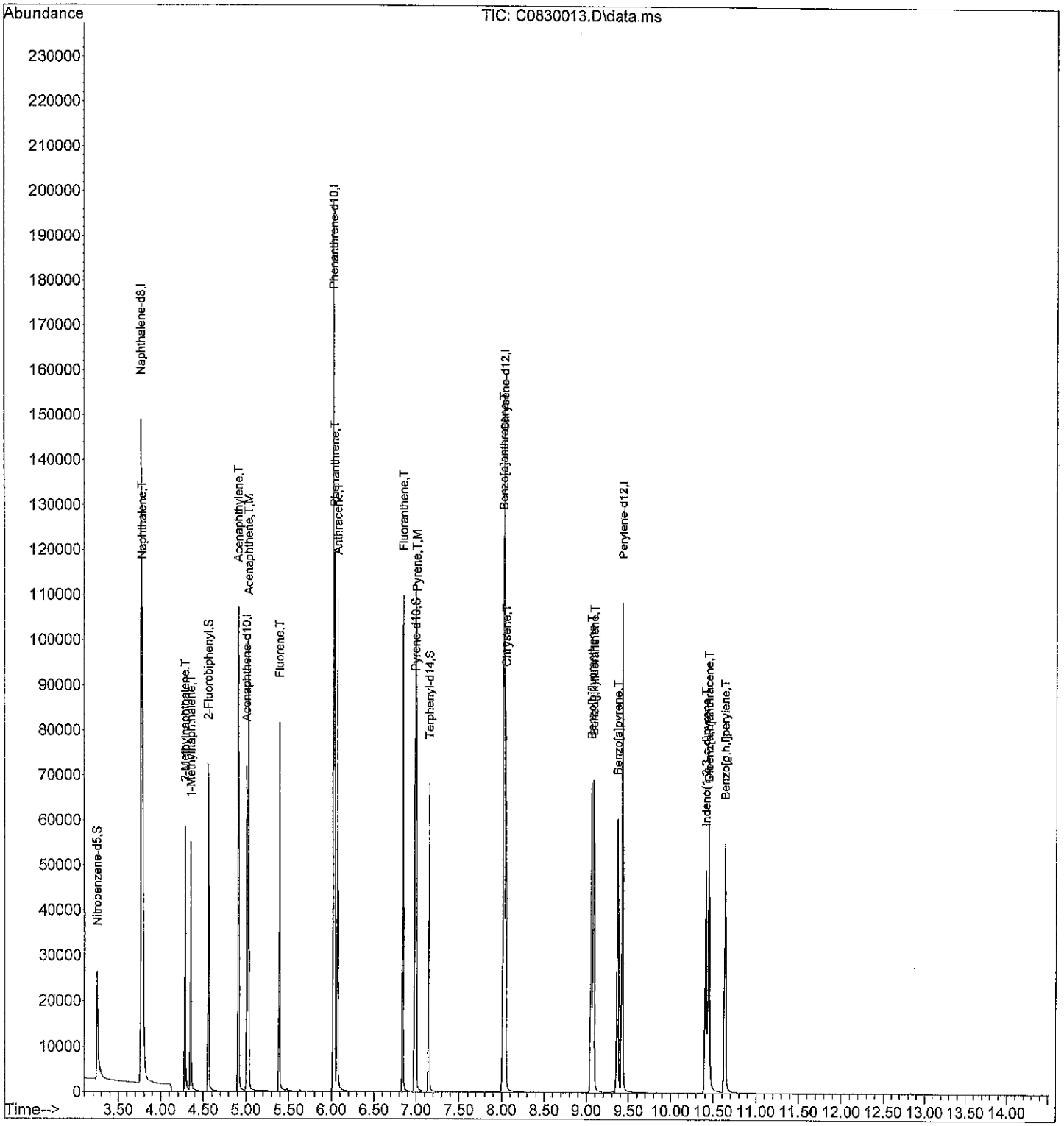
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	132708	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.006	164	66236	2000.00	ppb	-0.11
10) Phenanthrene-d10	6.018	188	125299	2000.00	ppb	-0.11
17) Chrysene-d12	8.025	240	120159	2000.00	ppb	-0.14
21) Perylene-d12	9.426	264	119904	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	21534	1136.81	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 113.68%#			
7) 2-Fluorobiphenyl	4.555	172	51176	862.99	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 86.30%			
11) Pyrene-d10	6.988	212	56678	935.40	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 93.54%			
18) Terphenyl-d14	7.150	244	52571	917.51	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 91.75%			
Target Compounds						Qvalue
3) Naphthalene	3.779	128	68555	977.08	ppb	100
4) 2-Methylnaphthalene	4.286	142	44071	904.04	ppb	100
5) 1-Methylnaphthalene	4.352	142	41504	895.03	ppb	100
8) Acenaphthylene	4.906	152	66528	844.35	ppb	100
9) Acenaphthene	5.029	153	42206	869.20	ppb	100
12) Fluorene	5.391	166	49043	877.30	ppb	100
13) Phenanthrene	6.033	178	70504	861.25	ppb	100
14) Anthracene	6.068	178	72184	882.48	ppb	100
15) Fluoranthene	6.842	202	79763	890.52	ppb	100
16) Pyrene	6.999	202	82000	889.82	ppb	100
19) Benzo[a]anthracene	8.014	228	74306	881.63	ppb	100
20) Chrysene	8.045	228	72713	866.78	ppb	100
22) Benzo[b]fluoranthene	9.055	252	71862	846.97	ppb	100
23) Benzo(j,k)fluoranthene	9.083	252	72961	882.15	ppb	100
24) Benzo[a]pyrene	9.364	252	68252	852.16	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.409	276	61324	820.66	ppb	100
26) Dibenz[a,h]anthracene	10.444	278	64245	848.85	ppb	100
27) Benzo[g,h,i]perylene	10.635	276	67895	847.26	ppb	100

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

ZT
8-30-18

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830013.D
Acq On : 30 Aug 2018 1:12 pm
Operator :
Sample : 1000 PPB
Misc : SV5-047-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 30 13:27:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830014.D
Acq On : 30 Aug 2018 1:34 pm
Operator :
Sample : 5000 PPB
Misc : SV5-047-22
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 30 13:49:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	131768	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	66604	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	125823	2000.00	ppb	-0.10
17) Chrysene-d12	8.028	240	121605	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	120485	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	103211	5487.55	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 548.76%#			
7) 2-Fluorobiphenyl	4.559	172	277320	4650.68	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 465.07%#			
11) Pyrene-d10	6.988	212	283127	4653.19	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 465.32%#			
18) Terphenyl-d14	7.151	244	252328	4351.44	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 435.14%#			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	332467	4772.28	ppb	100
4) 2-Methylnaphthalene	4.286	142	223347	4614.25	ppb	100
5) 1-Methylnaphthalene	4.353	142	207101	4497.97	ppb	100
8) Acenaphthylene	4.912	152	329663	4160.87	ppb	100
9) Acenaphthene	5.035	153	202518	4147.67	ppb	100
12) Fluorene	5.390	166	232399	4139.92	ppb	100
13) Phenanthrene	6.036	178	347300	4224.80	ppb	100
14) Anthracene	6.071	178	360262	4386.03	ppb	100
15) Fluoranthene	6.843	202	387985	4313.64	ppb	100
16) Pyrene	7.000	202	404617	4372.40	ppb	100
19) Benzo[a]anthracene	8.016	228	377967	4459.92	ppb	100
20) Chrysene	8.051	228	359123	4230.05	ppb	100
22) Benzo[b]fluoranthene	9.064	252	369064	4328.86	ppb	100
23) Benzo(j,k)fluoranthene	9.091	252	368166	4429.91	ppb	100
24) Benzo[a]pyrene	9.372	252	355926	4422.47	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.425	276	329785	4392.02	ppb	100
26) Dibenz[a,h]anthracene	10.456	278	339612	4465.53	ppb	100
27) Benzo[g,h,i]perylene	10.651	276	345182	4286.76	ppb	100

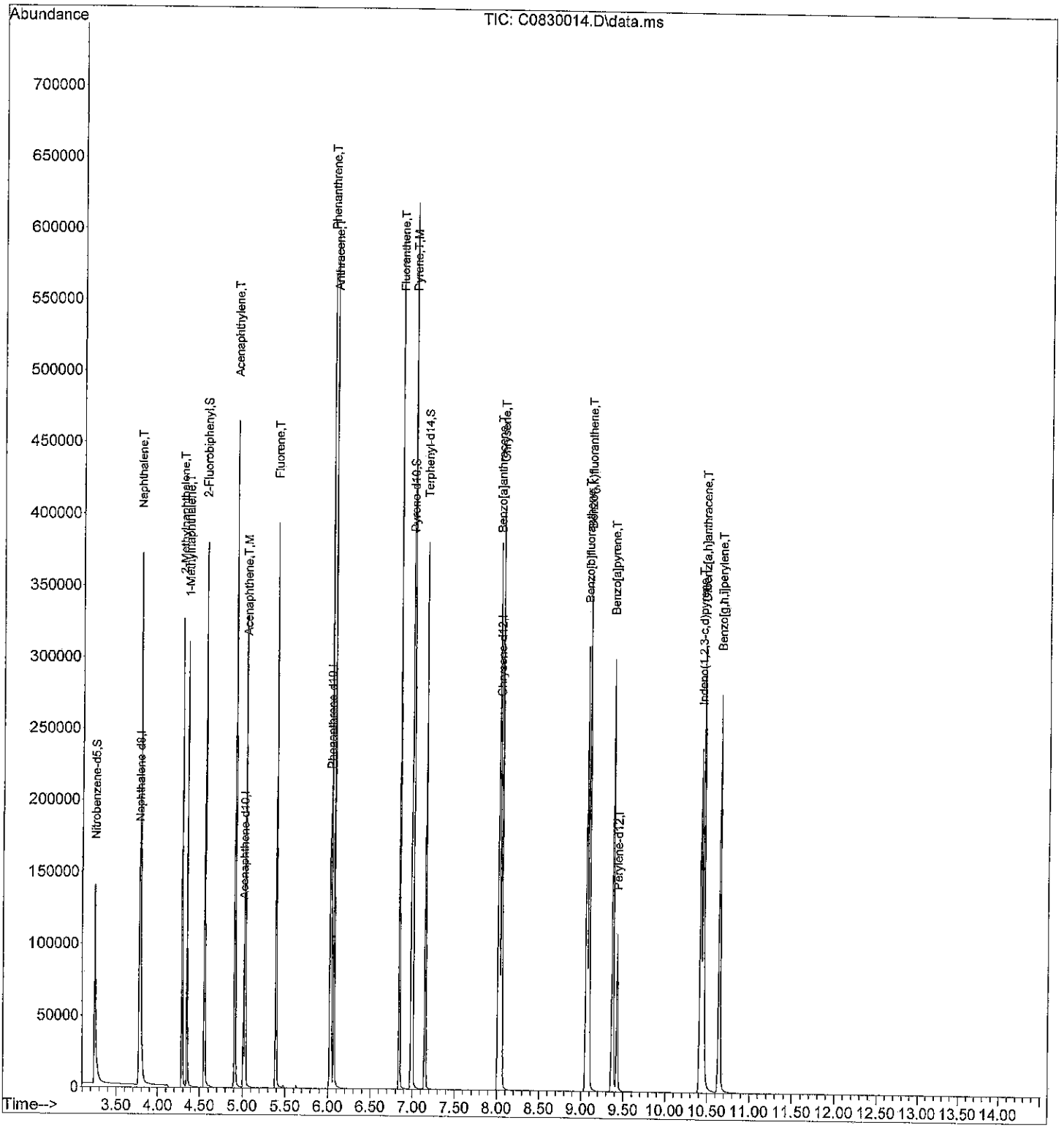
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830014.D
Acq On : 30 Aug 2018 1:34 pm
Operator :
Sample : 5000 PPB
Misc : SV5-047-22
ALS Vial : 14 Sample Multiplier: 1

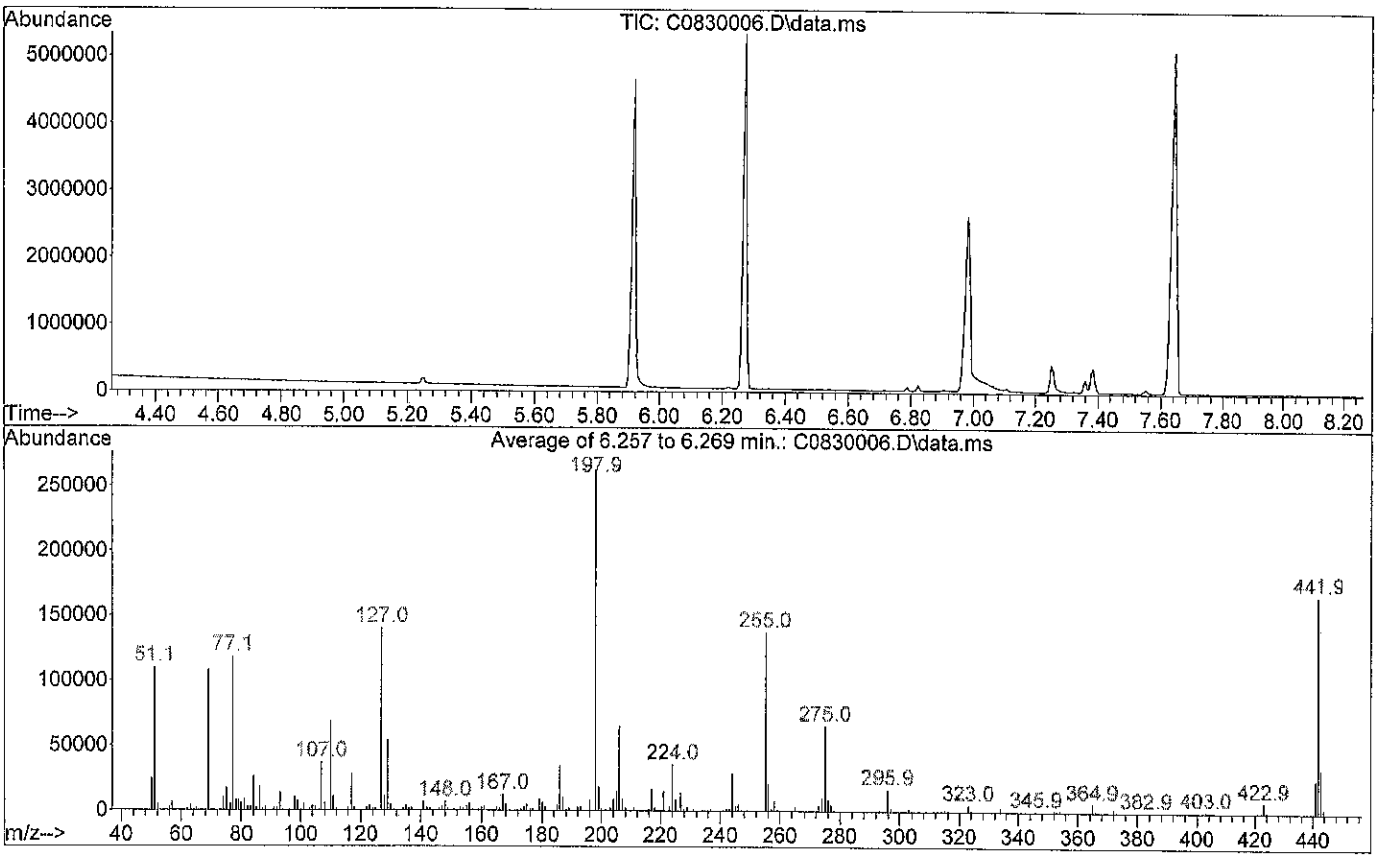
Quant Time: Aug 30 13:49:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Wed Aug 22 14:19:05 2018



Spectrum Information: Average of 6.257 to 6.269 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	41.9	110317	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.3	108584	PASS
70	69	0.00	2	0.8	877	PASS
127	198	10	80	53.4	140594	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	263077	PASS
199	198	5	9	7.0	18361	PASS
275	198	10	60	25.1	66002	PASS
365	198	0.10	100	2.7	7080	PASS
441	443	0.01	100	73.9	25438	PASS
442	198	40	110	63.8	167853	PASS
443	442	15	24	20.5	34413	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

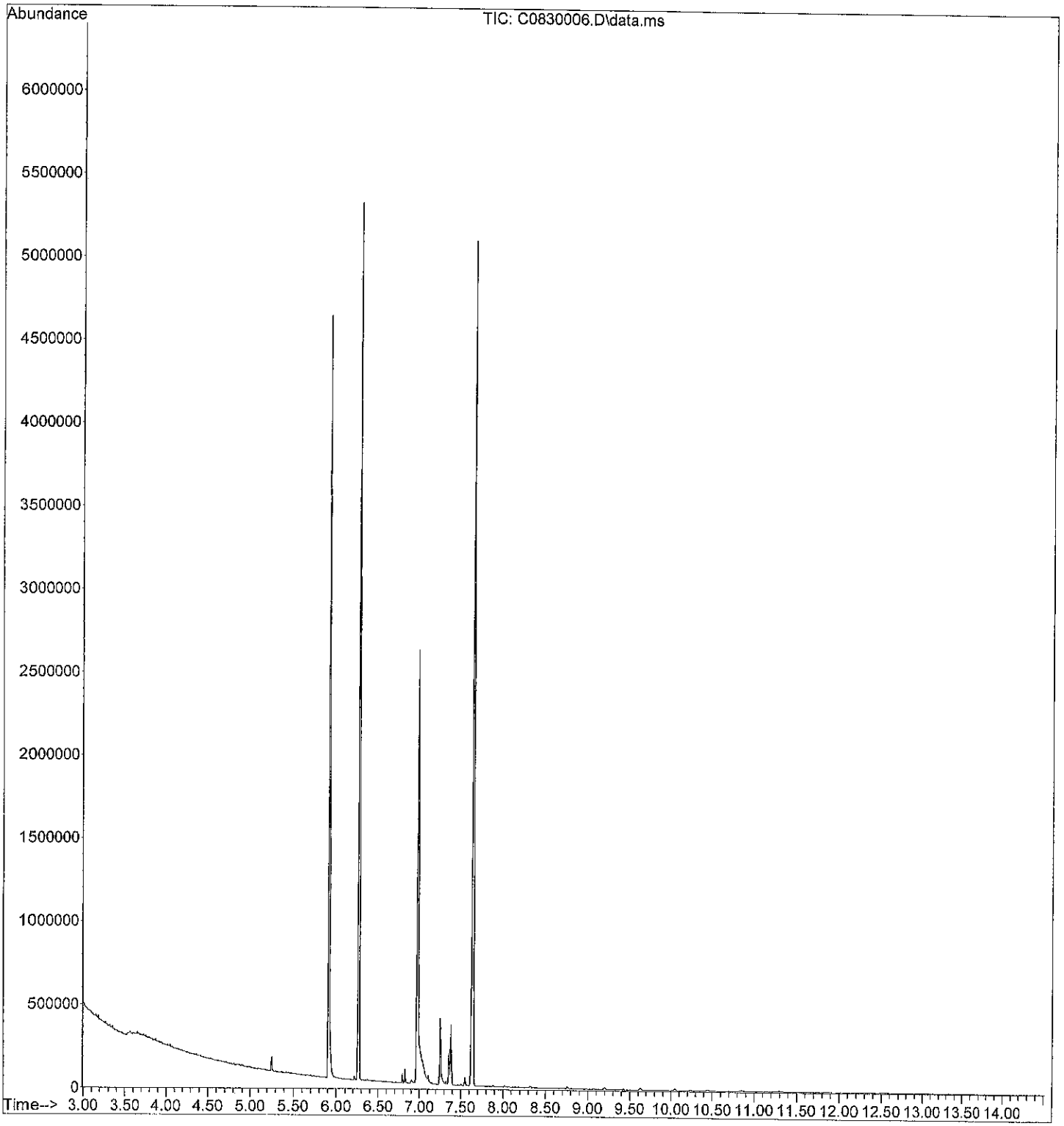
Quant Time: Aug 30 10:55:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	0.000	136	0	0.00	ppb	-4.61
6) Acenaphthene-d10	0.000	164	0	0.00	ppb	-5.84
10) Phenanthrene-d10	0.000	188	0	0.00	ppb	-6.87
17) Chrysene-d12	0.000	240	0	0.00	ppb	-9.11
21) Perylene-d12	0.000	264	0	0.00	ppb	-10.62
System Monitoring Compounds						
2) Nitrobenzene-d5	4.091	82	482	0.00	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	0.000	172	0	0.00	ppb	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.00%#		
11) Pyrene-d10	0.000	212	0	0.00	ppb	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.00%#		
18) Terphenyl-d14	0.000	244	0	0.00	ppb	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Naphthalene	0.000		0	N.D.		
4) 2-Methylnaphthalene	0.000		0	N.D.		
5) 1-Methylnaphthalene	0.000		0	N.D.		
8) Acenaphthylene	0.000		0	N.D.		
9) Acenaphthene	5.920	153	1484	Below MDL		
12) Fluorene	6.274	166	3428	Below MDL		
13) Phenanthrene	0.000		0	N.D.		
14) Anthracene	0.000		0	N.D.		
15) Fluoranthene	7.646	202	22700	Below MDL		
16) Pyrene	0.000		0	N.D.		
19) Benzo[a]anthracene	0.000		0	N.D.		
20) Chrysene	0.000		0	N.D.		
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	0.000		0	N.D.		
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	0.000		0	N.D.		
28) Pentachlorophenol	0.000		0	N.D.		
29) Benzidine	0.000		0	N.D.		

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

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 30 10:55:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration



GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C180830\C0830006.D
Tune Time : 30 Aug 2018 10:40 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C180830\C0830015.D

	(PRY)	(NPT)	(ACE)	(PHN)
		121192	60983	114380
		(CRY)	(PRY)	
		108137	107919	

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0830007.D								
	10 PPB	0*	1*	1*	1*	143494	71270	131245
			119153		119411			
C0830008.D								
	20 PPB	3*	2*	2*	2*	143234	68528	130385
			119131		118529			
C0830009.D								
	50 PPB	52	5*	5*	5*	138246	69005	127889
			117749		117571			
C0830010.D								
	100 PPB	26	9*	9*	9*	135124	70294	127515
			118297		117723			
C0830011.D								
	200 PPB	85	18*	19*	19*	132200	67339	125973
			116882		116674			
C0830012.D								
	500 PPB	118*	45	48	47	130439	65226	121626
			113679		112904			
C0830013.D								
	1000 PPB	114*	86	94	92	132708	66236	125299
			120159		119904			
C0830014.D								
	5000 PPB	549*	465*	465*	435*	131768	66604	125823
			121605		120485			
C0830015.D								
	PAH ICV	39	56	52	51	121192	60983	114380
			108137		107919			
C0830016.D								
	MB0828S1	53	103*	103	101*	107959	53726	101445
			95211		95310			
C0830017.D								
	MB0830W1	6*	83	88	120*	106146	54709	101553
			93775		92888			
C0830018.D								
	MB0830W1 R	5*	84	87	122*	108426	55177	103760
			95224		94472			
C0830019.D								
	SB0830W1	2*	51	84	83	109744	57343	105297
			97562		96490			
C0830020.D								

	SB0830W1 D	4*	87	100	99*	108891	54183	101848
				93880		93749		
C0830021.D								
	08-326-03	4*	67	84	87	109039	54476	104563
				95999		93580		
C0830022.D								
	08-326-03	7*	82	88	97*	107315	55704	105332
				95594		92082		
C0830023.D								
	08-326-03	6*	77	89	100*	106899	56517	104342
				94834		91698		
C0830024.D								
	08-309-01	4*	53	85	87	100263	50866	96942
				90293		90810		
C0830025.D								
	08-309-02	4*	42	86	83	101871	88226	101787
				93978		93939		
C0830026.D								
	08-309-03	5*	43	94	90	106302	97373	106634
				97950		99247		
C0830027.D								
	08-326-01	6*	30	96	100*	113703	132308*	111615
				98196		98039		
C0830028.D								
	08-326-02	5*	69	86	95*	105371	58111	109904
				97201		94417		
C0830029.D								
	08-326-05	7*	70	86	87	100873	54644	104033
				94541		93609		
C0830030.D								
	08-348-01	7*	74	96	85	106995	60990	111661
				109776		113052		
C0830031.D								
	08-348-02	6*	70	89	91	102577	53273	104991
				92703		93260		
C0830032.D								
	08-348-03	5*	69	88	94*	117415	66500	114526
				93117		91977		
C0830033.D								
	08-348-04	7*	76	93	95*	102653	55318	106363
				96143		95202		
C0830034.D								
	08-348-05	6*	59	83	84	103304	56299	107518
				97538		97305		
C0830035.D								
	08-326-04	7*	50	72	88	91338	75692	95256
				84384		82318		

(fails) - fails 12hr time check * - fails criteria

Created: Fri Aug 31 14:46:26 2018 Corey

Sequence Name: C:\msdchem\1\sequence\C180830.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\C180830\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	C0830001 SIMSCAN DFTPP
2)	Sample 2	C0830002 CSIM0822 PAH CCV0830-1
3)	Sample 3	C0830003 CSIM0822 SB0830W1
4)	Sample 4	C0830004 CSIM0822 SBD0830W1
5)	Sample 5	C0830005 CSIM0822 PAH CCV0830-2
6)	Sample 6	C0830006 SIMSCAN DFTPP
7)	Sample 7	C0830007 CSIM0830 10 PPB
8)	Sample 8	C0830008 CSIM0830 20 PPB
9)	Sample 9	C0830009 CSIM0830 50 PPB
10)	Sample 10	C0830010 CSIM0830 100 PPB
11)	Sample 11	C0830011 CSIM0830 200 PPB
12)	Sample 12	C0830012 CSIM0830 500 PPB
13)	Sample 13	C0830013 CSIM0830 1000 PPB
14)	Sample 14	C0830014 CSIM0830 5000 PPB
15)	Sample 15	C0830015 CSIM0830 PAH ICV
16)	Sample 16	C0830016 CSIM0830 MB0828S1
17)	Sample 17	C0830017 CSIM0830 MB0830W1
18)	Sample 18	C0830018 CSIM0830 MB0830W1 RR
19)	Sample 19	C0830019 CSIM0830 SB0830W1
20)	Sample 20	C0830020 CSIM0830 SB0830W1 DUP
21)	Sample 21	C0830021 CSIM0830 08-326-03
22)	Sample 22	C0830022 CSIM0830 08-326-03 MS
23)	Sample 23	C0830023 CSIM0830 08-326-03 MSD
24)	Sample 24	C0830024 CSIM0830 08-309-01
25)	Sample 25	C0830025 CSIM0830 08-309-02
26)	Sample 26	C0830026 CSIM0830 08-309-03
27)	Sample 27	C0830027 CSIM0830 08-326-01
28)	Sample 28	C0830028 CSIM0830 08-326-02
29)	Sample 29	C0830029 CSIM0830 08-326-05
30)	Sample 30	C0830030 CSIM0830 08-348-01
31)	Sample 31	C0830031 CSIM0830 08-348-02
32)	Sample 32	C0830032 CSIM0830 08-348-03
33)	Sample 33	C0830033 CSIM0830 08-348-04
34)	Sample 34	C0830034 CSIM0830 08-348-05
35)	Sample 35	C0830035 CSIM0830 08-326-04
36)	Sample 36	C0830036 CSIM0830 BLANK TEST
37)	Sample 37	C0830037 CSIM0830 BLANK TEST
38)	Sample 38	C0830038 CSIM0830 BLANK TEST
39)	Sample 39	C0830039 CSIM0830 BLANK TEST
40)	Sample 40	C0830040 CSIM0830 BLANK TEST
41)	Sample 41	C0830041 CSIM0830 BLANK TEST
42)	Sample 42	C0830042 CSIM0830 BLANK TEST
43)	Sample 43	C0830043 CSIM0830 BLANK TEST

Sequence Name: C:\MSDChem\1\Sequence\C1830830.S

	Line	Type	Vial	DataFile	Method	Sample Name
44)		Sample	44	C0830044	CSIM0830	BLANK TEST
45)		Sample	45	C0830045	CSIM0830	BLANK TEST
46)		Sample	46	C0830046	CCV	TEST

OnSite Environmental Inc.

EPA 8270 EXTRACTION

Date Extracted: 8/30/18 Time Ext._____ am/pm

Surrogate Std. ID: SVS-050-23

Analysis: PAH

Spike Std. ID: SVS-050-02

Matrix: H_2O

OSE TRAVELER #	pH	SAMPLE W/V	INTER VOLUME	SAMPLE FIN VOL	AMT SUR	AMT SPIKE	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
MB 083018W1	<2	1000mL	30mL	1mL	100µL	—	No	TL	
SB 083018W1						100µL			
SBD 083018W1									
08-309-01c		1571-515							
02c		1583-598							
03c		1568-585							
08-326-01a		1580-587							
02b		1585-589							
03c		1578-619							
03b MSD		1580-649				100µL			
03a MS		1564-621							
04b		1571-572							
05b		1575-538							
08-342-01e		1571-627							
02e		1576-609							
03e		1580-618							
04e		1572-616							
05e		1570-601							
06e		1581-559							
08-348-01b		1580-647							
02b		1578-592							
03b		1574-571							
04b		1581-601							
05b		1580-581							

Clean-up (L)Alumina

Work continued from Page										
Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
BNA CCV	SV501901	SV5018 12/12	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	12-14-17
1,4 Dioxane ICV	SV501902	SV4174-01	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SV501903	SV501009	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SV501904	SV501009	10 ppm	1	1	1			12-15-17
BNA CCV	SV501905	SV5018 12/12	200 ppm	20/20 ul		20 ppm			1
PAH CCV	SV501906	SV501009	10 ppm	10 ul		500 ppb			12-19-17
PAH CCV	SV501907	SV501009	1	1		1			12-20-17
BNA CCV	SV501908	SV5018 12/12	200 ppm	20/20 ul		20 ppm			1
PAH CCV	SV501909	SV501009	10 ppm	10 ul		500 ppb			12-21-17
PAH CCV	SV501910	SV501009	10 ppm	10 ul		500 ppb			12-27-17
PAH CCV	SV501911	SV501009	10 ppm	10 ul		500 ppb			12-29-17
DFTPP	SV501912	SV420404	1000 ppm	50 ul	1.0 mL	50 ppm		ZT	1-2-18
Cal Mix #5	SV501913	31995 8270 Calibration Mix #5, Revised Lot# A0121340 Expires: 09/2022 Store: 10°C or colder 2000 µg/mL each in Methylene Chloride 1 mL RESTEK Sonication required. Mix is photosensitive. Recieved 2/24/17 ZT						ZT	1-2-18
PAH Stock	SV501914	SV501913	2000 ppm	1.0 mL	20 mL	100 ppm	MeCl2	ZT	1-2-18
PAH Matrix Spike	SV501915	SV501914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone		
PAH CCV	SV501916	SV501009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	1-2-18
BNA CCV	SV501917	SV5018 12/12	200 ppm	20/20 ul		20 ppm			
BNA CCV	SV501918	SV5018 12/12	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	01-3-18
PAH CCV	SV501919	SV501009	10 ppm	10 ul	200 ul	500 ppb			1-3-18
PAH CCV	SV501920	SV501009	10 ppm						1-4-18
PAH CCV	SV501921	SV501009	10 ppm						1-5-18
PAH ICV	SV501922	SV501010	10 ppm						
PAH CCV	SV501923	SV501009	10 ppm						11-8-18
PAH CCV	SV501924								
PAH CCV	SV501925								11-9-18
PAH CCV	SV501926								11-10-18
BNA CCV	SV501927	SV5018 12/12	200 ppm	20/20 ul	200 ul	20 ppm			

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
BNA 60	SV502001	SV5018 12/17	200 ppm	60/60 µl	200 µl	60 ppm	MeCl2	ZT	1-10-18
50	02			50/60		50			
35	03			35/35		35			
20	04			40/40	400 µl	20			
10	05			10/10	200 µl	10			
5	06	SV502004	20 ppm	50		5			
2	07			20		2			
1	08			10		1			
BNA ICV	SV502009	SV5 009-17 010-15	200 ppm	20/20		20			
BNA CCV	SV502010	SV5018 12/17	200 ppm	20/20 µl	200 µl	20 ppm			1-11-18
BNA CCV	SV502011	SV5018 12/17	200 ppm	20/20 µl	200 µl	20 ppm			1-15-18
PAH CCV	SV502012	SV501009	10 ppm	10 µl	200 µl	500 ppb			1
PAH CCV	SV502013	SV501009	10 ppm	10 µl	200 µl	500 ppb	MeCl2	ZT	1-16-18
BNA CCV	SV502014	SV5018 10/17	200 ppm	20/20 µl	200 µl	20 ppm	1	1	1
8270 Surr. Stock	SV502015							ZT	1-17-18
8270 Surr.	SV502016	SV502015	4000 ppm	2 mL	100 mL	80 ppm	Acetone	ZT	1-17-18
PAH INST.	SV502017	SV501719	4000 ppm	40 µl	4 mL	40 ppm	MeCl2	ZT	1
PAH ICV	SV502018	SV501010	10 ppm	10 µl	200 µl	500 ppb	MeCl2	1	1
BNA CCV	SV502019	SV5018 12/17	200 ppm	20/20 µl	200 µl	20 ppm	1	1	1
Revised B/N Surr.	SV502020							ZT	1-17-18
PAH MDL Surr.	SV502021	SV502020	1000 ppm	5 µl	10 mL	0.5 ppm	Acetone	ZT	1-17-18

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 P264 P284 P280
Signal Word Warning

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel: 203-786-5290 • www.accustandard.com
M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 P264 P284 P280
Signal Word Warning

31887
Revised B/N Surrogate Mix
Lot# A0124675
Expire: 01/2023 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Sonication required. Mix is photosensitive
Recieved 9-21-17

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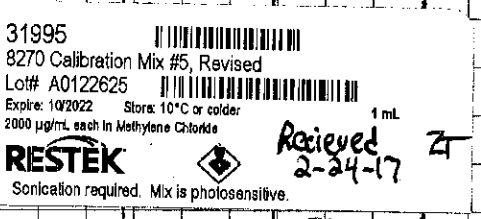
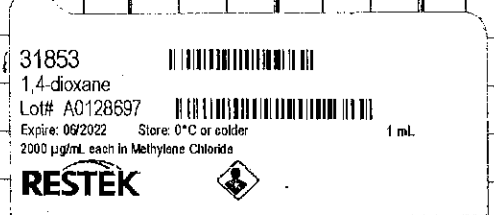
ANALYTE	LAB ID	STOCK ID	STOCK CONC.	STOCK VOL.	FINAL VOL.	FINAL CON.	SOLVENT	ANALYST	DATE
Cal Mix #5 PAH	SV502301							ZT	2-2-18
PAH ccv Mix	SV502302	SV502301	2000 ppm	50 ul	10 mL	10 ppm	$MeCl_2$	ZT	2-2-18
		SV502020	1000 ppm	100 ul	1	1	1	1	1
PAH INST.	SV502303	SV501719	4000 ppm	40 ul	4 mL	40 ppm	$MeCl_2$	ZT	
PAH Ical									
5000	SV502304	SV502302	10 ppm	500 ul	1.0 mL	5000 ppb	$MeCl_2$	ZT	2-2-18
1000	05			100		1000			
500	06			50		500			
200	07			20		200			
100	08			10		100			
50	09	SV502305	1000 ppb	50		50			
20	10			20		20			
10	11			10		10			
PAH ICV	SV502312	SV501010	10 ppm	10	200 ul	500			
PAH ICV	SV502313	SV501010	1	1	1	1	1	1	2-5-18
PAH ccv	SV502314	SV502302	10 ppm	10 ul	200 ul	500 ppb	$MeCl_2$	ZT	2-6-18
BNA ccv	SV502315	SV501812	200 ppm	20 ul	200 ul	20 ppm	1	1	1
PAH ccv	SV502316	SV502302	10 ppm	10 ul	200 ul	500 ppb			2-7-18
BNA ccv	SV502317	SV501812	200 ppm	20 ul	200 ul	20 ppm			
PAH ccv	SV502318	SV502302	10 ppm	10 ul	1	500 ppb			
PAH INST	SV502319	SV501719	4000 ppm	40 ul	4 mL	40 ppm			
PAH ICV	SV502320	SV501010	10 ppm	10 ul	200 ul	500 ppb			
1,4 dioxane Std. (ICV)	SV502321							ZT	2-8-18
1,4 dioxane ICV Stock	SV502322	SV502301	2000 ppm	10 ul	2 mL	10 ppm	$MeCl_2$	ZT	2-8-18
		SV502020	1000 ppm	20 ul	1	1	1	1	





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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	ANALYST	DATE
PAH ICAL 5000	SVS-033-01	SVS-023.02	10 ppm	500 µl	1.0 ml	5000 ppb	MeCl2	uu	4-12-18
1000	-02			100 µl		1000			
500	-03			50		500			
200	-04			20		200			
100	-05			10		100			
50	-06	SVS-33-02	1.0 ppm	50		50			
20	-07			20		20			
10	-08			10		10			
BNA ICV	SVS-32-09	SVS-26 4/5	200 ppm	20/20 µl	200µl	20 ppm	MeCl2	mm	
PAH ICV	SVS-33-10	SVS-10-10	10 ppm	10µl	200µl	500 ppb	2	2	
PAH CCV	SVS-33-11	SVS-022.2	10 ppm	10µl	200µl	500 ppb	MeCl2	mm	4-12-18
BNA CCV	SVS-33-12	SVS-26 4/5	200 ppm	20/20µl	200µl	20 ppm	MeCl2	uu	4-02-18
BNA CCV	SVS033 13	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	4-13-18
PAH CCV	SVS03314	SVS02302	10 ppm	10 ul	200 ul	500 ppb			1
PAH CCV	SVS03315	SVS02302	10 ppm	10 ul	200 ul	500 ppb			4-16-18
BNA CCV	SVS03316	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm			1
PAH CCV	SVS03317	SVS02302	10 ppm	10 ul	200 ul	500 ppb			4-17-18
PAH INST	SVS03318	SVS03025	4000 ppm	40 ml	4 mL	40 ppm			
PAH CCV	SVS03319	SVS02302	10 ppm	10 ul	200 ul	500 ppb			
DFTPP Mix	SVS03320							ZT	4-17-18
DFTPP	SVS03321	SVS03320	1000 ppm	50 ul	1.0 mL	50 ppm	MeCl2	ZT	4-17-18
PAH Surr. Stock	SVS03322							ZT	4-17-18
PAH Surr.	SVS03323	SVS03322	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	4-17-18
BNA CCV	SVS03324	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2		
PAH CCV	SVS03325	SVS02302	10 ppm	10 ul	200 ul	500 ppb			4-18-18
BNA CCV	SVS033 26	SVS026 4/5	200 ppm	20/20 ul	"	20 ppm			"

NOTEBOOK INSERT LABEL

EPA 8270 GC/MS Tuning Solution II 47548-U
Lot: XA19099V EXP: MAR/2019 STORAGE: REFRIGERATE 1 x 1ml
SUPELCO Solutions within.
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441
DATE RECEIVED:_____

31887 US/EN
Revised B/N Surrogate Mix
Lot# A0134896
Expire: 01/2024 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Rec. 4-3-18 ZT

Work continued to Page

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Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH									
ICV	SV503401							ZT	4-18-18
Stock Solution									
PAH ICV	SV503402	SV503401	2000 ppm	50 ul	10 mL	10 ppm	$MeCl_2$	ZT	4-18-18
Stock		SV502020	1000 ppm	100 ul	"	"	"	"	
PAH ICV	SV503403	SV503402	10 ppm	10 ul	200 ul	500 ppb	$MeCl_2$	ZT	4-18-18
PAH CCV	SV503404	SV502302	10 ppm	10 ul	200 ul	500 ppb			4-19-18
BNA CCV	SV503405	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			4-19-18
PAH CCV	SV503406	SV502302	10 ppm	10 ul	200 ul	500 ppb			"
PAH ICV	SV503407	SV503402	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SV503408	SV502302	10 ppm	10 ul	200 ul	500 ppb			4-20-18
BNA CCV	SV503409	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			"
BNA 60	SV503410	SV502645	200 ppm	60/60 ul	200 ul	60 ppm			4-22-18
50	-11			50/50		50			
35	-12			35/35	"	35			
20	-13			40/40	400 ul	20			
10	-14	"	"	10/10	200 ul	10			
5	-15	SV503413	20 ppm	50		5			
2	-16	"	"	20		2			
1	-17	"	"	10	"	1			
BNA ICV	SV503418	SV501810	200 ppm	20/20 ul	"	20			
BNA CCV	SV503419	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			4-23-18
PAH CCV	SV503420	SV502302	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SV503421	SV502302	10 ppm	10 ul	200 ul				
PAH CCV	SV503422	SV502302	10 ppm	10 ul	200 ul				4-24-18
PAH CCV	SV503423	SV502302	10 ppm	10 ul	200 ul				4-25-18
~~PAH CCV~~	~~SV503~~								

NOTEBOOK INSERT LABEL

Polynuclear Aromatic Hydrocarbons Mix CRM47543
Lot: ~~LC07521V~~ XA26145V EXP: APR/~~2017~~ 2020 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED:
SUPELCO Solutions within. 595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

Mw 42.27

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	Analyte		Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst ~~Date~~	Date
	PAH	CCV	SVS04461	SVS02302	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	6-15-18
	PAH	CCV	SVS04462	SVS02302	10 ppm	10 ul	200 ul	500 ppb	"	"	"
5	PAH	ICV	SVS04463	SVS03402	10 ppm	10 ul	200 ul	"	"	"	"
	PAH	CCV	SVS04464	SVS02301	2000 ppm	50 ul	10 mL	10 ppm	"	"	"
	MIX			SVS02020	1000 ppm	100 ul	"	"	"	"	"
	PAH	5000	SVS04465	SVS04404	10 ppm	500 ul	1.0 mL	5000 ppb	"	"	"
		1000	06	"	"	100	"	1000	"	"	"
10		500	07	"	"	50	"	500	"	"	"
		200	08	"	"	20	"	200	"	"	"
		100	09	"	"	10	"	100	"	"	"
		50	10	SVS04406	1000 ppb	50	"	50	"	"	"
		20	11	"	"	20	"	20	"	"	"
15		10	12	"	"	10	"	10	"	"	"
	PAH	1000	SVS04413	SVS04404	10 ppm	100 ul	1.0 mL	1000 ppb	"	"	6-18-18
		50	SVS04414	SVS04413	1000 ppb	50	"	50	"	"	"
		20	15	"	"	20	"	20	"	"	"
		10	16	"	"	10	"	10	"	"	"
20	PAH	5000	SVS04417	SVS04404	10 ppm	500 ul	"	5000 ppb	"	"	"
	PAH	ICV	SVS04418	SVS03402	10 ppm	10 ul	200 ul	500 ppb	"	"	"
	PAH	ICV	SVS04419	"	"	"	"	"	"	"	"
	DPTPO		SVS-044-20	SVS-033-20	1000 ppm	50 ul	1 mL	50 ppm	MeCl2	LM	6-19-18
	PAH	CCV	~~SVS04421~~ SVS04421	SVS-044-4	10 ppm	10 ul	200 ul	500 ppb	"	"	"
25	BNA	CCV	SVS04422	SVS-043-8	200 ppm	20/20 ul	200 ul	20 ppm	"	"	"
	BNA	CCV	SVS04423	SVS043-8	200 ppm	20/20 ul	200 ul	20 ppm	"	ZT	6-20-18
	PAH	CCV	SVS04424	SVS04404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
	BNA	CCV	SVS04425	SVS043-8	200 ppm	20/20 ul	200 ul	20 ppm	"	"	6-21-18
	PAH	CCV	SVS04426	SVS04404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
30	BNA	60	SVS04427	SVS043-8	200 ppm	60/60 ul	200 ul	60 ppm	"	"	"
		50	28	"	"	50/50	"	50	"	"	"
		35	29	"	"	35/35	"	35	"	"	"
		20	30	"	"	40/40	400 ul	20	"	"	"
		10	31	"	"	10/10	200 ul	10	"	"	"
35	BNA	ICV	32	SVS039-1/2	"	20/20 ul	"	20 ppm	"	"	"

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Work continued from Page			Stock	Stock	Stock	Final	Final	Solvent	Analyst	Date
Analyte		LAB ID	ID	Conc.	Vol.	Vol.	Conc.			
1,4-diox			SV4204122	2000 ppm	10 ul	2 mL	10 ppm	MeCl2	ZT	7-11-18
Stock		SV504701	SV502090	1000 ppm	20 ul	1	+			
100	1,4-Diox	SV504702	SV5023~~00~~ 04701	10 ppm	10 ul	1 mL	100 ppb			
200		03			20		200			
500		04			50		500			
1000		05			100		1000			
2000		06			200		2000			
1,4-Diox Icv		07	SV5~~04701~~ 03222		10 ul	200 ul	500 ppb			
PAH	CCV	SV504708	SV504404	10 ppm	10 ul	200 ul	500 ppb			7-12-18
BNA	CCV	SV504709	SV5043 8/9	800 ppm	20/80 ul	200 ul	20 ppm			
PAH	CCV	SV504710	SV504404	10 ppm	10 ul	200 ul	500 ppb			7-13-18
PAH	Icv	SV504711	SV503402	10 ppm	10 ul	200 ul	500 ppb			
PAH	INST.	SV504712	SV503025	4000 ppm	40 ul	4 mL	40 ppm			
TCLP										
Std.		SV504713							ZT	
TCLP	Spike	SV504714	SV504713	2000 ppm	1.0 mL	10 mL	200 ppm	Acetone	ZT	7-13-18
PAH	CCV	SV504715	SV504404	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	7-16-18
BNA	CCV	SV504716	SV5043 8/9	800 ppm	20/80 ul		20 ppm			
DFTPP		SV504717	SV503320	1000 ppm	50 ul	1 mL	50 ppm			7-17-18
PAH	CCV	SV504718	SV504404	10 ppm	10 ul	200 ul	500 ppb			
BNA	CCV	SV504719	SV5043 8/9	200 ppm	20/80 ul		20 ppm			
BNA	CCV	SV504720	SV5043 8/9	200 ppm	20/80 ul					7-18-18
PAH	CCV	SV504721	SV504404	10 ppm	10 ul		500 ppb			
PAH	5000	SV504722	SV504404	10 ppm	500 ul	1.0 mL	5000 ppb			
	1000	23			100		1000			
	500	24			50		500			
	200	25			20		200			
	100	26			10		100			
	50	27	SV504723	1000 ppb	50		50			
	20	28			20		20			
	10	29			10		10			

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FOR LABORATORY USE ONLY
H315 H335 H332 H302
H350 H360, H350 P338
P360 P331 P233 P262
P202 P264 P284 P280

TCLP-BNA 1 mL
Semi-Volatile Spiking Solution
2.0 mg/mL in CH2Cl2
Lot: 215091295 13 comp(s)
Exp: Sep 29, 2018 Storage: Refrig (0-5 °C)

Signal Word: Warning

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	Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
	8270		SVS05001	SVS04911	2000 ppm	2.0 mL	50 mL	80 ppm	Acetone	ZT	8-6-18
	Spike			SVS04912	1000 ppm	"	"	40 ppm	"	"	"
5	PAH	Spike	SVS05002	SVS01914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	ZT	"
	INSTD		SVS05003								"
	Stock										
10	BNA	INST	SVS05004	SVS05003	4000 ppm	500 µl	4 mL	500 ppm	MeCl2	ZT	8-6-18
	BNA	60	SVS05005	SVS04389	200 ppm	60/60 µl	200 µl	60 ppm			
		50	06			50/50		50			
		35	07			35/35	"	35			
		20	08			40/40	400 µl	20			
15		10	09	"	"	10/10	200 µl	10			
		5	10	SVS05008	20 ppm	50		5			
		2	11	"	"	20		2			
		1	12	"	"	10		1			
	BNA	ICV	SVS05013	SVS03912	200 ppm	20/20 µl		20 ppm			
20	BNA	CCV	SVS05014	SVS04389	200 ppm	20/20 µl		20 ppm			8-7-18
	PAH	CCV	SVS05015	SVS04404	10 ppm	10 µl		500 ppb			
	PAH	INST.	SVS05016	SVS03025	4000 ppm	40 µl	4 mL	40 ppm			
	PAH	CCV	SVS05017	SVS04404	10 ppm	10 µl	200 µl	500 ppb			
	PAH	ICV	SVS05018	SVS03402	10 ppm	10 µl					
25	PAH	CCV	SVS05019	SVS04404	10 ppm	10 µl					8-8-18
	PAH	CCV	SVS05020	SVS04404	10 ppm	10 µl					8-9-18
	BNA	CCV	SVS05021	SVS04389	200 ppm	20/20 µl		20 ppm			
	PAH										
	Surr.		SVS05022							ZT	8-14-18
30	Stock										
	PAH	Surr.	SVS05023	SVS05022	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	8-14-18
	BNA	CCV	SVS05024	SVS04389	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	"
35	PAH	CCV	SVS05025	SVS04404	10 ppm	10 µl	200 µl	500 ppb	"	"	"

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Work continued from Page			Stock	Stock	Stock	Final	Final	Solvent	Analyst	Date
Analyte		LAB ID	ID	Conc.	Vol.	Vol.	Conc.			
DFTPP		SV505101	SV503320	1000 ppm	50 ul	1 mL	50 ppm	MeCl2	ET	8-15-18
PAH	CCV	SV505102	SV504404	10 ppm	10 ul	200 ul	500 ppb			
PAH	CCV	SV505103	SV504404	10 ppm	10 ul	200 ul	500 ppb			8-16-18
BNA	CCV	SV505104	SV504306	200 ppm	20/20 ul	200 ul	20 ppm			
BNA	Ical	SV505105	SV504306	1000 ppm	500 ul	2.5 mL	200 ppm			
#1										
BNA	Ical	SV505106	SV504305	1000 ppm	500 ul	2.5 mL	200 ppm	MeCl2	ET	8-16-18
#2			SV504307	2000	250					
			SV501811	4000	125					
BNA	60	SV505107	SV505115/6	200 ppm	60/60 ul	200 ul	60 ppm			
	50	08			50/50		50			
	35	09			35/35		35			
	20	10			40/40	400 ul	20			
	10	11			10/10	200 ul	10			
	5	12	SV505110	20 ppm	50		5			
	2	13			20		2			
	1	14			10		1			
BNA	ICV	SV505115	SV503915	200ppm	20/20 ul		20 ppm			
PAH	CCV	SV505116	SV504404	10 ppm	10 ul		500 ppb			8-17-18
SR BNA	1	SV505117	SV505110	20 ppm	10 ul		1 ppm			
BNA	ICV	SV505118	SV503915	200 ppm	20/20 ul		20 ppm			
PAH	CCV	SV505119	SV504404	10 ppm	10 ul		500 ppb			8-20-18
BNA	CCV	SV505120	SV505115/6	200 ppm	20/20 ul		20 ppm			
BNA	60	SV505121	SV505115/6	200 ppm	60/60 ul	200 ul	60 ppm			
	50	22			50/50		50			
	35	23			35/35		35			
	20	24			40/40	400 ul	20			
	10	25			10/10	200 ul	10			
	5	26	SV505124	20 ppm	50		5			
	2	27			20		2			
	1	28			10		1			
BNA	ICV	29	SV503915	200 ppm	20/20 ul		20			
PAH	CCV	SV505130	SV504404	10 ppm	10 ul		500 ppb			8-21-18

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Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH CCV	SV505201	SV504404	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	8-22-18
BNA CCV	SV505202	SV505 5/6	200 ppm	20/20 ul	1	20 ppm			
PAH INST	SV505203	SV505003	4000 ppm	40 ul	4 mL	40 ppm			
PAH CCV	SV505204	SV504404	10 ppm	10 ul	200 ul	500 ppb			
1,4 Diox CCV	SV505205	SV504701	10 ppm						
PAH ICV	SV505206	SV503402						VKM	8-22-18
1,4 dioxane Spike	SV505207	SV502321	2000 ppm	125 ul	50 mL	5 ppm	Acetone	ZT	8-22-18
1,4 dioxane ICV Stock	SV505208	SV502321	2000 ppm	10 ul	2 mL	10 ppm	MeCl2		
ICV Diox	SV505209	SV502020	1000 ppm	20 ul	1	1			
PAH CCV	SV505210	SV504404	10 ppm	10 ul	200 ul	500 ppb			
BNA CCV	SV505211	SV505 5/6	200 ppm	20/20 ul		20 ppm			8-23-18
PAH CCV	SV505212	SV504404	10 ppm	10 ul		500 ppb			
BNA CCV	SV505213	SV505 5/6	200 ppm	20/20 ul		20 ppm			8-24-18
1,4 Diox CCV	SV505214	SV504701	10 ppm	10 ul		500 ppb			
PAH CCV	SV505215	SV504404	10 ppm	10 ul		500 ppb			
BNA CCV	SV505216	SV505 5/6	200 ppm	20/20 ul		20 ppm			8-27-18
BNA CCV	SV505217	1	1	1		1			
PAH CCV	SV505218	SV504404	10 ppm	10 ul		500 ppb			8-28-18
1,4 Diox CCV	SV505219	SV504701	10 ppm	10 ul		1			
BNA CCV	SV505220	SV505 5/6	200 ppm	20/20 ul		20 ppm		MM	8-29-18
PAH CCV	SV505221	SV504404	10 ppm	10 ul		500 ppb			
PAH CCV	SV505222	SV504404	1	1		1			8-30-18
BNA CCV	SV505223	SV505 5/6	200 ppm	20/20 ul		20 ppm			1
PAH INST.	SV505224	SV505003	4000 ppm	40 ul	4 mL	40 ppm		ZT	8-30-18
PAH CCV	SV505225	SV504404	10 ppm	10 ul	200 ul	500 ppb			
PAH ICV	SV505226	SV503402	10 ppm	10 ul		1			
BNA CCV	SV505227	SV505 5/6	200 ppm	20/20 ul		20 ppm		MM	8-31-18
PAH CCV	SV505228	SV504404	10 ppm	10 ul		500 ppb		1	1
BNA INST	SV505229	SV505003	4000 ppm	500 ul	4 mL	500 ppm		ZT	8-31-18
BNA CCV	SV505230	SV505 5/6	200 ppm	20/20 ul	200 ul	20 ppm			1
BNA CCV	SV505231	SV505 5/6	1	1	1	1			9-1-18

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Pentachlorophenol by EPA 8151A Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data File : F0830008.D
Sample : 08-309-01

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 12:54:01
Operator :
Misc :
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:17:12 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.728	8.390	7954437	8575682	64.576	60.314m	
		Spiked Amount 100.000			Recovery	=	64.58%	60.31%	
		Target Compounds							
1)	A	Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2)	A	2,4,6-Tri...	0.000	6.739f	0	1281930	N.D.	1.149	#
4)	A	Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A	MCPA	9.330	0.000	3973949	0	9332.072	N.D.	#
7)	A	Dichlorprop	9.801	9.375	1282000	2582140	10.876	18.445	#
8)	A	2,4-D	10.066	0.000	1243755	0	8.990	N.D.	#
9)	A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A	2,4,5-T	0.000	11.124	0	3455062	N.D.	5.352	#
12)	A	2,4-DB	0.000	11.694f	0	10904793	N.D.	128.332	#
13)	a	Bentazon	12.987f	12.658f	2359333	3412870	48.859	47.160	
14)	A	Dinoseb	0.000	12.077	0	4158522	N.D.	12.100	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

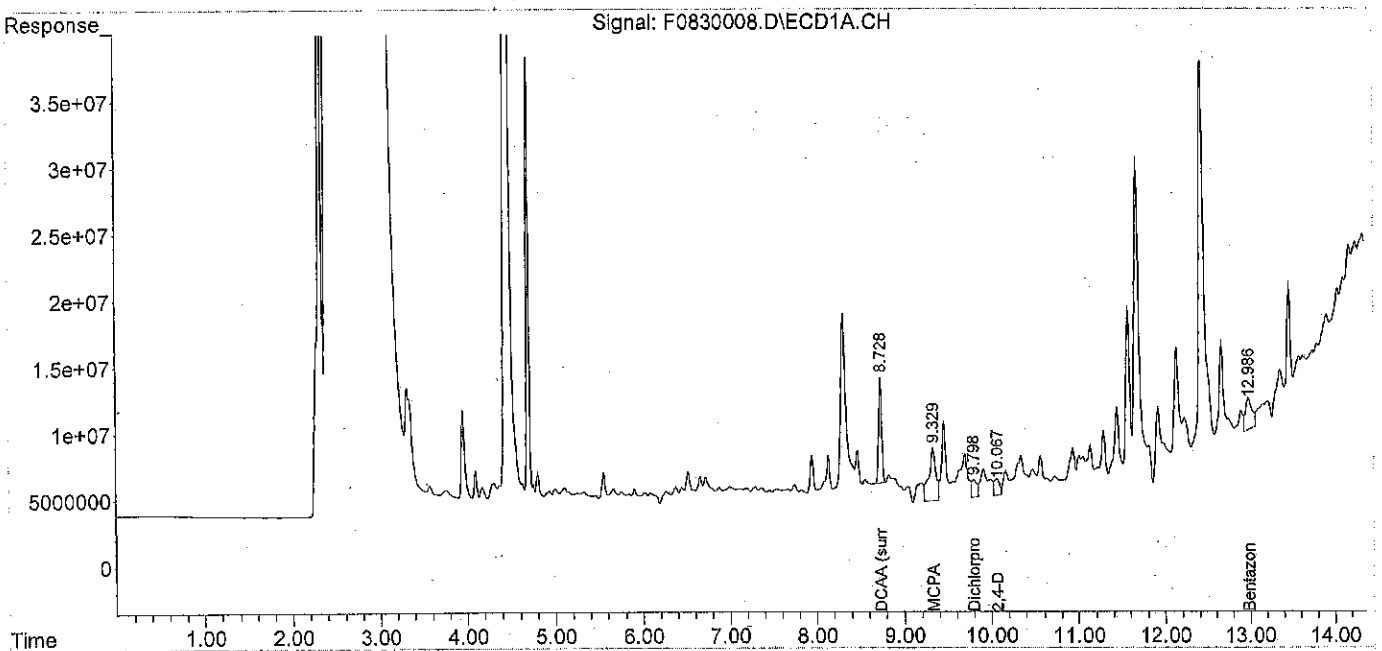
Quantitation Report (QT Reviewed)

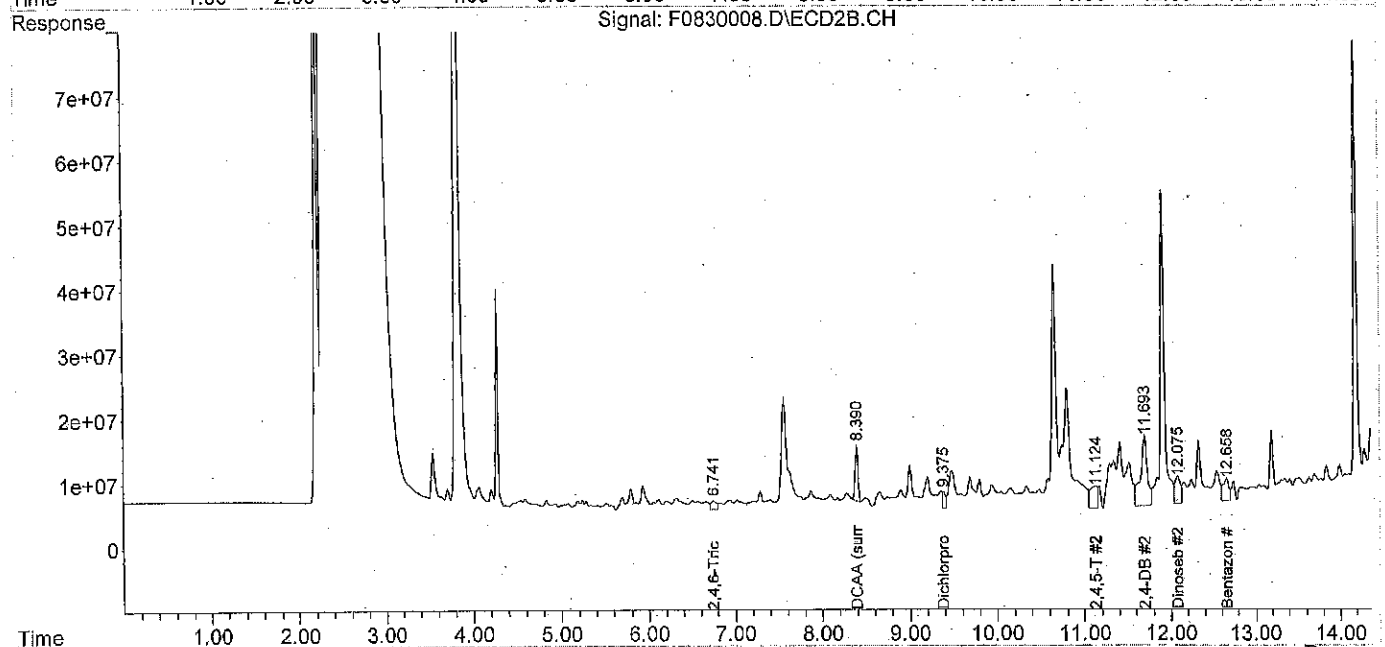
Data File : F0830008.D
Sample : 08-309-01

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 12:54:01
Operator :
Misc :
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:17:12 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830009.D
Sample : 08-309-02

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 13:13:22
Operator :
Misc :
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 13:27:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.728	8.392	10784049	11615195	87.548	81.692	
	Spiked Amount 100.000			Recovery	=	87.55%	81.69%	
	Target Compounds							
1)	A Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2)	A 2,4,6-Tri...	0.000	6.753	0	1126903	N.D.	1.010	#
4)	A Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A MCPP	0.000	8.699	0	1225584	N.D.	5593.666	#
6)	A MCPA	9.329	0.000	8678540	0	19982.925	N.D.	#
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A 2,4-D	10.053f	0.000	1347140	0	9.738	N.D.	#
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A 2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A 2,4-DB	12.039f	11.697f	4009133	2756726	58.866	32.442	#
13)	a Bentazon	0.000	0.000	0	0	N.D.	N.D.	
14)	A Dinoseb	0.000	12.081	0	3842156	N.D.	11.179	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

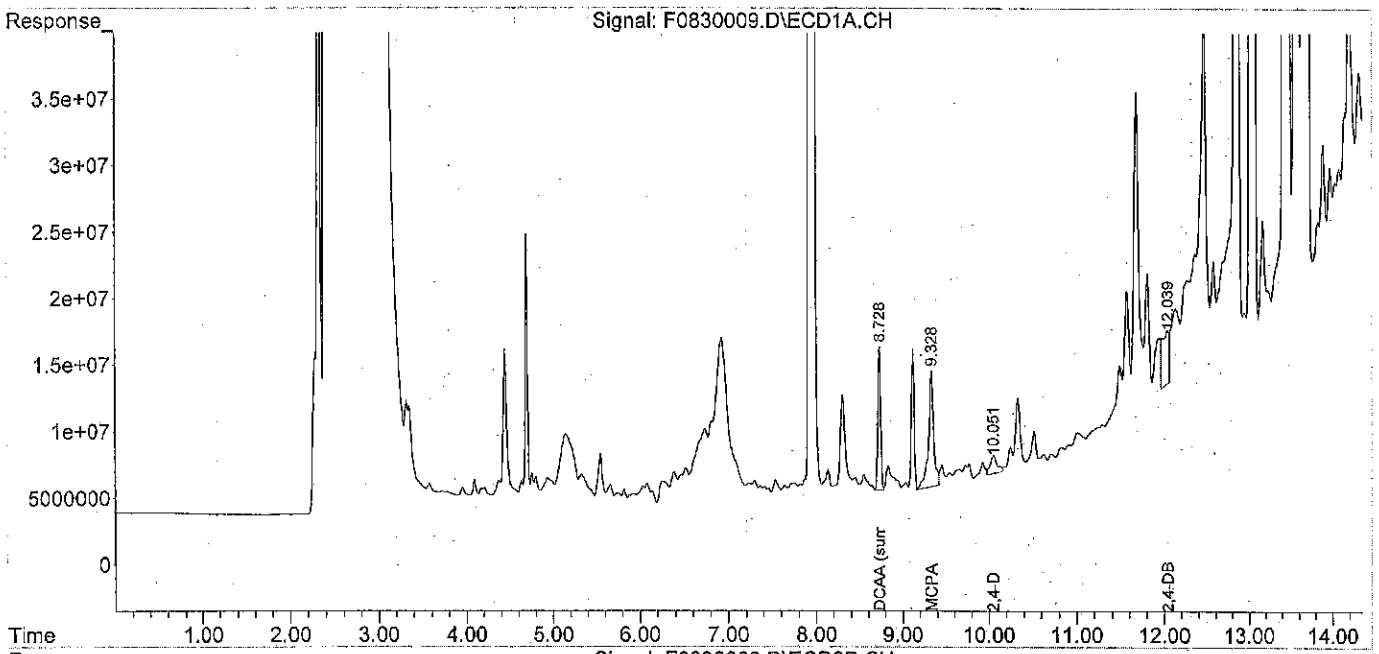
Quantitation Report (Not Reviewed)

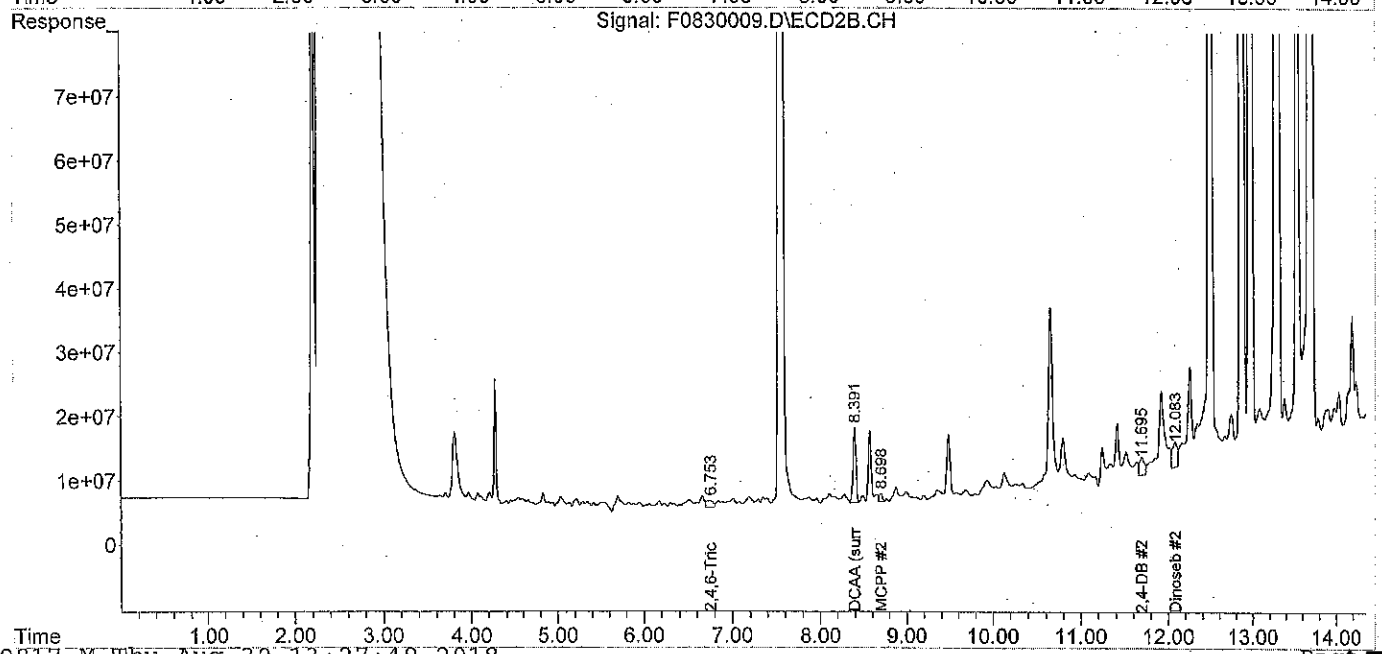
Data File : F0830009.D
Sample : 08-309-02

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 13:13:22
Operator :
Misc :
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 13:27:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830010.D
Sample : 08-309-03

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 13:32:35
Operator :
Misc :
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:19:46 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
System Monitoring Compounds									
3)	S	DCAA (surr)	8.730	8.393	9294267	9322055	75.454m	65.564m	
Spiked Amount		100.000			Recovery	=	75.45%	65.56%	
Target Compounds									
1)	A	Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2)	A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A	Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A	MCPP	0.000	8.697	0	1454637	N.D.	6182.984	#
6)	A	MCPA	9.335	0.000	12512881	0	28663.591	N.D.	#
7)	A	Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A	2,4-D	10.059	0.000	2093535	0	15.133	N.D.	#
9)	A	Pentachlo...	0.000	9.976f	0	25795841	N.D.	6.602	#
10)	A	2,4,5-TP	11.077f	0.000	15337929	0	26.469	N.D.	#
11)	A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A	2,4-DB	0.000	11.702f	0	16174141	N.D.	190.344	#
13)	a	Bentazon	0.000	12.662f	0	14382487	N.D.	198.741	#
14)	A	Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

KMS 8-30-18

ND

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

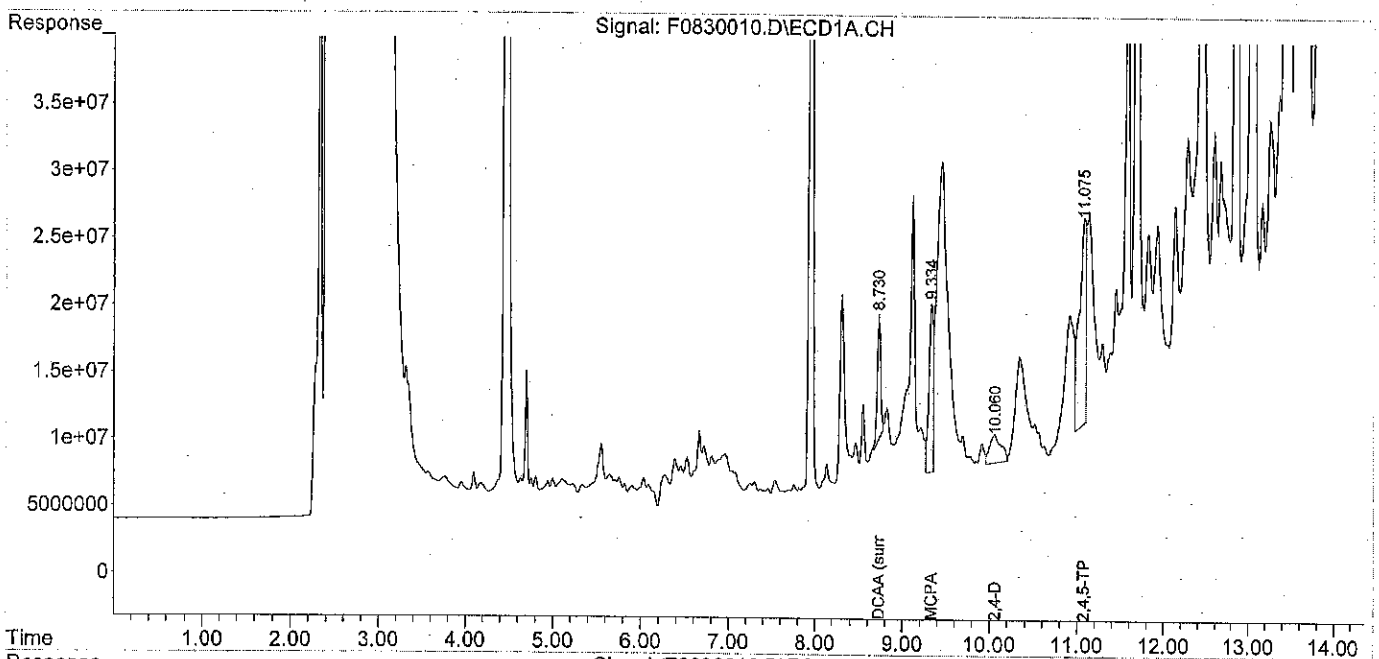
Quantitation Report (QT Reviewed)

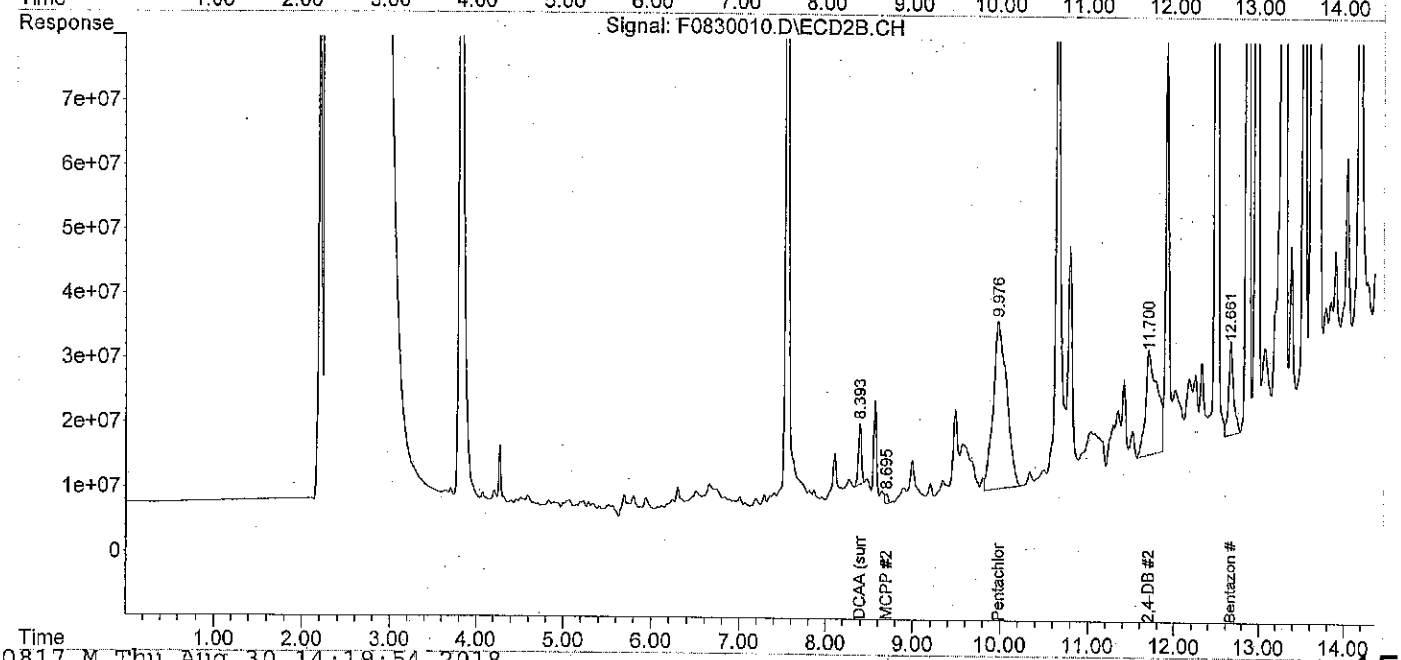
Data File : F0830010.D
Sample : 08-309-03

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 13:32:35
Operator :
Misc :
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:19:46 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830005.D
Sample : MB0830W1

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 11:56:56
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:38:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.740f	8.391	9930532	9891619	80.619	69.570m
	Spiked Amount 100.000			Recovery	=	80.62%	69.57%
	Target Compounds						
1) A	Dalapon	0.000	0.000	0	0	N.D.	N.D.
2) A	2,4,6-Tri...	0.000	6.737f	0	1700480	N.D.	1.524 #
4) A	Dicamba	0.000	0.000	0	0	N.D.	N.D.
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.
6) A	MCPA	9.342f	0.000	3016895	0	7165.373m	N.D. #
7) A	Dichlorprop	9.780f	9.386f	145891	597087	1.238m	4.265m#
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.
9) A	Pentachlo...	10.385f	0.000	280012	0	0.089m	N.D. #
10) A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.
11) A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.
12) A	2,4-DB	12.005f	11.702f	398139	1317535	5.846m	15.505m#
13) a	Bentazon	13.008	0.000	575086	0	11.909m	N.D. #
14) A	Dinoseb	13.115f	12.082	215078	951445	1.000m	2.768m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

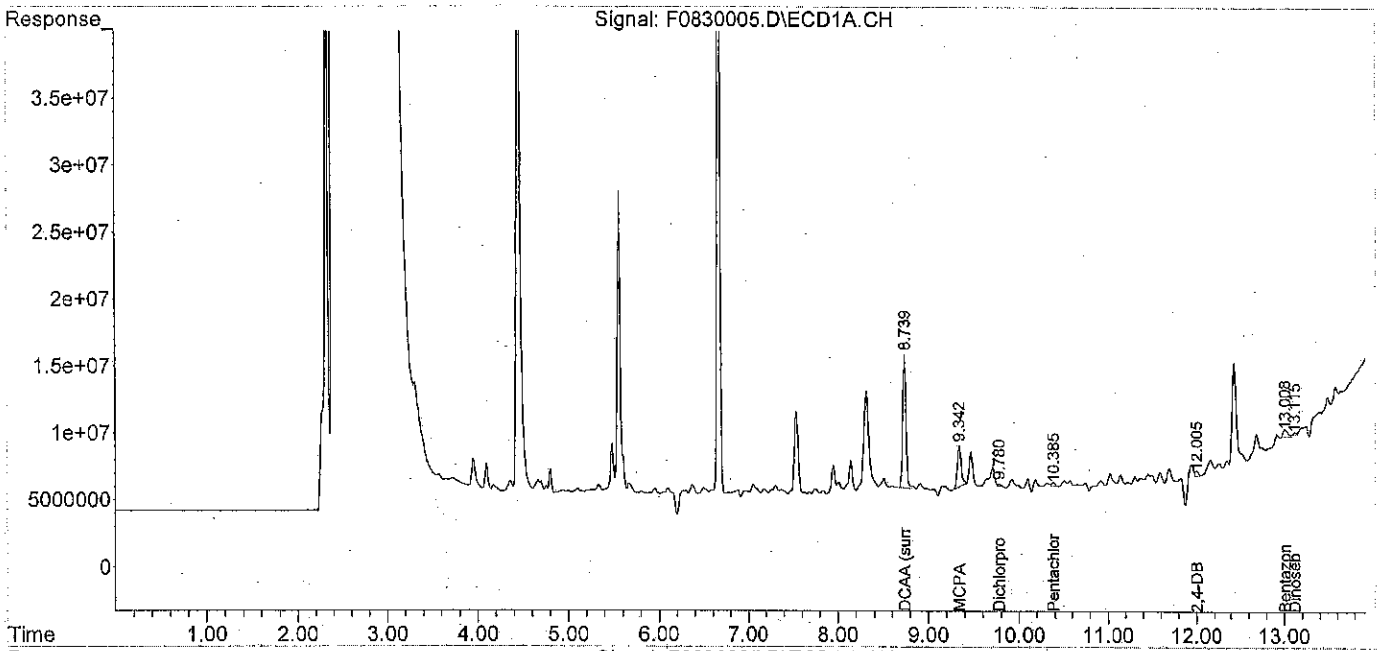
Quantitation Report (QT Reviewed)

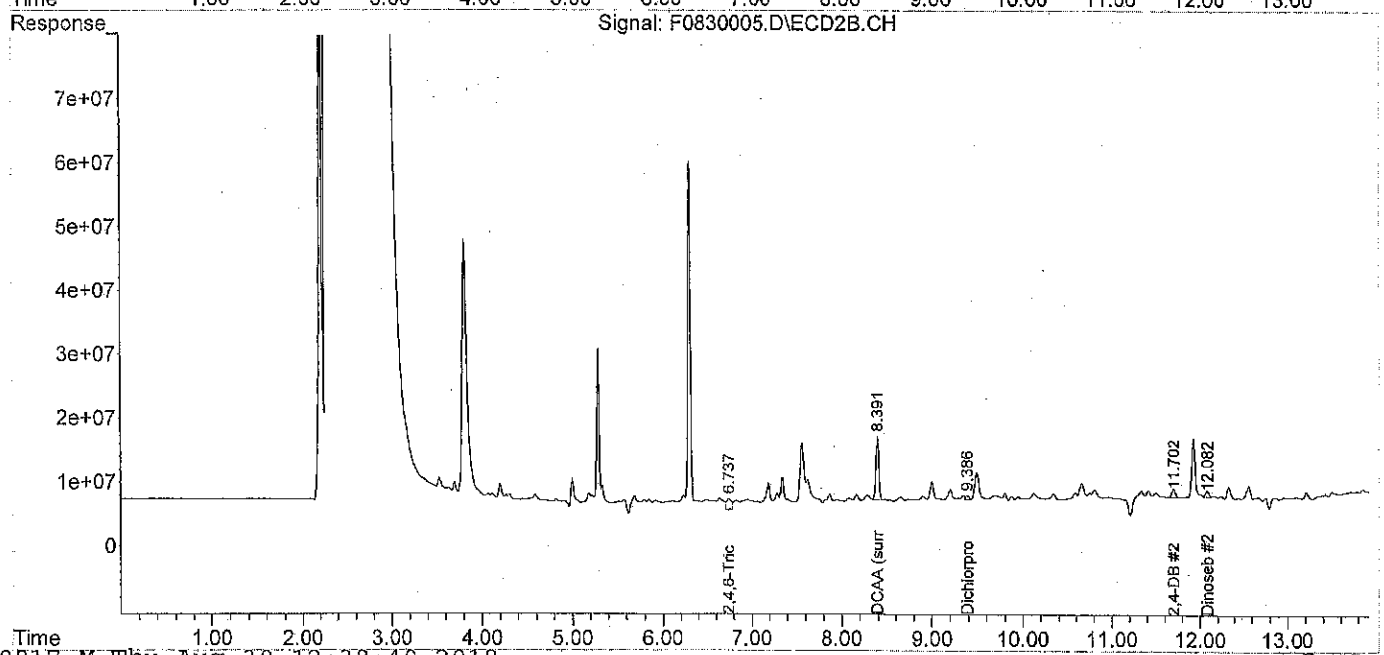
Data File : F0830005.D
Sample : MB0830W1

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 11:56:56
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:38:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830015.D
Sample : 08-326-03 MS

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:11:27
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:19:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.728	8.384	9510533	27161102	77.209m	191.029 #
Spiked Amount	100.000			Recovery	=	77.21%	191.03%
	Target Compounds						
1) A	Dalapon	3.876f	3.473	29907210	8680566	406.445	91.099 #
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4) A	Dicamba	8.976	8.620	69542188	76480836	161.253m	144.776m
5) A	MCPP	9.152	8.705	4971636	6599786	16850.656	19420.608
6) A	MCPA	9.330	8.970	11210094	6704797	25714.178	14400.176 #
7) A	Dichlorprop	9.796	9.375	22637481	23895904	192.055	170.696
8) A	2,4-D	10.061	9.732	81465641	26830201	588.871	149.116 #
9) A	Pentachlo...	10.397	9.991	48791703	51751787	15.582	13.245
10) A	2,4,5-TP	11.088	10.683	129.4E6	152.4E6	223.251m	199.983m
11) A	2,4,5-T	11.415	11.123	119.0E6	142.6E6	245.163m	220.835m
12) A	2,4-DB	12.028	11.710	20102269	18289251	295.162m	215.236m#
13) a	Bentazon	0.000	0.000	0	0	N.D.	N.D.
14) A	Dinoseb	13.134	12.081	59785073	77569448	277.989m	225.700m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

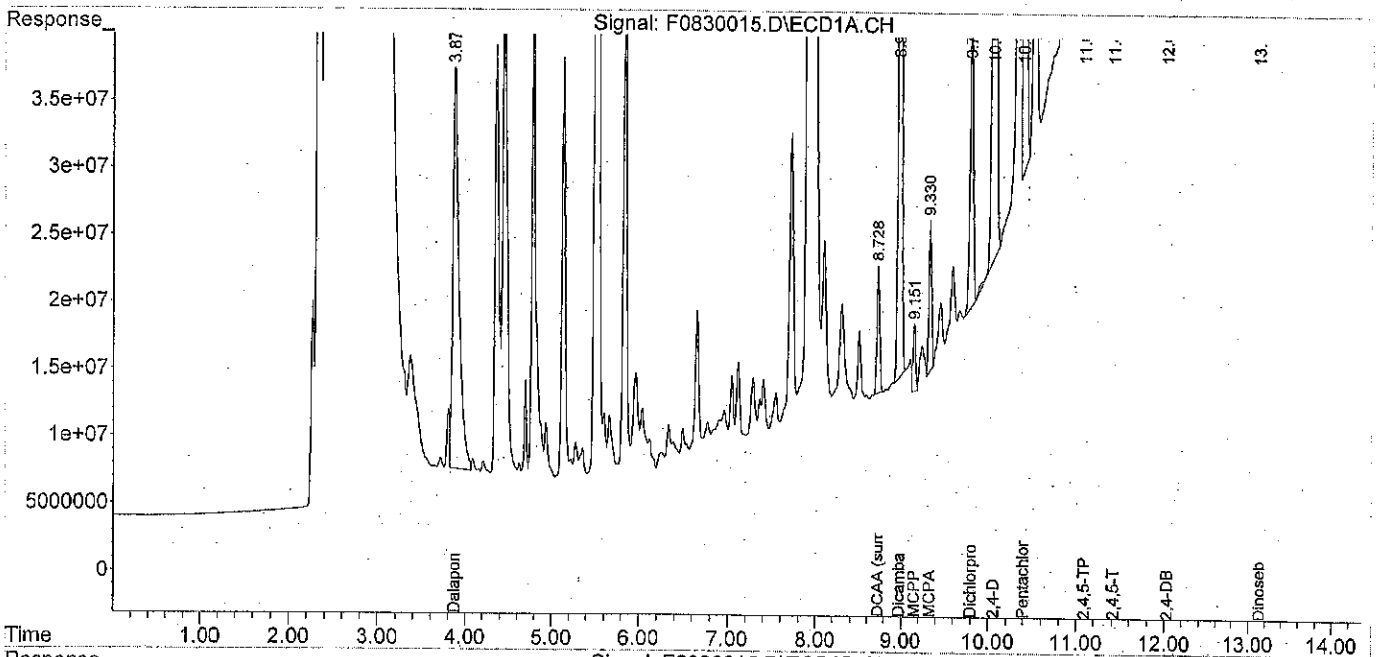
Quantitation Report (QT Reviewed)

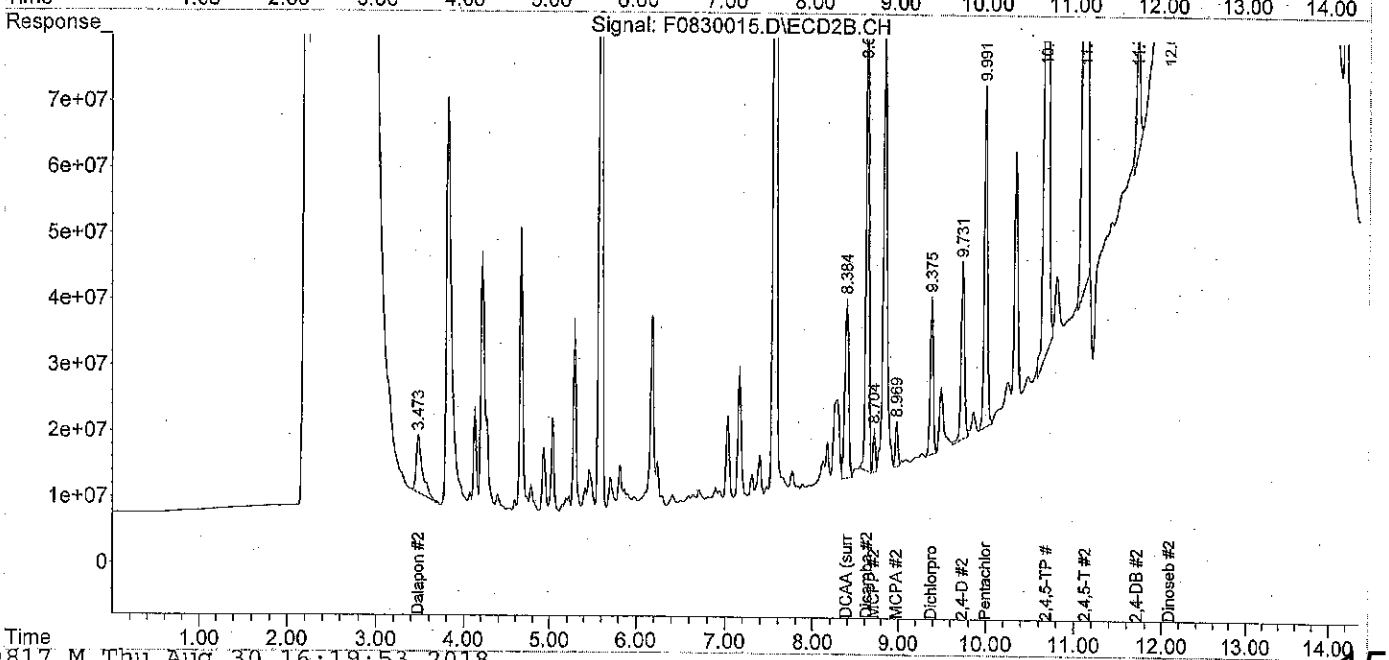
Data File : F0830015.D
Sample : 08-326-03 MS

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:11:27
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:19:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830016.D
Sample : 08-326-03 MSD

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:30:51
Operator :
Misc :
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:21:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.728	8.382	11365119	37580686	92.265m	264.312 #
		Spiked Amount 100.000			Recovery	=	92.27%	264.31%
		Target Compounds						
1)	A	Dalapon	3.874f	3.471	35621608	10731710	484.105	112.625m#
2)	A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4)	A	Dicamba	8.975	8.620	90316864	95668125	209.425	181.097
5)	A	MCPP	9.152	8.704	6149634	7970841	20300.172	22948.105
6)	A	MCPA	9.330	8.970	12691158	8427500	29067.198	17904.519 #
7)	A	Dichlorprop	9.796	9.374	26122778	27944462	221.624	199.617
8)	A	2,4-D	10.060	9.732	113.6E6	30949152	821.425	172.008 #
9)	A	Pentachlo...	10.397	9.991	56298231	59049611	17.979	15.113
10)	A	2,4,5-TP	11.088	10.683	149.4E6	169.4E6	257.838m	222.282m
11)	A	2,4,5-T	11.413	11.121	135.7E6	170.2E6	279.569m	263.665m
12)	A	2,4-DB	12.028	11.710	22279889	19803991	327.136m	233.062m#
13)	a	Bentazon	0.000	0.000	0	0	N.D.	N.D.
14)	A	Dinoseb	13.131	12.078	71046524	85446110	330.352m	248.618m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

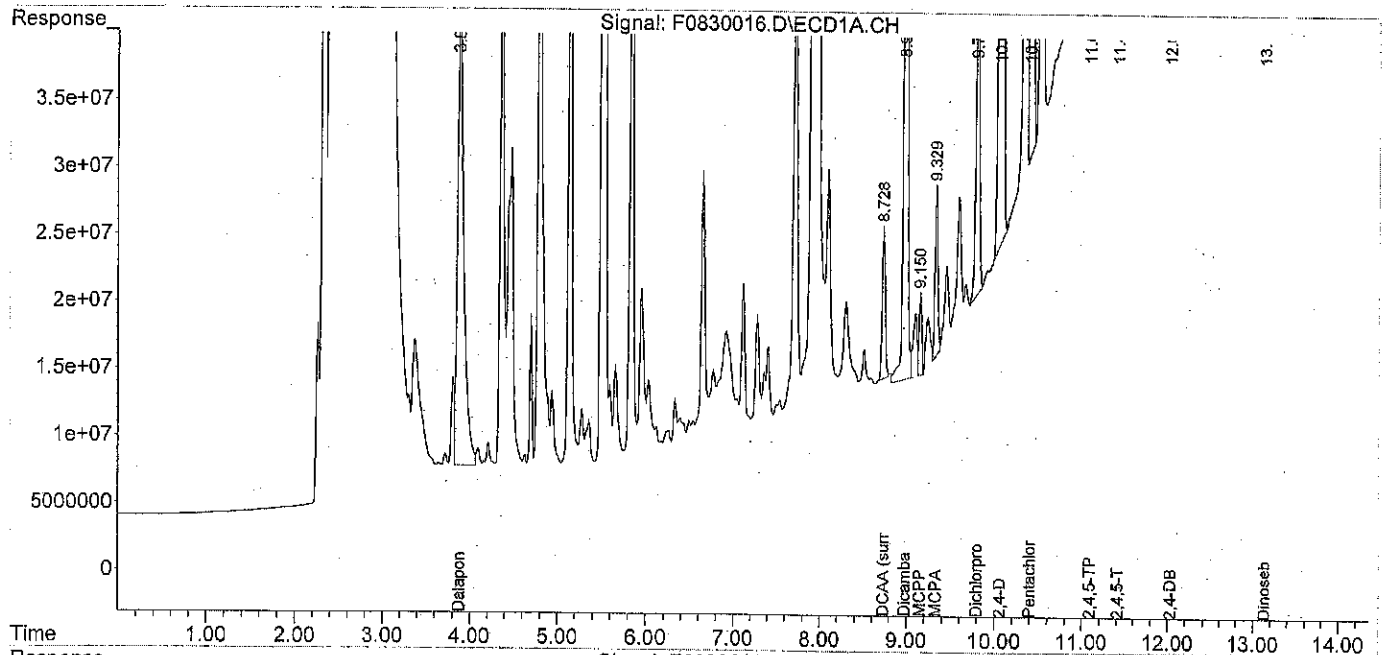
Quantitation Report (QT Reviewed)

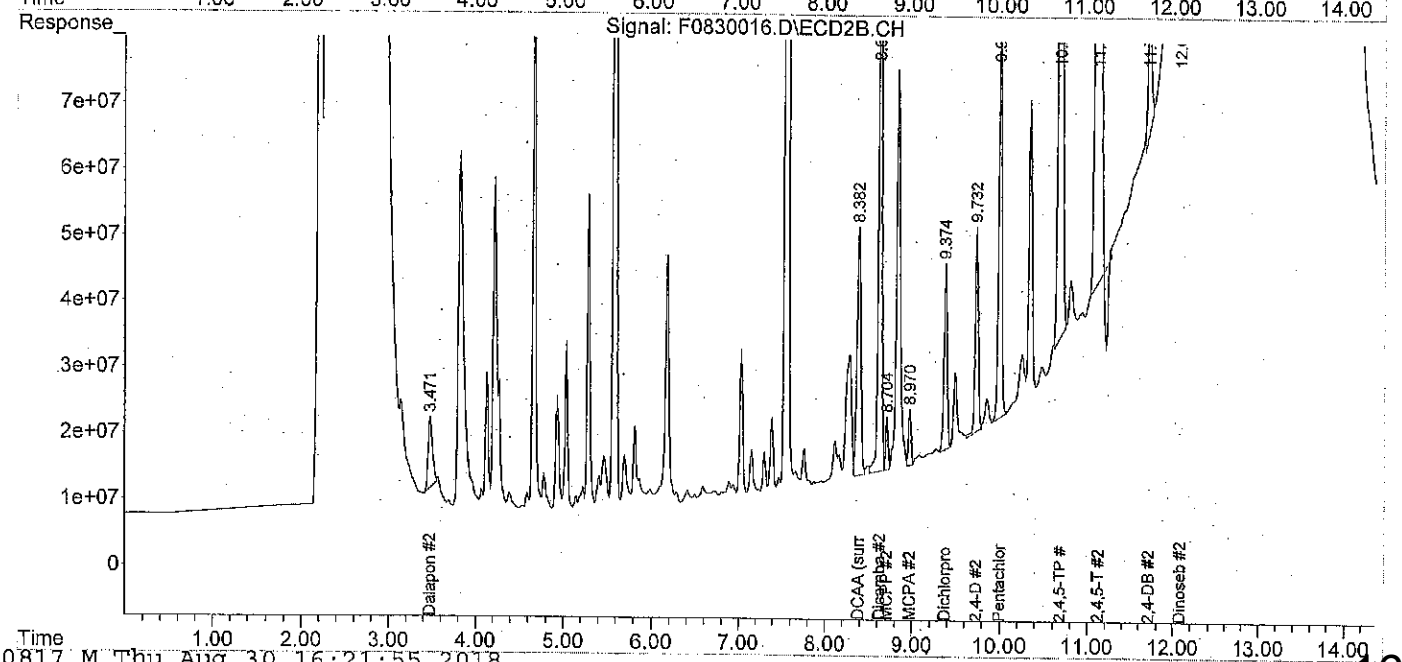
Data File : F0830016.D
Sample : 08-326-03 MSD

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:30:51
Operator :
Misc :
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:21:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Response Factor Report Frank

Method Path : C:\msdchem\1\METHODS\
Method File : H180817.M
Title : Herbicides
Last Update : Mon Aug 27 09:31:20 2018
Response Via : Initial Calibration

Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

	Compound	1	2	3	4	5	6	Avg		%RSD
3) S	DCAA (surr)	1.221	1.556	1.327	1.248	1.173	1.135	1.232	E5	12.57
9) A	Pentachloroph...	3.353	3.873	3.189	3.051	2.906	2.848	3.131	E6	11.56

Signal #2 Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

	Compound	1	2	3	4	5	6	Avg		%RSD
3) S	DCAA (surr)			1.811	1.471	1.363	1.345	1.422	E5	14.67
9) A	Pentachloroph...	4.312	4.842	4.063	3.914	3.723	3.557	3.907	E6	12.88

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

H180817.M Wed Aug 29 11:44:27 2018

Quantitation Report (Not Reviewed)

Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.737	8.407	244148	510653	1.982	3.592	#
Spiked Amount	100.000			Recovery	=	1.98%	3.59%	
	Target Compounds							
1) A	Dalapon	0.000	3.477	0	234822	N.D.	2.464	#
2) A	2,4,6-Tri...	7.081	6.758	1003548	1175072	1.046	1.053	
4) A	Dicamba	8.982	8.631	928730	1429532	2.154	2.706	#
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6) A	MCPA	0.000	0.000	0	0	N.D.	N.D.	
7) A	Dichlorprop	9.805	9.393	233714	269658	1.983	1.926	
8) A	2,4-D	10.078	9.750	265427	374007	1.919	2.079	
9) A	Pentachlo...	10.409	10.006	670577	862436	0.214	0.221	
10) A	2,4,5-TP	11.100	10.699	1184588	1619682	2.044	2.125	
11) A	2,4,5-T	11.431	11.145	899426	1294334	1.853	2.005	
12) A	2,4-DB	12.040	0.000	95151	0	1.397	N.D.	#
13) a	Bentazon	13.011	12.651	96634	189139	2.001	2.614	#
14) A	Dinoseb	13.149	12.093	312688	735842	1.454	2.141	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

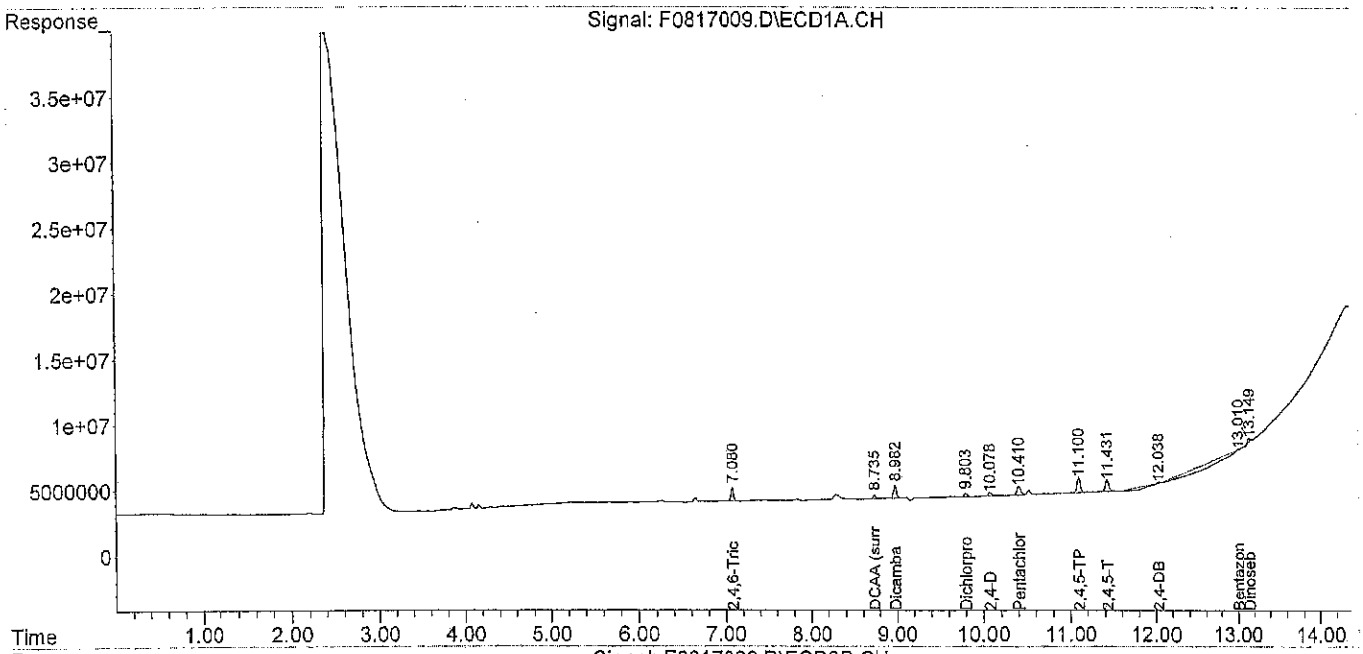
Quantitation Report (Not Reviewed)

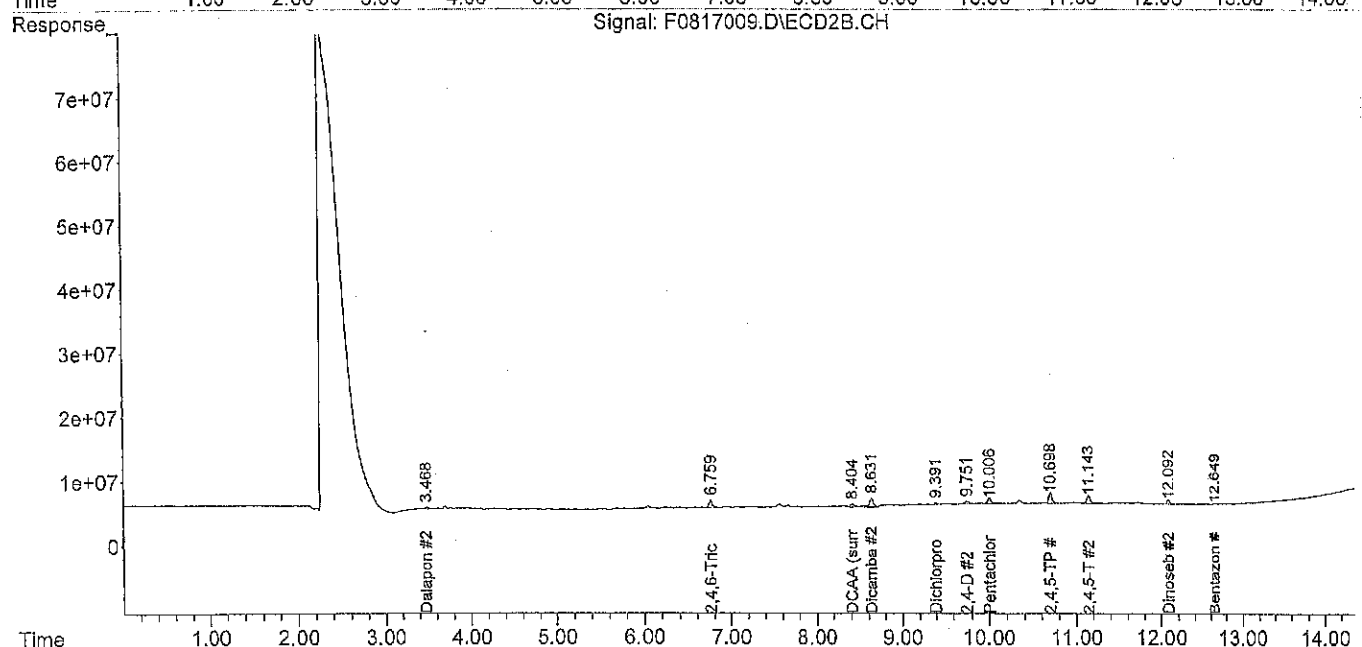
Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.735	8.403	777921	1240643	6.315	8.726	#
		Spiked Amount 100.000			Recovery	=	6.31%	8.73%	
		Target Compounds							
1)	A	Dalapon	3.864	3.473	433588	563057	5.893	5.909	
2)	A	2,4,6-Tri...	7.081	6.758	2812928	3339271	2.933	2.993	
4)	A	Dicamba	8.981	8.630	2737180	3628346	6.347	6.868	
5)	A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A	MCPA	9.335	0.000	121656	0	610.762	N.D.	#
7)	A	Dichlorprop	9.805	9.392	768391	819685	6.519	5.855	
8)	A	2,4-D	10.078	9.747	828605	1081324	5.990	6.010	
9)	A	Pentachlo...	10.408	10.005	1936680	2420924	0.618	0.620	
10)	A	2,4,5-TP	11.099	10.698	3379558	4663673	5.832	6.120	
11)	A	2,4,5-T	11.430	11.144	2665633	3722944	5.491	5.767	
12)	A	2,4-DB	12.037	11.727	381563	513964	5.603	6.049	
13)	a	Bentazon	13.009	12.653	238341	417110	4.936	5.764	
14)	A	Dinoseb	13.144	12.092	1241096	2116004	5.771	6.157	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

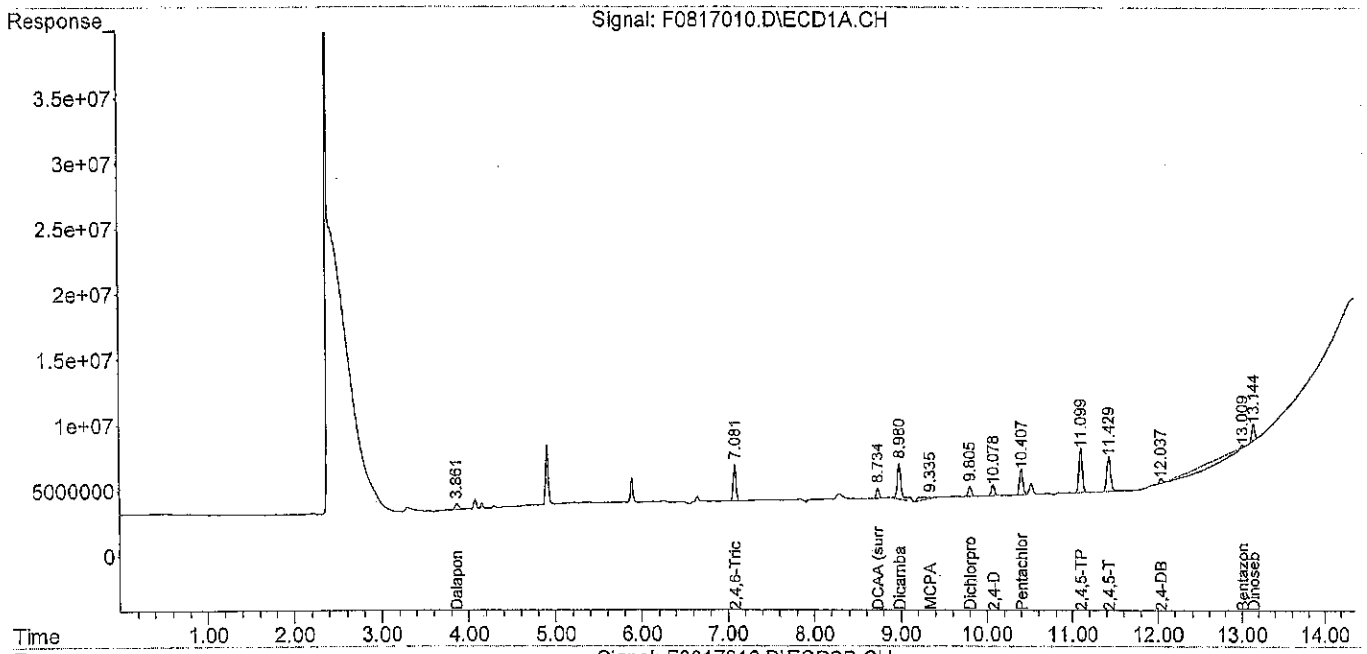
. Quantitation Report (Not Reviewed)

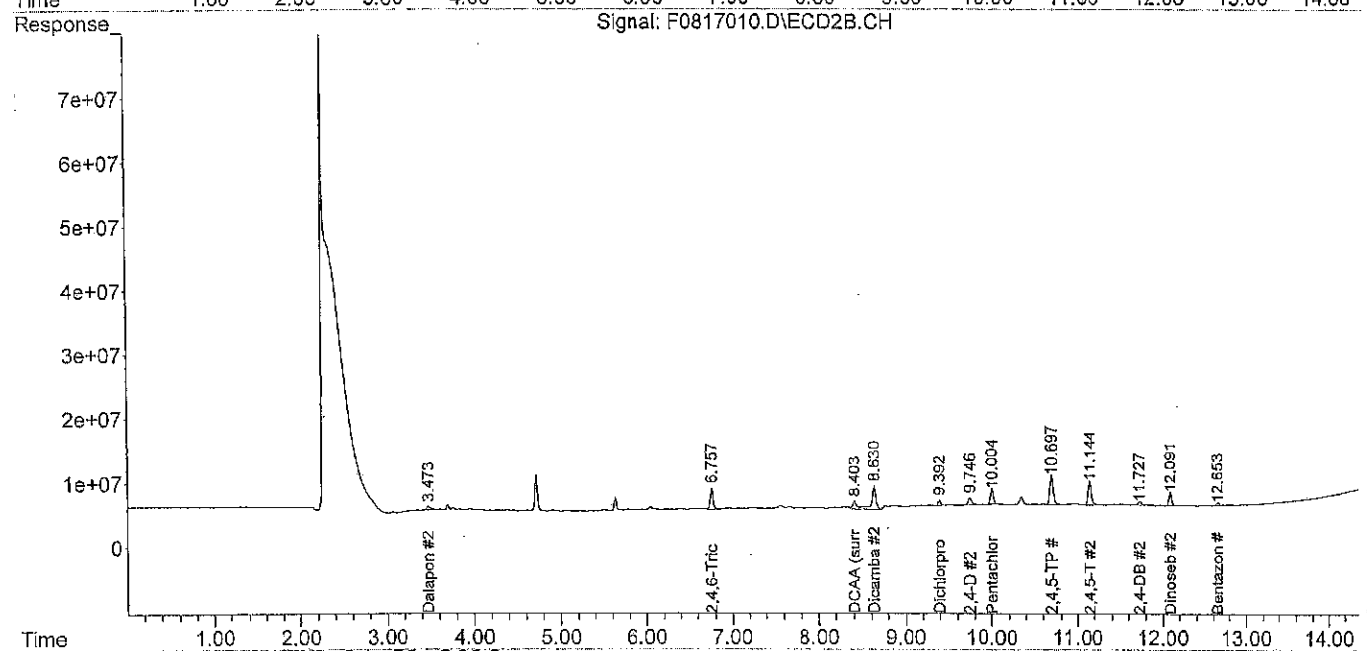
Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.734	8.403	1326771	1811094	10.771	12.738
		Spiked Amount 100.000			Recovery	=	10.77%	12.74%
		Target Compounds						
1)	A	Dalapon	3.865	3.473	770736	929282	10.474	9.752
2)	A	2,4,6-Tri...	7.082	6.759	4640576	5380756	4.839	4.823
4)	A	Dicamba	8.980	8.629	4250607	5592040	9.856	10.586
5)	A	MCPP	9.157	8.711	10189	334	2322.111m	2441.300m
6)	A	MCPA	9.335	8.976	225902	100237	846.768m	965.094m
7)	A	Dichlorprop	9.805	9.388	1247076	1498144	10.580	10.702
8)	A	2,4-D	10.077	9.746	1412974	1817263	10.214	10.100
9)	A	Pentachlo...	10.408	10.004	3189050	4062901	1.018	1.040
10)	A	2,4,5-TP	11.099	10.698	5638516	7542591	9.730	9.897
11)	A	2,4,5-T	11.428	11.142	4671215	6321650	9.622	9.792
12)	A	2,4-DB	12.036	11.728	660054	840753	9.692	9.894
13)	a	Bentazon	13.008	12.652	442679	674246	9.167	9.317
14)	A	Dinoseb	13.141	12.091	2282616	3508038	10.614	10.207

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

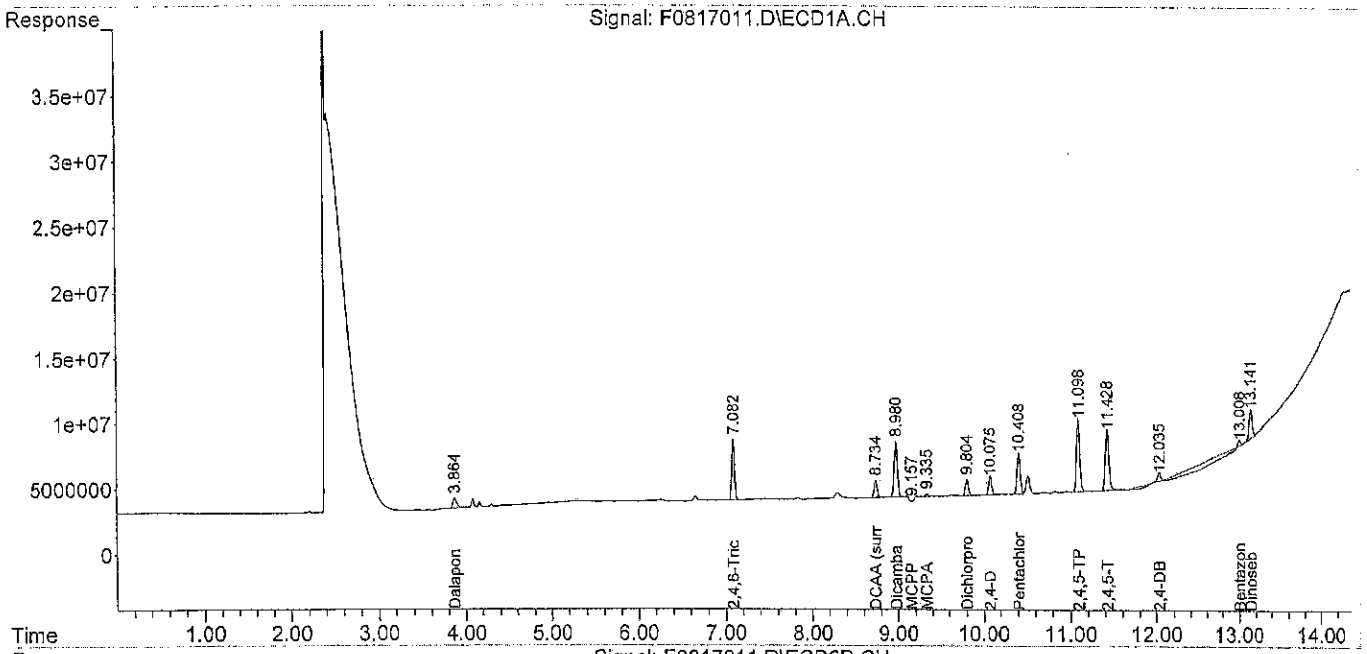
Quantitation Report (QT Reviewed)

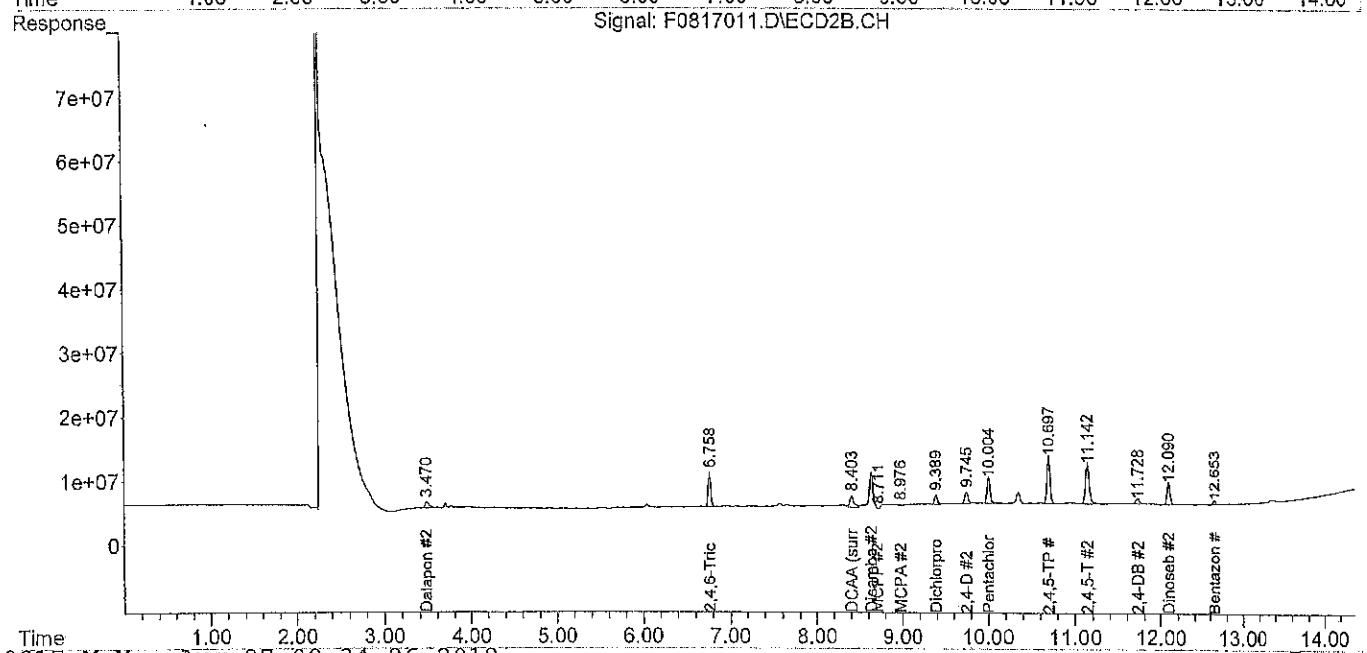
Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.735	8.403	3120475	3677033	25.333	25.861
		Spiked Amount 100.000			Recovery	=	25.33%	25.86%
		Target Compounds						
1)	A	Dalapon	3.865	3.473	1855417	2249731	25.216	23.610
2)	A	2,4,6-Tri...	7.083	6.759	11354167	13199763	11.839	11.831
4)	A	Dicamba	8.980	8.630	10068427	12558353	23.347	23.773
5)	A	MCPP	9.157	8.712	199811	265631	2877.380	3123.865
6)	A	MCPA	9.336	8.980	1048400	969997	2708.842	2734.370
7)	A	Dichlorprop	9.805	9.388	2966815	3776783	25.170	26.979
8)	A	2,4-D	10.076	9.745	3455529	4654121	24.978	25.867
9)	A	Pentachlo...	10.407	10.004	7628348	9784346	2.436	2.504
10)	A	2,4,5-TP	11.098	10.697	13752088	18343572	23.732	24.070
11)	A	2,4,5-T	11.427	11.142	11707613	15290891	24.117	23.686
12)	A	2,4-DB	12.035	11.726	1698799	2078253	24.944	24.458
13)	a	Bentazon	13.005	12.653	1192894	1651396	24.703	22.819
14)	A	Dinoseb	13.142	12.091	5347366	8238683	24.864	23.972

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

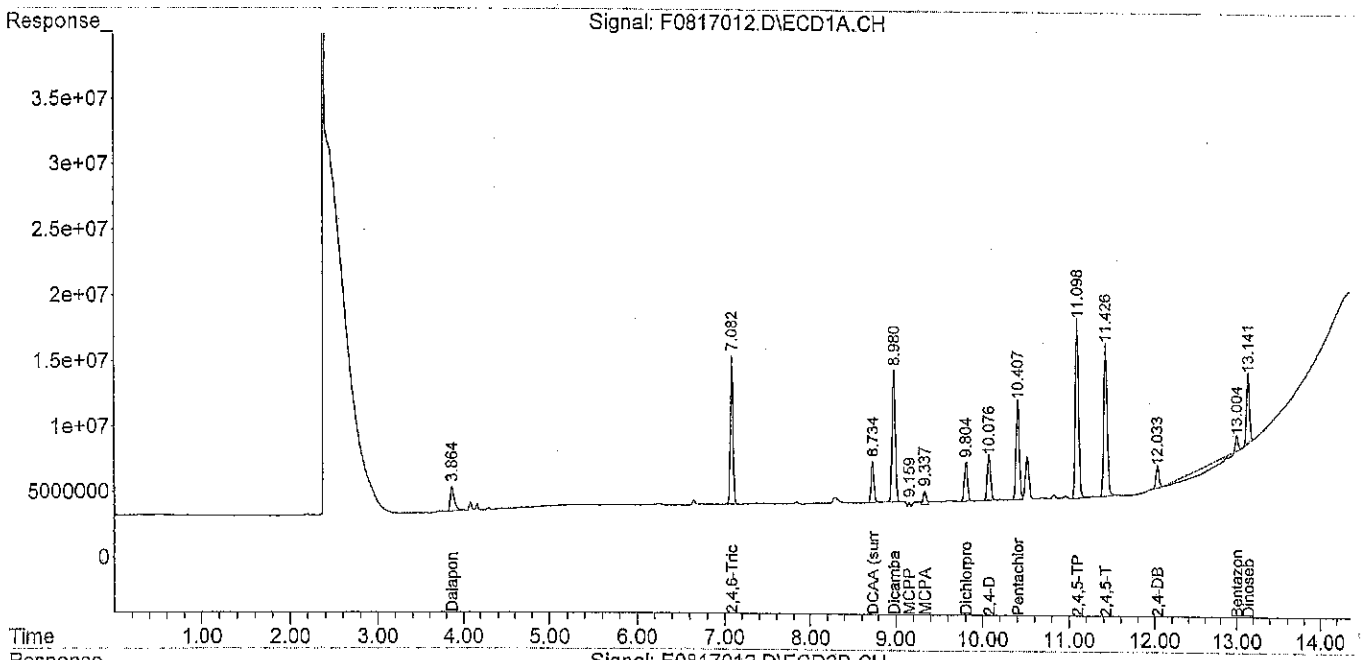
Quantitation Report (Not Reviewed)

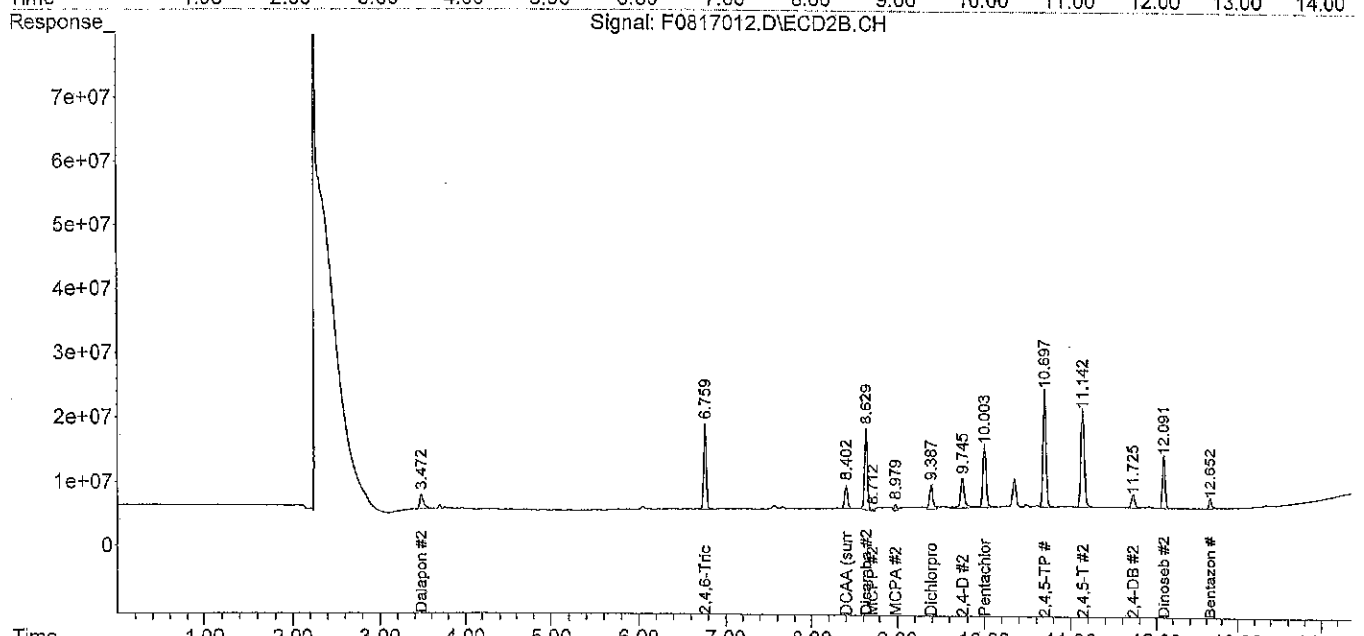
Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.733	8.401	5864299	6814069	47.608	47.925
	Spiked Amount 100.000			Recovery	=	47.61%	47.92%
	Target Compounds						
1) A	Dalapon	3.864	3.472	3513619	4289384	47.751	45.015
2) A	2,4,6-Tri...	7.082	6.758	22083231	25328645	23.026	22.701
4) A	Dicamba	8.980	8.630	19506123	23646638	45.231	44.762
5) A	MCPP	9.156	8.712	972672	1022364	5140.540	5070.816
6) A	MCPA	9.335	8.978	2036145	2152226	4945.026	5139.277
7) A	Dichlorprop	9.803	9.386	5516326	7047700	46.800	50.344
8) A	2,4-D	10.074	9.744	6672898	8962952	48.235	49.814
9) A	Pentachlo...	10.406	10.003	14530907	18616464	4.641	4.765
10) A	2,4,5-TP	11.097	10.697	26647731	35111974	45.986	46.073
11) A	2,4,5-T	11.426	11.141	22911810	30006336	47.196	46.480
12) A	2,4-DB	12.034	11.725	3454487	3993012	50.722	46.991
13) a	Bentazon	12.999f	12.648	2477630	3371122	51.308	46.583
14) A	Dinoseb	13.135f	12.090	10836859	15985248	50.389	46.511

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

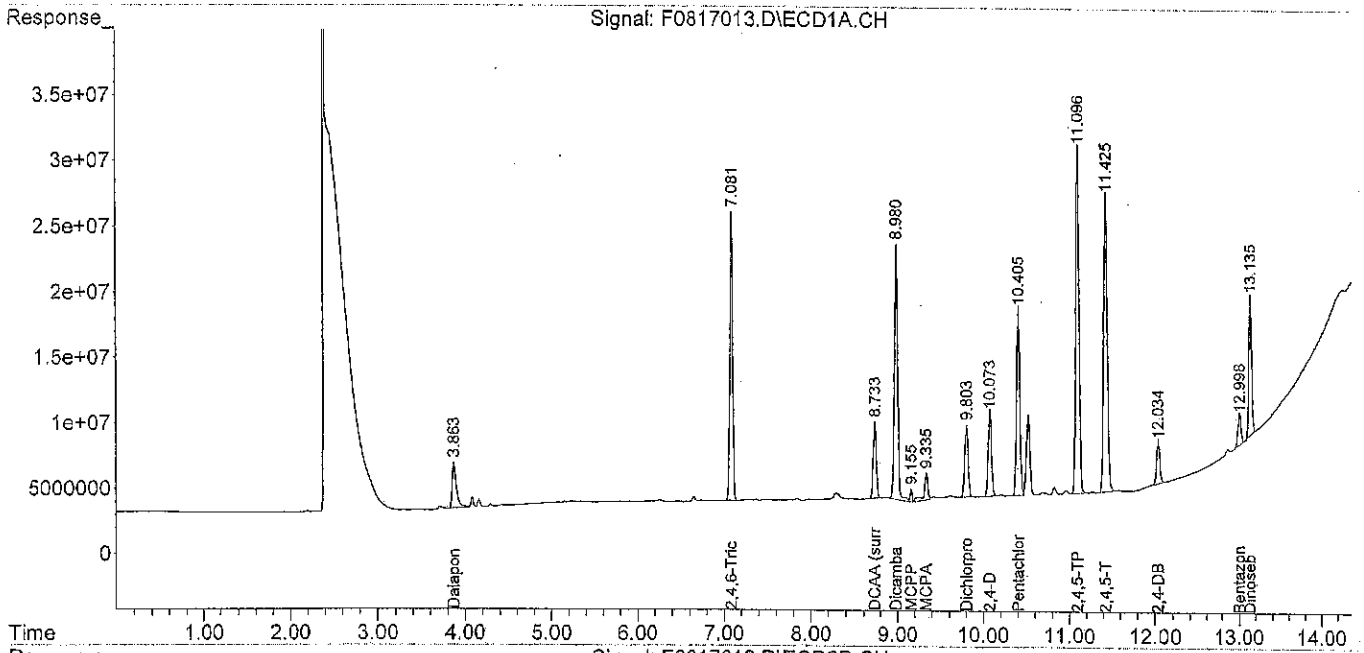
Quantitation Report (Not Reviewed)

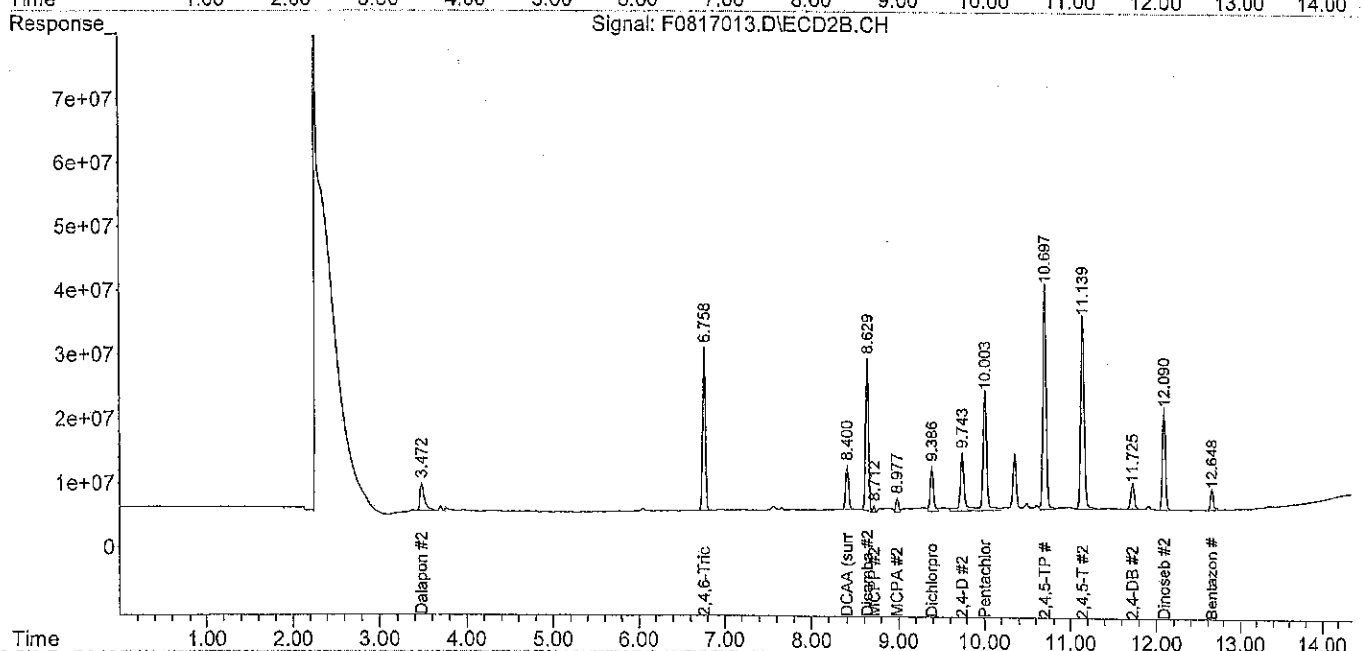
Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-S1-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.731	8.400	11348388	13451287	92.129	94.605
		Spiked Amount 100.000			Recovery	=	92.13%	94.61%
		Target Compounds						
1)	A	Dalapon	3.865	3.473	6866529	8704228	93.318	91.347
2)	A	2,4,6-Tri...	7.081	6.758	44483672	50899710	46.383	45.620
4)	A	Dicamba	8.979	8.629	39334858	46144001	91.209	87.349
5)	A	MCPP	9.154	8.710	2488021	2706431	9577.916	9403.643
6)	A	MCPA	9.333	8.977	4187625	4322945	9815.820	9554.981
7)	A	Dichlorprop	9.801	9.385	10771858	12839484	91.388	91.717
8)	A	2,4-D	10.072	9.742	13053849	16533000	94.359	91.887
9)	A	Pentachlo...	10.404	10.001	28483043	35567736	9.096	9.103
10)	A	2,4,5-TP	11.096	10.695	54693437	69891107	94.384	91.709
11)	A	2,4,5-T	11.424	11.139	47347378	60940230	97.531	94.397
12)	A	2,4-DB	12.033	11.723	6898744	7999385	101.294	94.140
13)	a	Bentazon	13.003	12.650	4877862	6590466	101.014	91.069
14)	A	Dinoseb	13.139	12.089	21937455	32320424	102.005	94.041

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

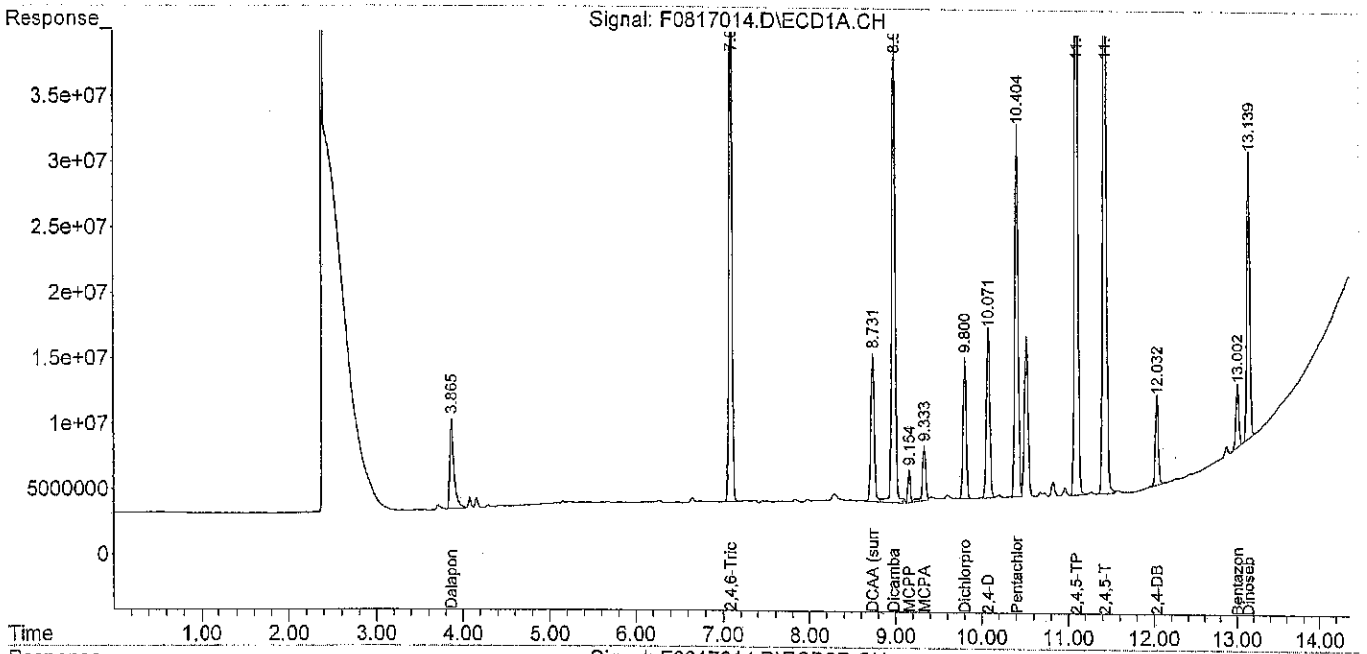
Quantitation Report (Not Reviewed)

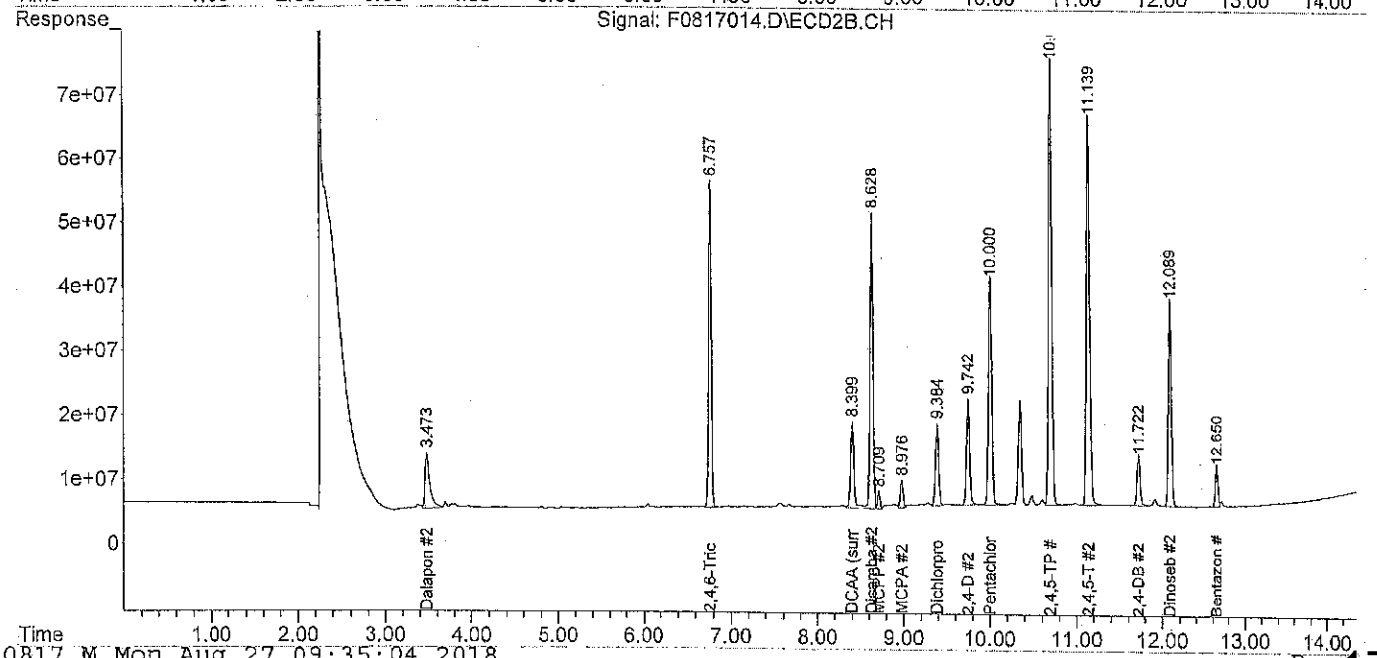
Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.732	8.400	26255998	30148769	213.154	212.042
		Spiked Amount 100.000			Recovery	=	213.15%	212.04%
		Target Compounds						
1)	A	Dalapon	3.867	3.475	16477193	21035245	223.929	220.756
2)	A	2,4,6-Tri...	7.082	6.759	110.5E6	127.8E6	115.239	114.526
4)	A	Dicamba	8.979	8.628	94350654	111.8E6	218.779	211.657
5)	A	MCPP	9.156	8.711	6752926	7530404	22066.787	21814.934
6)	A	MCPA	9.333	8.978	10206538	10786773	23442.201	22703.782
7)	A	Dichlorprop	9.800	9.383	24717008	29583680	209.698	211.326
8)	A	2,4-D	10.071	9.741	30823171	38043250	222.804	211.436
9)	A	Pentachlo...	10.404	10.001	67787156	80426329	21.649	20.584
10)	A	2,4,5-TP	11.096	10.696	134.4E6	169.3E6	231.873	222.207
11)	A	2,4,5-T	11.424	11.139	116.5E6	151.0E6	239.955	233.880
12)	A	2,4-DB	12.031	11.722	16678647	19089306	244.893	224.651
13)	a	Bentazon	13.002	12.651	11612604	15572024	240.481	215.178
14)	A	Dinoseb	13.139f	12.089	50893105	75489719	236.643	219.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

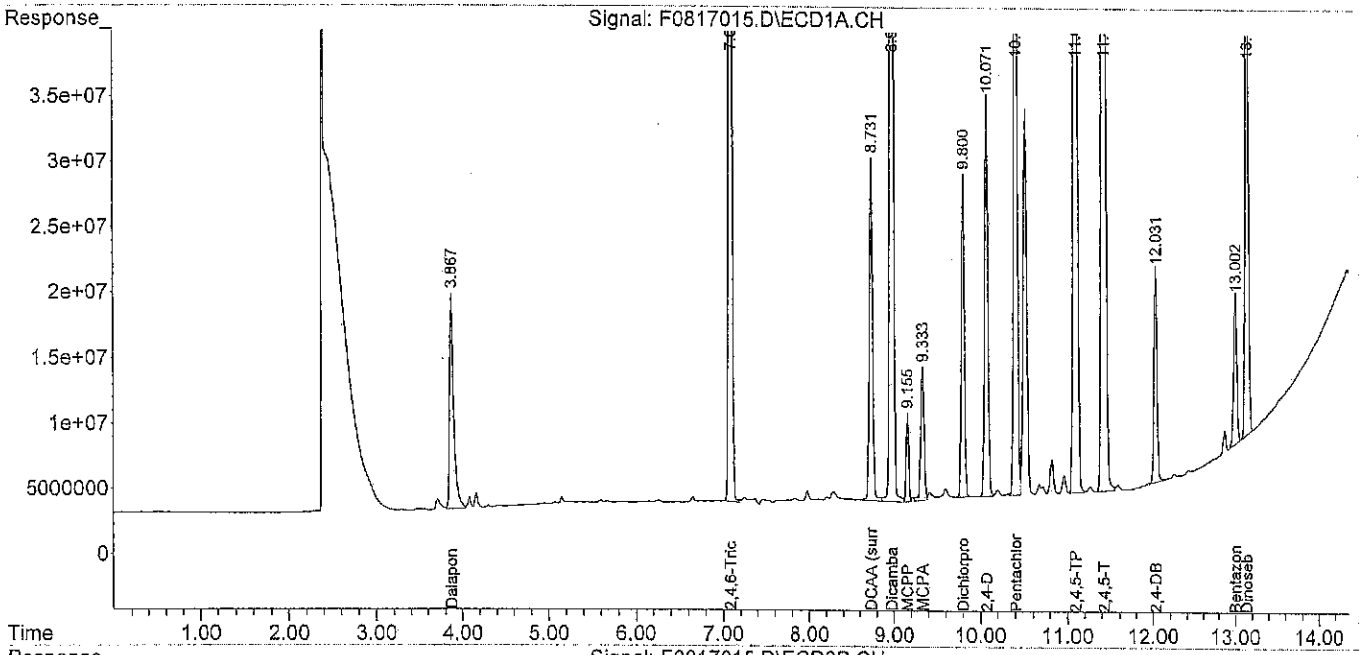
Quantitation Report (Not Reviewed)

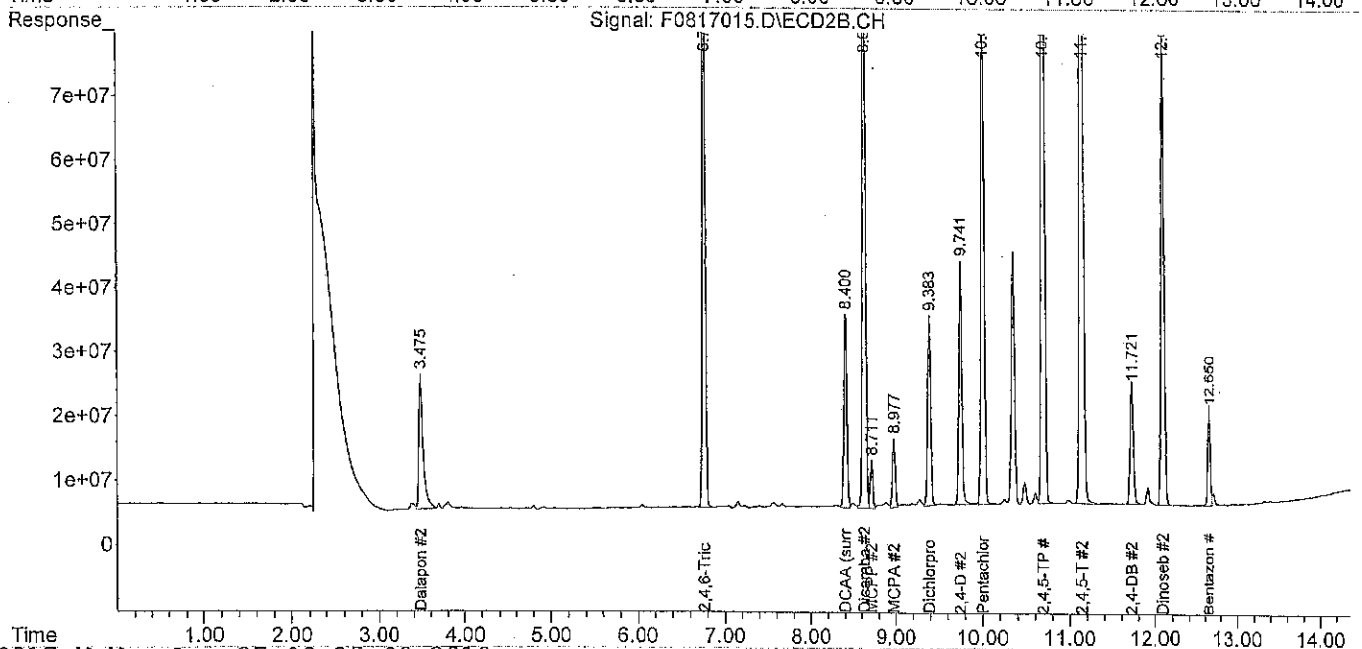
Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.732	8.401	57240466	66758932	464.695	469.528
		Spiked Amount 100.000			Recovery	=	464.70%	469.53%
		Target Compounds						
1)	A	Dalapon	3.873	3.481	36111007	46193314	490.756	484.780
2)	A	2,4,6-Tri...	7.084	6.760	262.5E6	307.4E6	273.730	275.508
4)	A	Dicamba	8.979	8.628	224.8E6	264.5E6	521.275	500.754
5)	A	MCPP	9.157	8.714	16801253	19124519	51491.177	51644.689
6)	A	MCPA	9.336	8.981	23691471	25451703	53971.106	52535.373
7)	A	Dichlorprop	9.799	9.382f	56064531	66294862	475.648	473.566
8)	A	2,4-D	10.070	9.740	70747424	85752556	511.395	476.593
9)	A	Pentachlo...	10.403	10.000	155.9E6	181.5E6	49.780	46.448
10)	A	2,4,5-TP	11.095	10.695	318.2E6	393.8E6	549.044	516.783
11)	A	2,4,5-T	11.422	11.138	283.9E6	357.8E6	584.755	554.208
12)	A	2,4-DB	12.030f	11.721	41104828	44301446	603.543	521.358
13)	a	Bentazon	12.999f	12.648	26780768	35928681	554.593	496.471
14)	A	Dinoseb	13.135f	12.088	117.1E6	166.6E6	544.262	484.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

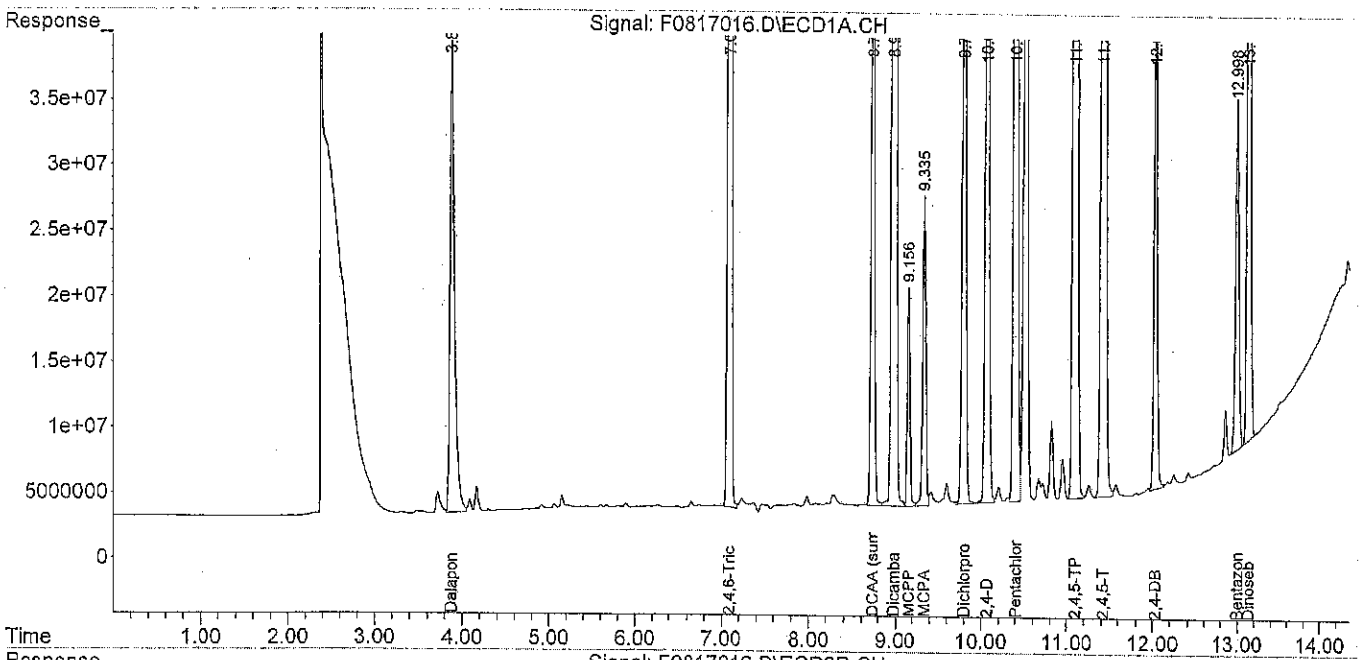
Quantitation Report (Not Reviewed)

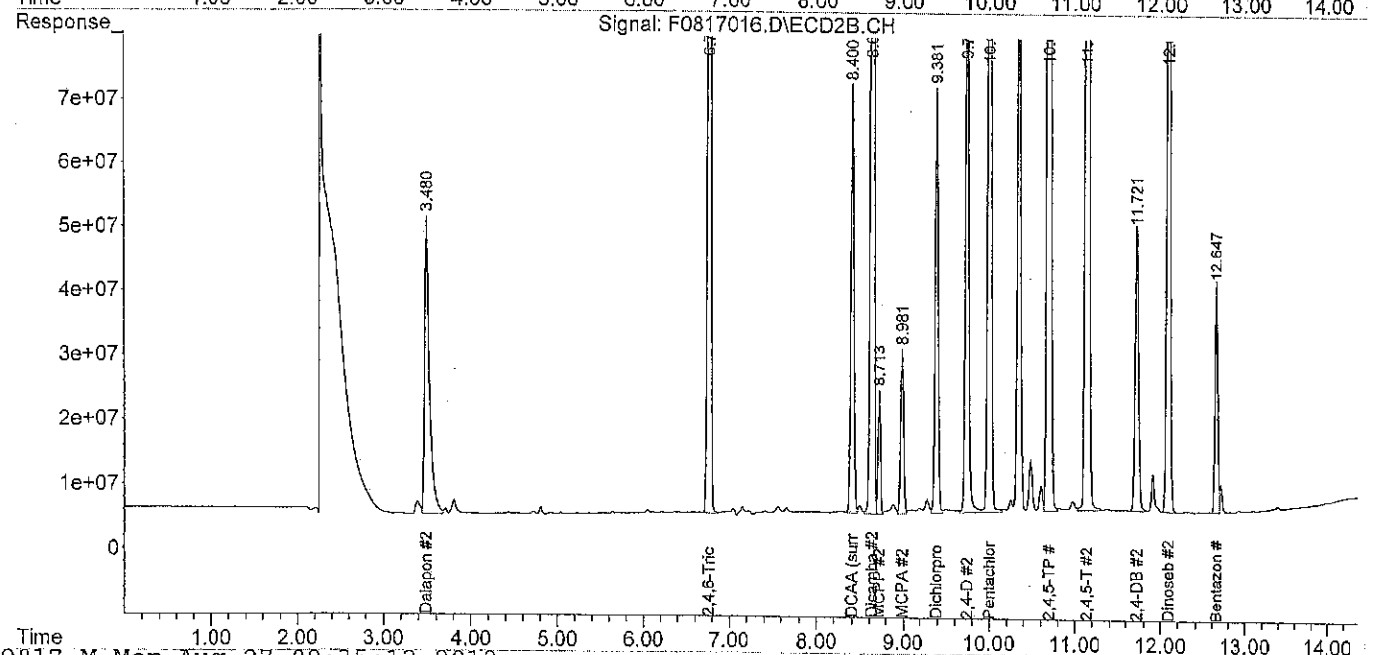
Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.753f	0.000	960161	0	7.795	N.D.	#
		Spiked Amount 100.000			Recovery	=	7.80%	0.00%	
		Target Compounds							
1)	A	Dalapon	3.866	3.474	6807754	8572406	92.519	89.964	
2)	A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A	Dicamba	8.980	8.629	39483953	47293331	91.555	89.525	
5)	A	MCPP	9.156	8.710	2639608	2834563	10021.806	9733.305	
6)	A	MCPA	9.334	8.978	4386424	4659850	10265.887	10240.318	
7)	A	Dichlorprop	9.802	9.385	10278317	12258239	87.201	87.565	
8)	A	2,4-D	10.074	9.744	12265306	15653918	88.659	87.001	
9)	A	Pentachlo...	0.000	9.994f	0	240126	N.D.	0.061	#
10)	A	2,4,5-TP	11.097	10.697	51725738	66892655	89.263	87.774	
11)	A	2,4,5-T	11.424	11.140	48874445	63677945	100.677	98.638	
12)	A	2,4-DB	12.030	11.724	8907892	8593975	130.795	101.137	
13)	a	Bentazon	13.001f	12.651	57292593	7187699	1186.451	99.321	#
14)	A	Dinoseb	13.139	12.090	23459537	34548327	109.082	100.523	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

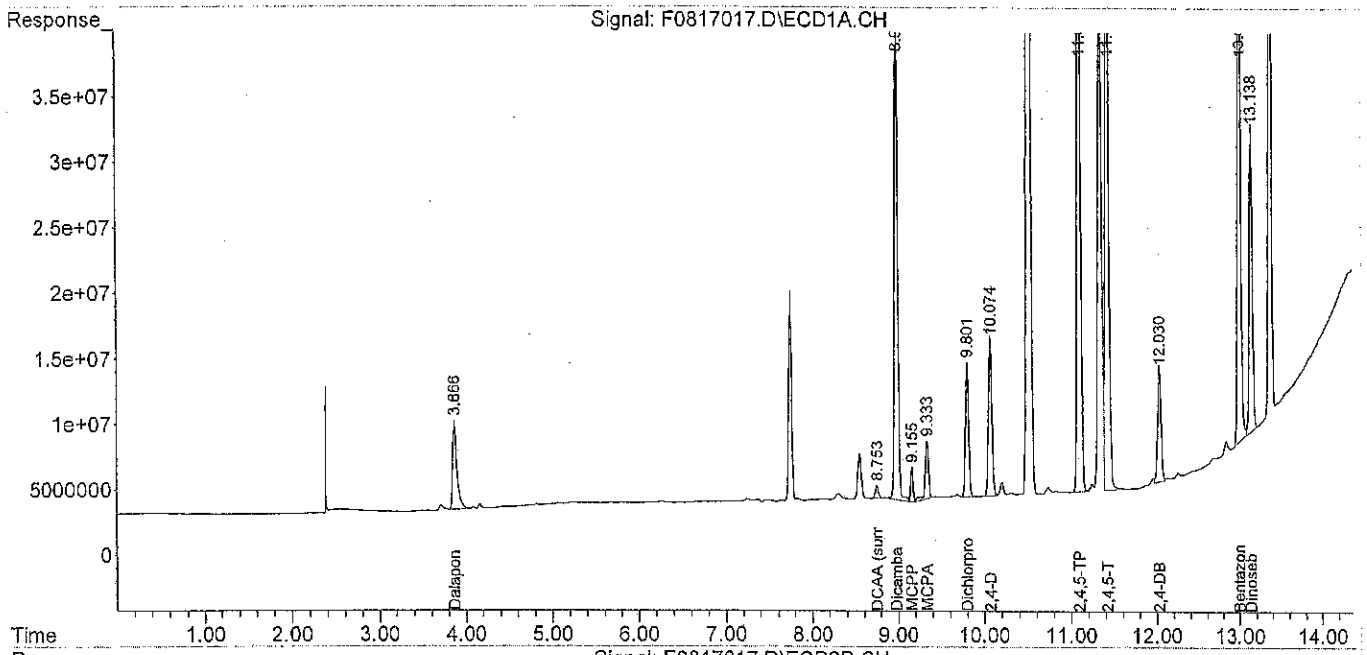
Quantitation Report (Not Reviewed)

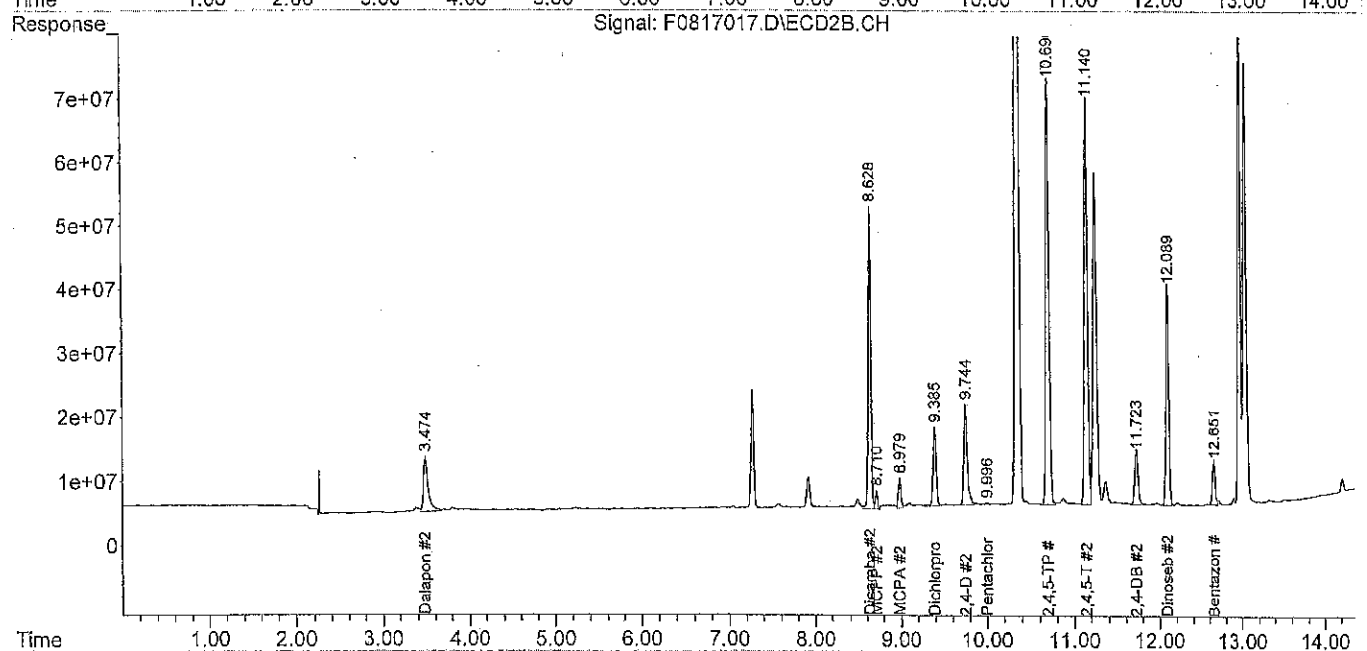
Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:05:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	107.046	-7.0	116	0.00
9 A	Pentachlorophenol	10.000	10.490	-4.9	115	0.00

Signal #2

3 S	DCAA (surr)	100.000	95.587	4.4	101	0.00
9 A	Pentachlorophenol	10.000	8.950	10.5	98	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Fri Aug 31 16:53:33 2018

Evaluate Continuing Calibration Report

Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:45:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	108.157	-8.2	117	0.00
9 A	Pentachlorophenol	10.000	10.404	-4.0	114	0.00

Signal #2

3 S	DCAA (surr)	100.000	100.128	-0.1	106	0.00
9 A	Pentachlorophenol	10.000	9.315	6.9	102	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Fri Aug 31 17:00:41 2018

Evaluate Continuing Calibration Report

Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	107.095	-7.1	116	0.00
9 A	Pentachlorophenol	10.000	10.362	-3.6	114	0.00

Signal #2

3 S	DCAA (surr)	100.000	96.365	3.6	102	0.00
9 A	Pentachlorophenol	10.000	9.168	8.3	101	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Fri Aug 31 17:02:45 2018

Quantitation Report (Not Reviewed)

Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 10:41:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:21 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KMS 8-30-18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.728	8.391f	13185824	13590865	107.046	95.587
	Spiked Amount 100.000			Recovery	=	107.05%	95.59%
	Target Compounds						
1) A	Dalapon	3.864	3.465f	8244319	9866359	112.042	103.543
2) A	2,4,6-Tri...	7.079	6.750	54267911	52823177	56.585	47.344
4) A	Dicamba	8.975	8.619f	45881643	46640894	106.390	88.290
5) A	MCPP	9.152	8.702	2908306	2784309	10808.633	9604.012
6) A	MCPA	9.328	8.968	4866708	4325234	11353.215	9559.637
7) A	Dichlorprop	9.797	9.376f	12728383	12207255	107.987	87.201
8) A	2,4-D	10.068	9.732f	14996446	15976533	108.401	88.794
9) A	Pentachlo...	10.399	9.991f	32846744	34969476	10.490	8.950
10) A	2,4,5-TP	11.091	10.686f	51296014	67893566	88.521	89.088
11) A	2,4,5-T	11.421f	11.129f	53874394	59006473	110.976	91.401
12) A	2,4-DB	12.028f	11.713	7966950	7540365	116.979	88.738
13) a	Bentazon	13.000f	12.642	4926233	6385099	102.016	88.231
14) A	Dinoseb	13.136f	12.081f	23195763	28732408	107.856	83.601

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

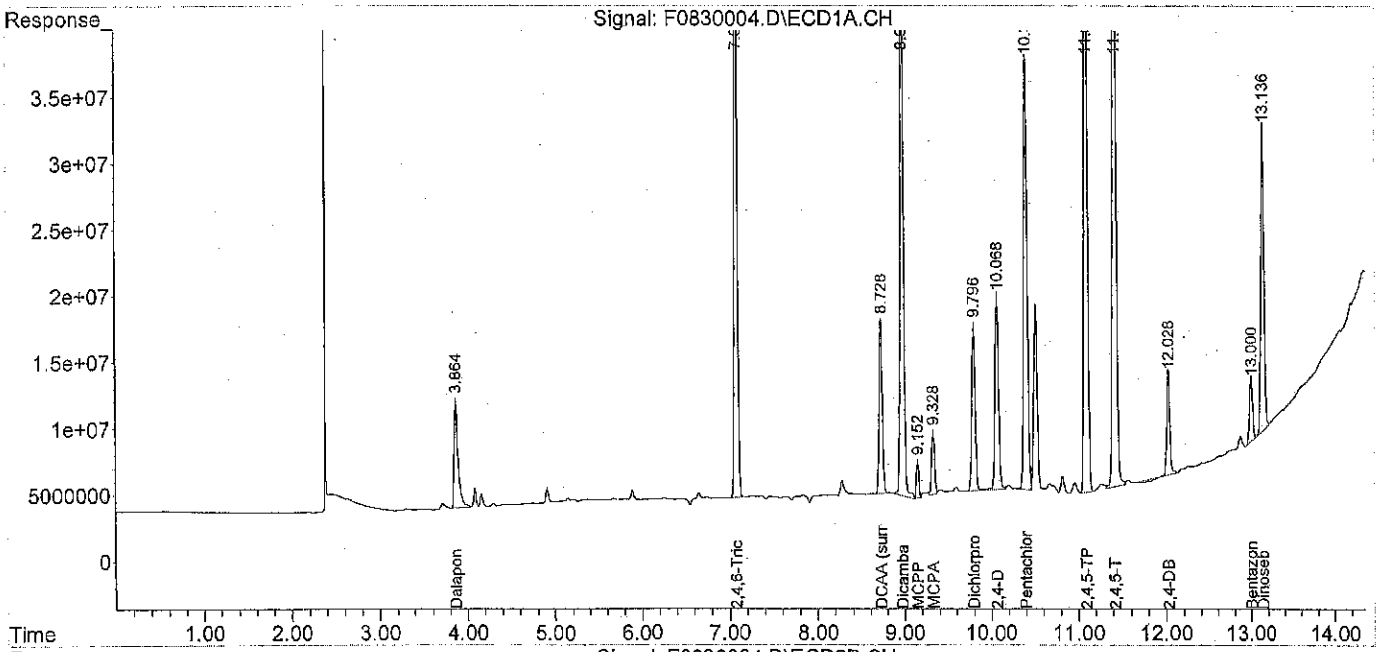
Quantitation Report (Not Reviewed)

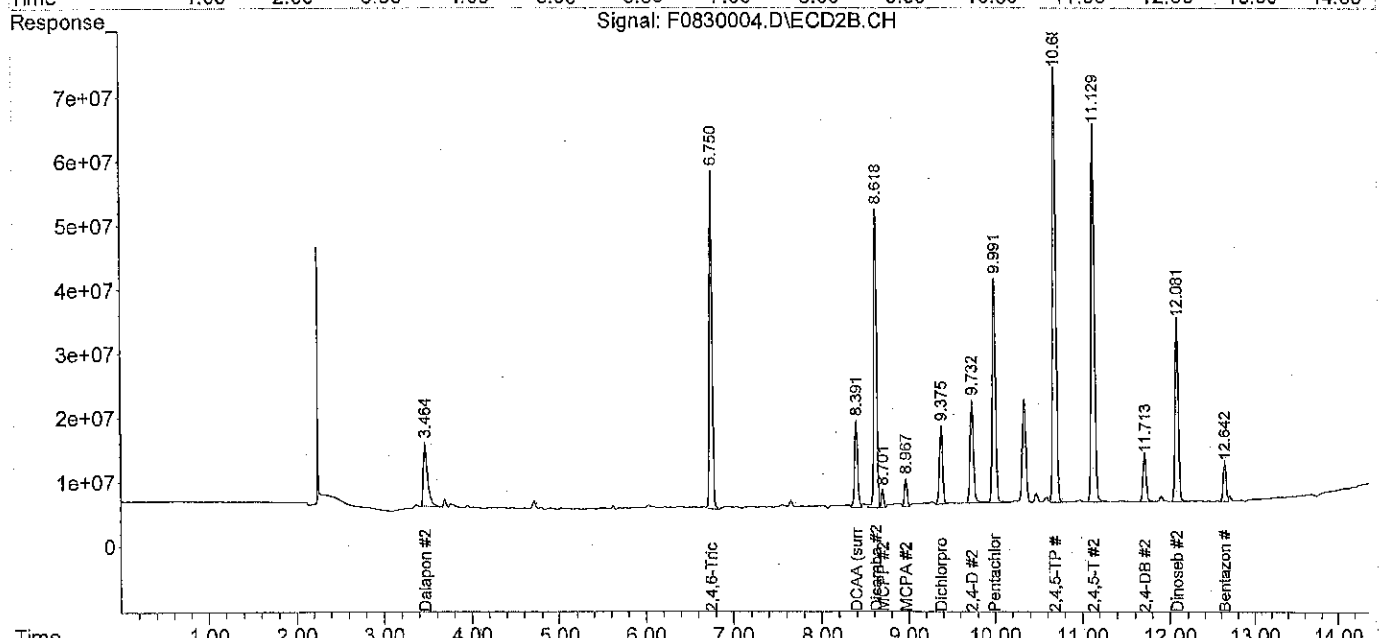
Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 10:41:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:21 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:44:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KMS 8-30-18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.730	8.393	13322608	14236559	108.157	100.128	
	Spiked Amount 100.000			Recovery	=	108.16%	100.13%	
	Target Compounds							
1)	A Dalapon	3.867	3.467	8194475	10671290	111.365	111.991	
2)	A 2,4,6-Tri...	7.081	6.752	53518773	54417163	55.804	48.773	
4)	A Dicamba	8.977	8.621	46011478	48315475	106.691	91.460	
5)	A MCPP	9.153	8.703	2535450	2592265	9716.801	9109.913	
6)	A MCPA	9.331	8.971	4603880	4242185	10758.191	9390.699	
7)	A Dichlorprop	9.798	9.378	12319390	12642914	104.517	90.313	
8)	A 2,4-D	10.069	9.735	15506690	17278442	112.089	96.030	
9)	A Pentachlo...	10.401	9.994	32577559	36395124	10.404	9.315	
10)	A 2,4,5-TP	11.093	10.689	59601705	72963900	102.855	95.741	
11)	A 2,4,5-T	11.421	11.132	53673565	63374547	110.562	98.168	
12)	A 2,4-DB	12.029	11.715	8307230	7852979	121.975	92.417	
13)	a Bentazon	13.000	12.645	5864539	6355626	121.447	87.824	#
14)	A Dinoseb	13.137	12.084	25010215	31705041	116.292	92.251	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

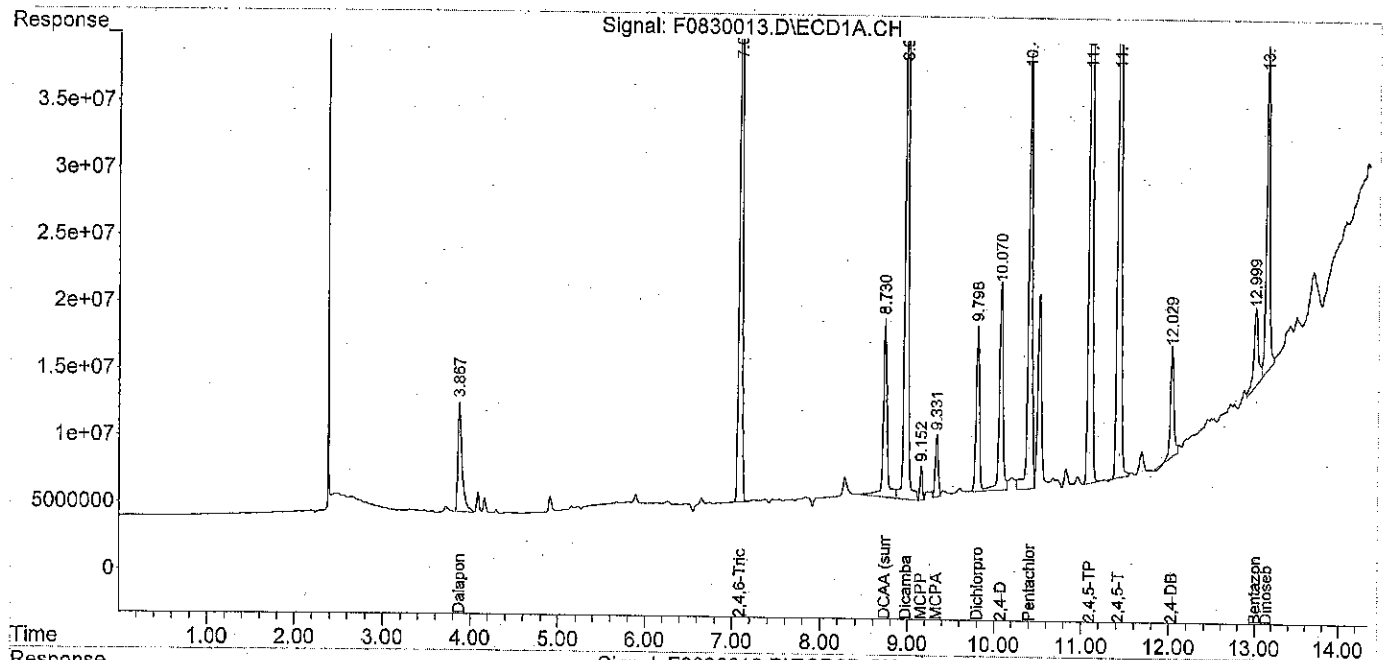
Quantitation Report (Not Reviewed)

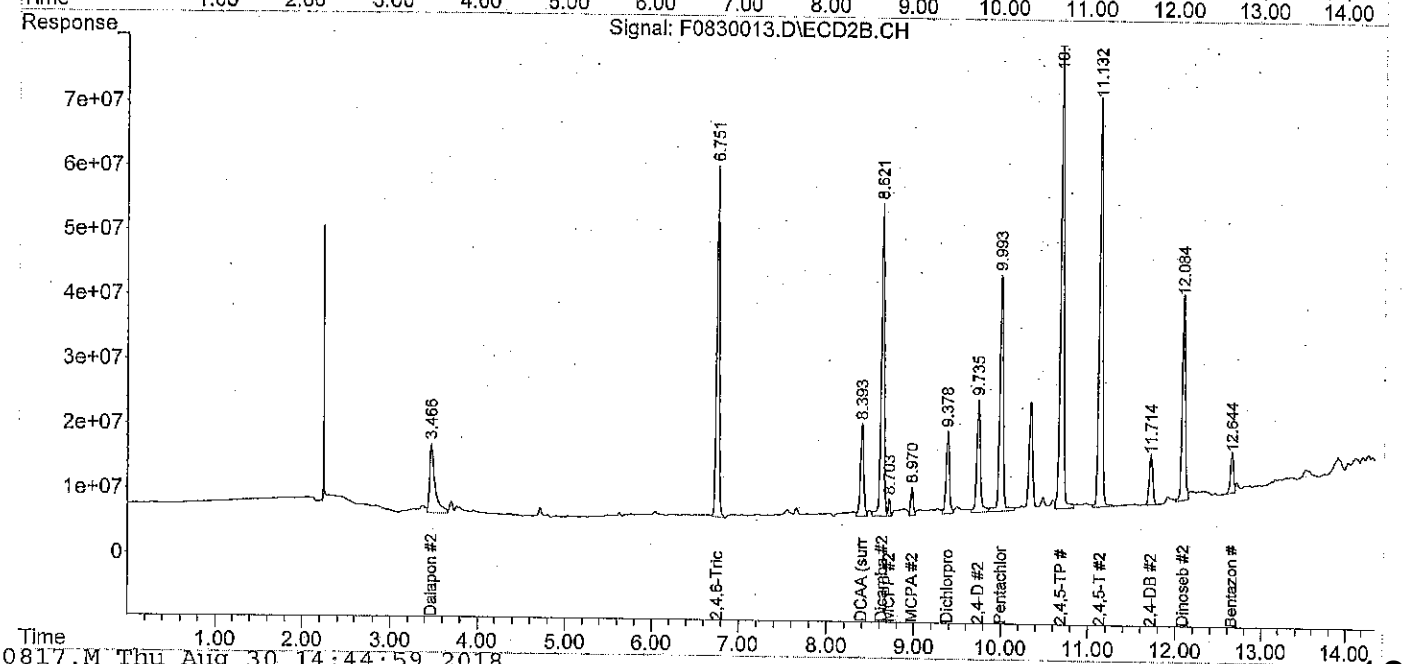
Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:44:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KMS 8/30/18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.729	8.392	13191837	13701406	107.095	96.365
	Spiked Amount 100.000			Recovery	=	107.10%	96.36%
	Target Compounds						
1) A	Dalapon	3.867	3.468	8000341	10349491	108.726	108.614
2) A	2,4,6-Tri...	7.080	6.751	53120920	53235555	55.389	47.713
4) A	Dicamba	8.975	8.620	45946536	46597479	106.540	88.208
5) A	MCPP	9.151	8.703	2593114	2561947	9885.658	9031.909
6) A	MCPA	9.330	8.969	4392949	4222554	10280.658	9350.763
7) A	Dichlorprop	9.797	9.377	12462977	12504147	105.735	89.321
8) A	2,4-D	10.068	9.734	15049915	17123145	108.788	95.166
9) A	Pentachlo...	10.399	9.993	32446109	35821207	10.362	9.168
10) A	2,4,5-TP	11.092	10.688	63866458	70419925	110.214	92.403
11) A	2,4,5-T	11.420	11.131	55643351	61088545	114.620	94.627
12) A	2,4-DB	12.028	11.715	8287229	7765095	121.682	91.383
13) a	Bentazon	12.996	12.642	5400555	6060180	111.838	83.741 #
14) A	Dinoseb	13.133	12.083	21763386	27347886	101.195	79.573

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

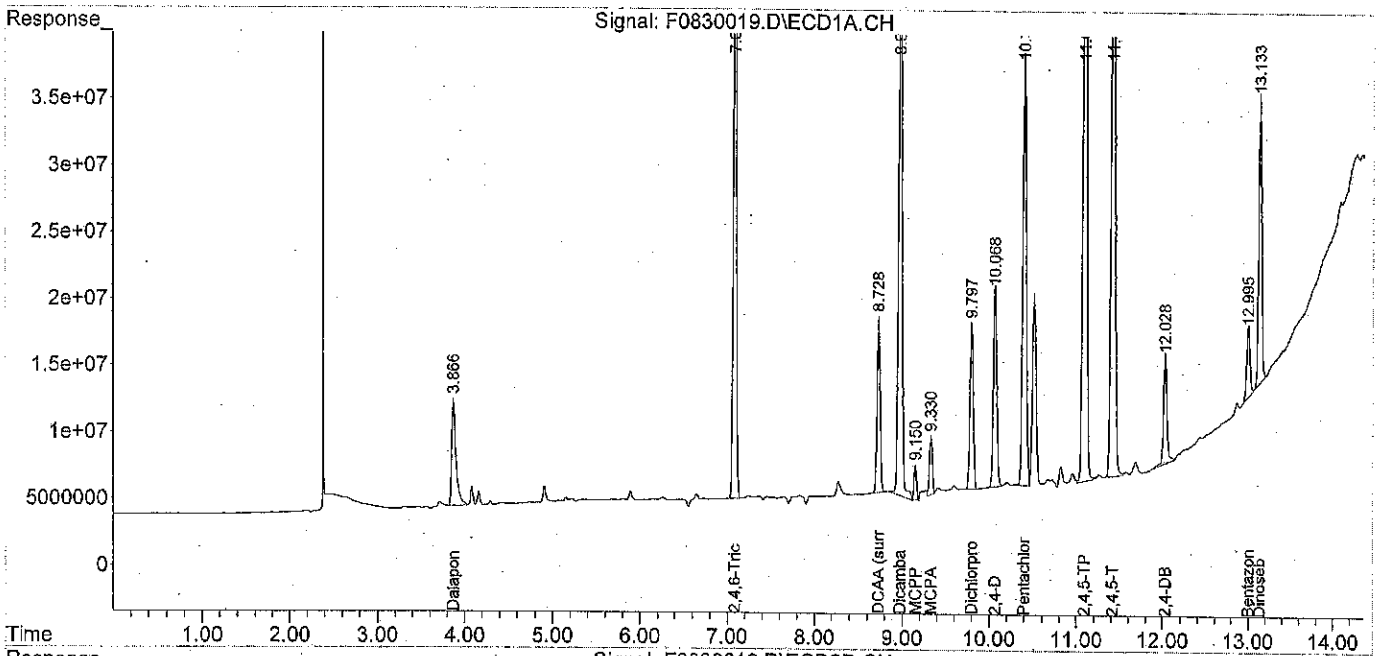
Quantitation Report (Not Reviewed)

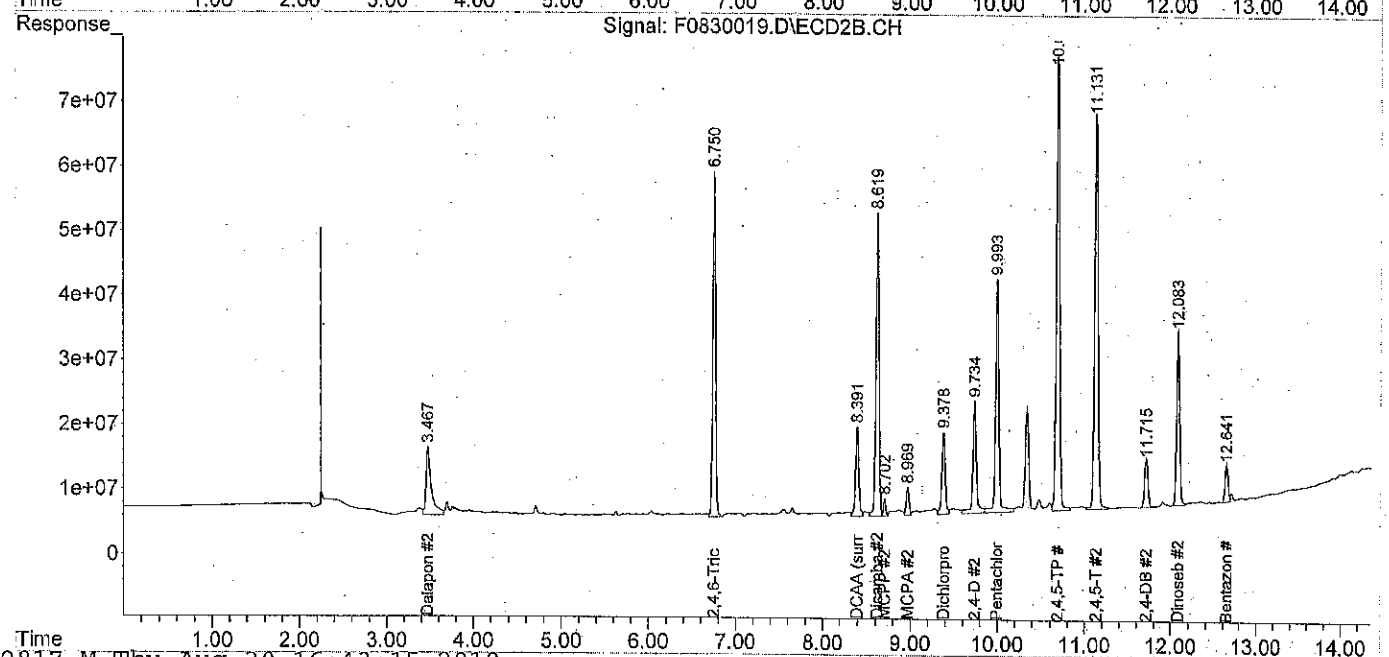
Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Sequence Name: C:\msdchem\1\sequence\F180830.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180830\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info		
1)	Sample 1	F0830001	H180817	HEX
2)	Sample 2	F0830002	H180817	HEX
3)	Sample 3	F0830003	H180817	HEX
4)	Sample 4	F0830004	H180817	HERBCCV 0830-1 (PS4-51-06)
5)	Sample 5	F0830005	H180817	MB0830W1
6)	Sample 6	F0830006	H180817	SB0830W1
7)	Sample 7	F0830007	H180817	SB0830W1 DUP
8)	Sample 8	F0830008	H180817	08-309-01
9)	Sample 9	F0830009	H180817	08-309-02
10)	Sample 10	F0830010	H180817	08-309-03
11)	Sample 11	F0830011	H180817	HEX
12)	Sample 12	F0830012	H180817	HEX
13)	Sample 13	F0830013	H180817	HERBCCV 0830-2 (PS4-51-06)
14)	Sample 14	F0830014	H180817	08-326-03
15)	Sample 15	F0830015	H180817	08-326-03 MS
16)	Sample 16	F0830016	H180817	08-326-03 MSD
17)	Sample 17	F0830017	H180817	HEX
18)	Sample 18	F0830018	H180817	HEX
19)	Sample 19	F0830019	H180817	HERBCCV 0830-3 (PS4-51-06)
20)	Sample 20	F0830020	H180817	08-326-01
21)	Sample 21	F0830021	H180817	08-326-02
22)	Sample 22	F0830022	H180817	08-326-04
23)	Sample 23	F0830023	H180817	08-326-05
24)	Sample 24	F0830024	H180817	HEX
25)	Sample 25	F0830025	H180817	HEX
26)	Sample 26	F0830026	H180817	HERBCCV 0830-4 (PS4-51-06)
27)	Sample 27	F0830027	H180817	08-348-01
28)	Sample 28	F0830028	H180817	08-348-02
29)	Sample 29	F0830029	H180817	08-348-03
30)	Sample 30	F0830030	H180817	08-348-04
31)	Sample 31	F0830031	H180817	08-348-05
32)	Sample 32	F0830032	H180817	HEX
33)	Sample 33	F0830033	H180817	HEX
34)	Sample 34	F0830034	H180817	HERBCCV 0830-5 (PS4-51-06)

Sequence Name: C:\msdchem\1\sequence\F180817.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180817\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

	Line		Sample Name/Misc Info
1)	Sample	1	F0817001 PC180813 HEX
2)	Sample	2	F0817002 PC180813 HEX
3)	Sample	3	F0817003 PC180813 HEX
4)	Sample	4	F0817004 PC180813 PCBCCV 0817-1 (PS4-53-07)
5)	Sample	5	F0817005 H180817 hex
6)	Sample	6	F0817006 H180817 hex
7)	Sample	7	F0817007 H180817 hex
8)	Sample	8	F0817008 H180817 hex
9)	Calibration	9	F0817009 H180817 HERB IC 2.0 ppm PS4-51-08
10)	Calibration	10	F0817010 H180817 HERB IC 5.0 ppm PS4-51-09
11)	Calibration	11	F0817011 H180817 HERB IC 10 ppm PS4-51-10
12)	Calibration	12	F0817012 H180817 HERB IC 25 ppm PS4-51-11
13)	Calibration	13	F0817013 H180817 HERB IC 50 ppm PS4-51-12
14)	Calibration	14	F0817014 H180817 HERB IC 100 ppm PS4-51-13
15)	Calibration	15	F0817015 H180817 HERB IC 250 ppm PS4-51-14
16)	Calibration	16	F0817016 H180817 HERB IC 500 ppm PS4-51-15
17)	Sample	17	F0817017 H180817 HERB ICV PS4-055-09
18)	Sample	18	F0817018 PC180817 HEX
19)	Sample	19	F0817019 PC180817 HEX
20)	Calibration	20	F0817020 PC180817 PCB IC 0.020 ppm PS4-054-08
21)	Calibration	21	F0817021 PC180817 PCB IC 0.050 ppm PS4-054-09
22)	Calibration	22	F0817022 PC180817 PCB IC 0.10 ppm PS4-054-10
23)	Calibration	23	F0817023 PC180817 PCB IC 0.25 ppm PS4-054-11
24)	Calibration	24	F0817024 PC180817 PCB IC 0.50 ppm PS4-054-12
25)	Calibration	25	F0817025 PC180817 PCB IC 0.75 ppm PS4-054-13
26)	Calibration	26	F0817026 PC180817 PCB IC 1.0 ppm PS4-054-14
27)	Calibration	27	F0817027 PC180817 PCB IC 2.0 ppm PS4-054-15
28)	Calibration	28	F0817028 PC180817 AR1221 SPQ PS4-055-01
29)	Calibration	29	F0817029 PC180817 AR1232 SPQ PS4-055-02
30)	Calibration	30	F0817030 PC180817 AR1242 SPQ PS4-055-03
31)	Calibration	31	F0817031 PC180817 AR1248 SPQ PS4-055-04
32)	Calibration	32	F0817032 PC180817 AR1254 SPQ PS4-055-05
33)	Calibration	33	F0817033 PC180817 AR1262 SPQ PS4-055-06
34)	Calibration	34	F0817034 PC180817 AR1268 SPQ PS4-055-07
35)	Sample	35	F0817035 PC180817 PCB ICV PS4-055-08

Environmental Inc.

PCB'S EXTRACTION LOG

Date: 08/30/01 Time Ext. _____ am/pm

Analysis: Herbicide

Matrix: Water

Surrogate Std. I.D.: PS4-53-01

Spike Std. I.D: PS4-53-03

LAB ID	pH	SAMPLE W/V	INTER VOLUME	ALIQUOT TAKEN	ALIQUOT FIN VOL	SAMPLE FIN VOL	AMT SUR	AMT SPK	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
MB0830W1	<2	1000 mL	150	—	—	10 mL	100 mL	—	—	MM/RD	
SB0830W1		↓						250 uL			
SB0830W1dup		↓						↓			
08-309-01d		1567/510						—			
02a		1513/513									
↓ 03a		1550/514									
08-326-01d		1577/510									
02a		1581/508									
03a		1587/511						↓			
03aMS		1577/512						250uL			
03aMSD		1575/511						↓			
04c		1571/509						—			heavy emulsion
↓ 05c	↓	1575/511	↓			↓	↓	↓	↓	↓	
08-348-01a		1576/519						—			Heavy Emulsion
02a		1586/515									
03a		1570/510									
04a		1577/513									
↓ 05a	↓	1569/507	↓			↓	↓	↓	↓	↓	

Clean-up (A)Acid cleanup (S)Silica gel cleanup (F)Florisil cleanup (H)Mercury Cleanup

TITLE **PROJECT**

Continued from page

NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
PEST EVAL	BS4-5101	PNZ-13-01					Acetone	4-20-18	KMS	10-20-18
DDT, Endrin	↓	↓	500 ppm	5 µL	25 mL	100 ppb	Hexane	↓	↓	↓
Pest/PCB Surr	BS4-5102			0.25		20 ppm	Acetone	4-23-18	KMS	4-23-18
TCMX		PNZ-12-17	2000 ppm	0.25 mL						10
DCB		PNZ-12-07	1600 ppm	0.5 mL	↓	↓	↓	↓	↓	↓
Pest MidLow	BS4-5103	BS4-49-01	25 ppm	100 µL	25 mL	100 ppb	Hexane	4-25-18	KMS	10-25-18
Pest/PCB Surr	BS4-5104					20 ppm	Acetone	5-3-18	KMS	11-3-18
TCMX		PNZ-12-17	2000 ppm	0.25 mL			↓	↓	↓	↓
DCB	↓	PNZ-12-07	1000 ppm	0.5 mL	↓	↓				
HerbSlick	BS4-5105				10 mL		Acetone/ Hexane	5-7-18	KMS	11-7-18
Herbs, MC		PNZ-13-05	100 ppm	0.5 mL		5 ppm				
DCAA, ME		PNZ-13-06		↓		↓				
Bentazon, ME		PNZ-13-07								
2,4,6-TCP ME		PNZ-12-13		0.25 mL		2.5 ppm				
PCP, ME	↓	PNZ-12-09	↓	50 µL	↓	0.5 ppm	↓	↓	↓	↓
HerbCV	BS4-5106	BS4-5105	5 ppm	0.5 mL	25 mL	100 ppb	Hexane	↓	↓	11-7-18
HerbSurr	BS4-5107									
DCAA		PNZ-12-16	100 ppm	1 mL	10 mL	10 ppm	Hexane	5-15-18	KMS	11-15-18
Herbsc							Hexane	5-18-18	KMS	11-18-18
2 ppb	BS4-5108	BS4-5105	5 ppm	10 µL	25 mL	2 ppb				
5	09			↓	10 mL	5				
10	10			20 µL		10				
25	11			50		25				
60	12			100		50				
100	13			200		100				
250	14			500		250				
500	15			1 mL		500				

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

TITLE

PROJECT

	NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	Exp
	Continued from page										
	Rest/PCB Surr	PS45304				25 mL	20 ppm	Acetone	6-21-18	KMS	12-18
	TCmX	↓	PNZ-13-09	2000 ppm	0.25 mL	↓	↓	↓	↓	↓	↓
5	DCB		PNZ-13-11	1000 ppm	0.5 mL						
	Herb MDL	PS45302				10 mL		MeOH	6-22-18	KMS	7-26-18
	10 Herbs		PNZ-13-18	100 ppm	200 µL		2.0 ppm				
	Dalapon		PNZ-13-13	1000 ppm	80 µL		8.0 ppm				
10	PCP		PS4-40-10	100 ppm	20 µL		0.2 ppm				
	DCAA		PNZ-12-16	100 ppm	100 µL		1.0 ppm				
	2,4,6-TCP		PNZ-11-19	100 ppm	↓		↓				
	Bentazon	↓	PNZ-13-20	1000 ppm	20 µL		2.0 ppm	↓	↓	↓	↓
15	Herb Spike	PS45303						MeOH	7-2-18	KMS	12-19
	10 Herbs	↓	PNZ-13-18	100 ppm	1 mL		10 ppm	↓	↓	↓	↓
	PCP, Acid		PNZ-13-19	5000 ppm	2 µL	↓	1.0 ppm				
	EDB Surr	PS45309									
20	TCmX		PNZ-13-09	2000 ppm	17.5 µL	100 mL	0.35 ppm	MeOH	7-16-18	KMS	8-16-19
	Rest/PCB Surr	PS45305			0.25 mL	25 mL	20 ppm	Acetone			
	TCmX		PNZ-13-09	2000 ppm	0.5 mL	↓	↓	↓	↓	↓	↓
	DCB		PNZ-13-11	1000 ppm	0.5 mL						
25	PCB Stock	PS45306				10 mL		Hexane	7-23-18	KMS	8-19
	AR1016	↓	PNZ-12-03	0.25 mL	1000 ppm	↓	25 ppm	↓	↓	↓	↓
	AR1260		10-25	25 ↓	↓		↓				
	TCmX		13-11	50 µL	2000 ppm		5 ppm				
30	DCB		13-09	50 µL	1000 ppm	↓	↓	↓			
	PCB CCV	PS45307	PS45306		0.5 mL	25 mL	0.5 ppm	Hexane			
	AR1016/1260	↓	↓	25 ppm	↓	↓	↓	↓	↓	↓	↓
	TCmX/DCB			5 ppm			0.5 ppm				
35											

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NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
Toxaphene SPQ	PS4-54-01		100ppm	0.1mL	10mL	1.0ppm	Hexane	7-27-18	KMS	1-27-19
Rest ICV	PS4-54-02		1000ppm	5µL	50mL	100ppb				
Rest/PQ Soil Surr	PS4-54-03				25mL	20ppm	Acetone	8-7-18	KMS	2-7-19
TCMX		PN2-13-09	2000ppm	0.25mL						
DCB		PN2-13-11	1000ppm	0.5mL						
HerboSurr	PS4-054-04	PN2-13-21	100ppm	1mL	10mL	10ppm	MeOH	8-8-18	KMS	2-8-19
PCB Surr/Spike	PS4-054-05									
AR1260		PN2-13-12	5000ppm	0.5mL	25mL	100ppm	Acetone	8-10-18	KMS	2-10-19
AR221										
AR1248 Stock	PS4-054-06				10mL		Hexane	8-11-18	KMS	2-11-19
AR1254		PN2-13-15	1000ppm	0.25mL		25ppm				
TCMX		PN2-13-09	2000ppm	25µL		5ppm				
DCB		PN2-13-11	1000ppm	50µL						
AR1248 Stock	PS4-054-07									
AR1248		PN2-13-14	1000ppm	0.25mL		25ppm				
TCMX		PN2-13-09	2000ppm	25µL		5ppm				
DCB		PN2-13-11	1000ppm	50µL						
PCB Cal		PS4-053-06				ppm				1-15-19
0.02	PS4-054-08		25/5ppm	20µL	25mL	0.02/0.004				
0.05	09			50µL		0.05/0.01				
0.1	10			100µL		0.1/0.02				
0.25	11			0.25mL		0.25/0.05				
0.5	12			0.5mL		0.5/0.1				
0.75	13			0.75mL		0.75/0.15				
1.0	14			1mL		1.0/0.2				
2.0	15			0.8mL	10mL	2.0/0.4				

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Continued from page	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
NAME										
ARD22 SPQ	B54055-01	PS4-05406	25 ppm	0.5 mL	25 mL	0.5 ppm	Hexane	8-1-18	KMS	2-1-19
TCMX/DCB	↓	↓	5 ppm			0.1 ppm				↓
ARD25SPQ	02	PS4-46-05	25 ppm			0.5 ppm				1-18-19
TCMX/DCB	↓		5 ppm			0.1 ppm				↓
ARD28SPQ	03	PS4-46-06	25 ppm			0.5 ppm				1-18-19
TCMX/DCB	↓		5 ppm			0.1 ppm				
ARD48SPQ	04	PS4-46-07	25 ppm			0.5 ppm				2-1-19
TCMX/DCB	↓		5 ppm			0.1 ppm				
ARD54SPQ	05	PS4-46-07	25 ppm			0.5 ppm				1-8-19
TCMX/DCB	↓	↓	5 ppm	↓		0.1 ppm				
ARD68SPQ	06	PN2-1308	100 ppm	0.125 mL		0.5 ppm				2-1-19
ARD68SPQ	07	PN2-12-11	↓	↓		↓				↓
DBHCV	08	PS4-46-08		0.5 mL						1-8-19
AR1016/260	↓	↓	25 ppm	↓		0.5 ppm				↓
TCMX/DCB	↓	↓	5 ppm	↓	↓	0.1 ppm	↓	↓	↓	↓
HerbICV	PS4055-09	PN2-1317	100 ppm	10 µL	10 mL	100 ppb	Acetone/ Hexane	8-17-18	KMS	2-17-19
PestICV							Hexane			
1 ppb	B4055-10	PS4-49-01	25 ppm	1 µL	25 mL	1 ppb	↓	↓	↓	1-15-19
2 ppb	11	↓	↓	2	↓	2				↓
5	12			5		5				
10	13			10		10				
25	14			25		25				
50	15			50		50				
100	16			100		100				
200	17			200		200				
400	18	↓	↓	400	↓	400	↓	↓	↓	↓

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OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 7, 2018

Sydney Bronson
GeoEngineers, Inc.
1101 Fawcett Avenue South, Unit 200
Tacoma, WA 98402

Re: Analytical Data for Project 0356-114-08
Laboratory Reference No. 1808-326

Dear Sydney:

Enclosed are the analytical results and associated quality control data for samples submitted on August 29, 2018.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

Case Narrative

Samples were collected on August 28, 2018 and received by the laboratory on August 29, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
HS-MW-6-08282018	08-326-01	Water	8-28-18	8-29-18	
HS-MW-15-08282018	08-326-02	Water	8-28-18	8-29-18	
HS-MW-16-08282018	08-326-03	Water	8-28-18	8-29-18	
HS-MW-17-08282018	08-326-04	Water	8-28-18	8-29-18	
Rinseate-08282018	08-326-05	Water	8-28-18	8-29-18	

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-6-08282018**					
Laboratory ID:	08-326-01					
Diesel Range Organics	**1.5**	0.29	NWTPH-Dx	8-31-18	9-1-18	M
Lube Oil Range Organics	**ND**	0.47	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**HS-MW-15-08282018**					
Laboratory ID:	08-326-02					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**HS-MW-16-08282018**					
Laboratory ID:	08-326-03					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**HS-MW-17-08282018**					
Laboratory ID:	08-326-04					
Diesel Range Organics	**ND**	0.34	NWTPH-Dx	8-31-18	9-4-18	U1,M1
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	8-31-18	9-4-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*51*	*50-150*				
Client ID:	**Rinseate-08282018**					
Laboratory ID:	08-326-05					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-6-08282018**					
Laboratory ID:	08-326-01					
Naphthalene	**0.79**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**0.60**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**24**	1.0	EPA 8270D/SIM	8-30-18	8-31-18	
Acenaphthylene	**ND**	1.0	EPA 8270D/SIM	8-30-18	8-31-18	
Acenaphthene	**5.5**	1.0	EPA 8270D/SIM	8-30-18	8-31-18	
Fluorene	**2.9**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**0.23**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**0.11**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*21 - 110*				
Pyrene-d10	*96*	*19 - 111*				
Terphenyl-d14	*100*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-15-08282018**					
Laboratory ID:	08-326-02					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*21 - 110*				
Pyrene-d10	*86*	*19 - 111*				
Terphenyl-d14	*95*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-16-08282018**					
Laboratory ID:	08-326-03					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*21 - 110*				
Pyrene-d10	*84*	*19 - 111*				
Terphenyl-d14	*87*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-17-08282018**					
Laboratory ID:	08-326-04					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*50*	*21 - 110*				
Pyrene-d10	*72*	*19 - 111*				
Terphenyl-d14	*88*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Rinseate-08282018**					
Laboratory ID:	08-326-05					
Naphthalene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.096	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.0096	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.0096	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.0096	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.0096	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.0096	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0096	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.0096	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.0096	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*21 - 110*				
Pyrene-d10	*86*	*19 - 111*				
Terphenyl-d14	*87*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-6-08282018**					
Laboratory ID:	08-326-01					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*80*	*17-94*				
Client ID:	**HS-MW-15-08282018**					
Laboratory ID:	08-326-02					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*89*	*17-94*				
Client ID:	**HS-MW-16-08282018**					
Laboratory ID:	08-326-03					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*76*	*17-94*				
Client ID:	**HS-MW-17-08282018**					
Laboratory ID:	08-326-04					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*62*	*17-94*				
Client ID:	**Rinseate-08282018**					
Laboratory ID:	08-326-05					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*64*	*17-94*				

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0831W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-326-03										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*86*	*91*	*50-150*			

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCV0901F-V1	100	95.6	4.4	+/-15%
CCV0901F-V2	100	103	-2.7	+/-15%
CCV0901F-V3	100	102	-2.5	+/-15%
CCV0901F-V4	100	99.3	0.7	+/-15%
CCV0904F-V1	100	95.9	4.1	+/-15%
CCV0904F-V2	100	100	-0.1	+/-15%

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0830W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*21 - 110*				
Pyrene-d10	*87*	*19 - 111*				
Terphenyl-d14	*122*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-326-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.387**	**0.424**	0.530	0.537	ND	73	79	28 - 109	9	38	
Acenaphthylene	**0.440**	**0.453**	0.530	0.537	ND	83	84	37 - 111	3	26	
Acenaphthene	**0.437**	**0.478**	0.530	0.537	ND	82	89	41 - 113	9	33	
Fluorene	**0.478**	**0.505**	0.530	0.537	ND	90	94	47 - 114	5	23	
Phenanthrene	**0.437**	**0.463**	0.530	0.537	ND	82	86	50 - 113	6	18	
Anthracene	**0.456**	**0.499**	0.530	0.537	ND	86	93	50 - 117	9	18	
Fluoranthene	**0.490**	**0.525**	0.530	0.537	ND	92	98	52 - 120	7	15	
Pyrene	**0.435**	**0.482**	0.530	0.537	ND	82	90	51 - 128	10	31	
Benzo[a]anthracene	**0.491**	**0.498**	0.530	0.537	ND	93	93	57 - 127	1	15	
Chrysene	**0.472**	**0.476**	0.530	0.537	ND	89	89	51 - 120	1	15	
Benzo[b]fluoranthene	**0.477**	**0.490**	0.530	0.537	ND	90	91	54 - 124	3	17	
Benzo(j,k)fluoranthene	**0.485**	**0.480**	0.530	0.537	ND	92	89	50 - 127	1	18	
Benzo[a]pyrene	**0.489**	**0.499**	0.530	0.537	ND	92	93	50 - 120	2	16	
Indeno(1,2,3-c,d)pyrene	**0.502**	**0.505**	0.530	0.537	ND	95	94	46 - 132	1	20	
Dibenz[a,h]anthracene	**0.509**	**0.503**	0.530	0.537	ND	96	94	49 - 129	1	18	
Benzo[g,h,i]perylene	**0.490**	**0.489**	0.530	0.537	ND	92	91	45 - 130	0	19	
Surrogate:											
2-Fluorobiphenyl						*82*	*77*	*21 - 110*			
Pyrene-d10						*88*	*89*	*19 - 111*			
Terphenyl-d14						*97*	*100*	*32 - 137*			

Date of Report: September 7, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-326
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0830W1					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*75*	*17-94*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0830W1										
	SB	SBD	SB	SBD		SB	SBD				
Pentachlorophenol	**0.156**	**0.151**	0.250	0.250	N/A	**63**	**60**	40-111	3	20	
Surrogate:											
DCAA						*75*	*86*	*17-94*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 0356-114-08
Project Name: RG HALEY, PROT UPLAND SURVEY
Project Manager: SYDNEY BRAWSAU
Sampled by: BRIAN ANDERSAU

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 08-326

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A PCP ONLY	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	MS/MSD				% Moisture
1	HS-MW-6-08282018	8-28-18	1322	W	6				4					4				4									
2	HS-MW-15-08282018	8-28-18	1200	W	6				4					4				4									
3	HS-MW-16-08282018	8-28-18	1052	W	12				4					4				4				4					
4	HS-MW-17-08282018	8-28-18	1523	W	6				4					4				4									
5	Rinseate-08282018	8-28-18	1545	W	6				X					X				X									

	Signature	Company	Date	Time
Relinquished	[signature]	GEOENGINEERS	8-28-18	0740
Received	[signature]	Alpha Courier	8-29-18	7:46
Relinquished	[signature]	Alpha	8-29-18	9:15
Received	Heather Lisser	OSE	8/29/18	915
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

PCP. ANALYSIS BY SW 8151 SPECIAL RPT LIMIT: ONLY RPT DOWN TO 0.61 UG/KG

PAH ANALYSIS BY SW 8270 SIM

Data Package: Standard ☐ Level III ☐ Level IV ☑

Chromatograms with final report ☑ Electronic Data Deliverables (EDDs) ☒

Sample/Cooler Receipt and Acceptance Checklist

Client: GER

Client Project Name/Number: 0356-114-08

Initiated by: KL

OnSite Project Number: 08-326

Date Initiated: 8/29/18

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	(No)	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	(N/A)	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	(N/A)	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 1.1		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)			
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	(Yes)	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	(Yes)	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4	
3.4 Have the samples been correctly preserved?	(Yes)	No	N/A	1 2 3 4	
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	(N/A)	1 2 3 4	
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4	
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4	
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4	

Explain any discrepancies:

2.6 RINSEATE 08282018 sample not on COC.

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- NWTPH-Diesel
- PAHs EPA 8270D/SIM
- Pentachlorophenol by EPA 8151A

NWTPH-DIESEL Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V08.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 12:45
Operator : JT
Sample : 08-326-01
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 13:21:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.521	135453177	48.945 PPM
Spiked Amount	50.000		Recovery =	97.89%
Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	16054404	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	294727670	113.342 PPM
5) H	Diesel Fuel #2 (06-...	14.000	312486836	130.495 PPM
6) H	Oil (06-07-18)	22.000	105629380	47.027 PPM
7) H	Oil Acid Clean (06-12...	22.000	105629380	24.511 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	300788356	128.471 PPM
9) H	Oil Combo (06-07-18)	22.000	89634952	38.878 PPM
10) H	Oil Acid Clean Combo ...	22.000	89634952	18.222 PPM
11) H	Alaska 102 DF2 ()	13.025	315638995	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	50179237	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	170241022	67.092 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	392873946	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	392873946	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	400723740	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	150624818	62.655 PPM
18) H	Oil Acid Clean MO Com...	22.000	79540007	14.397 PPM
19) H	Oil MO Combo (06-07-18)	22.000	79540007	34.257 PPM

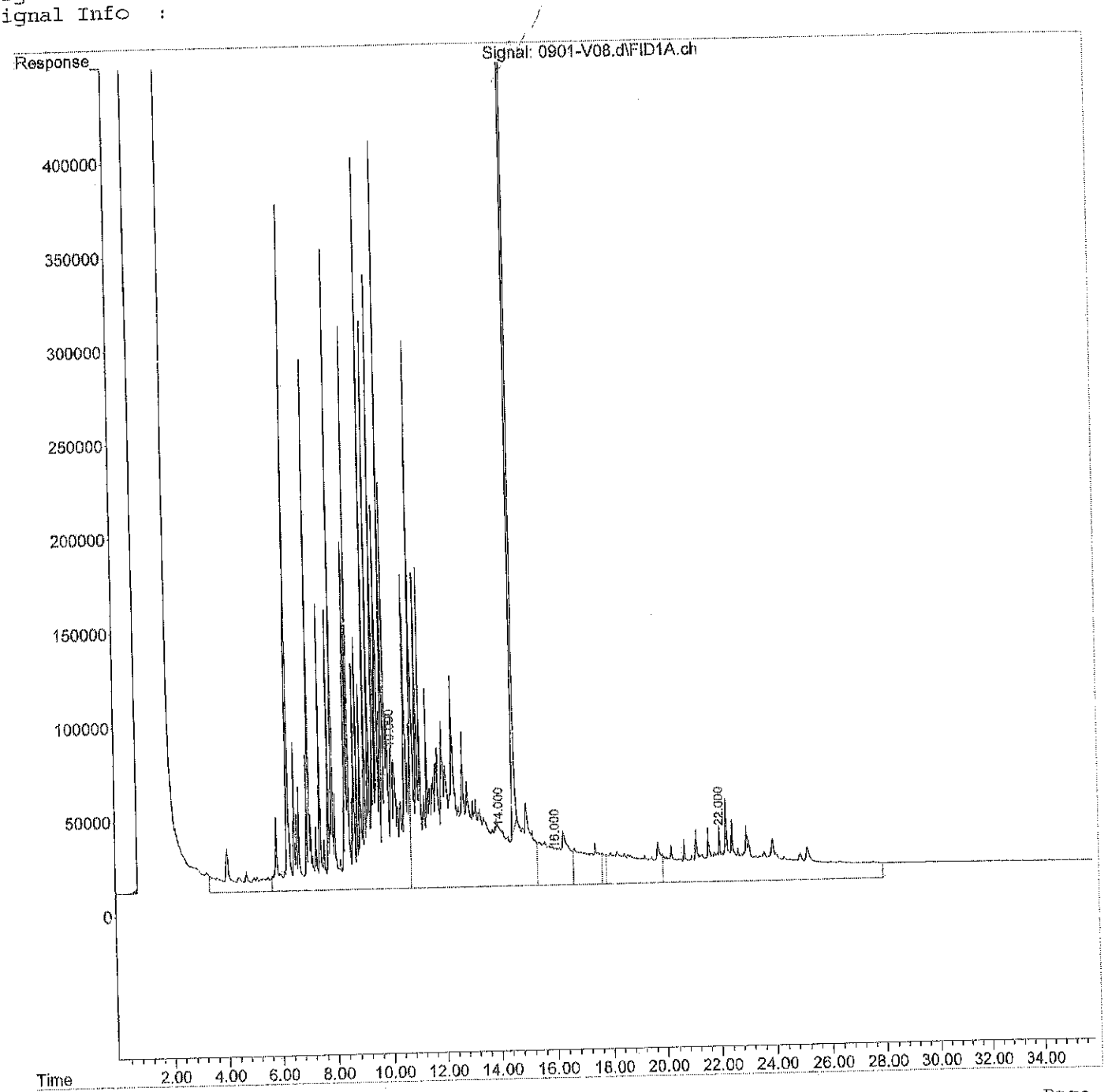
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V08.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 12:45
Operator : JT
Sample : 08-326-01
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 13:21:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V10.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 14:05
Operator : JT
Sample : 08-326-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 14:41:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.516	108625872	39.357 PPM
Spiked Amount	50.000		Recovery =	78.71%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	9974325	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	35923494	11.891 PPM
5) H	Diesel Fuel #2 (06-...	14.000	42004766	16.292 PPM
6) H	Oil (06-07-18)	22.000	60872936	22.086 PPM
7) H	Oil Acid Clean (06-12...	22.000	60872936	5.615 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	36297302	14.495 PPM
9) H	Oil Combo (06-07-18)	22.000	54367157	18.916 PPM
10) H	Oil Acid Clean Combo ...	22.000	54367157	3.112 PPM
11) H	Alaska 102 DF2 ()	13.025	43658052	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	29198282	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	39123260	15.662 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	93863369	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	93863369	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	97201615	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	28716192	12.844 PPM
18) H	Oil Acid Clean MO Com...	22.000	49470829	1.167 PPM
19) H	Oil MO Combo (06-07-18)	22.000	49470829	16.754 PPM

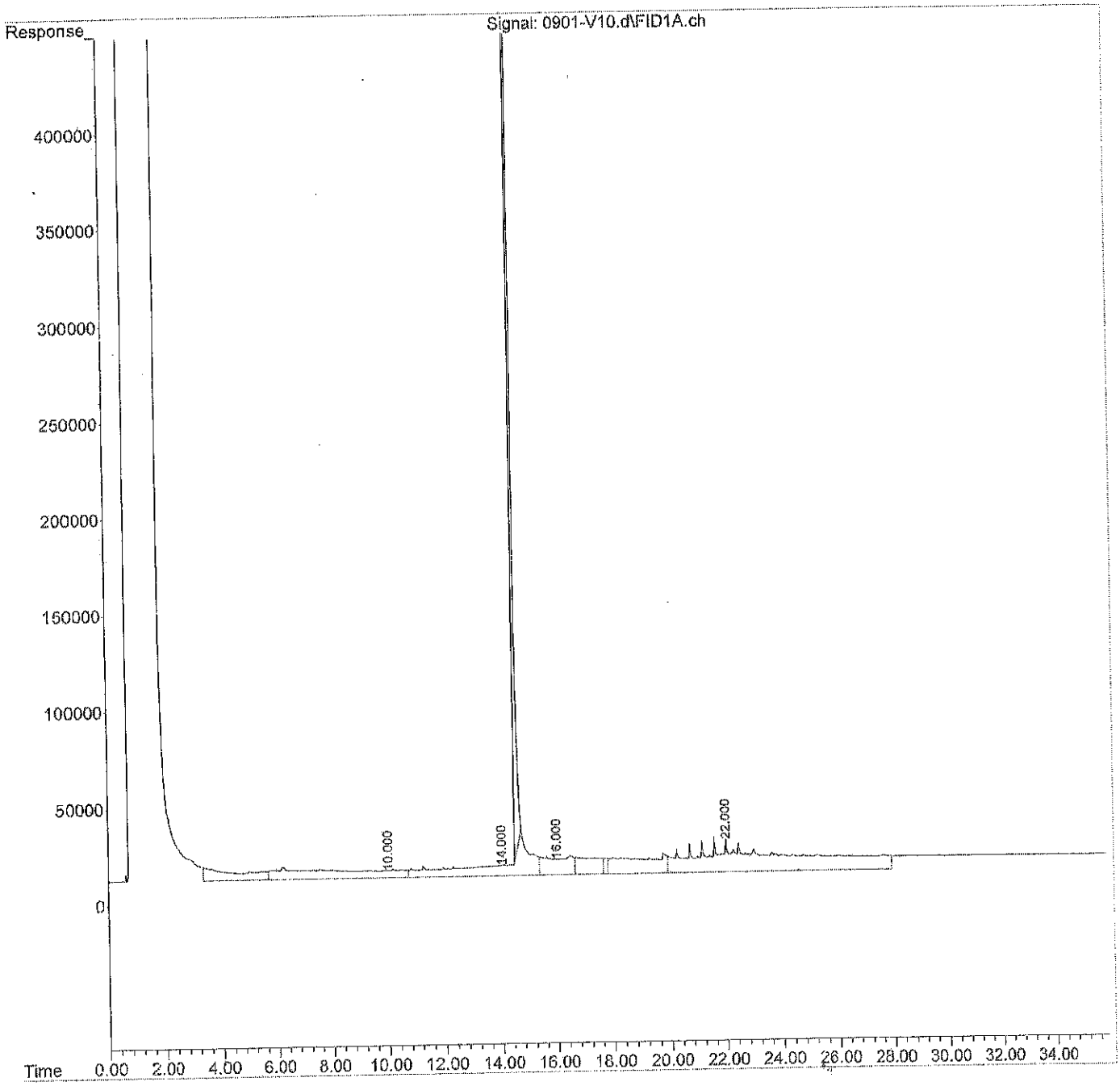
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V10.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 14:05
Operator : JT
Sample : 08-326-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 14:41:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V11.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 14:45
Operator : JT
Sample : 08-326-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 15:21:50 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.518	118518767	42.893	PPM
Spiked Amount	50.000		Recovery =	85.79%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	9811869	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	31201800	10.040	PPM
5) H	Diesel Fuel #2 (06-...	14.000	33464580	12.686	PPM
6) H	Oil (06-07-18)	22.000	49898079	15.970	PPM
7) H	Oil Acid Clean (06-12...	22.000	49898079	0.981	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	29653472	11.632	PPM
9) H	Oil Combo (06-07-18)	22.000	45436659	13.862	PPM
10) H	Oil Acid Clean Combo ...	22.000	45436659	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	34599920	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	23564173	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	28444085	11.473	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	78138520	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	78138520	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	81441449	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	21404726	9.857	PPM
18) H	Oil Acid Clean MO Com...	22.000	42159580	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	42159580	12.498	PPM

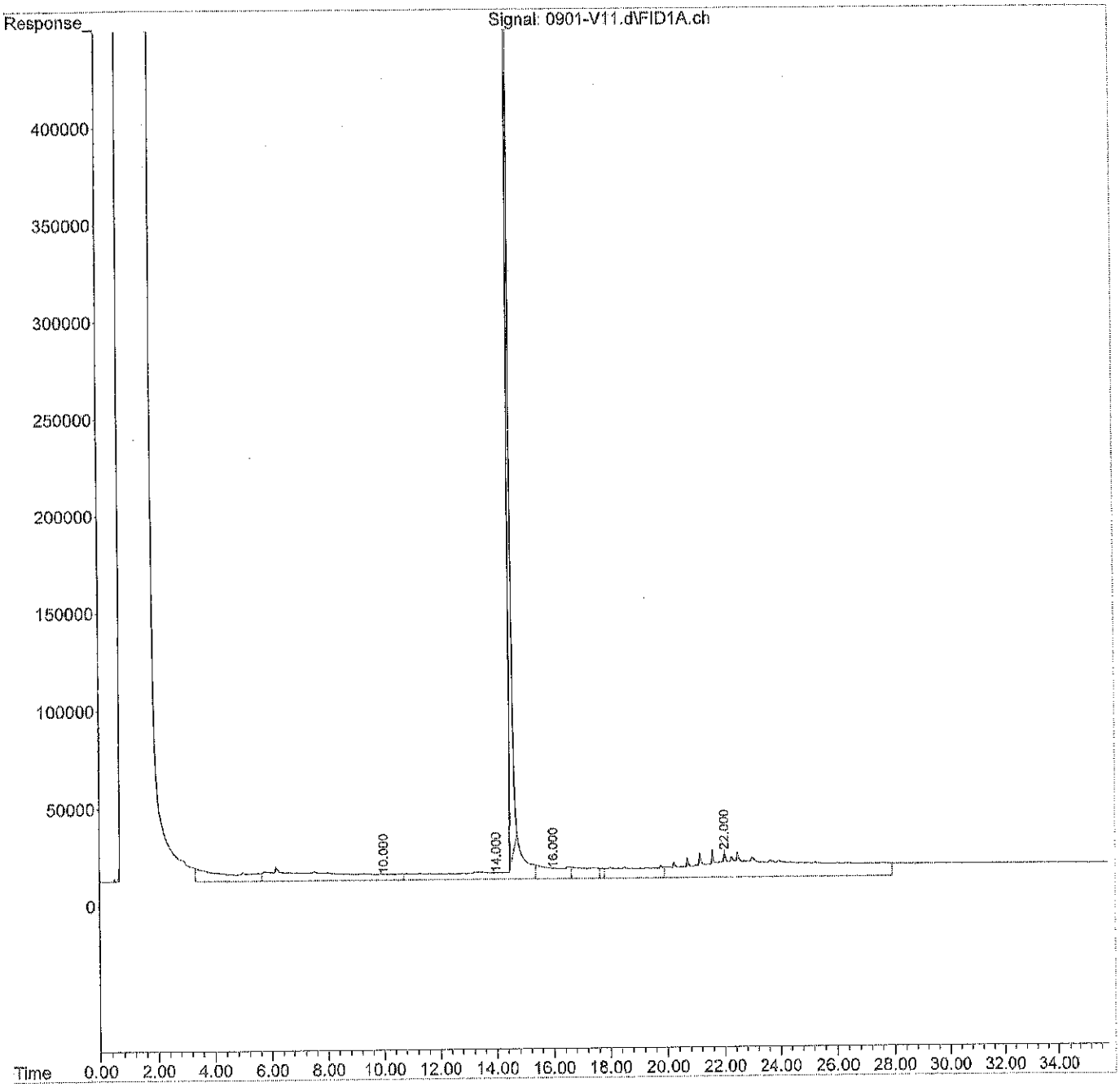
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V11.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 14:45
Operator : JT
Sample : 08-326-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 15:21:50 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title' : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180904\
Data File : 0904-V03.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 9:42
Operator : JT
Sample : 08-326-04 RR
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 10:18:23 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.511	70042853	25.568	PPM
Spiked Amount	50.000		Recovery =	51.14%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	30219081	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	88555082	32.522	PPM
5) H	Diesel Fuel #2 (06-...	14.000	80130264	32.389	PPM
6) H	Oil (06-07-18)	22.000	66600266	25.277	PPM
7) H	Oil Acid Clean (06-12...	22.000	66600266	8.033	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	74530164	30.970	PPM
9) H	Oil Combo (06-07-18)	22.000	60079694	22.150	PPM
10) H	Oil Acid Clean Combo ...	22.000	60079694	5.559	PPM
11) H	Alaska 102 DF2 ()	13.025	82003152	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	33168848	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	44621473	17.819	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	136176014	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	136176014	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	152499673	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	34228693	15.097	PPM
18) H	Oil Acid Clean MO Com...	22.000	55276977	3.722	PPM
19) H	Oil MO Combo (06-07-18)	22.000	55276977	20.134	PPM

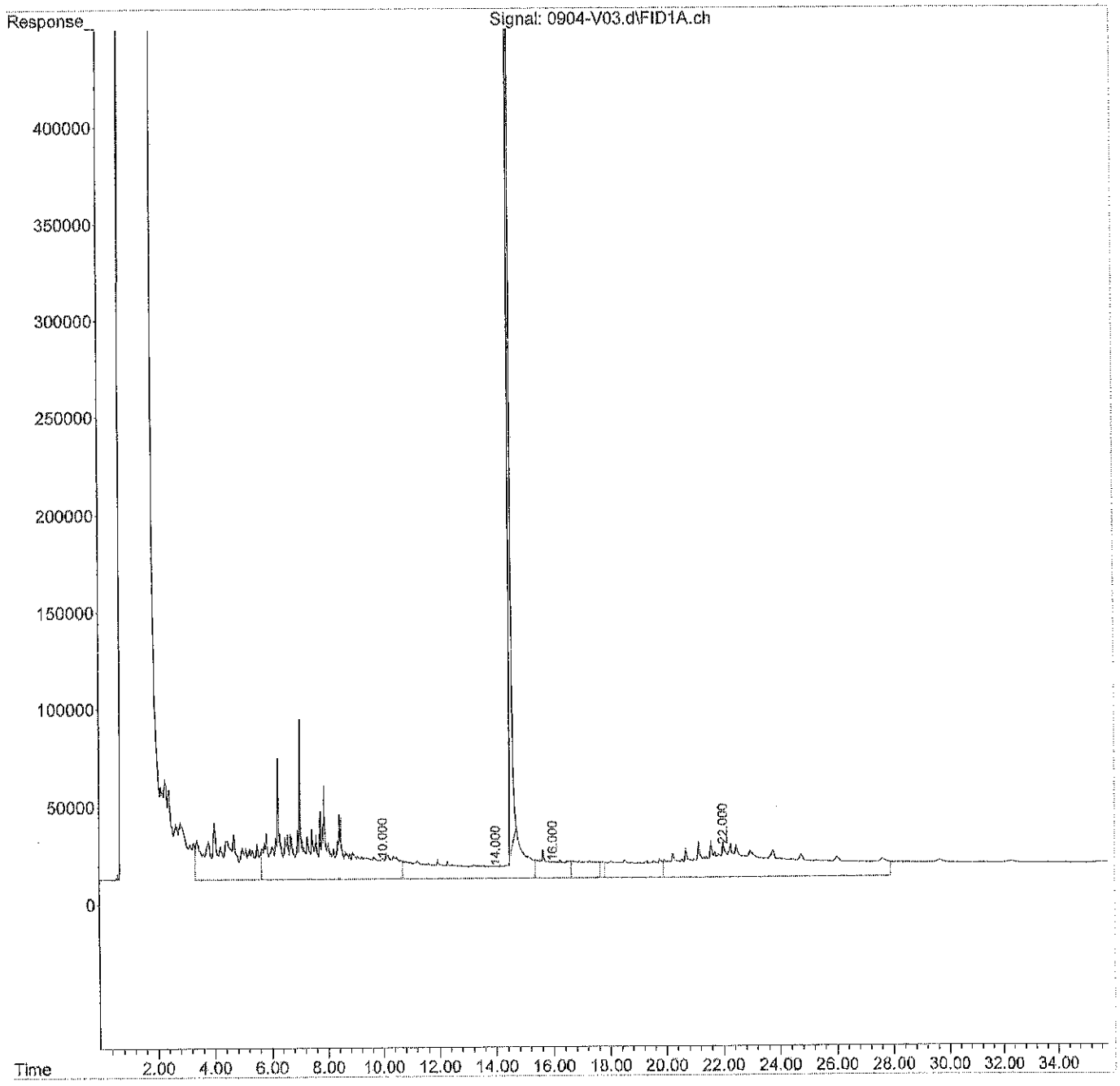
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180904\
Data File : 0904-V03.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 9:42
Operator : JT
Sample : 08-326-04 RR
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 10:18:23 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V16.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 18:06
Operator : JT
Sample : 08-326-05
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 18:42:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.517	114203778	41.351	PPM
Spiked Amount	50.000		Recovery =	82.70%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	10675815	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	30898819	9.921	PPM
5) H	Diesel Fuel #2 (06-...	14.000	30243600	11.326	PPM
6) H	Oil (06-07-18)	22.000	54967241	18.795	PPM
7) H	Oil Acid Clean (06-12...	22.000	54967241	3.122	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	27681898	10.782	PPM
9) H	Oil Combo (06-07-18)	22.000	51665522	17.387	PPM
10) H	Oil Acid Clean Combo ...	22.000	51665522	1.954	PPM
11) H	Alaska 102 DF2 ()	13.025	31036807	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	27042880	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	22183787	9.018	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	82485590	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	82485590	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	86249136	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	17348135	8.200	PPM
18) H	Oil Acid Clean MO Com...	22.000	49454203	1.160	PPM
19) H	Oil MO Combo (06-07-18)	22.000	49454203	16.745	PPM

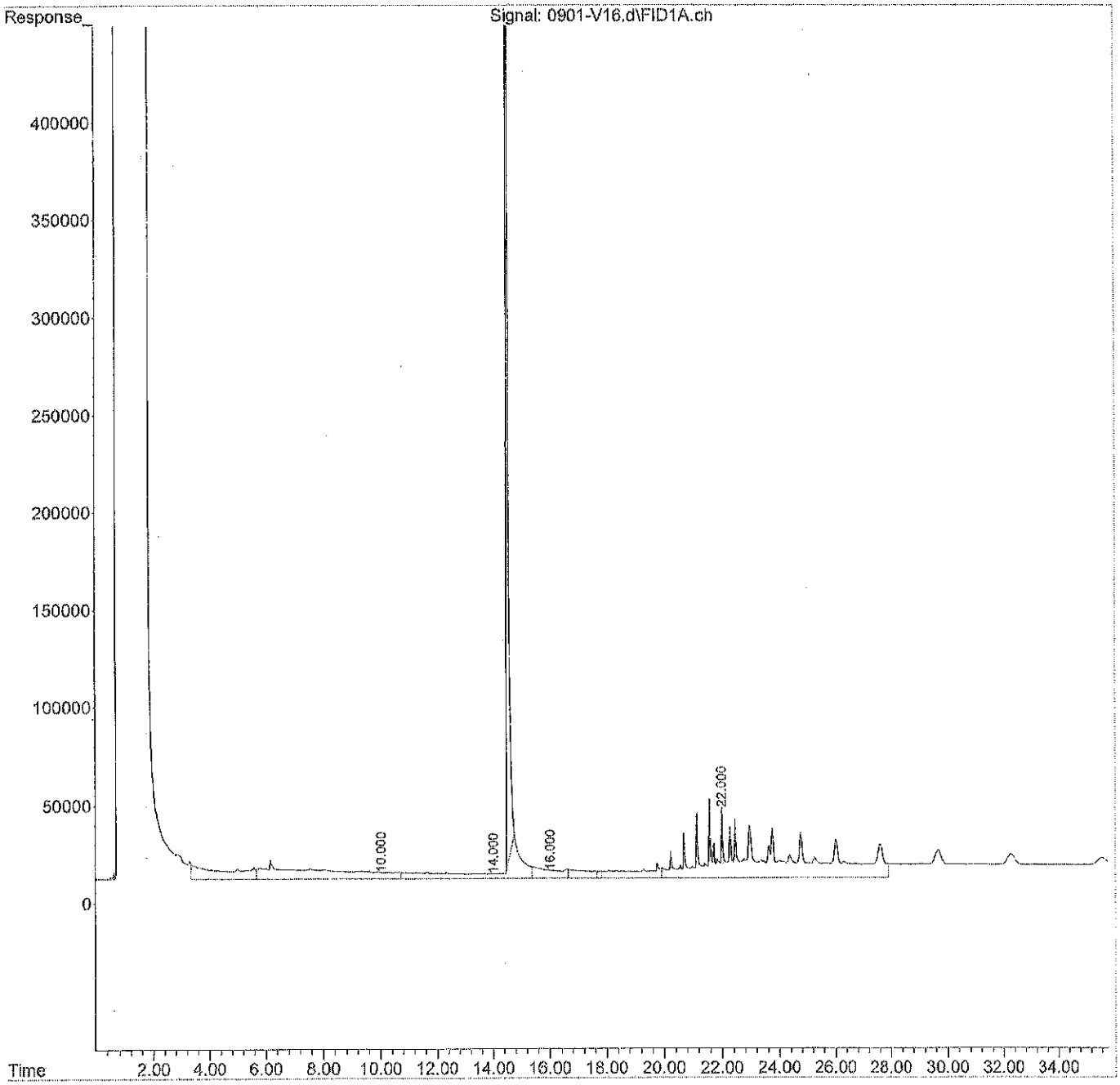
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V16.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 18:06
Operator : JT
Sample : 08-326-05
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 18:42:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V03.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 9:09
Operator : JT
Sample : MB0831W1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 09:45:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.516	105872129	38.373	PPM
Spiked Amount	50.000		Recovery =	76.75%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	8862574	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	23344268	6.960	PPM
5) H	Diesel Fuel #2 (06-...	14.000	21983013	7.838	PPM
6) H	Oil (06-07-18)	22.000	51469497	16.845	PPM
7) H	Oil Acid Clean (06-12...	22.000	51469497	1.645	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	20467301	7.673	PPM
9) H	Oil Combo (06-07-18)	22.000	48942781	15.846	PPM
10) H	Oil Acid Clean Combo ...	22.000	48942781	0.788	PPM
11) H	Alaska 102 DF2 ()	13.025	22520384	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	24552785	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	17129535	7.035	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	73542394	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	73542394	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	75896312	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	13168517	6.492	PPM
18) H	Oil Acid Clean MO Com...	22.000	47648759	0.365	PPM
19) H	Oil MO Combo (06-07-18)	22.000	47648759	15.694	PPM

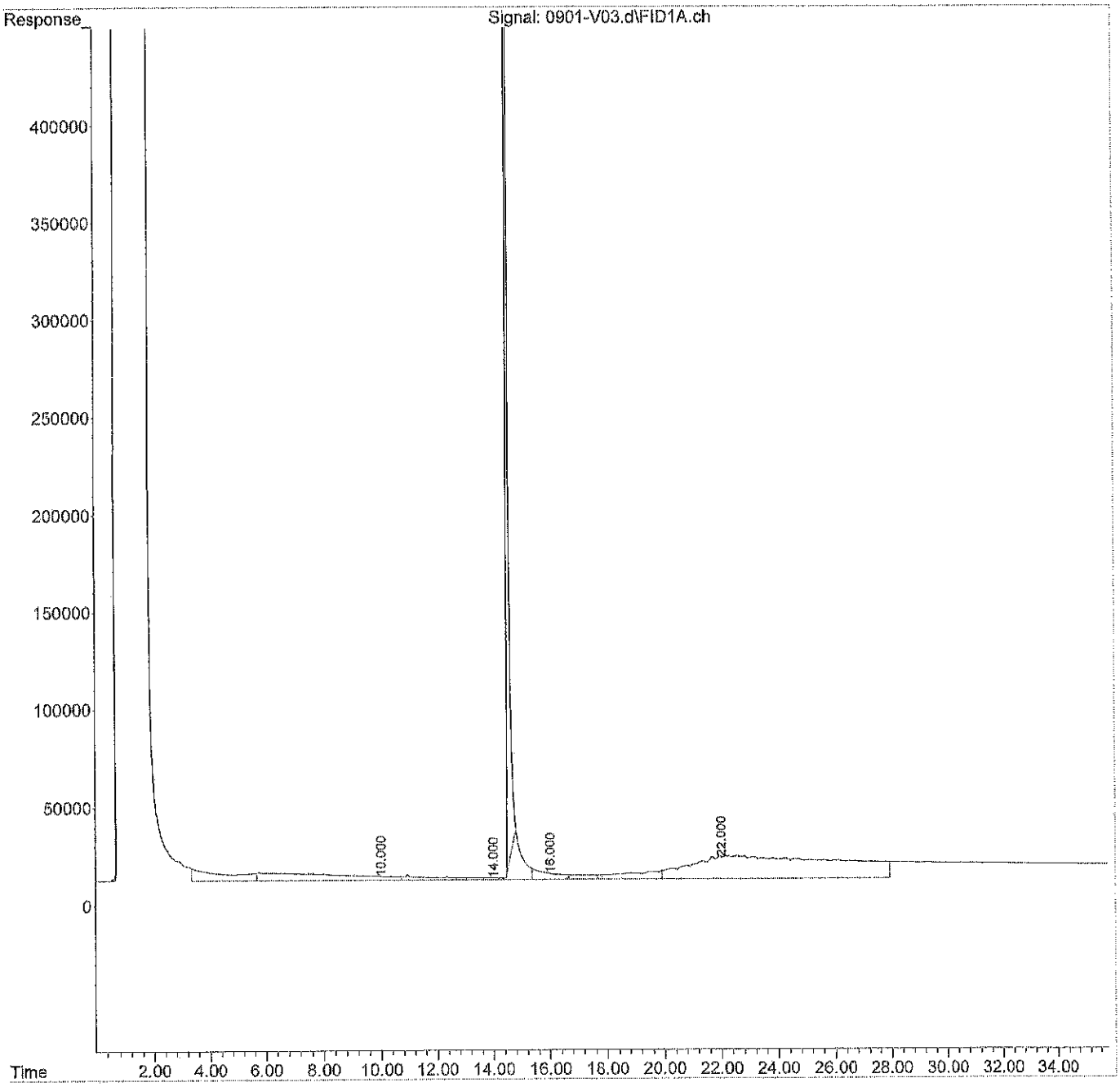
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V03.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 9:09
Operator : JT
Sample : MB0831W1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 09:45:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V12.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 15:25
Operator : JT
Sample : 08-326-03 DUP
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 16:02:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.519	125192765	45.278	PPM
Spiked Amount	50.000		Recovery =	90.56%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	9627861	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	31055098	9.982	PPM
5) H	Diesel Fuel #2 (06-...	14.000	33991451	12.909	PPM
6) H	Oil (06-07-18)	22.000	49306318	15.640	PPM
7) H	Oil Acid Clean (06-12...	22.000	49306318	0.732	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	29946336	11.758	PPM
9) H	Oil Combo (06-07-18)	22.000	44504825	13.334	PPM
10) H	Oil Acid Clean Combo ...	22.000	44504825	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	35179147	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	23264794	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	30028391	12.095	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	77377456	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	77377456	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	80626552	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	22452207	10.285	PPM
18) H	Oil Acid Clean MO Com...	22.000	41023860	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	41023860	11.837	PPM

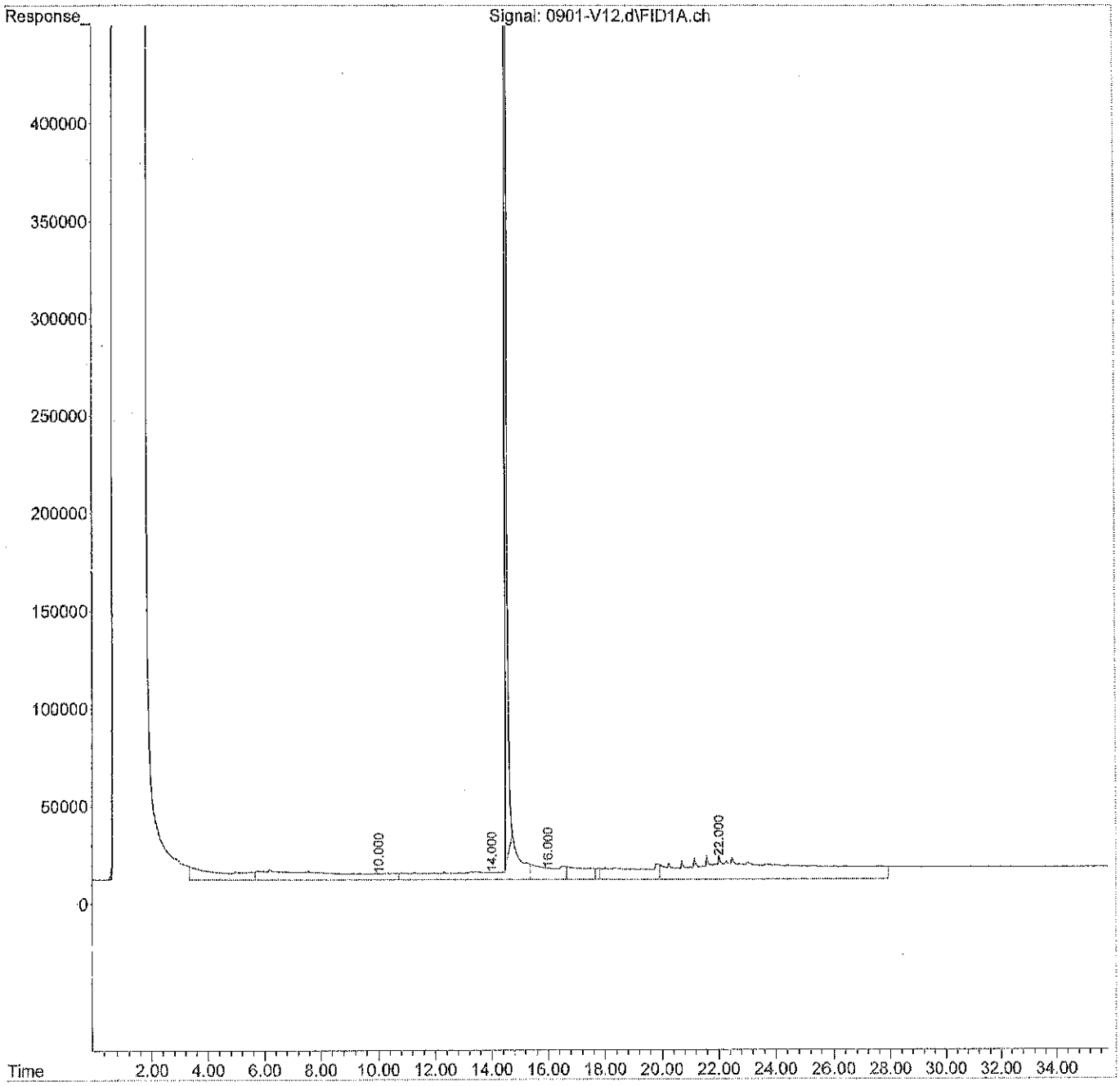
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V12.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 15:25
Operator : JT
Sample : 08-326-03 DUP
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 16:02:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0831-V01.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 7:46
Operator : JT
Sample : CCV0901F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 08:22:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	27582426	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	230526264	88.175	PPM
5) H	Diesel Fuel #2 (06-...	14.000	229939929	95.642	PPM
6) H	Oil (06-07-18)	22.000	48154619	14.998	PPM
7) H	Oil Acid Clean (06-12...	22.000	48154619	0.245	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	224173620	95.456	PPM
9) H	Oil Combo (06-07-18)	22.000	35374006	8.166	PPM
10) H	Oil Acid Clean Combo ...	22.000	35374006	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	231446738	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14811589	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	148038457	58.383	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	260511908	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	260511908	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	276908474	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	143020940	59.548	PPM
18) H	Oil Acid Clean MO Com...	22.000	30198171	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	30198171	5.536	PPM

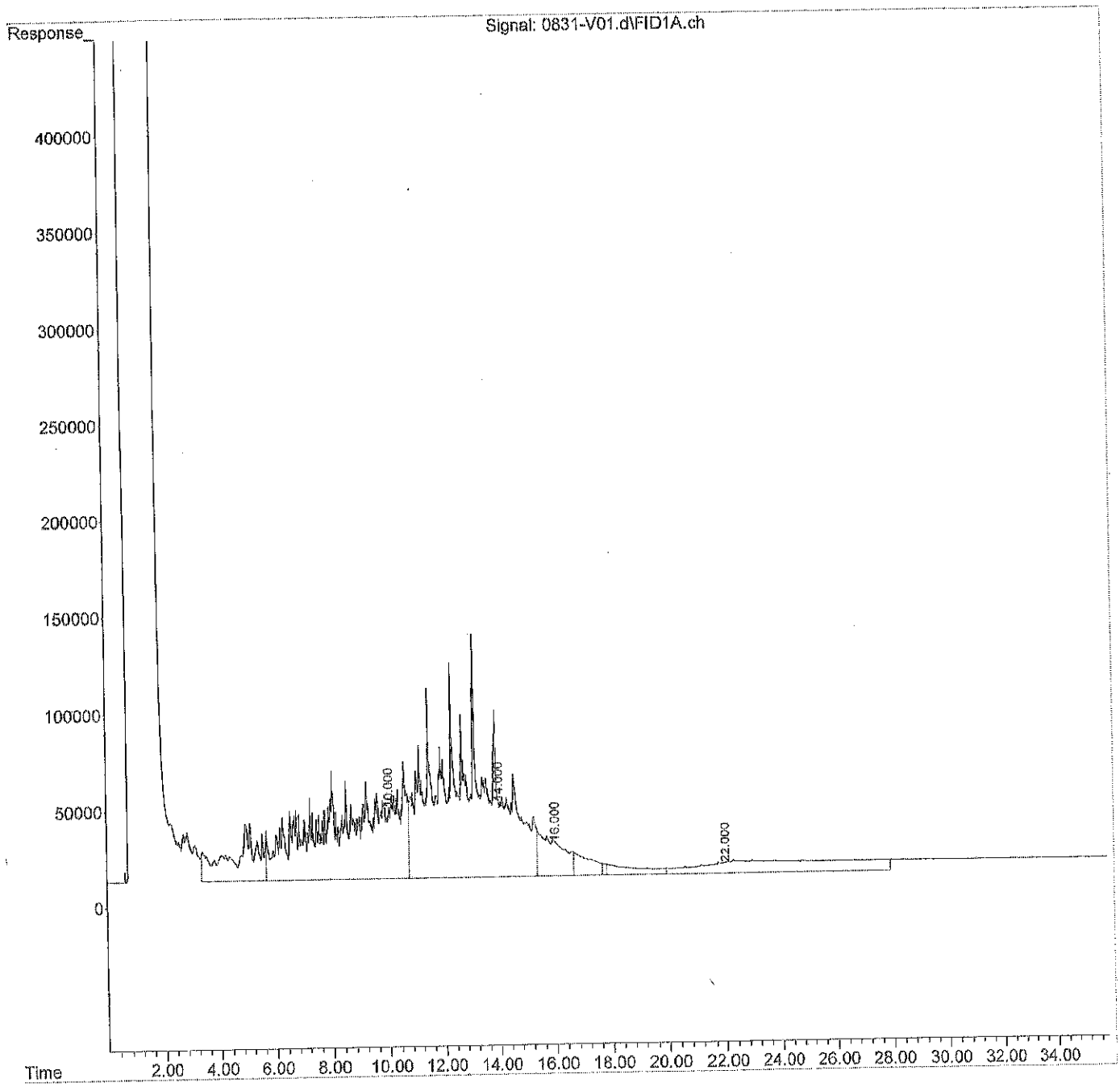
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0831-V01.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 7:46
Operator : JT
Sample : CCV0901F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 08:22:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V14.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 16:46
Operator : JT
Sample : CCV0901F-V2
Misc : SV3-29-03
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 17:22:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29509819	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	246343595	94.376	PPM
5) H	Diesel Fuel #2 (06-...	14.000	246661708	102.702	PPM
6) H	Oil (06-07-18)	22.000	54909065	18.762	PPM
7) H	Oil Acid Clean (06-12...	22.000	54909065	3.097	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	240065048	102.304	PPM
9) H	Oil Combo (06-07-18)	22.000	40736884	11.202	PPM
10) H	Oil Acid Clean Combo ...	22.000	40736884	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	248366824	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	17459637	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	159830839	63.008	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	281971653	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	281971653	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	299430410	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153849070	63.972	PPM
18) H	Oil Acid Clean MO Com...	22.000	34865972	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	34865972	8.253	PPM

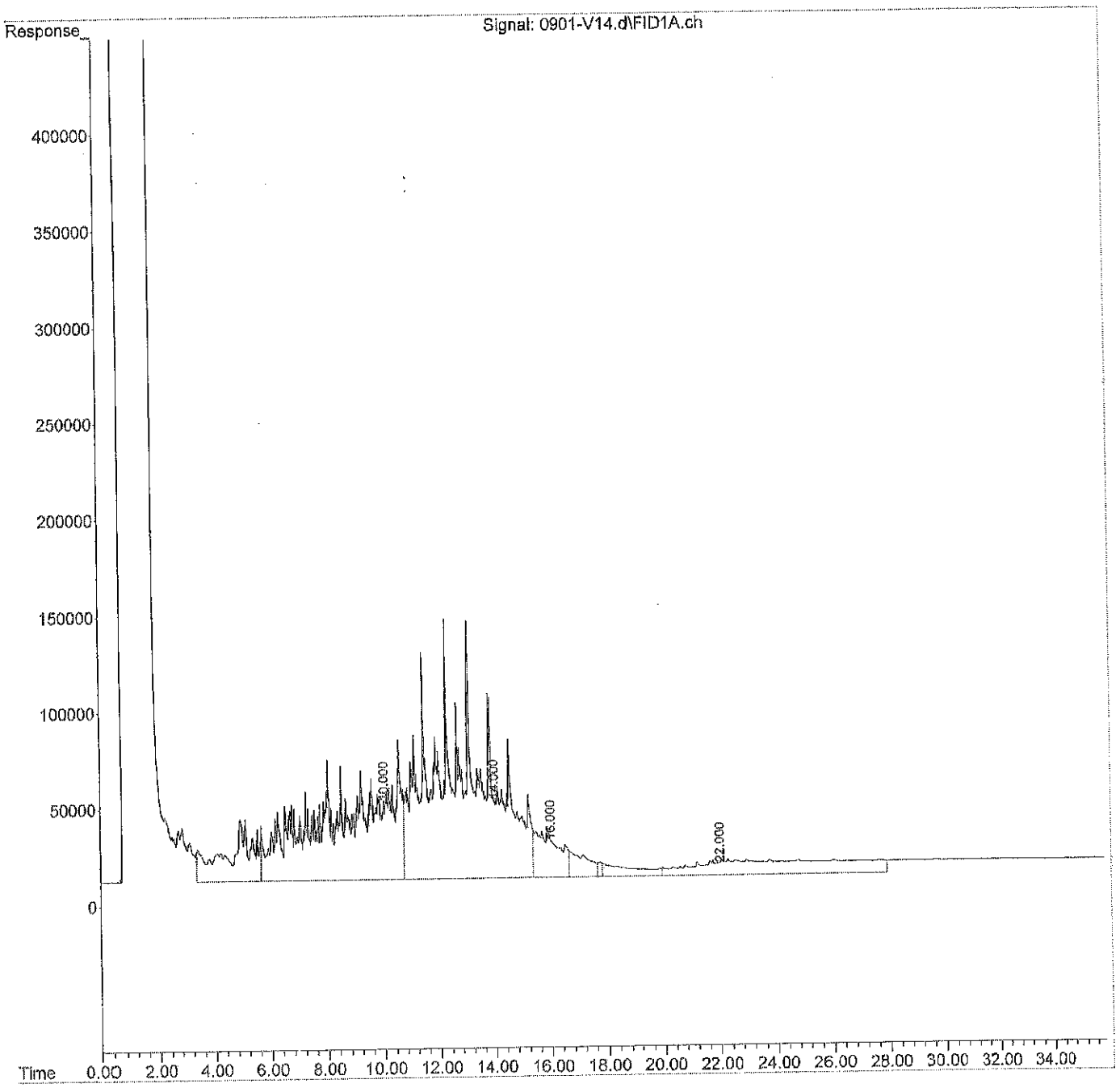
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V14.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 16:46
Operator : JT
Sample : CCV0901F-V2
Misc : SV3-29-03
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 17:22:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V23.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 22:47
Operator : JT
Sample : CCV0901F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 23:23:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29344988	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	245836872	94.177	PPM
5) H	Diesel Fuel #2 (06-...	14.000	246137923	102.481	PPM
6) H	Oil (06-07-18)	22.000	57957141	20.461	PPM
7) H	Oil Acid Clean (06-12...	22.000	57957141	4.384	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	239607017	102.107	PPM
9) H	Oil Combo (06-07-18)	22.000	43864387	12.972	PPM
10) H	Oil Acid Clean Combo ...	22.000	43864387	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	247838405	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	18422778	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	159454072	62.860	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	285165134	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	285165134	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	302334501	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153454697	63.811	PPM
18) H	Oil Acid Clean MO Com...	22.000	38049869	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	38049869	10.106	PPM

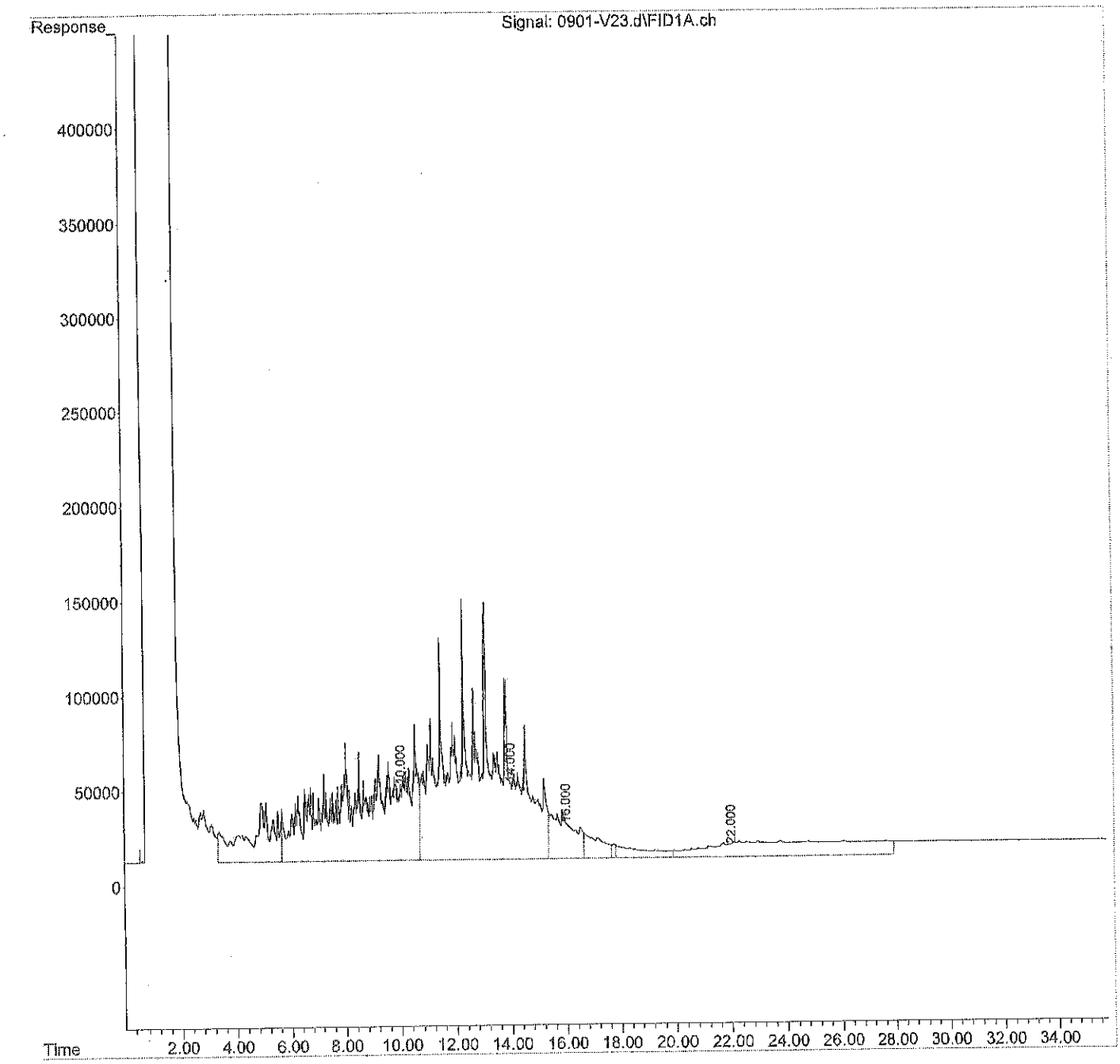
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V23.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 22:47
Operator : JT
Sample : CCV0901F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 23:23:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V29.d
Signal(s) : FID1A.ch
Acq On : 2 Sep 2018 2:47
Operator : JT
Sample : CCV0901F-V4
Misc : SV3-29-03
ALS Vial : 29 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 03:23:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	28968051	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	239145837	91.554	PPM
5) H	Diesel Fuel #2 (06-...	14.000	238555002	99.280	PPM
6) H	Oil (06-07-18)	22.000	52672199	17.516	PPM
7) H	Oil Acid Clean (06-12...	22.000	52672199	2.153	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	232451980	99.023	PPM
9) H	Oil Combo (06-07-18)	22.000	39268706	10.371	PPM
10) H	Oil Acid Clean Combo ...	22.000	39268706	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	240157006	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16451454	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	153849008	60.662	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	273010751	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	273010751	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	290086891	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	148388531	61.741	PPM
18) H	Oil Acid Clean MO Com...	22.000	33812753	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	33812753	7.640	PPM

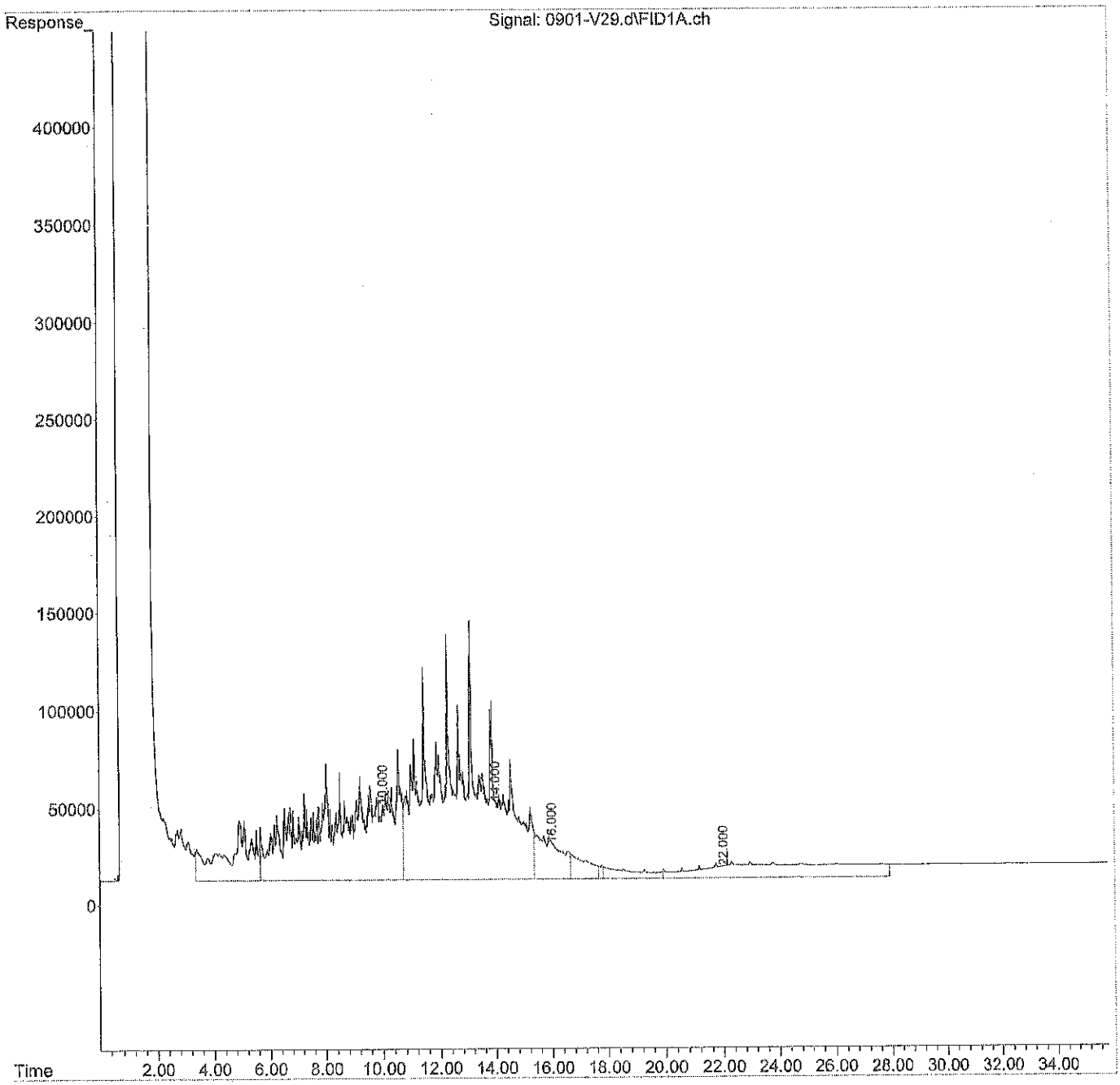
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V29.d
Signal(s) : FID1A.ch
Acq On : 2 Sep 2018 2:47
Operator : JT
Sample : CCV0901F-V4
Misc : SV3-29-03
ALS Vial : 29 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 03:23:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V01.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 7:52
Operator : JT
Sample : CCV0904F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 08:28:02 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29618647	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	231999773	88.753	PPM
5) H	Diesel Fuel #2 (06-...	14.000	230482323	95.871	PPM
6) H	Oil (06-07-18)	22.000	57865112	20.410	PPM
7) H	Oil Acid Clean (06-12...	22.000	57865112	4.345	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	224548009	95.617	PPM
9) H	Oil Combo (06-07-18)	22.000	45246884	13.754	PPM
10) H	Oil Acid Clean Combo ...	22.000	45246884	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	232092142	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	19679490	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	147324338	58.103	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271154073	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271154073	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	288258105	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	141457373	58.909	PPM
18) H	Oil Acid Clean MO Com...	22.000	39950506	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	39950506	11.213	PPM

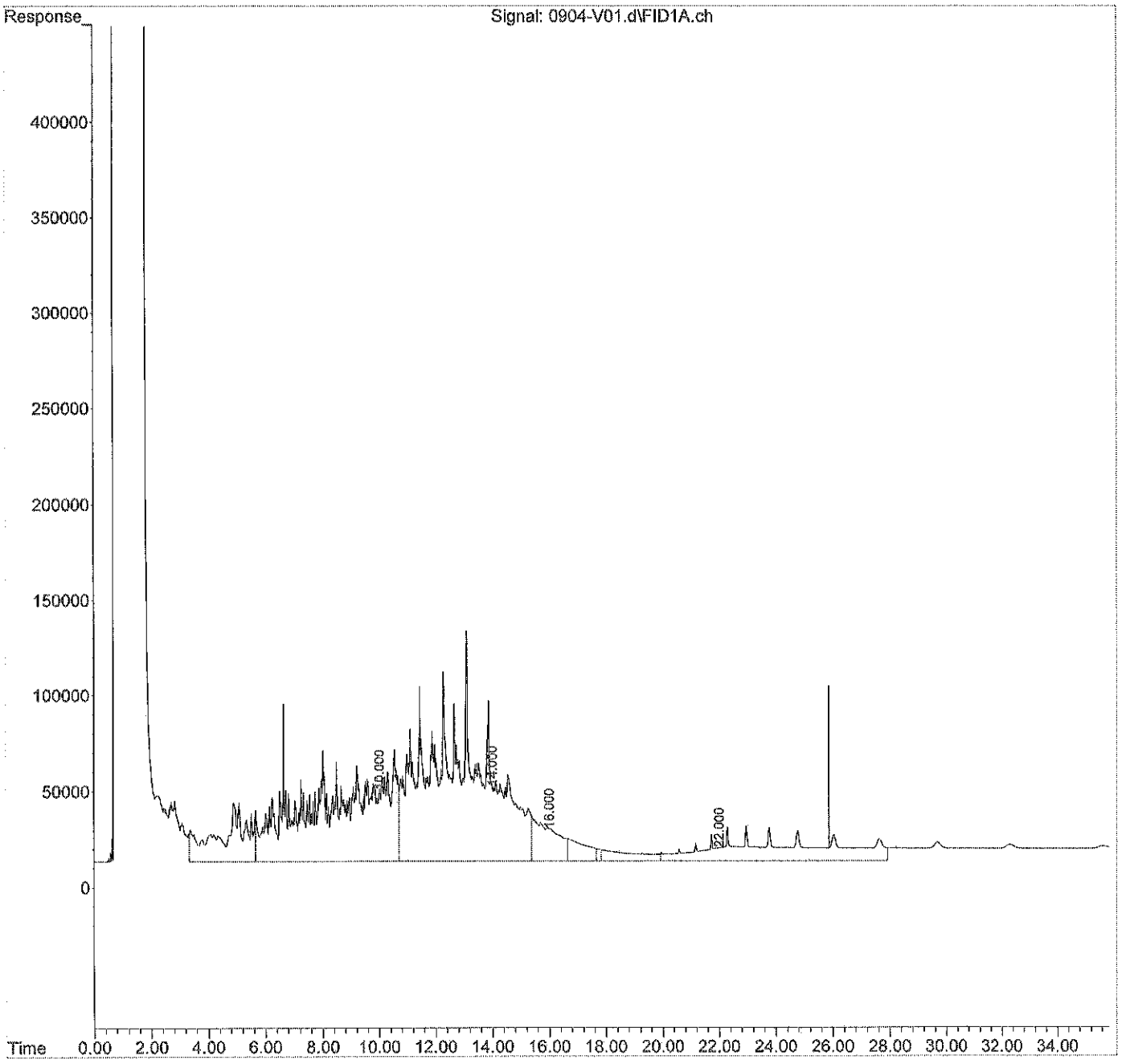
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V01.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 7:52
Operator : JT
Sample : CCV0904F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 08:28:02 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V11.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 16:12
Operator : JT
Sample : CCV0904F-V2
Misc : SV3-29-03
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 16:48:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

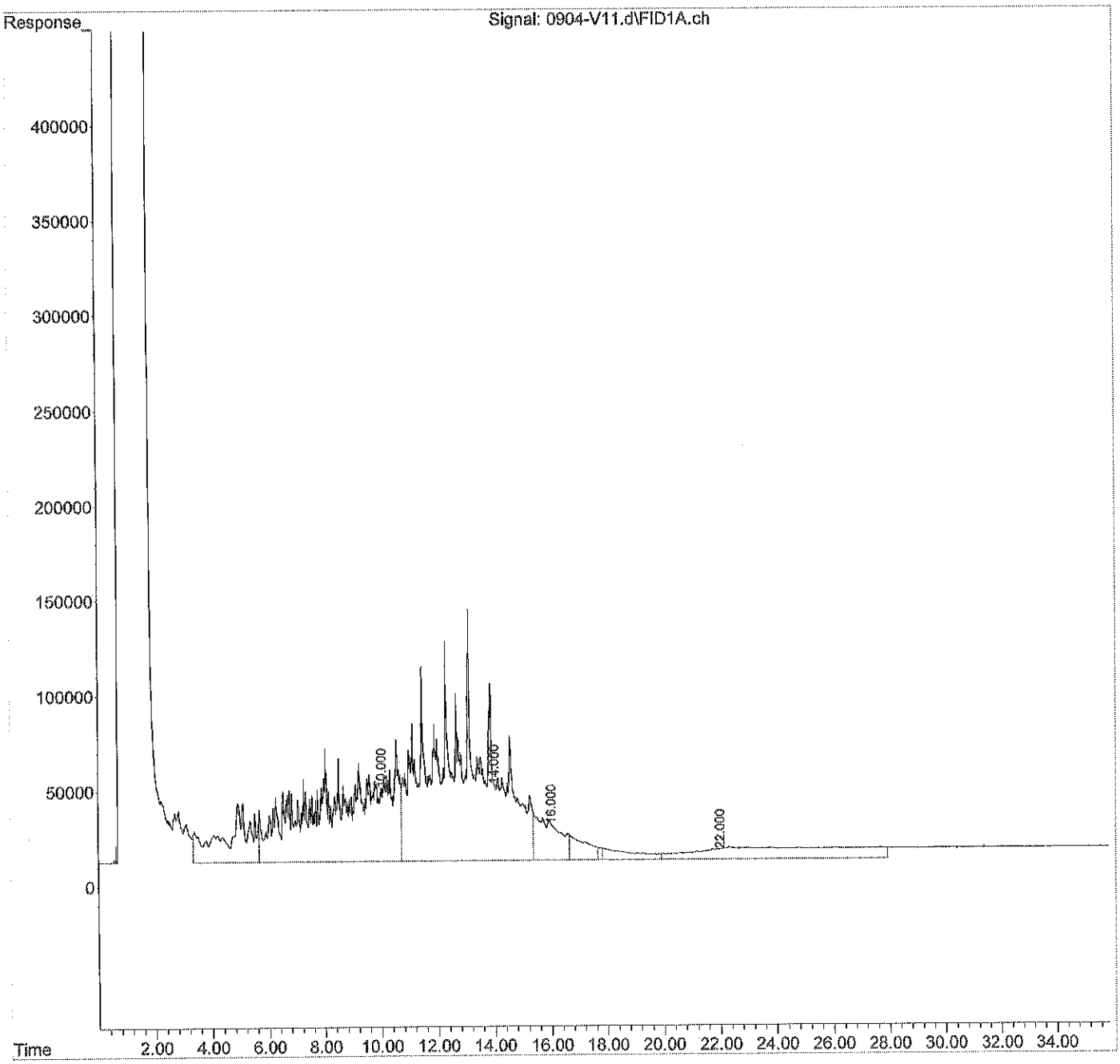
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	28990581	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	240710643	92.168	PPM
5) H	Diesel Fuel #2 (06-...	14.000	240422056	100.068	PPM
6) H	Oil (06-07-18)	22.000	49976132	16.013	PPM
7) H	Oil Acid Clean (06-12...	22.000	49976132	1.014	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	234165926	99.762	PPM
9) H	Oil Combo (06-07-18)	22.000	36393141	8.743	PPM
10) H	Oil Acid Clean Combo ...	22.000	36393141	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	242058132	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15072727	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	155315696	61.237	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271490465	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271490465	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	288731293	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	149805559	62.320	PPM
18) H	Oil Acid Clean MO Com...	22.000	30781257	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	30781257	5.875	PPM

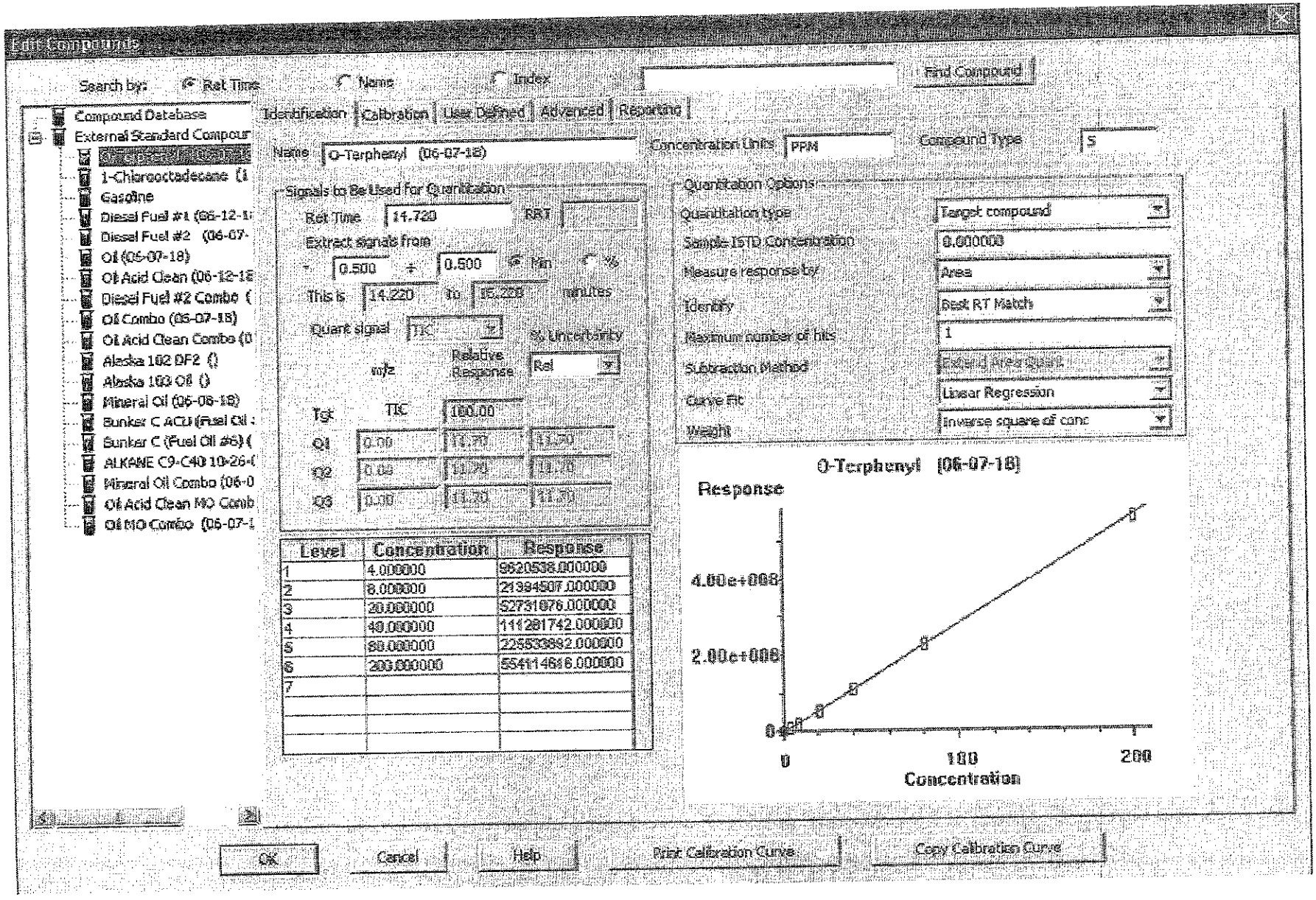
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V11.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 16:12
Operator : JT
Sample : CCV0904F-V2
Misc : SV3-29-03
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 16:48:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
1-Chlorooctadecane
Gasoline
Diesel Fuel #2
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo
Oil Combo (06-07-18)
Oil Acid Clean Combo
Alaska 102 DF2
Alaska 102 Oil
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6)
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
O-Terphenyl (06-07-18)
Concentration Units
PPM
Compound Type
S
Signals to Be Used for Quantitation
Ret Time
14.720
RRT
Extract signals from
0.500
0.500
Min
%
This is
14.220
to
15.220
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Extend Area Search
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
4.000000
9520538.000000
2
8.000000
21394507.000000
3
20.000000
52731876.000000
4
40.000000
111281742.000000
5
80.000000
225533982.000000
6
200.000000
554114616.000000
7
O-Terphenyl (06-07-18)
Response
4.00e+008
2.00e+008
0.00
0
100
200
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.582	9620538	3.974 PPM
Spiked Amount	50.000		Recovery =	7.95%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2918914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7973112	0.934 PPM
5) H	Diesel Fuel #2 (06-...	14.000	8067167	1.963 PPM
6) H	Oil (06-07-18)	22.000	41478047	11.278 PPM
7) H	Oil Acid Clean (06-12...	22.000	41478047	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	7057774	1.895 PPM
9) H	Oil Combo (06-07-18)	22.000	40647380	11.151 PPM
10) H	Oil Acid Clean Combo ...	22.000	40647380	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	8402084	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20317087	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	7057262	3.084 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	51378922	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	51378922	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	51452820	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	4092445	2.783 PPM
18) H	Oil Acid Clean MO Com...	22.000	39796223	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	39796223	11.123 PPM

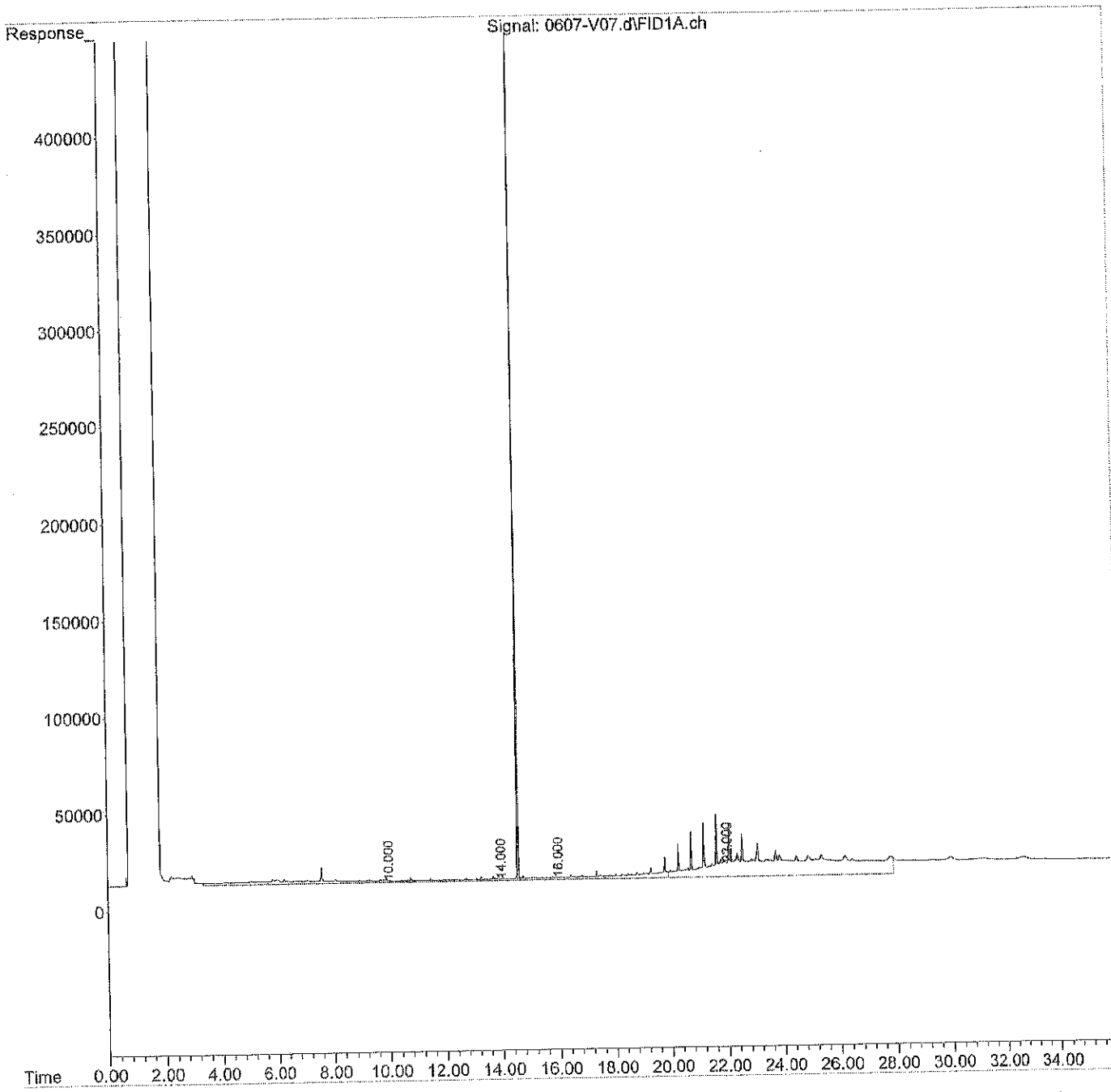
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.583	21394507	8.182 PPM
Spiked Amount	50.000		Recovery =	16.36%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2578709	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6568002	0.383 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6442554	1.277 PPM
6) H	Oil (06-07-18)	22.000	38834383	9.804 PPM
7) H	Oil Acid Clean (06-12...	22.000	38834383	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5650075	1.288 PPM
9) H	Oil Combo (06-07-18)	22.000	38215738	9.775 PPM
10) H	Oil Acid Clean Combo ...	22.000	38215738	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	6700816	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20412619	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5601139	2.513 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	47152459	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	47152459	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	47173180	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3086112	2.372 PPM
18) H	Oil Acid Clean MO Com...	22.000	37547444	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	37547444	9.814 PPM

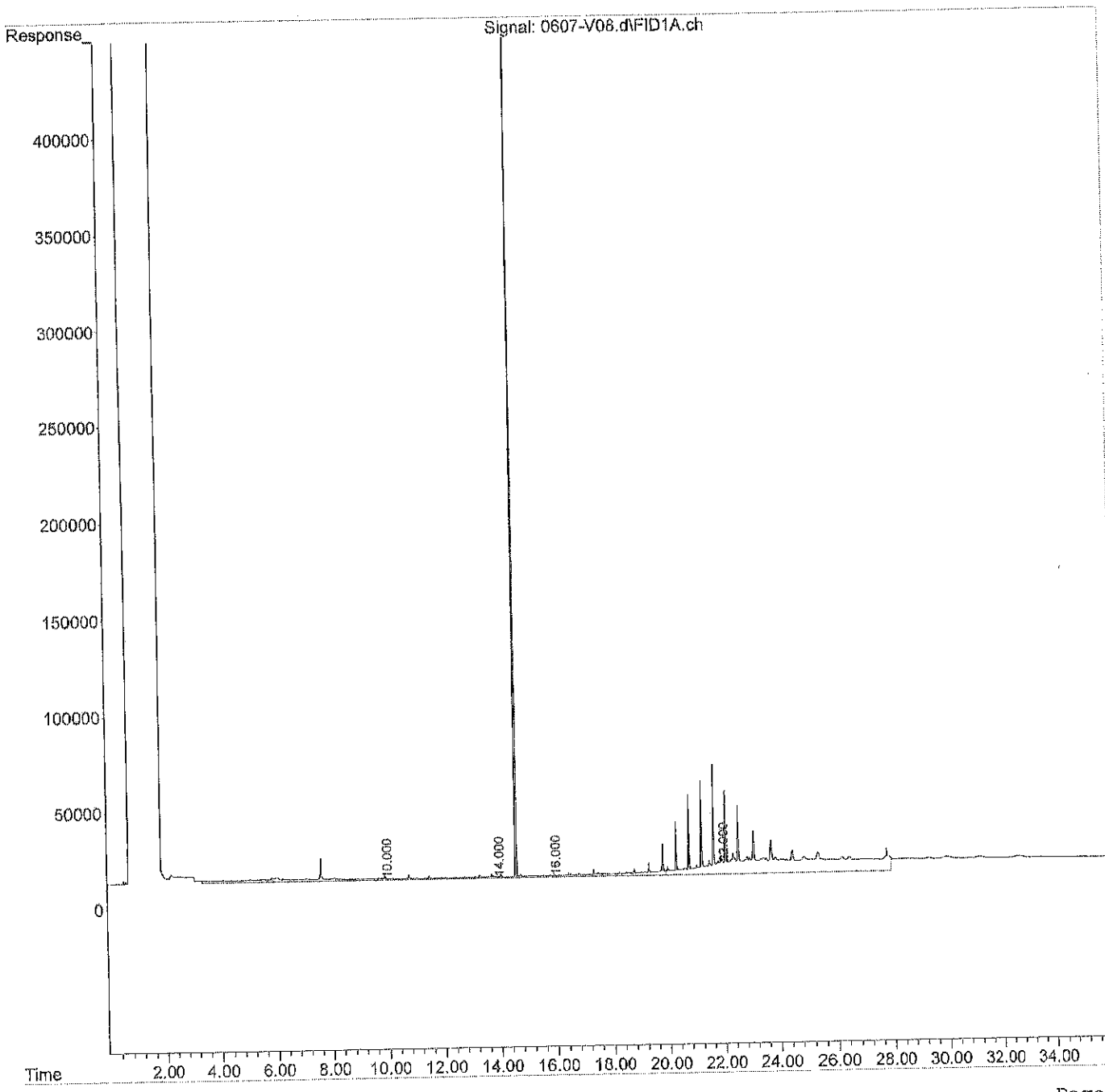
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.588	52731076	19.381	PPM
Spiked Amount	50.000		Recovery =	38.76%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	2265067	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5081733	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	4905010	0.628	PPM
6) H	Oil (06-07-18)	22.000	32732210	6.404	PPM
7) H	Oil Acid Clean (06-12...	22.000	32732210	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4219849	0.672	PPM
9) H	Oil Combo (06-07-18)	22.000	32242464	6.394	PPM
10) H	Oil Acid Clean Combo ...	22.000	32242464	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	5118955	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16586145	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	4326333	2.013	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	39478225	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	39478225	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	39423416	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2320552	2.059	PPM
18) H	Oil Acid Clean MO Com...	22.000	31663541	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	31663541	6.389	PPM

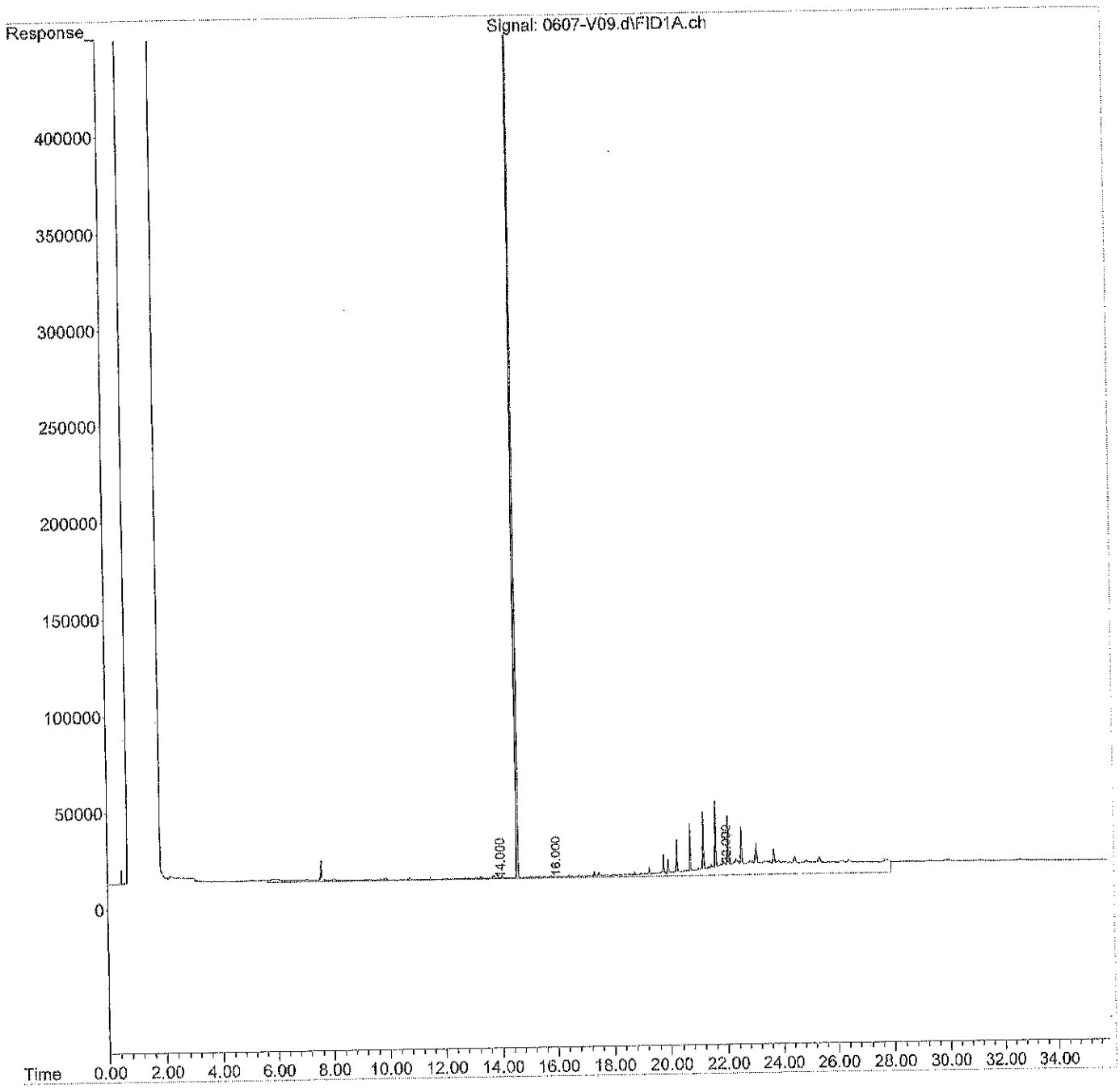
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.595	111281742	40.306 PPM
Spiked Amount	50.000		Recovery =	80.61%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2340566	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4714319	N.D. PPM
5) H	Diesel Fuel #2 (06-...	14.000	4271422	0.360 PPM
6) H	Oil (06-07-18)	22.000	31921729	5.952 PPM
7) H	Oil Acid Clean (06-12...	22.000	31921729	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	3720497	0.456 PPM
9) H	Oil Combo (06-07-18)	22.000	31518020	5.984 PPM
10) H	Oil Acid Clean Combo ...	22.000	31518020	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	4457580	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	16644658	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	3770307	1.795 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	38132311	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	38132311	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	38147075	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	1868960	1.875 PPM
18) H	Oil Acid Clean MO Com...	22.000	31056856	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	31056856	6.036 PPM

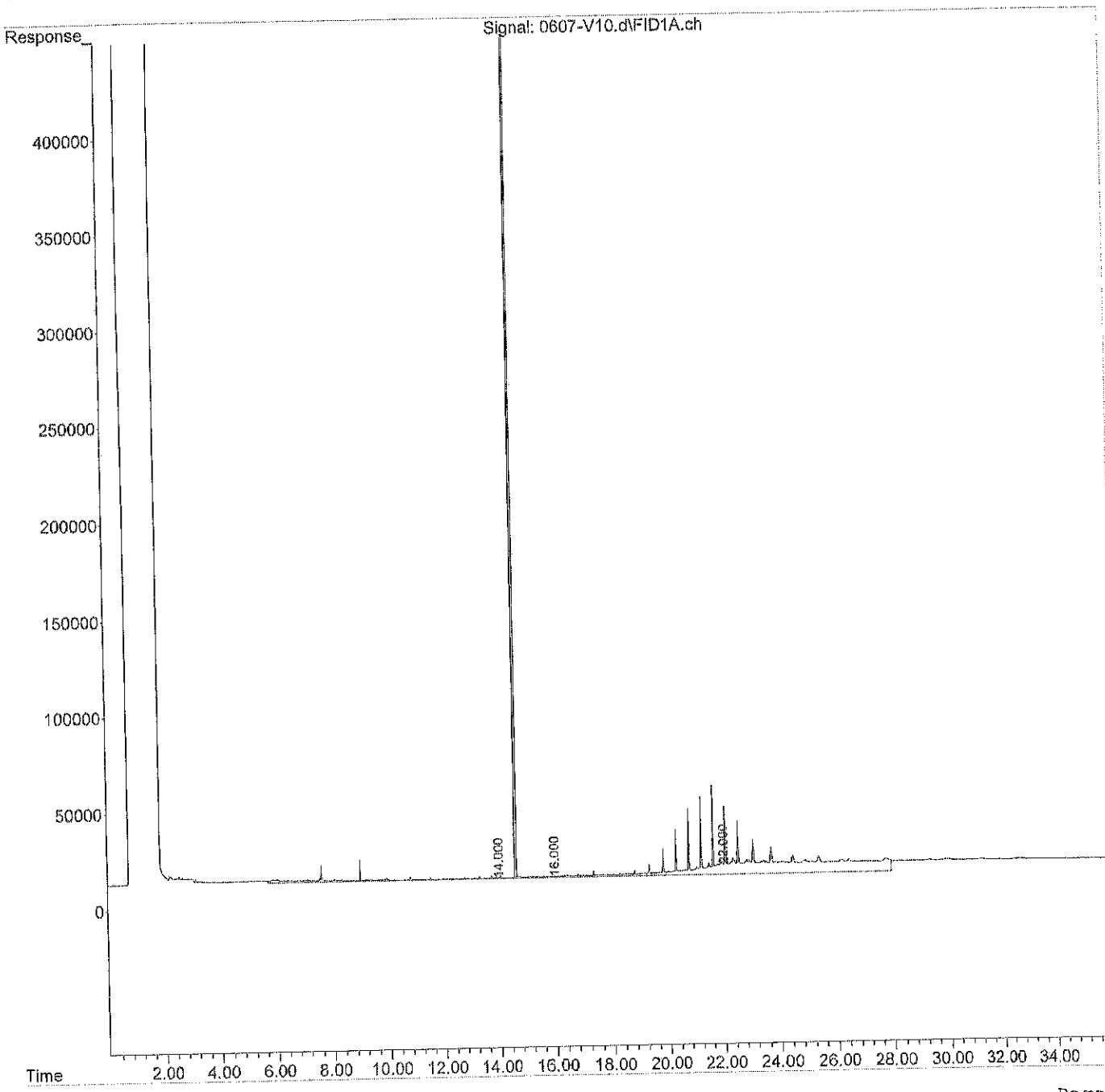
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.608	225533892	81.138 PPM
Spiked Amount	50.000		Recovery =	162.28%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2825914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7127070	0.603 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6794365	1.426 PPM
6) H	Oil (06-07-18)	22.000	35914188	8.177 PPM
7) H	Oil Acid Clean (06-12...	22.000	35914188	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6032453	1.453 PPM
9) H	Oil Combo (06-07-18)	22.000	35297875	8.123 PPM
10) H	Oil Acid Clean Combo ...	22.000	35297875	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	7031240	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	19426371	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5449526	2.454 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	44200935	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	44200935	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	44502128	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3154382	2.400 PPM
18) H	Oil Acid Clean MO Com...	22.000	34654159	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	34654159	8.130 PPM

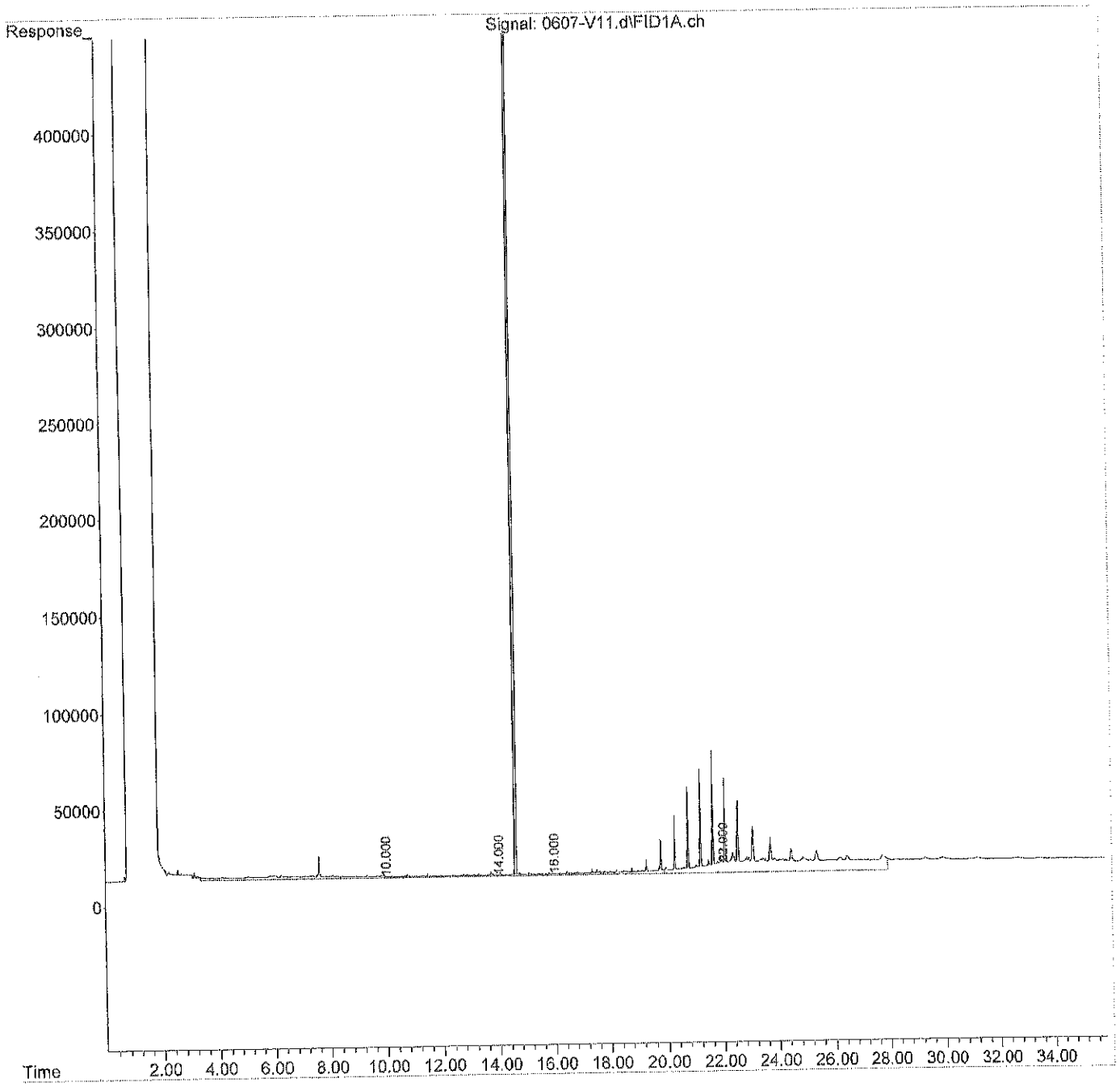
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

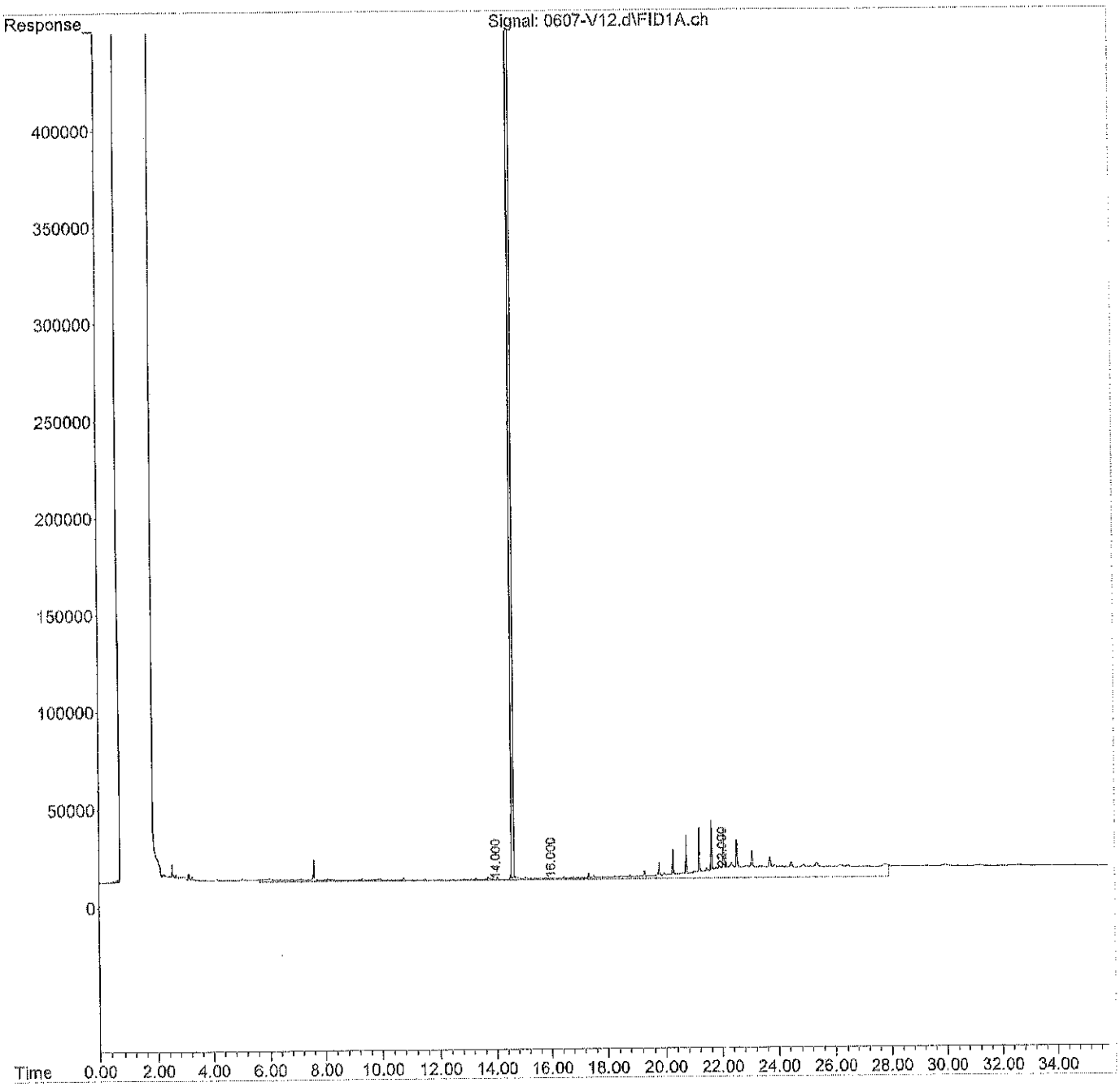
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.633	554114616	198.568	PPM
Spiked Amount	50.000		Recovery =	397.14%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	2480847	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5332885	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	4955156	0.649	PPM
6) H	Oil (06-07-18)	22.000	29536918	4.623	PPM
7) H	Oil Acid Clean (06-12...	22.000	29536918	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4340875	0.724	PPM
9) H	Oil Combo (06-07-18)	22.000	29073821	4.600	PPM
10) H	Oil Acid Clean Combo ...	22.000	29073821	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	5149935	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14577866	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	4166131	1.950	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	36280871	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	36280871	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	36345279	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2350636	2.072	PPM
18) H	Oil Acid Clean MO Com...	22.000	28553677	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28553677	4.579	PPM

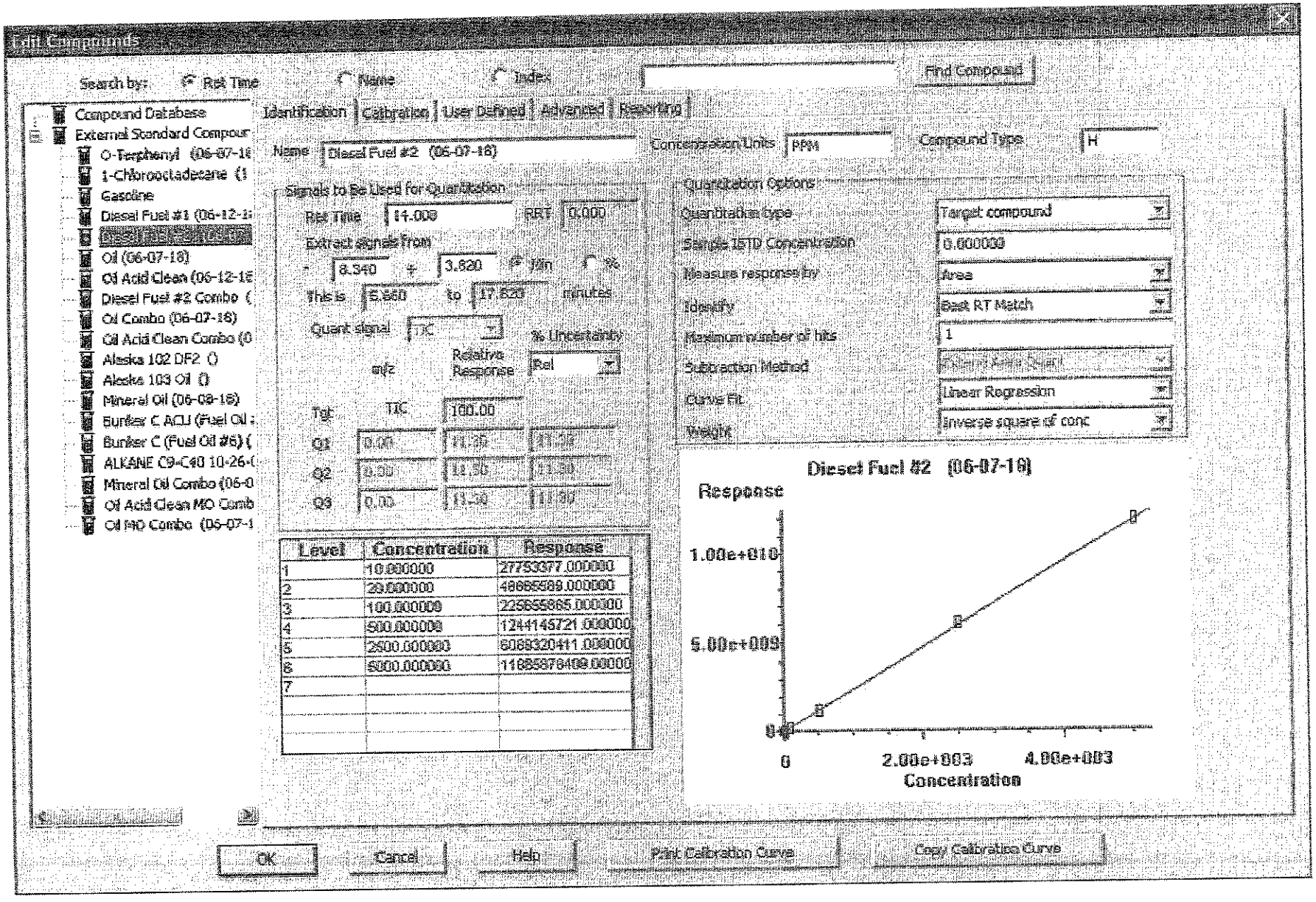
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-16
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-16)
Oil (06-07-16)
Oil Acid Clean (06-12-16
Diesel Fuel #2 Combo (
Oil Combo (06-07-16)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-16)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 (06-07-16)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
14.008
RRT
0.000
Extract signals from
8.340
3.820
y/n
%
This is
5.560
to
17.820
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Diesel Fuel #2 (06-07-16)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
Level
Concentration
Response
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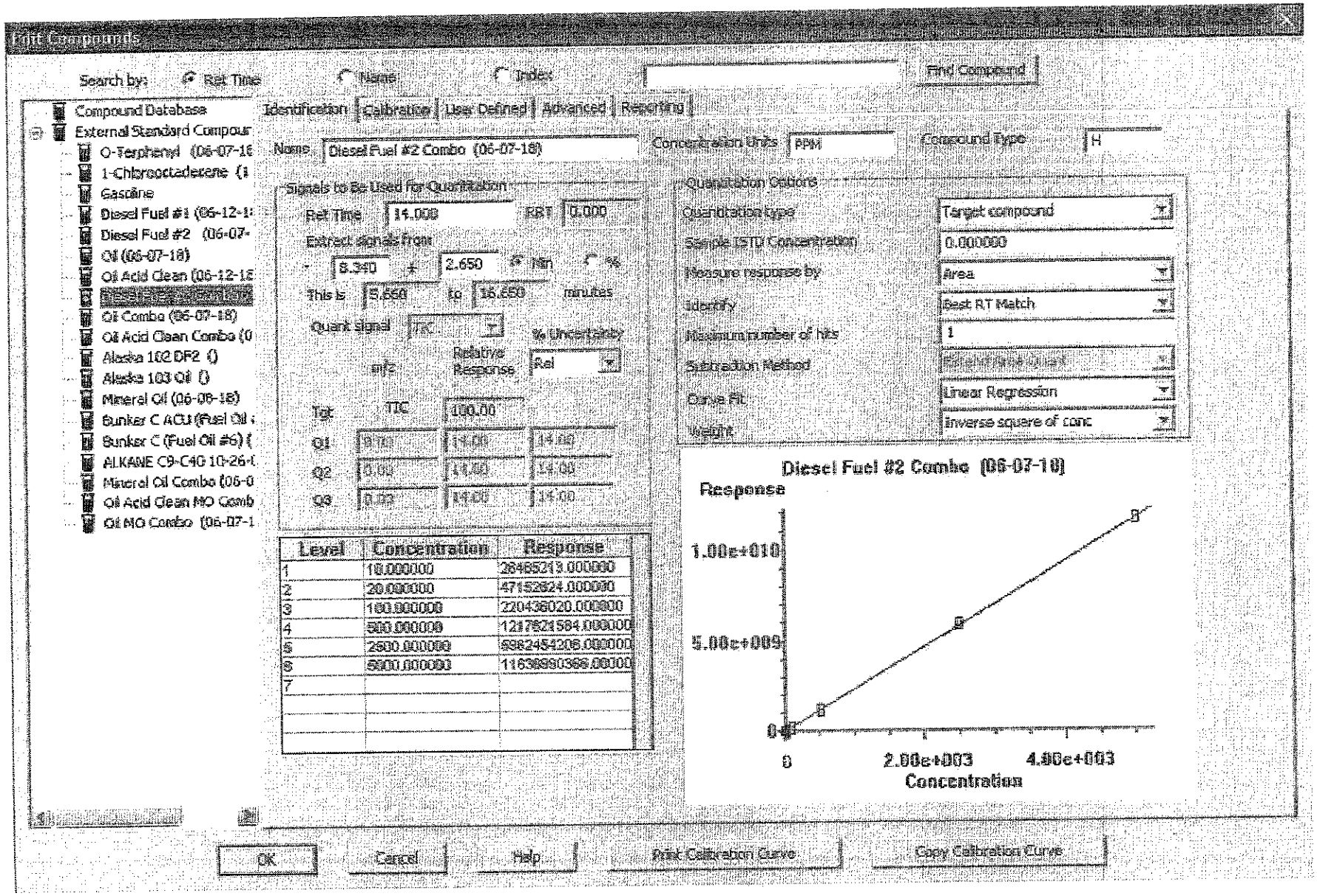
2
20.000000
48665589.000000
3
100.000000
225855865.000000
4
500.000000
1244146721.000000
5
2500.000000
6068320411.000000
6
5000.000000
11885878409.000000
7
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecene (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 Combo (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantification
Ret Time
14.000
RRT
0.000
Extract signals from
8.340
2.650
Min
%
This is
5.690
to
16.690
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
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28485213.000000
2
20.000000
47152824.000000
3
100.000000
220436020.000000
4
500.000000
1217821584.000000
5
2500.000000
6882454206.000000
6
5000.000000
11638990368.000000
7
Diesel Fuel #2 Combo (06-07-18)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.579	1768524	1.168 PPM
Spiked Amount	50.000		Recovery =	2.34%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	4133777	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	27269128	8.498 PPM
5) H	Diesel Fuel #2 (06-...	14.000	27753377	10.275 PPM
6) H	Oil (06-07-18)	22.000	31915458	5.949 PPM
7) H	Oil Acid Clean (06-12...	22.000	31915458	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	26465213	10.258 PPM
9) H	Oil Combo (06-07-18)	22.000	30005900	5.128 PPM
10) H	Oil Acid Clean Combo ...	22.000	30005900	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	28080594	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	14809319	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	19317557	7.893 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	59083420	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	59083420	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	60452306	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	17051878	8.078 PPM
18) H	Oil Acid Clean MO Com...	22.000	28888187	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	28888187	4.774 PPM

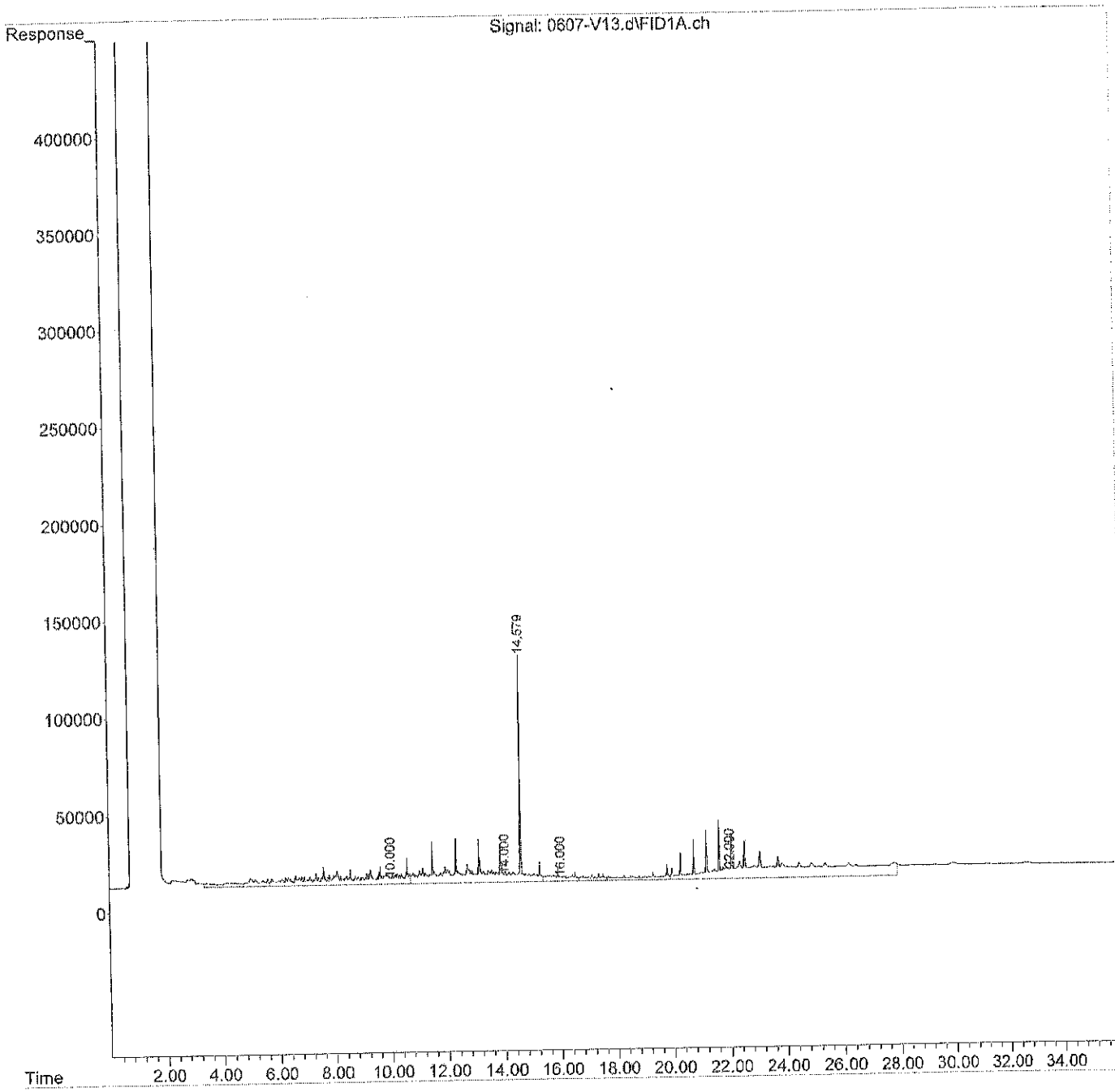
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5646580	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	48040088	16.641	PPM
5) H	Diesel Fuel #2 (06-...	14.000	48665589	19.104	PPM
6) H	Oil (06-07-18)	22.000	33762580	6.978	PPM
7) H	Oil Acid Clean (06-12...	22.000	33762580	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	47152624	19.173	PPM
9) H	Oil Combo (06-07-18)	22.000	30844064	5.602	PPM
10) H	Oil Acid Clean Combo ...	22.000	30844064	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	48992912	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15851618	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	32931233	13.233	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	80349703	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	80349703	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	82875651	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	30717015	13.662	PPM
18) H	Oil Acid Clean MO Com...	22.000	29519570	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	29519570	5.141	PPM

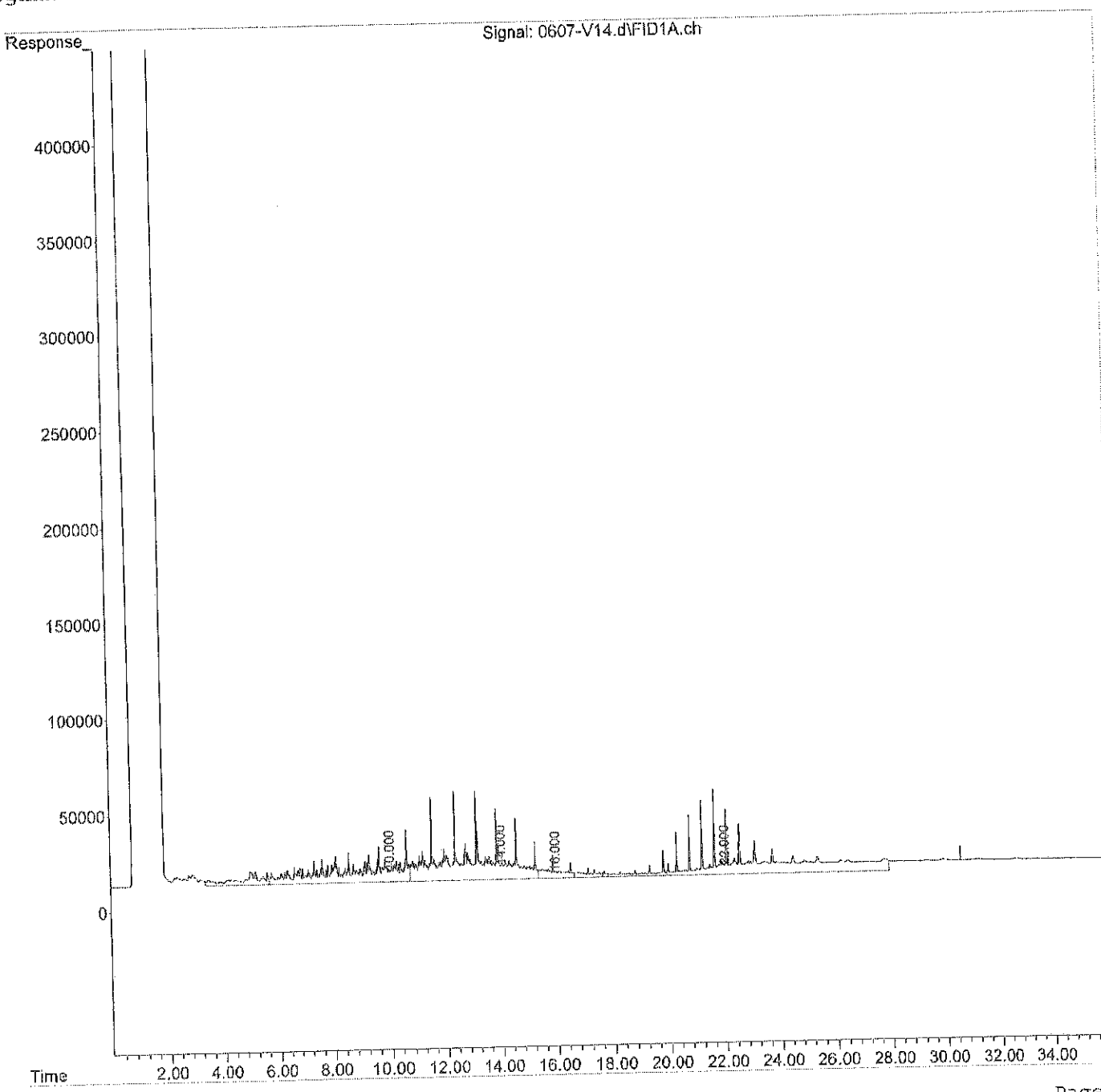
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



V180601F.M Thu Aug 30 12:15:31 2018

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.568	1827597	1.189 PPM
Spiked Amount	50.000		Recovery =	2.38%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	20974403	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	222453979	85.011 PPM
5) H	Diesel Fuel #2 (06-...	14.000	225655865	93.833 PPM
6) H	Oil (06-07-18)	22.000	47759430	14.778 PPM
7) H	Oil Acid Clean (06-12...	22.000	47759430	0.079 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	220436020	93.845 PPM
9) H	Oil Combo (06-07-18)	22.000	34923076	7.911 PPM
10) H	Oil Acid Clean Combo ...	22.000	34923076	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	226627792	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	16006487	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	147049004	57.995 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	256196607	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	256196607	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	269640605	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	143067779	59.567 PPM
18) H	Oil Acid Clean MO Com...	22.000	30286616	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	30286616	5.588 PPM

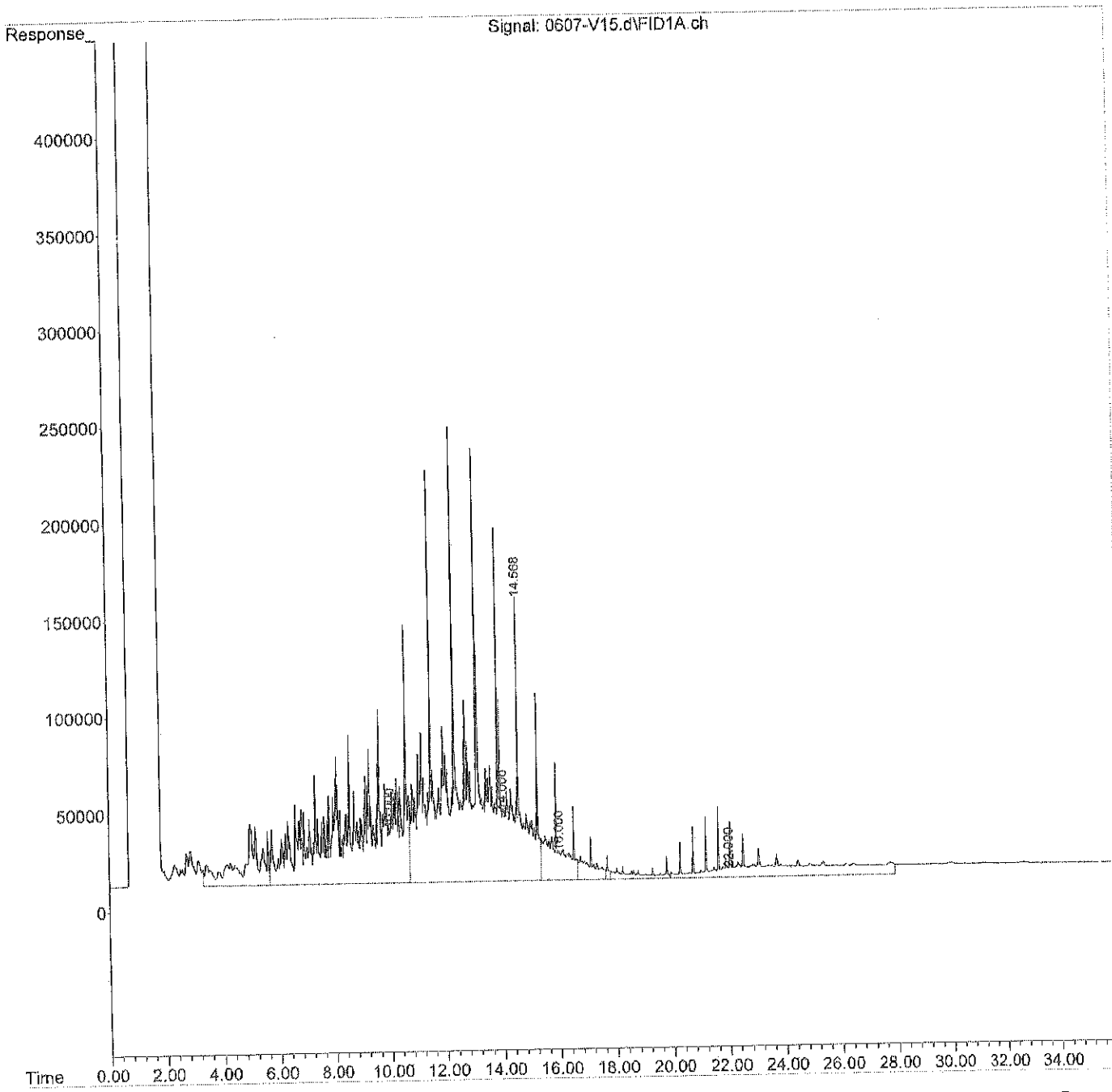
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.570	10094442	4.143	PPM
Spiked Amount		50.000		Recovery =	8.29%	
Target Compounds						
2)		1-Chlorooctadecane (...	15.902	4101806	NoCal	PPM
3)	H	Gasoline	3.500	107804991	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	1225065784	478.036	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	1244145721	523.861	PPM
6)	H	Oil (06-07-18)	22.000	134868745	63.321	PPM
7)	H	Oil Acid Clean (06-12...	22.000	134868745	36.856	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	1217621584	523.561	PPM
9)	H	Oil Combo (06-07-18)	22.000	64913475	24.886	PPM
10)	H	Oil Acid Clean Combo ...	22.000	64913475	7.630	PPM
11)	H	Alaska 102 DF2 ()	13.025	1248540939	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	22045480	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	806013642	316.466	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	1274842144	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	1274842144	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	1350137154	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	792702049	324.999	PPM
18)	H	Oil Acid Clean MO Com...	22.000	41221857	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	41221857	11.953	PPM

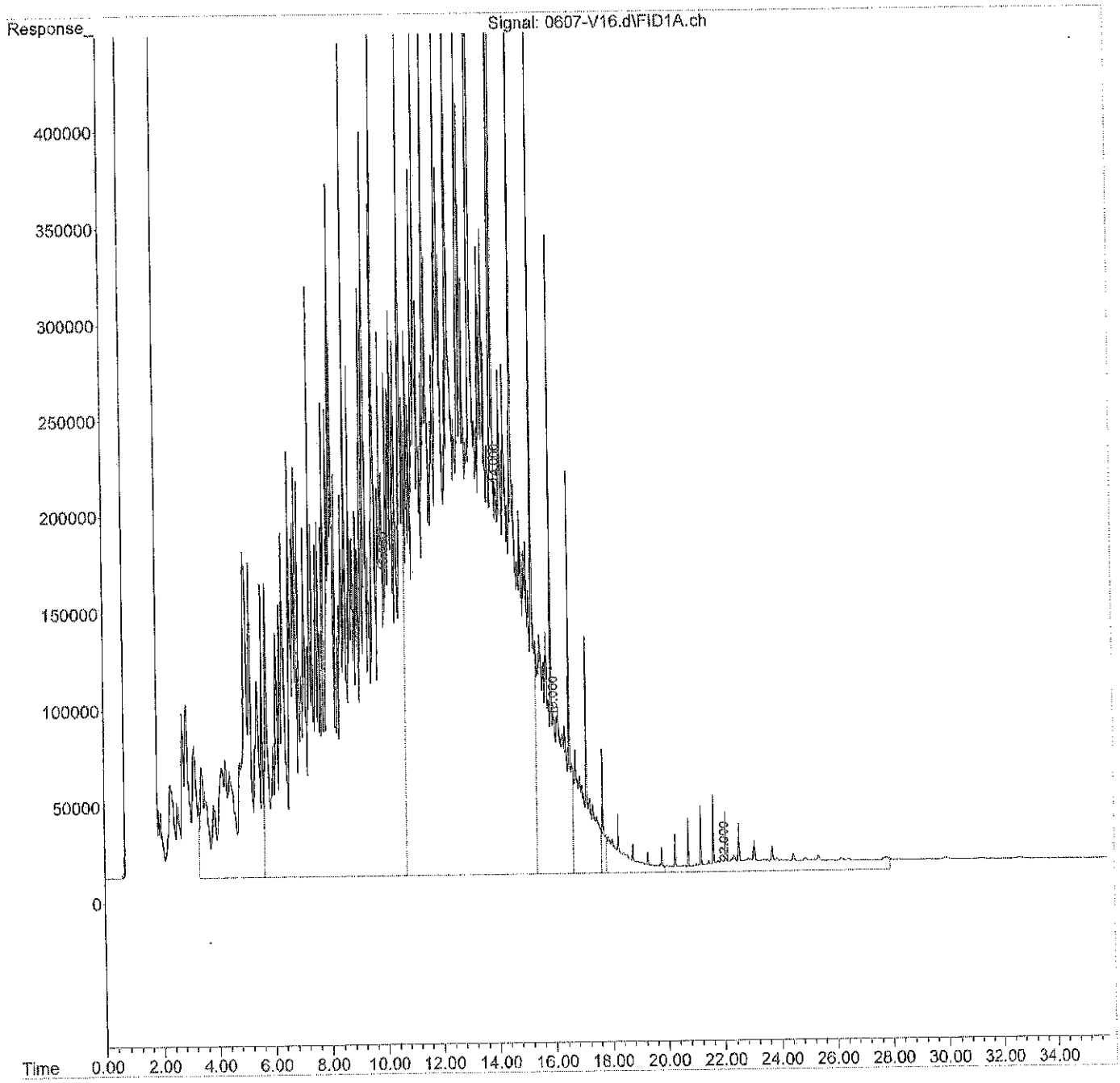
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.859	6943936	3.017	PPM
Spiked Amount	50.000		Recovery =	6.03%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.907	20022644	NoCal	PPM
3) H	Gasoline	3.500	514070408	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5991992203	2346.675	PPM
5) H	Diesel Fuel #2 (06-...	14.000	6089320411	2569.593	PPM
6) H	Oil (06-07-18)	22.000	546017303	292.438	PPM
7) H	Oil Acid Clean (06-12...	22.000	546017303	210.441	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5962454206	2568.245	PPM
9) H	Oil Combo (06-07-18)	22.000	205322242	104.356	PPM
10) H	Oil Acid Clean Combo ...	22.000	205322242	67.787	PPM
11) H	Alaska 102 DF2 ()	13.025	6110405818	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	49953834	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	3963830817	1555.086	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	6120193046	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	6120193046	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	6484678415	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	3906186074	1597.126	PPM
18) H	Oil Acid Clean MO Com...	22.000	91750432	19.770	PPM
19) H	Oil MO Combo (06-07-18)	22.000	91750432	41.364	PPM

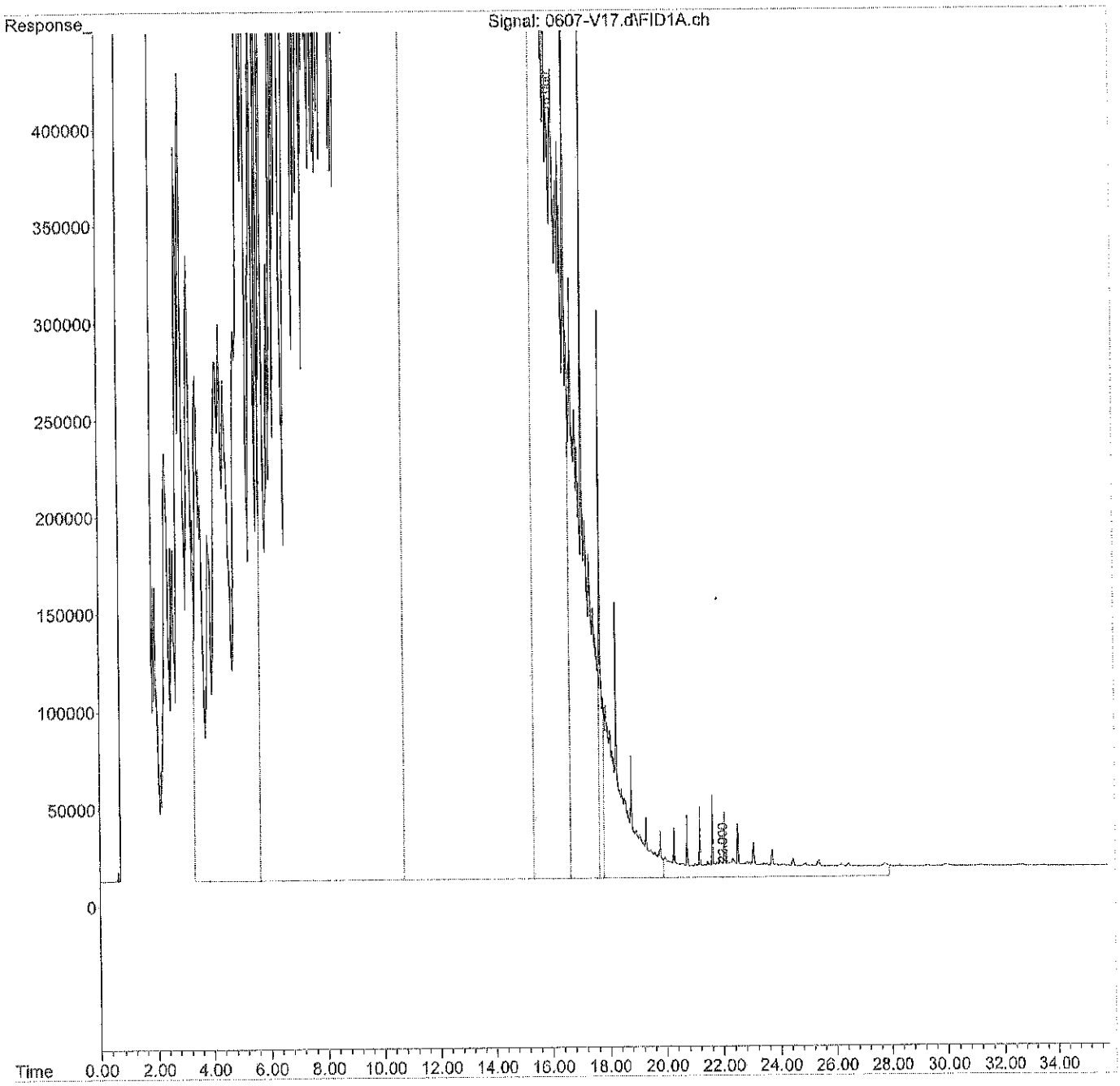
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

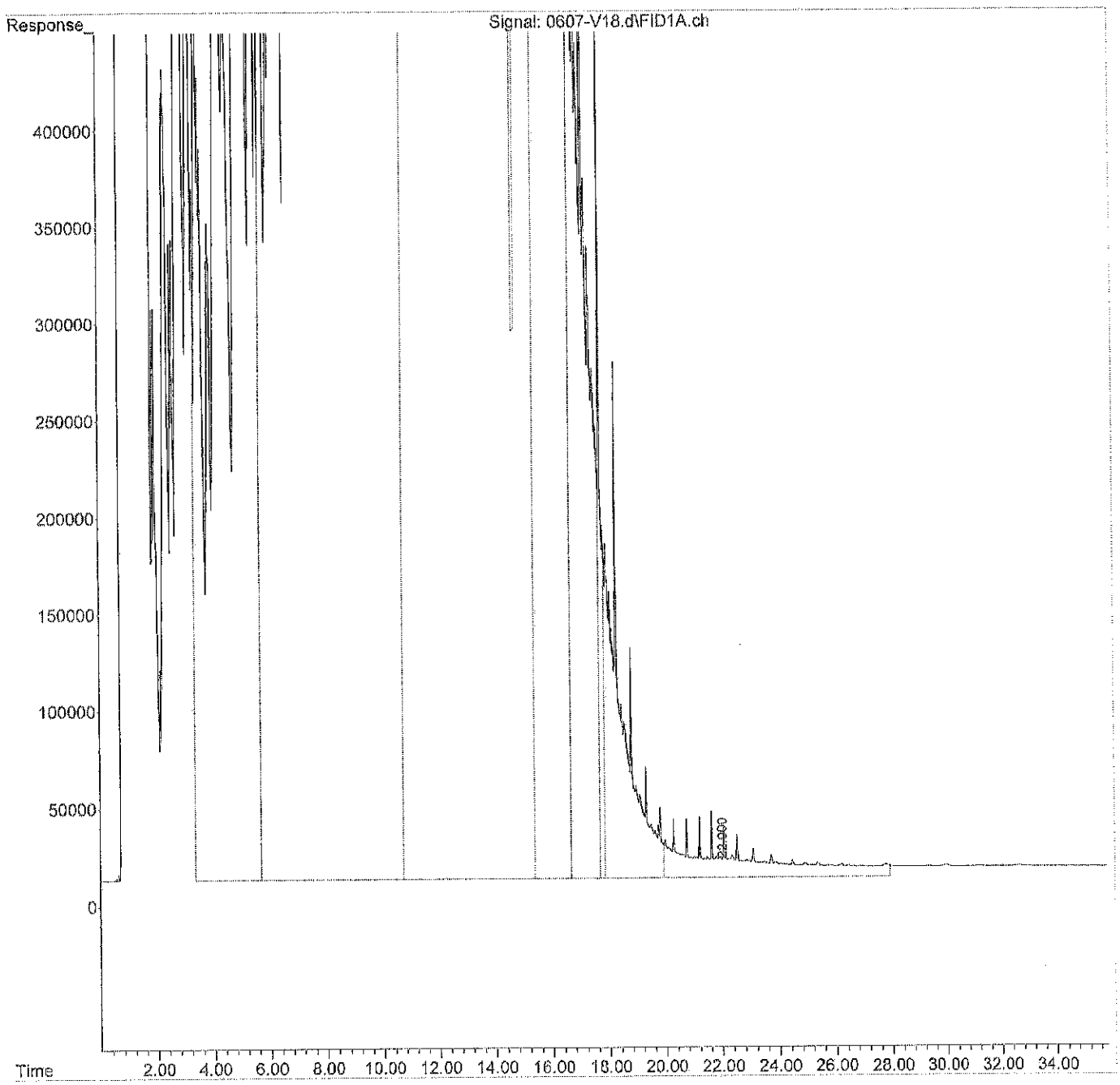
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.663	76998678	28.054	PPM
Spiked Amount	50.000		Recovery =	56.11%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.751	42430766	NoCal	PPM
3) H	Gasoline	3.500	998815431	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	11682128479	4577.214	PPM
5) H	Diesel Fuel #2 (06-...	14.000	11885878409	5017.019	PPM
6) H	Oil (06-07-18)	22.000	1050282128	573.445	PPM
7) H	Oil Acid Clean (06-12...	22.000	1050282128	423.340	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	11636990366	5013.565	PPM
9) H	Oil Combo (06-07-18)	22.000	375558313	200.709	PPM
10) H	Oil Acid Clean Combo ...	22.000	375558313	140.724	PPM
11) H	Alaska 102 DF2 ()	13.025	11928301203	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	83451915	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	7745644585	3038.462	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	11917323247	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	11917323247	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	12626887751	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	7634286594	3120.377	PPM
18) H	Oil Acid Clean MO Com...	22.000	152380955	46.447	PPM
19) H	Oil MO Combo (06-07-18)	22.000	152380955	76.656	PPM

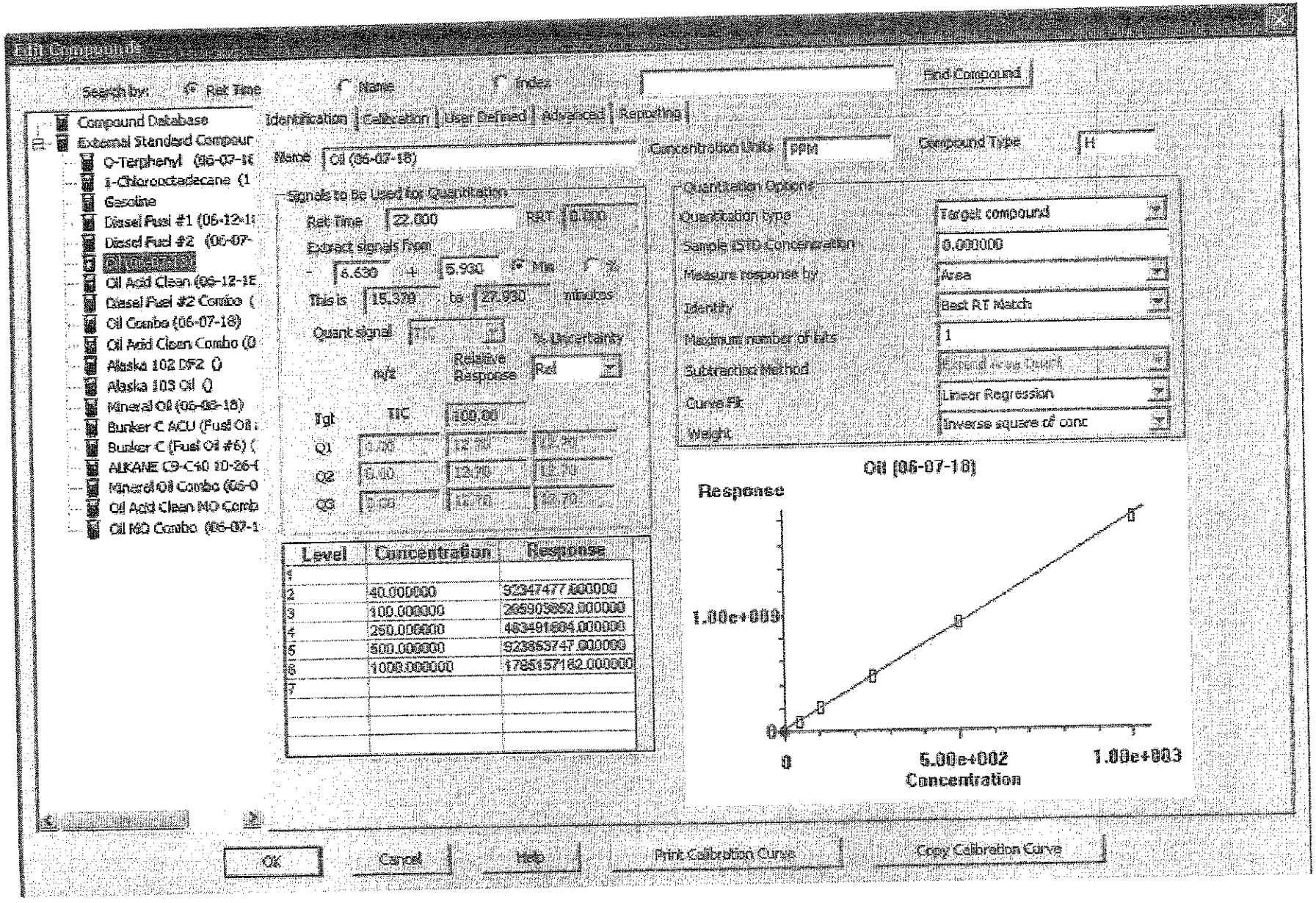
(f)=RT Delta > 1/2 Window (m)=manual int.

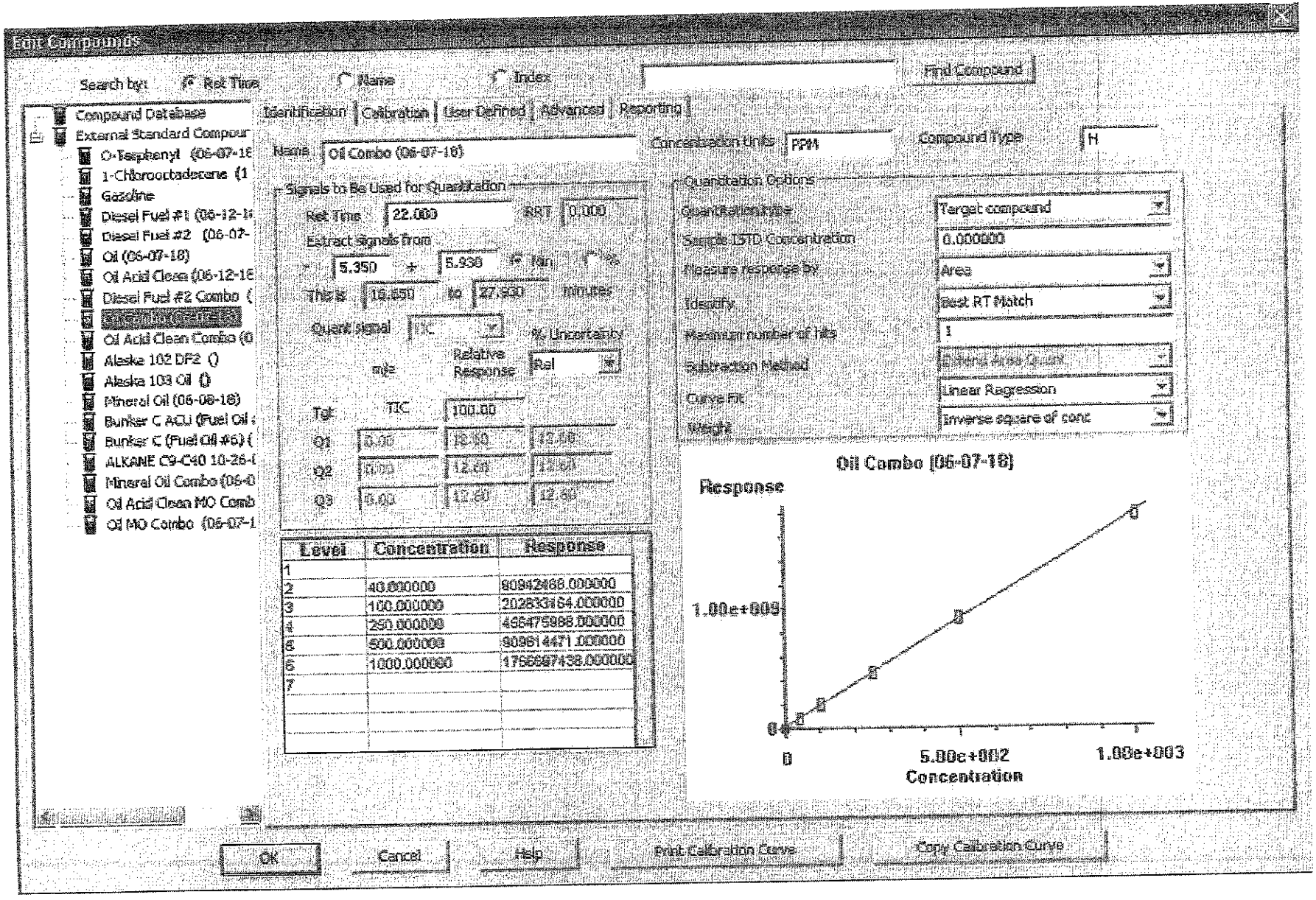
Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-1
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-1
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-
Mineral Oil Combo (06-0
Oil Acid Clean NO Comb
Oil NO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
22.000
Ret T
0.000
Extract signals from
6.630
5.930
Min
%
This is
15.370
to
27.930
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Extend Area Count
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
2
40.000000
92347477.800000
3
100.000000
206903892.000000
4
250.000000
463491604.000000
5
500.000000
923853747.000000
6
1000.000000
1785157162.000000
Oil (06-07-18)
Response
1.00e+009
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil Combo (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
22.000
RRT
0.000
Extract Signals from
5.350
5.930
Ion
Time
18.650
to
27.930
minutes
Quant Signal
TIC
% Uncertainty
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
2
40.000000
90942468.000000
3
100.000000
202830164.000000
4
250.000000
498479988.000000
5
500.000000
989614471.000000
6
1000.000000
1756597438.000000
7
Oil Combo (06-07-18)
Response
1.00e+009
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1674771	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4349802	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	7464800	1.709	PPM
6) H	Oil (06-07-18)	22.000	92347477	39.625	PPM
7) H	Oil Acid Clean (06-12...	22.000	92347477	18.903	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4780848	0.913	PPM
9) H	Oil Combo (06-07-18)	22.000	90942488	39.618	PPM
10) H	Oil Acid Clean Combo ...	22.000	90942488	18.782	PPM
11) H	Alaska 102 DF2 ()	13.025	8451878	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	53467548	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	14998011	6.199	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	101163084	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	101163084	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	99848035	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	5450356	3.338	PPM
18) H	Oil Acid Clean MO Com...	22.000	88735126	18.443	PPM
19) H	Oil MO Combo (06-07-18)	22.000	88735126	39.609	PPM

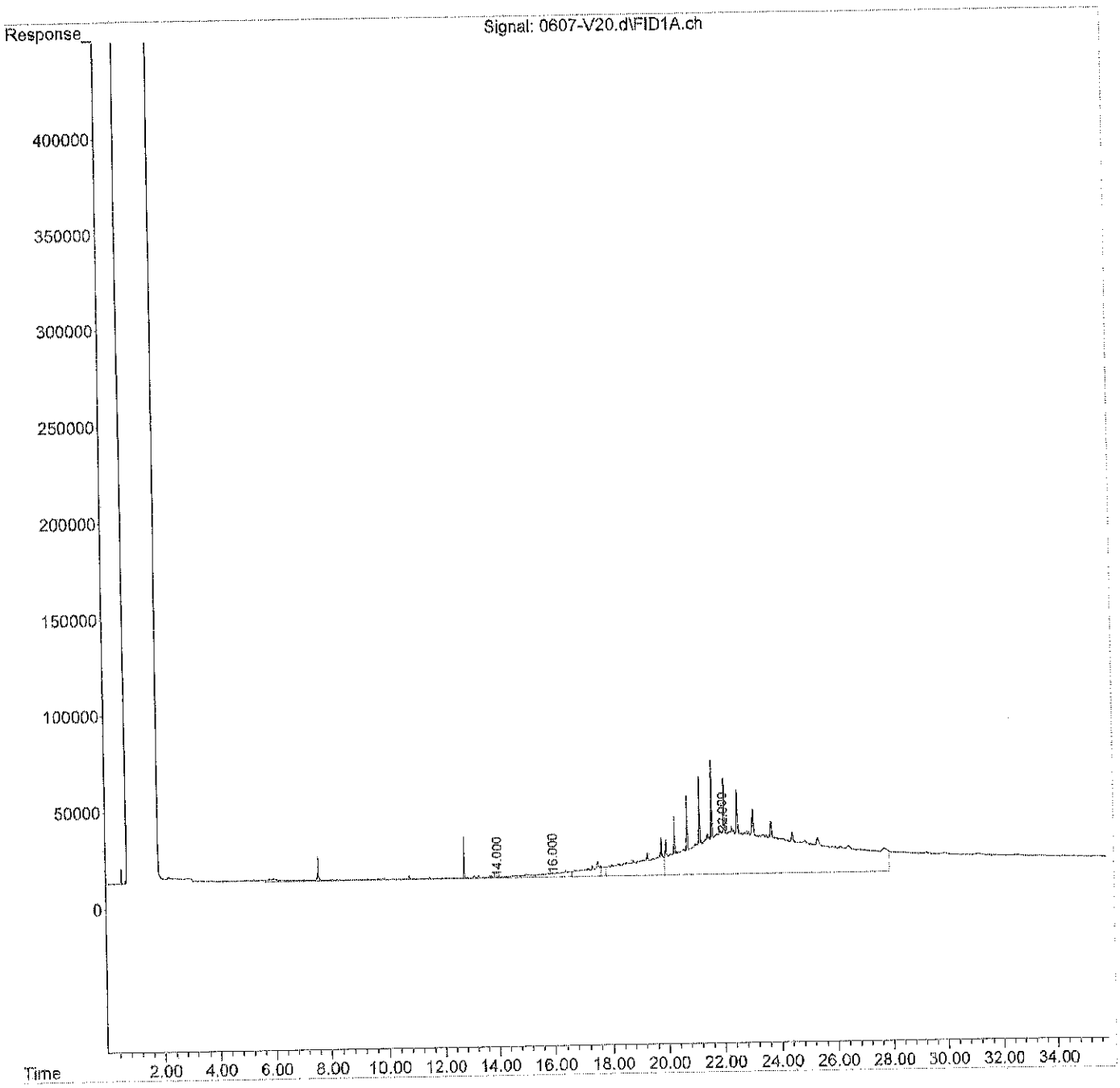
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1598184	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4418396	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	12922642	4.013	PPM
6) H	Oil (06-07-18)	22.000	205903852	102.906	PPM
7) H	Oil Acid Clean (06-12...	22.000	205903852	66.846	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6563765	1.682	PPM
9) H	Oil Combo (06-07-18)	22.000	202833164	102.947	PPM
10) H	Oil Acid Clean Combo ...	22.000	202833164	66.721	PPM
11) H	Alaska 102 DF2 ()	13.025	15328573	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	121718874	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	33706367	13.537	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	220233304	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	220233304	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	216825077	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	10255046	5.301	PPM
18) H	Oil Acid Clean MO Com...	22.000	197632815	66.358	PPM
19) H	Oil MO Combo (06-07-18)	22.000	197632815	102.996	PPM

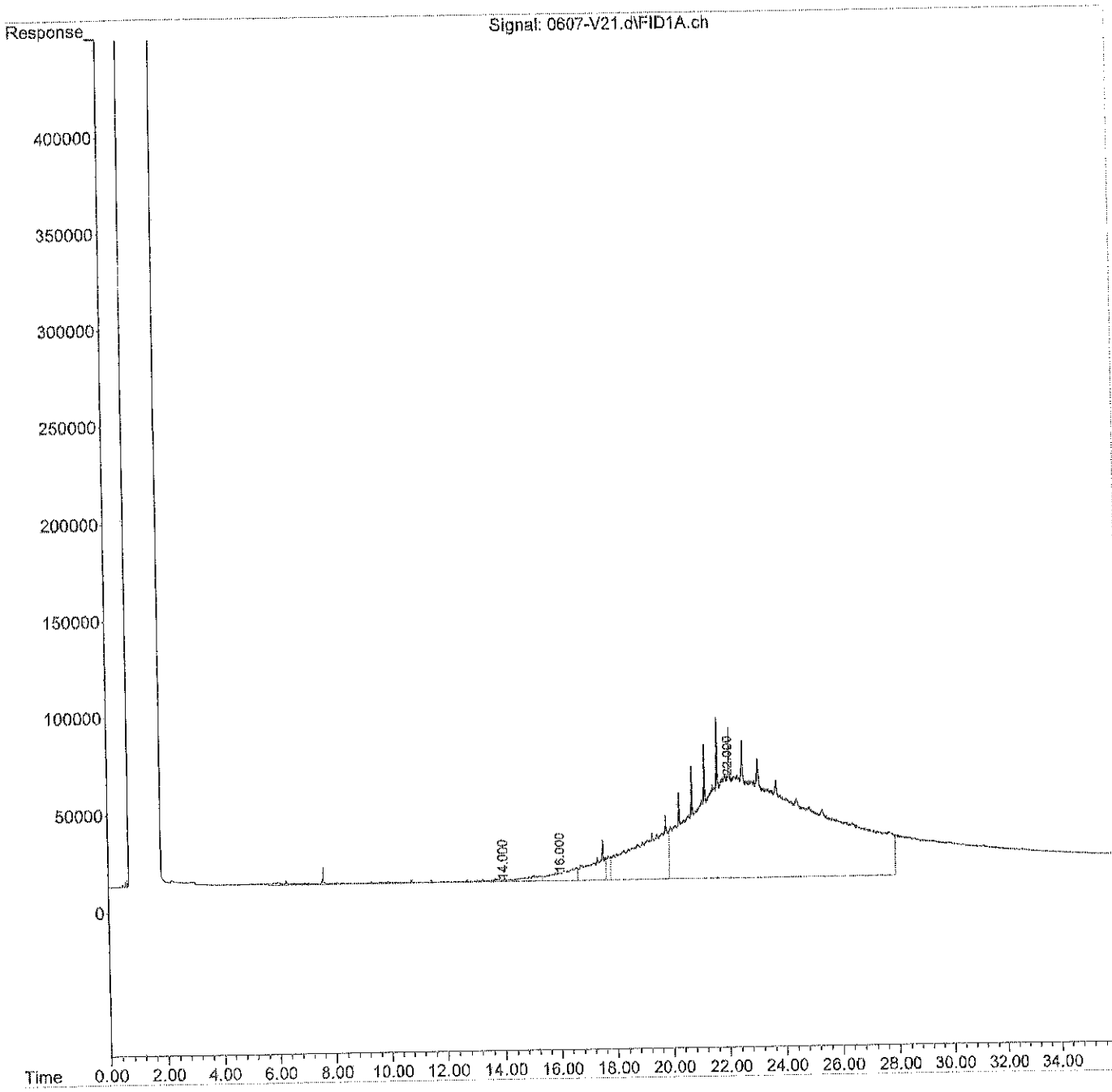
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1546027	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6218526	0.246	PPM
5) H	Diesel Fuel #2 (06-...	14.000	27255505	10.065	PPM
6) H	Oil (06-07-18)	22.000	463491604	246.449	PPM
7) H	Oil Acid Clean (06-12...	22.000	463491604	175.599	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	12350051	4.175	PPM
9) H	Oil Combo (06-07-18)	22.000	456475988	246.508	PPM
10) H	Oil Acid Clean Combo ...	22.000	456475988	175.392	PPM
11) H	Alaska 102 DF2 ()	13.025	32953847	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	276476057	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	77875662	30.862	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	491752125	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	491752125	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	483732259	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	22789674	10.423	PPM
18) H	Oil Acid Clean MO Com...	22.000	444309472	174.894	PPM
19) H	Oil MO Combo (06-07-18)	22.000	444309472	246.581	PPM

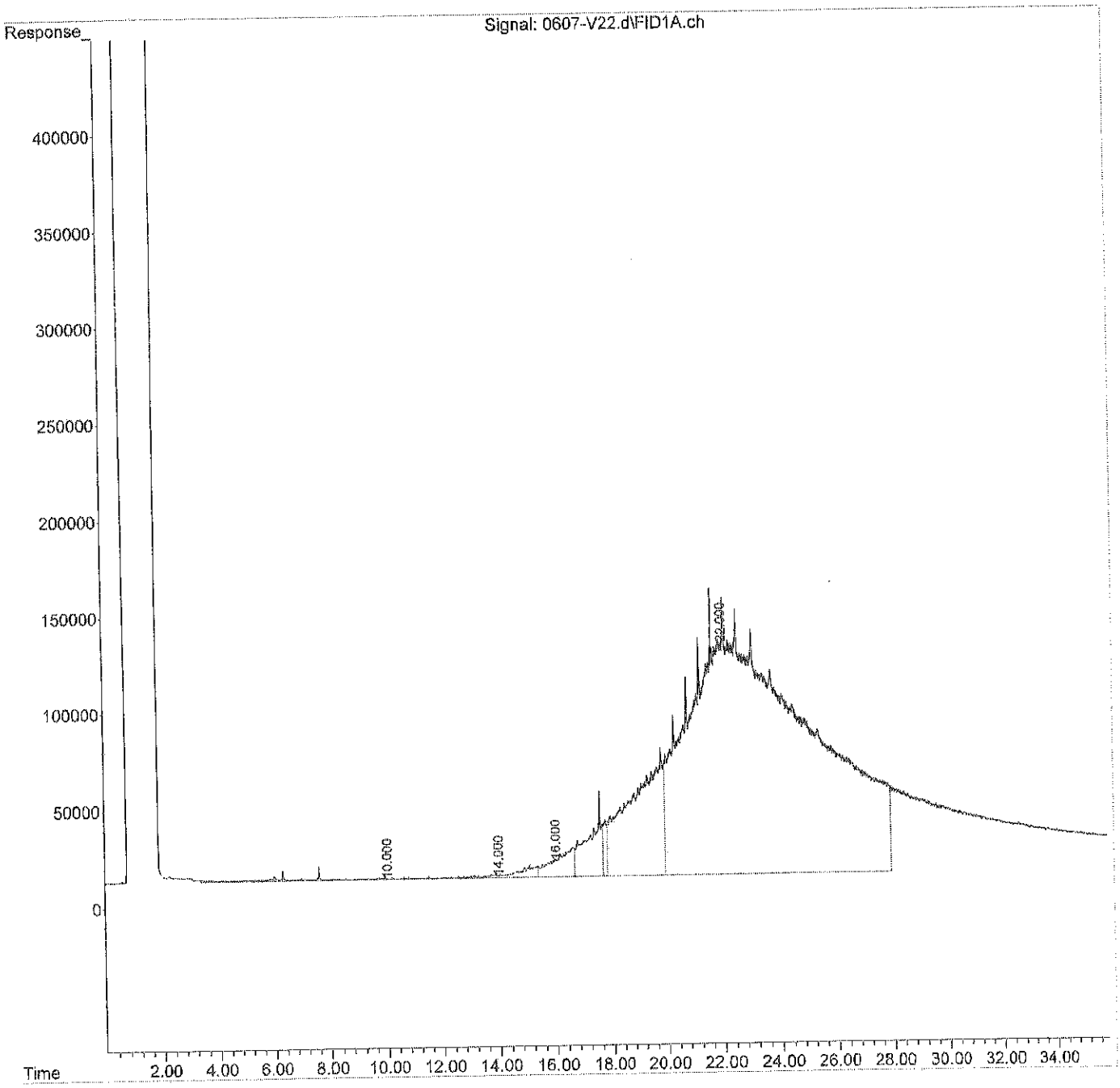
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	1940705	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	10844457	2.060	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	54401051	21.526	PPM
6)	H	Oil (06-07-18)	22.000	923853747	502.991	PPM
7)	H	Oil Acid Clean (06-12...	22.000	923853747	369.962	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	23981577	9.188	PPM
9)	H	Oil Combo (06-07-18)	22.000	909614471	502.982	PPM
10)	H	Oil Acid Clean Combo ...	22.000	909614471	369.535	PPM
11)	H	Alaska 102 DF2 ()	13.025	66004621	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	552071448	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	157156060	61.959	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	978412766	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	978412766	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	962198704	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	45999762	19.906	PPM
18)	H	Oil Acid Clean MO Com...	22.000	884778027	368.698	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	884778027	502.968	PPM

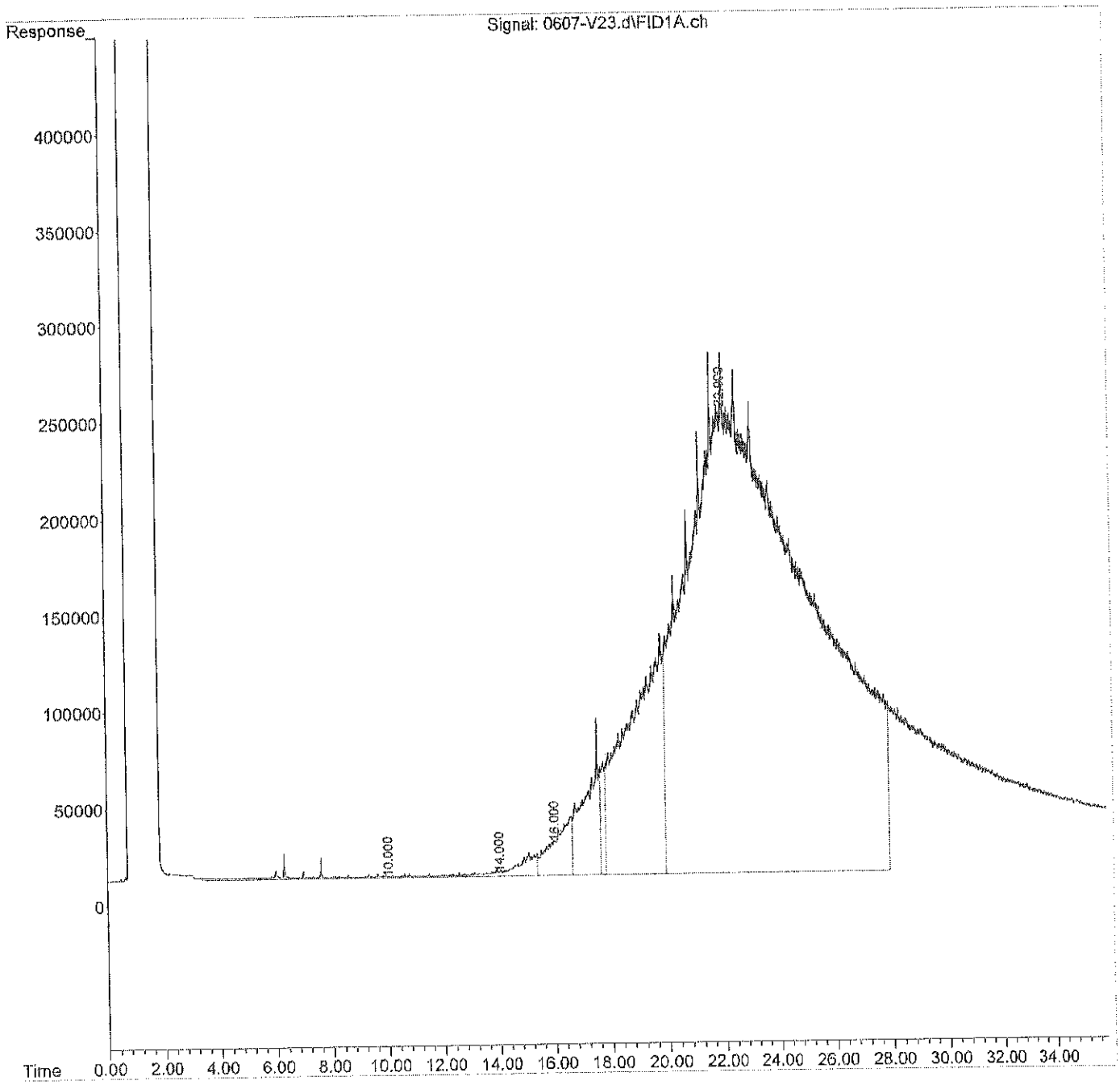
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1782145	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	17398055	4.629	PPM
5) H	Diesel Fuel #2 (06-...	14.000	105304585	43.019	PPM
6) H	Oil (06-07-18)	22.000	1795157182	988.534	PPM
7) H	Oil Acid Clean (06-12...	22.000	1795157182	737.823	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	44853790	18.182	PPM
9) H	Oil Combo (06-07-18)	22.000	1766697438	988.086	PPM
10) H	Oil Acid Clean Combo ...	22.000	1766697438	736.745	PPM
11) H	Alaska 102 DF2 ()	13.025	128211822	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	1072600956	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	308958277	121.502	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1897916566	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1897916566	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1865896028	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	90565974	38.115	PPM
18) H	Oil Acid Clean MO Com...	22.000	1717287209	734.997	PPM
19) H	Oil MO Combo (06-07-18)	22.000	1717287209	987.553	PPM

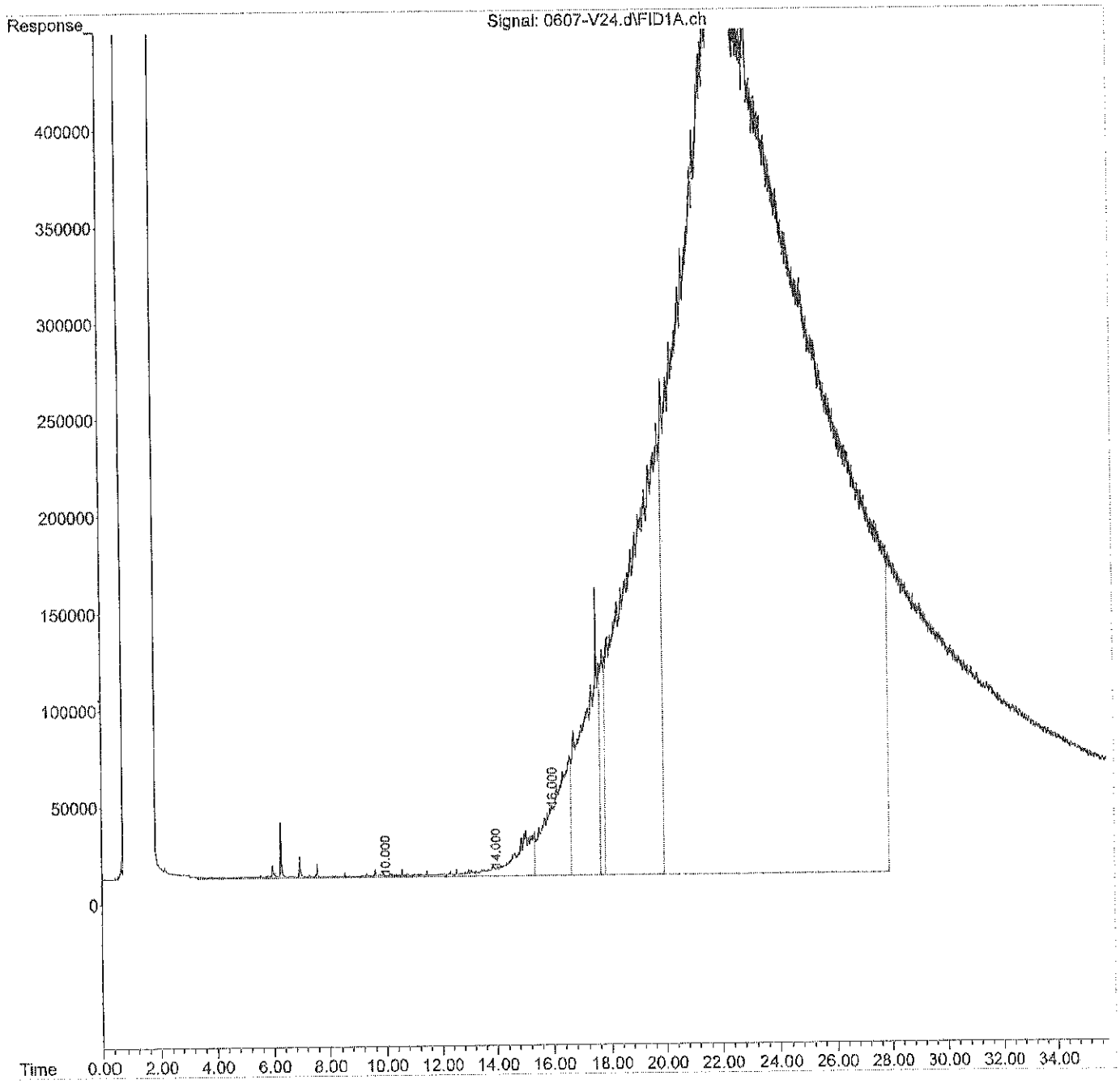
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.890	4592544	NoCal	PPM
3) H	Gasoline	3.500	23135296	NoCal	PPM
4) H	Diesel Fuel #1 (03-14...	10.000	228603455	NoCal	PPM
5) H	Diesel Fuel #2 (06-...	14.000	242935381	101.129	PPM
6) H	Oil (06-07-18)	22.000	57884255	20.420	PPM
7) H	Oil Acid Clean (03-13...	22.000	57884255	NoCal	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	236032700	100.566	PPM
9) H	Oil Combo (06-07-18)	22.000	34848739	7.869	PPM
10) H	Oil Acid Clean Combo ...	22.000	34848739	NoCal	PPM
11) H	Alaska 102 DF2 ()	13.025	244345227	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14426576	NoCal	PPM
13) H	Mineral Oil (06-01-18)	16.000	158574203	61.224	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271566231	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271566231	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	285842892	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153670430	61.811	PPM
18) H	Oil Acid Clean MO Com...	22.000	28691923	NoCal	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28691923	4.659	PPM

(f)=RT Delta > 1/2 Window

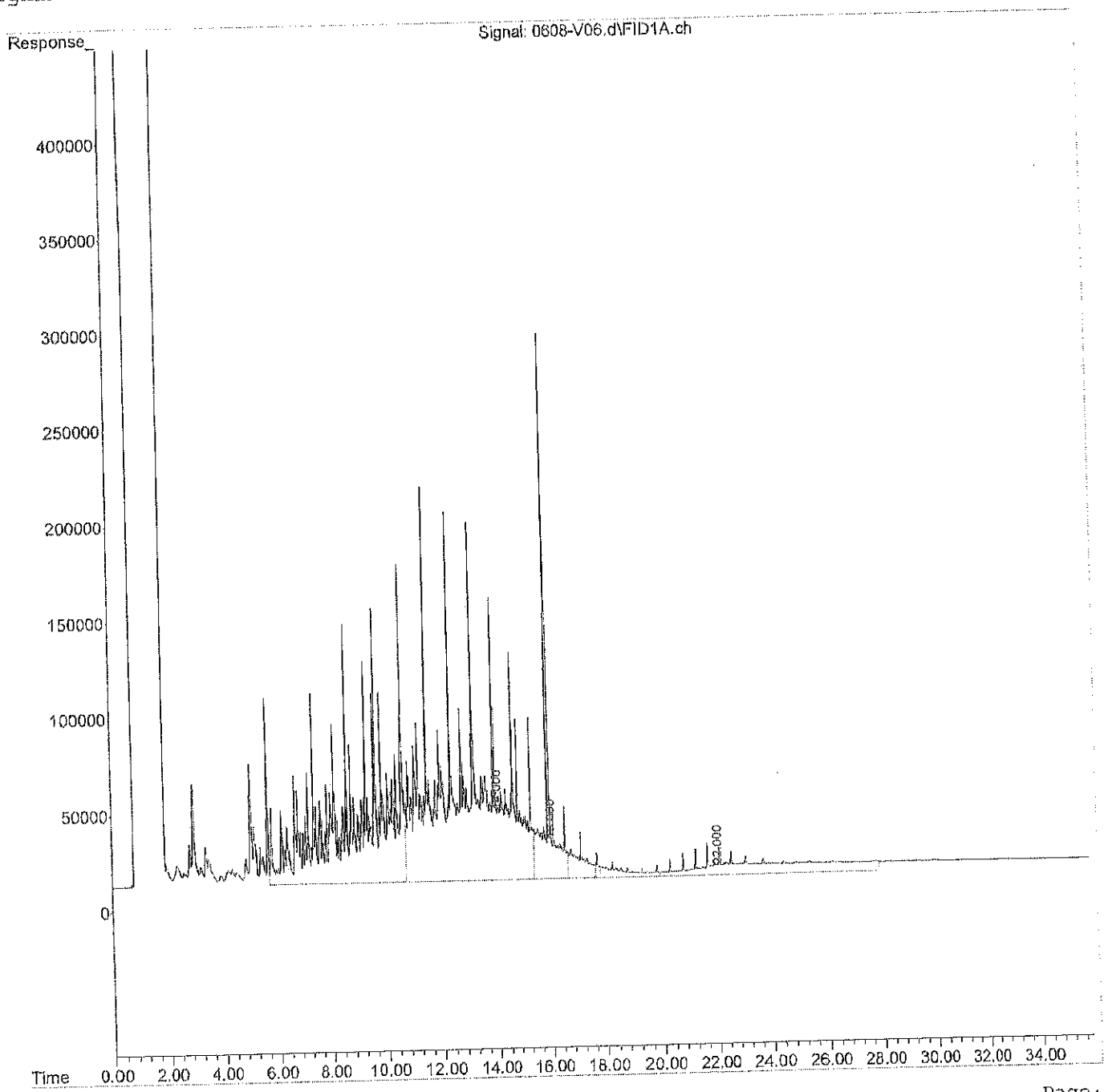
(m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Sequence Name: C:\msdchem\2\sequence\V180607.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180607\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Unlinked		
2)	RearSamp	51	0607-V51 V171204R LOCCV0607R-V1
3)	Sample	1	0607-V01 V180601F M
4)	RearSamp	52	0607-V52 V171204R LOCCV0607R-V1
5)	Sample	2	0607-V02 V180601F M
6)	RearSamp	53	0607-V53 V171204R CCV0607R-V1
7)	Sample	3	0607-V03 V180601F 100 PPM DF2 ICV
8)	RearSamp	54	0607-V54 V171204R M
9)	Sample	4	0607-V04 V180601F CCV0607F-V1
10)	RearSamp	55	0607-V55 V171204R
11)	Sample	5	0607-V05 V180601F LOCCV0607F-V1
12)	RearSamp	56	0607-V56 V171204R DF2
13)	Sample	6	0607-V06 V180601F M
14)	RearSamp	57	0607-V57 V171204R OIL
15)	Sample	7	0607-V07 V180601F 4 PPM SURR ICAL
16)	RearSamp	58	0607-V58 V171204R M
17)	Sample	8	0607-V08 V180601F 8 PPM SURR ICAL
18)	RearSamp	59	0607-V59 V171204R M
19)	Sample	9	0607-V09 V180601F 20 PPM SURR ICAL
20)	RearSamp	60	0607-V60 V171204R M
21)	Sample	10	0607-V10 V180601F 40 PPM SURR ICAL
22)	RearSamp	61	0607-V61 V171204R M
23)	Sample	11	0607-V11 V180601F 80 PPM SURR ICAL
24)	RearSamp	62	0607-V62 V171204R M
25)	Sample	12	0607-V12 V180601F 200 PPM SURR ICAL
26)	RearSamp	63	0607-V63 V171204R M
27)	Sample	13	0607-V13 V180601F 10 PPM DF2 ICAL
28)	RearSamp	64	0607-V64 V171204R M
29)	Sample	14	0607-V14 V180601F 20 PPM DF2 ICAL
30)	RearSamp	65	0607-V65 V171204R M
31)	Sample	15	0607-V15 V180601F 100 PPM DF2 ICAL
32)	RearSamp	66	0607-V66 V171204R M
33)	Sample	16	0607-V16 V180601F 500 PPM DF2 ICAL
34)	RearSamp	67	0607-V67 V171204R M
35)	Sample	17	0607-V17 V180601F 2500 PPM DF2 ICAL
36)	RearSamp	68	0607-V68 V171204R M
37)	Sample	18	0607-V18 V180601F 5000 PPM DF2 ICAL
38)	RearSamp	69	0607-V69 V171204R M
39)	Sample	19	0607-V19 V180601F M
40)	RearSamp	70	0607-V70 V171204R M
41)	Sample	20	0607-V20 V180601F 40 PPM LO ICAL
42)	RearSamp	71	0607-V71 V171204R M
43)	Sample	21	0607-V21 V180601F 100 PPM LO ICAL

Sequence Name: C:\msdchem\2\sequence\V180607.s

	Line Type	Vial	DataFile	Method	Sample Name
44)	RearSamp	72	0607-V72	V171204R	M
45)	Sample	22	0607-V22	V180601F	250 PPM LO ICAL
46)	RearSamp	73	0607-V73	V171204R	M
47)	Sample	23	0607-V23	V180601F	500 PPM LO ICAL
48)	RearSamp	74	0607-V74	V171204R	M
49)	Sample	24	0607-V24	V180601F	1000 PPM LO ICAL
50)	RearSamp	75	0607-V75	V171204R	M
51)	Sample	25	0607-V25	V180601F	M
52)	RearSamp	76	0607-V76	V171204R	M
53)	Sample	26	0607-V26	V180601F	M
54)	RearSamp	77	0607-V77	V171204R	
55)	Sample	27	0607-V27	V180601F	
56)	RearSamp	78	0607-V78	V171204R	
57)	Sample	28	0607-V28	V180601F	
58)	RearSamp	79	0607-V79	V171204R	
59)	Sample	29	0607-V29	V180601F	
60)	RearSamp	80	0607-V80	V171204R	
61)	Sample	30	0607-V30	V180601F	
62)	RearSamp	81	0607-V81	V171204R	
63)	Sample	31	0607-V31	V180601F	
64)	RearSamp	82	0607-V82	V171204R	
65)	Sample	32	0607-V32	V180601F	
66)	RearSamp	83	0607-V83	V171204R	
67)	Sample	33	0607-V33	V180601F	
68)	RearSamp	84	0607-V84	V171204R	
69)	Sample	34	0607-V34	V180601F	
70)	RearSamp	85	0607-V85	V171204R	
71)	Sample	35	0607-V35	V180601F	
72)	RearSamp	86	0607-V86	V171204R	
73)	Sample	36	0607-V36	V180601F	
74)	RearSamp	87	0607-V87	V171204R	
75)	Sample	37	0607-V37	V180601F	
76)	RearSamp	88	0607-V88	V171204R	
77)	Sample	38	0607-V38	V180601F	
78)	RearSamp	89	0607-V89	V171204R	
79)	Sample	39	0607-V39	V180601F	
80)	RearSamp	90	0607-V90	V171204R	
81)	Sample	40	0607-V40	V180601F	
82)	RearSamp	91	0607-V91	V171204R	
83)	Sample	41	0607-V41	V180601F	
84)	RearSamp	92	0607-V92	V171204R	
85)	Sample	42	0607-V42	V180601F	
86)	RearSamp	93	0607-V93	V171204R	
87)	Sample	43	0607-V43	V180601F	
88)	RearSamp	94	0607-V94	V171204R	
89)	Sample	44	0607-V44	V180601F	
90)	RearSamp	95	0607-V95	V171204R	
91)	Sample	45	0607-V45	V180601F	
92)	RearSamp	96	0607-V96	V171204R	
93)	Sample	46	0607-V46	V180601F	
94)	RearSamp	97	0607-V97	V171204R	
95)	Sample	47	0607-V47	V180601F	
96)	RearSamp	98	0607-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180901.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180901\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info		
1)	Unlinked			
2)	RearSamp	51	0901-V51	V171204R CCV0901R-V1
3)	Sample	1	0901-V01	V180601F CCV0901F-V1
4)	RearSamp	52	0901-V52	V171204R LOCCV0901R-V1
5)	Sample	2	0901-V02	V180601F LOCCV0901F-V1
6)	RearSamp	53	0901-V53	V171204R SPCCV0901R-V1
7)	Sample	3	0901-V03	V180601F MB0831W1
8)	RearSamp	54	0901-V54	V171204R MB0901W1
9)	Sample	4	0901-V04	V180601F SB0831W1
10)	RearSamp	55	0901-V55	V171204R SB0901W1
11)	Sample	5	0901-V05	V180601F 08-309-01
12)	RearSamp	56	0901-V56	V171204R 08-350-04
13)	Sample	6	0901-V06	V180601F 08-309-02
14)	RearSamp	57	0901-V57	V171204R 08-350-04 DUP
15)	Sample	7	0901-V07	V180601F 08-309-03
16)	RearSamp	58	0901-V58	V171204R 08-372-01
17)	Sample	8	0901-V08	V180601F 08-326-01
18)	RearSamp	59	0901-V59	V171204R 08-350-02
19)	Sample	9	0901-V09	V180601F 08-326-01 DUP
20)	RearSamp	60	0901-V60	V171204R 08-350-01
21)	Sample	10	0901-V10	V180601F 08-326-02
22)	RearSamp	61	0901-V61	V171204R 08-350-03
23)	Sample	11	0901-V11	V180601F 08-326-03
24)	RearSamp	62	0901-V62	V171204R 08-366-13
25)	Sample	12	0901-V12	V180601F 08-326-03 DUP
26)	RearSamp	63	0901-V63	V171204R M
27)	Sample	13	0901-V13	V180601F M
28)	RearSamp	64	0901-V64	V171204R CCV0901R-V2
29)	Sample	14	0901-V14	V180601F CCV0901F-V2
30)	RearSamp	65	0901-V65	V171204R 08-345-01
31)	Sample	15	0901-V15	V180601F 08-326-04
32)	RearSamp	66	0901-V66	V171204R 08-345-01 DUP
33)	Sample	16	0901-V16	V180601F 08-326-05
34)	RearSamp	67	0901-V67	V171204R 08-345-02
35)	Sample	17	0901-V17	V180601F 08-348-01
36)	RearSamp	68	0901-V68	V171204R 08-345-03
37)	Sample	18	0901-V18	V180601F M
38)	RearSamp	69	0901-V69	V171204R 08-345-04
39)	Sample	19	0901-V19	V180601F 08-348-02
40)	RearSamp	70	0901-V70	V171204R 08-345-05
41)	Sample	20	0901-V20	V180601F M
42)	RearSamp	71	0901-V71	V171204R 08-345-06
43)	Sample	21	0901-V21	V180601F 08-348-03

Last Modified: Sat Sep 01 03:49:45 2018

Sequence Name: C:\msdchem\2\sequence\V180901.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	72	0901-V72	V171204R	M
45)		Sample	22	0901-V22	V180601F	M
46)		RearSamp	73	0901-V73	V171204R	CCV0901R-V3
47)		Sample	23	0901-V23	V180601F	CCV0901F-V3
48)		RearSamp	74	0901-V74	V171204R	08-383-03
49)		Sample	24	0901-V24	V180601F	08-348-04
50)		RearSamp	75	0901-V75	V171204R	08-383-02
51)		Sample	25	0901-V25	V180601F	M
52)		RearSamp	76	0901-V76	V171204R	08-383-01
53)		Sample	26	0901-V26	V180601F	08-348-05
54)		RearSamp	77	0901-V77	V171204R	M
55)		Sample	27	0901-V27	V180601F	M
56)		RearSamp	78	0901-V78	V171204R	M
57)		Sample	28	0901-V28	V180601F	M
58)		RearSamp	79	0901-V79	V171204R	CCV0901R-V4
59)		Sample	29	0901-V29	V180601F	CCV0901F-V4
60)		RearSamp	80	0901-V80	V171204R	
61)		Sample	30	0901-V30	V180601F	
62)		RearSamp	81	0901-V81	V171204R	
63)		Sample	31	0901-V31	V180601F	
64)		RearSamp	82	0901-V82	V171204R	
65)		Sample	32	0901-V32	V180601F	
66)		RearSamp	83	0901-V83	V171204R	
67)		Sample	33	0901-V33	V180601F	
68)		RearSamp	84	0901-V84	V171204R	
69)		Sample	34	0901-V34	V180601F	
70)		RearSamp	85	0901-V85	V171204R	
71)		Sample	35	0901-V35	V180601F	
72)		RearSamp	86	0901-V86	V171204R	
73)		Sample	36	0901-V36	V180601F	
74)		RearSamp	87	0901-V87	V171204R	
75)		Sample	37	0901-V37	V180601F	
76)		RearSamp	88	0901-V88	V171204R	
77)		Sample	38	0901-V38	V180601F	
78)		RearSamp	89	0901-V89	V171204R	
79)		Sample	39	0901-V39	V180601F	
80)		RearSamp	90	0901-V90	V171204R	
81)		Sample	40	0901-V40	V180601F	
82)		RearSamp	91	0901-V91	V171204R	
83)		Sample	41	0901-V41	V180601F	
84)		RearSamp	92	0901-V92	V171204R	
85)		Sample	42	0901-V42	V180601F	
86)		RearSamp	93	0901-V93	V171204R	
87)		Sample	43	0901-V43	V180601F	
88)		RearSamp	94	0901-V94	V171204R	
89)		Sample	44	0901-V44	V180601F	
90)		RearSamp	95	0901-V95	V171204R	
91)		Sample	45	0901-V45	V180601F	
92)		RearSamp	96	0901-V96	V171204R	
93)		Sample	46	0901-V46	V180601F	
94)		RearSamp	97	0901-V97	V171204R	
95)		Sample	47	0901-V47	V180601F	
96)		RearSamp	98	0901-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180901.s

Line	Type	Vial	DataFile	Method	Sample Name
97)	Sample	48	0901-V48	V180601F	
98)	RearSamp	99	0901-V99	V171204R	
99)	Sample	49	0901-V49	V180601F	
100)	RearSamp	100			
	Datafile		0901-V100		
	Method		V171204R		
101)	Sample	50	0901-V50	V180601F	

Sequence Name: C:\msdchem\2\sequence\V180904.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180904\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info		
1)	Unlinked				
2)	RearSamp	51	0904-V51	V171204R	CCV0904R-V1
3)	Sample	1	0904-V01	V180601F	CCV0904F-V1
4)	RearSamp	52	0904-V52	V171204R	LOCCV0904R-V1
5)	Sample	2	0904-V02	V180601F	LOCCV0904F-V1
6)	RearSamp	53	0904-V53	V171204R	SPCCV0904R-V1
7)	Sample	3	0904-V03	V180601F	08-326-04 RR
8)	RearSamp	54	0904-V54	V171204R	MB0904W1
9)	Sample	4	0904-V04	V180601F	SB0904W1
10)	RearSamp	55	0904-V55	V171204R	08-392-02
11)	Sample	5	0904-V05	V180601F	08-382-02
12)	RearSamp	56	0904-V56	V171204R	08-392-02 DUP
13)	Sample	6	0904-V06	V180601F	08-382-01
14)	RearSamp	57	0904-V57	V171204R	08-385-01
15)	Sample	7	0904-V07	V180601F	MB0904S2
16)	RearSamp	58	0904-V58	V171204R	08-385-01 DUP
17)	Sample	8	0904-V08	V180601F	MB0904S3
18)	RearSamp	59	0904-V59	V171204R	08-385-02
19)	Sample	9	0904-V09	V180601F	SB0904S2
20)	RearSamp	60	0904-V60	V171204R	08-385-03
21)	Sample	10	0904-V10	V180601F	SB0904S3
22)	RearSamp	61	0904-V61	V171204R	CCV0904R-V2
23)	Sample	11	0904-V11	V180601F	CCV0904F-V2
24)	RearSamp	62	0904-V62	V171204R	08-385-04
25)	Sample	12	0904-V12	V180601F	08-327-12
26)	RearSamp	63	0904-V63	V171204R	08-385-05
27)	Sample	13	0904-V13	V180601F	08-327-19
28)	RearSamp	64	0904-V64	V171204R	08-385-06
29)	Sample	14	0904-V14	V180601F	08-327-19 DUP
30)	RearSamp	65	0904-V65	V171204R	08-385-07
31)	Sample	15	0904-V15	V180601F	08-327-13
32)	RearSamp	66	0904-V66	V171204R	08-380-01
33)	Sample	16	0904-V16	V180601F	08-327-13 DUP
34)	RearSamp	67	0904-V67	V171204R	08-380-01 DUP
35)	Sample	17	0904-V17	V180601F	08-327-46
36)	RearSamp	68	0904-V68	V171204R	08-380-02
37)	Sample	18	0904-V18	V180601F	08-327-46 DUP
38)	RearSamp	69	0904-V69	V171204R	08-380-03
39)	Sample	19	0904-V19	V180601F	08-327-34
40)	RearSamp	70	0904-V70	V171204R	08-380-04
41)	Sample	20	0904-V20	V180601F	08-327-35
42)	RearSamp	71	0904-V71	V171204R	08-380-05
43)	Sample	21	0904-V21	V180601F	M

Sequence Name: C:\msdchem\2\sequence\V180904.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	72	0904-V72	V171204R	M
45)		Sample	22	0904-V22	V180601F	M
46)		RearSamp	73	0904-V73	V171204R	CCV0904R-V3
47)		Sample	23	0904-V23	V180601F	CCV0904F-V3
48)		RearSamp	74	0904-V74	V171204R	MB0904S4
49)		Sample	24	0904-V24	V180601F	08-327-23
50)		RearSamp	75	0904-V75	V171204R	08-387-03
51)		Sample	25	0904-V25	V180601F	08-327-29
52)		RearSamp	76	0904-V76	V171204R	08-388-01
53)		Sample	26	0904-V26	V180601F	08-327-17
54)		RearSamp	77	0904-V77	V171204R	08-388-02
55)		Sample	27	0904-V27	V180601F	08-327-43
56)		RearSamp	78	0904-V78	V171204R	08-388-03
57)		Sample	28	0904-V28	V180601F	M
58)		RearSamp	79	0904-V79	V171204R	09-002-01
59)		Sample	29	0904-V29	V180601F	08-327-33
60)		RearSamp	80	0904-V80	V171204R	09-002-01 DUP
61)		Sample	30	0904-V30	V180601F	M
62)		RearSamp	81	0904-V81	V171204R	M
63)		Sample	31	0904-V31	V180601F	08-327-28
64)		RearSamp	82	0904-V82	V171204R	08-358-06
65)		Sample	32	0904-V32	V180601F	M
66)		RearSamp	83	0904-V83	V171204R	M
67)		Sample	33	0904-V33	V180601F	08-327-07
68)		RearSamp	84	0904-V84	V171204R	CCV0904R-V4
69)		Sample	34	0904-V34	V180601F	CCV0904F-V4
70)		RearSamp	85	0904-V85	V171204R	
71)		Sample	35	0904-V35	V180601F	
72)		RearSamp	86	0904-V86	V171204R	
73)		Sample	36	0904-V36	V180601F	
74)		RearSamp	87	0904-V87	V171204R	
75)		Sample	37	0904-V37	V180601F	
76)		RearSamp	88	0904-V88	V171204R	
77)		Sample	38	0904-V38	V180601F	
78)		RearSamp	89	0904-V89	V171204R	
79)		Sample	39	0904-V39	V180601F	
80)		RearSamp	90	0904-V90	V171204R	
81)		Sample	40	0904-V40	V180601F	
82)		RearSamp	91	0904-V91	V171204R	
83)		Sample	41	0904-V41	V180601F	
84)		RearSamp	92	0904-V92	V171204R	
85)		Sample	42	0904-V42	V180601F	
86)		RearSamp	93	0904-V93	V171204R	
87)		Sample	43	0904-V43	V180601F	
88)		RearSamp	94	0904-V94	V171204R	
89)		Sample	44	0904-V44	V180601F	
90)		RearSamp	95	0904-V95	V171204R	
91)		Sample	45	0904-V45	V180601F	
92)		RearSamp	96	0904-V96	V171204R	
93)		Sample	46	0904-V46	V180601F	
94)		RearSamp	97	0904-V97	V171204R	
95)		Sample	47	0904-V47	V180601F	
96)		RearSamp	98	0904-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180904.s

	Line Type	Vial	DataFile	Method	Sample Name
97)	Sample	48	0904-V48	V180601F	
98)	RearSamp	99	0904-V99	V171204R	
99)	Sample	49	0904-V49	V180601F	
100)	RearSamp	100			
	Datafile		0904-V100		
	Method		V171204R		
101)	Sample	50	0904-V50	V180601F	

Analysis: TPH

Matrix: water

OSE Traveler #	pH	SAMPLE W/V	PRE CONC VOLUME	SUB ALIQUOT TAKEN	SUB ALIQUOT FIN. VOL.	CONC SAMPLE FIN. VOL.	AMT SUR	AMT SPIKE	CLEAN UP	Analyst	Comments Batch QA/QC
MB0831 W	<2	500ml	100ml	20 mL	1.0mL	5.0mL	25-d	NO	NO	RD	
SB 0831 MS		500ml						50ml			
08-304 - 01		793 - 297						NO			
-02		791 299									
-03		795 304									
08-326 - 01		790 300									
01 DUP		790 302									
-02		795 298									
-03		797 304									
-04		788 302									
-05		789 305									
08-348-01		791 307									
08-326-03 DUP		796 297									
08-348-02		790 303									Emulsion Heavy
-03		794 300									Emulsion Heavy
-04		787 300									Emulsion Heavy
-05		791 298									

Clean-up (A)Acid cleanup (S)Silica gel cleanup

PROJECT

Continued From Page

Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Prep Date
AK 103 Ical								
40 ppm	SV2-93-01	SV2-92-23	10000 ppm	40 µl	10 ml	40 ppm	$MeCl_2$	8-4-10
100 ppm	-02			100 µl		100 ppm		
500 ppm	-03			500 µl		500 ppm		
1000 ppm	-04			1 ml		1000 ppm		
2500 ppm	-05			2.5 ml		2500 ppm		
AK103 Mix #1	SV2-93-06	SV2-66-18 SV2-66-19	Neat	5g/5g	10 g	Neat	—	8/5/10
Lube Oil Stock (Non-Acid Cleaned)	SV2-93-07	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	
AK103 Spike	SV2-93-08	↓	↓	↓	↓	↓	↓	
AK 103 Ical								
40 ppm	SV2-93-09	SV2-93-07	10,000 ppm	40 µl	10 ml	40 ppm		
100 ppm	-10			100 µl		100 ppm		
500 ppm	-11			500 µl		500 ppm		
1000 ppm	-12			1 ml		1000 ppm		
2500 ppm	-13			2.5 ml		2500 ppm		
Lube Oil Stock Acid Cleaned	SV2-93-14	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	8-16-10
Lube Oil ICV	SV2-93-15	SV2-93-14	10,000 ppm	0.5 ml	50 ml	100 ppm	$MeCl_2$	↓
LO Ical								
40 ppm	SV2-93-16	SV2-89-24	40 µl →	10,000 ppm	10 ml	40 ppm	$MeCl_2$	8-18-10
100 ppm	-17		100 µl →			100 ppm		
500 ppm	-18		500 µl →			500 ppm		
1000 ppm	-19		1000 µl →			1000 ppm		
2500 ppm	-20		2500 µl →			2500 ppm		
DF2 CCV	SV2-93-21	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	8-18-10
DF2 Surr.	SV2-93-22	04403JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-2-10
DF2 Spike	SV2-93-23	SV2-86-01	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-7-10
TOIL CCV	SV2-93-24	SV2-90-18	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	9-9-10
DF2 CCV	SV2-93-25	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	9-22-10
DF2 Surr.	SV2-93-26	~~SV~~ 04403JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	10-01-10
TOIL Spike	SV2-93-27	Lot #	163959	exp	9/21/2013		Acetone	
DF2 MDL 100ppm	SV2-93-28	SV2-93-23	10,000 ppm	1 ml	10 ml	1,000 ppm	Acetone	10-14-10
LO MDL 1000ppm	SV2-93-29	SV2-89-24	10,000 ppm	1 ml	10 ml	1,000 ppm	1	1

Continued on Page

Read and Understood By

Signed Date Signed Da

Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Date	Int.
Surrogate Mix 1									
4 ppm	SV3-03-01	SV3-02-06	10,000 ppm	10 µl	25 ml	4 ppm	MeCl2	11-28-12	ZT
8 ppm	SV3-03-02			20 µl		8 ppm			
20 ppm	SV3-03-03			50 µl		20 ppm			
40 ppm	SV3-03-04			100 µl		40 ppm			
80 ppm	SV3-03-05			200 µl		80 ppm			
200 ppm	SV3-03-06			500 µl		200 ppm			
FTRPH Calibration	SV3-03-07							11-30-12	ZT
DF2 Neat	SV3-03-08	Union 76	Neat					Purchase ✓	ZT
DF2 Neat	SV3-03-09	Chevron	Neat					11/30/12	ZT
DF2 Stock	SV3-03-10	SV3-03-08	Neat	1.0 g	100 ml	10,000 ppm	MeCl2	11-30-12	ZT
DF2 Stock	SV3-03-11	SV3-03-09	Neat	1.0 g	100 ml	10,000 ppm	MeCl2	11-30-12	ZT
DF2 Ical									
10 ppm	SV3-03-12	SV3-03-10	10 µl	10,000 ppm	10 ml	10 ppm	MeCl2	11-30-12	ZT
20 ppm	SV3-03-13		20 µl			20 ppm			
100 ppm	SV3-03-14		100 µl			100 ppm			
500 ppm	SV3-03-15		500 µl			500 ppm			
1000 ppm	SV3-03-16		1.0 ml			1000 ppm			
2500 ppm	SV3-03-17		2.5 ml			2500 ppm			
5000 ppm	SV3-03-18		5.0 ml			5000 ppm			
DF2 ICV	SV3-03-19	SV3-03-09	10,000 ppm	0.5 ml	50 ml	100 ppm	MeCl2	11-30-12	ZT
Dx Surr Mix	SV3-03-20	04403JH	Neat	0.25 g	100 ml	2500 ppm	Acetone	12-10-12	ZT
DF2 CCV	SV3-03-21	SV3-03-10	10,000 ppm	1.0 ml	100 ml	100 ppm	MeCl2	12-13-12	ZT
Lube oil Stock (Acid cleaned)	SV3-03-22	SV2-66-21	Neat	1.0 g	100 ml	10,000 ppm	MeCl2	1-7-13	ZT
Gasoline Stock	SV3-03-23	V2-17-9	Neat	0.1 g	10 ml	10,000 ppm	MeCl2	1-7-13	ZT
Single Pt. Cal.	SV3-03-24	SV3-03-22	10,000 ppm	500 µl	100 ml	50 ppm	MeCl2		
		SV3-03-23	"	100 µl	"	10 ppm	"	"	"

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

FOR LABORATORY USE ONLY

DRH-FTRPH 1 mL

FTRPH Calibration/ Window Defining Standard

500 µg/mL in Hexane

Lot: 211111267 17 comps.

Exp: Nov 22,2021

HIGHLY FLAMMABLE

STORAGE Ambient

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DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

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ANALYTE	LAB ID #	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT
2,000 ppm MO	SV3-25-01	SV3-24-27	10,000 ppm	2.5 ml	25 ml	1000 ppm	MeCl2	10.5.17	KM
5000 ppm MO	SV3-25-02	↓	↓	12.5 ml	↓	5000 ppm	↓	↓	↓
MinOil Stock	SV3-25-03	SV3-17-02	NEAT	.50g	50 ml	10,000 ppm	MeCl2	10.7.17	KM
20 ppm ICAL	SV3-25-04	SV3-25-3	10,000 ppm	.050 ml	25 ml	20 ppm			
100	05			.25 ml		100			
500	06			1.25 ml		500			
1000	07			2.5 ml		1000			
5000	08			12.5 ml		5000			
40 ppm LO ICAL	SV3-25-09	SV3-23-09	10,000 ppm	.100 ml	25 ml	40 ppm	MeCl2	10.9.17	KM
100 ppm LO ICAL	10			.250 ml		100			
250 ppm LO ICAL	11			.625 ml		250			
500 ppm LO ICAL	12			1.25 ml		500			
1000 ppm LO ICAL	13			2.50 ml		1000			
NONANE STOCK	SV3-25-14	36-102	NEAT	10 ml	10 ml	1000 ppm	MeCl2	10.18.17	KM
RT STD	~~DRH-PPRM~~ SV3-25-14	~~500 ppm~~ 1000 ppm	~~.1 ml~~ .05 ml	~~1 ml~~ ↓	~~50 ppm~~ ↓	ml	10-16-17		
RT STD	SV3-25-15	DRH-PPRM	500 ppm	.1 ml	1 ml	50 ppm	10-16-17	MeCl2	KM
		SV3-25-14	1000 ppm	.050 ml	↓	2	↓	↓	↓
DPZ STOCK	SV3-25-16	SV3-03-08	NEAT	.50 gram	50 ml	10,000 ppm	MeCl2	KM 10.18.17	KM
DPZ CCV	SV3-25-17	SV3-25-16	10,000 ppm	1 ml	100 ml	100 ppm	MeCl2	KM 10-18-17	KM
10 ppm DPZ ICAL	SV3-25-18	SV3-25-16		25 µl	25 ml	10			
20	19			50 µl		20			
100	20			250 µl		100			
250	21	KM 10-18-17		500 µl 625 µl		250			
500	22			1.0 ml 1.25 ml		500			
2500	23			2.5 ml 2.5 ml 6.25 ml		2500			
5000	24			12.5 ml		5000			
Dx Micro Surr	SV3-25-25	687V	NEAT	.25g	100 ml	2500 ppm	Acetone	10.19.17	KM
1664 Spike	SV3-25-26	Lot #	3155504				Acetone	10-26-17	RP
1664 Spike	SV3-25-27	Lot #1	3258 12				Acetone	11/29/17	CS
Dx Micro Surr	SV3-25-28	687 V	NEAT				Acetone	12/04/17	JT
DPZ ICV	SV3-25-29	SV3-~~17-18~~ 21-11	10000 ppm	500 µl	50 ml	100 ppm	MeCl2	12-6-17	JT
DPZ Spike	SV3-25-30	SV3-03-08	NEAT	0.50 g	50 ml	10,000 ppm	Acetone	12-15-17	JT

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SIGNATURE DATE

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Work continued from Page

Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
1664 Spike	SV3-26-01	Lot #	091717				Acetone	12-15-17	JT
DX Surr	SV3-26-02	687V	NEAT	1.0 g	100 mL	10,000 ppm	Acetone	12-20-17	JT
LO CCV	SV3-26-03	SV3-23-04	10,000 ppm	2.0 mL	100 mL	200 ppm	MeCl2	1-3-18	JT
TOIL NEAT	SV3-26-04	NA	NEAT					1-4-18	JT
DF2 CCV	SV3-26-05	SV3-25-16	10,000 ppm	1 mL	100 mL	100 ppm	MeCl2	1-8-18	JT
4 ppm Surr	SV3-26-06	SV3-26-02	10,000 ppm	10 mL	25 mL	4 ppm	MeCl2	1-9-18	JT
8 ppm Surr		07		20 mL		8 ppm			
20 ppm Surr		08		50 mL		20 ppm			
40 ppm Surr		09		100 mL		40 ppm			
80 ppm Surr		10		200 mL		80 ppm			
200 ppm Surr		11		500 mL		200 ppm			
LO MDL Spike	SV3-26-12	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-10-18	JT
DF2 MDL Spike	SV3-26-13	SV3-25-16	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-16-18	JT
LO MDL Spike	SV3-26-14	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-17-18	JT
LO MDL Spike	SV3-26-15	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-23-18	JT
1664 Spike	SV3-26-28	Stock ID 041717		10 mL			Acetone	1-31-18	RD
Gasoline Stock	SV3-26-16	V2-17-21	Neat	.1 g	10 mL	10,000 ppm	MeCl2	2-6-18	JT
Single Point Cal	SV3-26-17	SV3-26-16 SV3-23-04	10,000 ppm 10,000 ppm	100 uL 500 uL	100 mL 100 mL	10 ppm 50 ppm	MeCl2	2-6-18	JT
DX Micro Surr	SV3-26-18	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	2-9-18	JT
DF2 CCV	SV3-26-19	SV3-25-16	10,000 ppm	1 mL	100 mL	100 ppm	MeCl2	2-20-18	JT
1664 Spike	SV3-26-20	Stock 041717		10 mL			Acetone	3-2-18	RD
~~10 ppm DF1 CCV~~	~~SV3-26-21~~	~~SV3-24-06~~	~~2,000 ppm~~	~~25 mL~~	~~5 mL~~	~~10 ppm~~	~~MeCl2~~	~~3-13-18~~	~~JT~~
20		22	2,000 ppm	500 uL		20			
100		23	21609022	20,000 ppm	100 uL	100			
500		24		20000 ppm	500 uL	500			
1000		25			250 uL	1000			
2000		26			500 uL	2000			
5000		27		20,000 ppm	1000 uL	5000			

JT 2-13-18

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Work continued from Page

Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
10 PPM WFB ICal	SV3-27-01	SV3-27-03	100 PPM	100 mL	1 mL	10 PPM	$MeCl_2$	3-14-18	JT
50 PPM	02	SV3-27-04	500 PPM	100 mL		50 PPM			
100 PPM	03	SV3-27-06	2,000 PPM	50 mL		100 PPM			
500 PPM	04	216091622	20,000 PPM	25 mL		500 PPM			
1000 PPM	05			50 mL		1000 PPM			
2000 PPM	06			100 mL		2000 PPM			
5000 PPM	07	216091622		250 mL		5000 PPM			
DX Micro Surr	SV3-27-08	687V	NEAT	0.2500 g	100 mL	2500 PPM	Acetone	3-27-18	JT
DF2 CCV	SV3-27-09	SV3-25-16	10,000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$	3-27-18	JT
DF2 CCV	SV3-27-10	SV3-25-16	10000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$	4-30-18	JT
LO CCV	SV3-27-11	SV3-23-04	10,000 PPM	2.0 mL	200 mL	200 PPM	$MeCl_2$	4-30-18	JT
DX Surr	SV3-27-12	687V	NEAT	1.0 mL	100 mL	10000PPM	Acetone	5-3-18	JT
DX Micro Surr	SV3-27-13	687V	NEAT	0.2500 g	100 mL	2500 PPM	Acetone	5-8-17	JT
LO Stock	SV3-27-14	SV2-93-06	NEAT	0.50 g	50 mL	10,000 PPM	$MeCl_2$	5-31-18	JT
LO CCV	SV3-27-15	SV3-27-14	10000 PPM	2.0 mL	100 mL	200 PPM	$MeCl_2$	5-31-18	JT
10 PPM DF2 ICal	SV3-27-16	SV3-25-16	10,000 PPM	25 mL	25 mL	10 PPM	$MeCl_2$	6-1-18	JT
20	17			50		20			
100	18			250		100			
500	19			1.25 mL		500			
2500	20			~~2.5~~ 6.25 mL		2500			
5000	21			~~5~~ 12.5 mL		5000			
DF2 CCV	SV3-27-22	SV3-25-16	10,000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$		JT
40 PPM LO ICal	SV3-27-23	SV3-27-14	10,000 PPM	40 mL	40 PPM	10 mL			
100	24			100 mL	100				
250	25			250 mL	250	↔			
500	26			500 mL	500	JT			
1000	27			1.0 mL	1000	6-1-18			
20 PPM MO Eval	SV3-27-28	SV3-25-03	10,000 PPM	20 mL	10 mL	20 PPM	$MeCl_2$		
100 PPM	29			100 mL		100			
500 PPM	30			500 mL		500			
1000 PPM	31			1.0 mL	10 mL	1000			
5000 PPM	32			5.0 mL	2	5000			

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Work continued from Page

	Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
	DF2 Stock 2nd	SV3-28-01	SV3-03-09	NEAT	0.5 g	50 mL	10000 ppm	MeCl2	6-4-18	JT
5	DF2 ICV	SV3-28-02	SV3-28-04	10,000 PPM	50 mL	50 mL	100 PPM	"	"	"
	DF1 5x 1mL Vials	SV3-28-03							6-12-18	JT
10										
	DF1 ICal									
	5000 PPM	SV3-28CM	SV3-28-03	20,000 PPM	2.5 mL	10 mL	5000 PPM	MeCl2	6-12-18	JT
	2000	05			1.0 mL		2000			
15	1000	06			0.5 mL		1000			
	500	07			0.25 mL		500			
	100	08			0.05 mL		100			
	20	09	SV3-28-05	2000 PPM	0.1 mL		20			
	10	10	L	L	0.05 mL		10			
20	DF2 Spike	SV3-28-11	SV3-03-08	NEAT	0.50 g	50 mL	10,000 PPM	Acetone	6-18-18	JT
	DF2 Mid 2nd	SV3-28-12	SV3-03-07	NEAT	0.25 g	100 mL	2500 PPM	Acetone	6-21-18	JT
	DF2 Stock	SV3-28-13	SV3-03-06	NEAT	0.500 g	50 mL	10,000 PPM	MeCl2	L	L
	DF2 ICV	SV3-28-14	SV3-28-13	10,000 PPM	1 mL	100 mL	100 PPM	MeCl2		
	4 PPM Spk Ical	SV3-28-15	SV3-27-12	10,000 PPM	10 mL	25 mL	4 PPM	MeCl2	7-3-18	JT
25	8	16			20		8			
	20	17			50		20			
	40	18			100		40			
	80	19			200		80			
	200	20			500		200			
30	1664 Spike	SV3 30-21	Stock 04,17,17		→ 10 mL			Acetone	8-1-18	RD
	Single PM Cal	SV3-28-22	SV3-27-14	10,000 PPM	500 mL	100 mL	500 PPM	MeCl2	8-7-18	JT
			SV3-26-16	L	100 mL		100 PPM			
	Mineral oil	SV3-28-23	NA	NEAT					8-7-18	JT
35	Reagent Blank									

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ANALYTE	LAB ID	STOCK ID	Stock Conc.	Stock Vol	Final Vol	Final Solvent Conc	Solvent	Date	Init
~~Mineral oil Neat~~	~~SV3-029-01~~ Acqm								
Mineral Oil Neat Scattle-City Light	SV3-029-01	Acquired From SCL	NEAT	—	—	—	~~8-8-18~~	8-8-18	JT
Transformer Oil / High Performance Dielectric Fluid	SV3029-02	—	NEAT	Acquired From Sales	From Expanded Services Inc.			8-9-18	JT
DF2 CCV	SV3-029-03	SV3-256-13	10,000 ppm	1 mL	100 mL	100 PPM	MeCl2	8-9-18	JT
DX Svvr	SV3-029-04	687V	NEAT	1.0 g	100 mL	10,000 ppm	Acetone	8-17-18	JT
DX Micro Svvr	SV3-029-05	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	8-27-18	JT

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SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

PAHs by EPA 8270D Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830027.D
Acq On : 30 Aug 2018 6:49 pm
Operator :
Sample : 08-326-01
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Aug 30 19:03:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.773	136	113703	2000.00 ppb	0.00
~~6)~~ Acenaphthene-d10	5.014	164	132308	2000.00 ppb	0.00
10) Phenanthrene-d10	6.029	188	111615	2000.00 ppb	0.01
17) Chrysene-d12	8.040	240	98196	2000.00 ppb	0.02
21) Perylene-d12	9.446	264	98039	2000.00 ppb	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5	3.257	82	3496	64.71 ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 6.47%#		
~~7)~~ 2-Fluorobiphenyl	4.563	172	32683	303.82 ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 30.38%		
11) Pyrene-d10	7.005	212	49375	960.40 ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 96.04%		
18) Terphenyl-d14	7.162	244	45131	1000.83 ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 100.08%#		
Target Compounds					Qvalue
3) Naphthalene	3.779	128	100206	~~1700.98~~ ppb	100
4) 2-Methylnaphthalene	4.364	142	821710	~~20980.11~~ ppb	100
5) 1-Methylnaphthalene	4.364	142	821710	22247.39 ppb	100
~~8)~~ Acenaphthylene	4.930	152	46500	332.95 ppb	100
~~9)~~ Acenaphthene	5.037	153	205172	2351.71 ppb	100
12) Fluorene	5.399	166	132599	2880.75 ppb	100
13) Phenanthrene	6.041	178	15168	226.79 ppb	100
14) Anthracene	6.076	178	7465	112.56 ppb	100
15) Fluoranthene	6.872	202	2456	33.67 ppb	100
16) Pyrene	7.011	202	3130	41.48 ppb	100
19) Benzo[a]anthracene	8.032	228	855	7.52 ppb	100
20) Chrysene	8.059	228	356	5.74 ppb	100
22) Benzo[b]fluoranthene	9.076	252	492	8.12 ppb	100
23) Benzo(j,k)fluoranthene	9.076	252	492	~~8.10~~ ppb	100
24) Benzo[a]pyrene	9.384	252	435	7.63 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.434	276	381	7.40 ppb	100
26) Dibenz[a,h]anthracene	10.465	278	298	5.65 ppb	100
27) Benzo[g,h,i]perylene	10.657	276	514	9.01 ppb	100

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

↑ fail

out

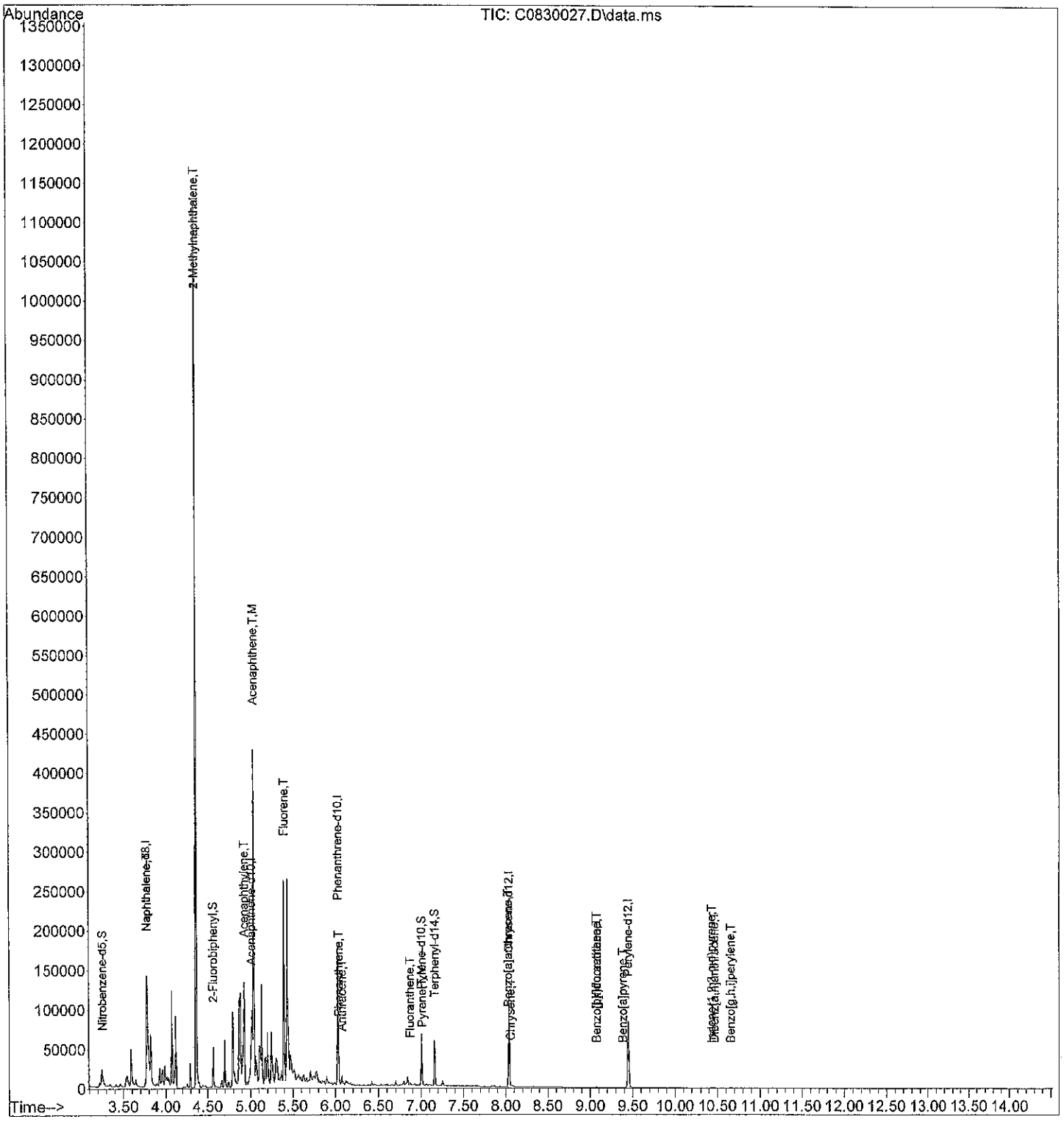
OOL

Needs Dil. 10X 2T 8-31-18

780.35 595.90 6.90

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830027.D
Acq On : 30 Aug 2018 6:49 pm
Operator :
Sample : 08-326-01
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Aug 30 19:03:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831005.D
Acq On : 31 Aug 2018 10:25 am
Operator :
Sample : 08-326-01 10X
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 31 10:40:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.710	136	110820	2000.00	ppb	-0.06
6) Acenaphthene-d10	4.961	164	54898	2000.00	ppb	-0.05
10) Phenanthrene-d10	5.969	188	106122	2000.00	ppb	-0.05
17) Chrysene-d12	7.963	240	101686	2000.00	ppb	-0.06
21) Perylene-d12	9.345	264	103189	2000.00	ppb	-0.08
System Monitoring Compounds						
2) Nitrobenzene-d5	3.188	82	339	6.44	ppb	-0.05
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.64%#			
7) 2-Fluorobiphenyl	4.507	172	3287	73.64	ppb	-0.05
Spiked Amount 1000.000	Range 25 - 89		Recovery = 7.36%#			
11) Pyrene-d10	6.944	212	4838	98.98	ppb	-0.04
Spiked Amount 1000.000	Range 40 - 110		Recovery = 9.90%#			
18) Terphenyl-d14	7.101	244	4963	106.28	ppb	-0.05
Spiked Amount 1000.000	Range 39 - 92		Recovery = 10.63%#			
Target Compounds						Qvalue
3) Naphthalene	3.722	128	11062	~~192.66~~	ppb	100
4) 2-Methylnaphthalene	4.297	142	85990	~~2252.64~~	ppb	100
5) 1-Methylnaphthalene	4.297	142	85990	2388.70	ppb	100
8) Acenaphthylene	4.861	152	4347	75.01	ppb	100
9) Acenaphthene	4.977	153	19810	547.24	ppb	100
12) Fluorene	5.339	166	13665	312.24	ppb	100
13) Phenanthrene	5.981	178	1717	27.00	ppb	100
14) Anthracene	6.016	178	583	9.25	ppb	100
15) Fluoranthene	6.799	202	297	4.28	ppb	100
16) Pyrene	6.950	202	403	5.62	ppb	100
19) Benzo[a]anthracene	7.959	228	361	Below Cal		100
20) Chrysene	7.959	228	361	5.62	ppb	100
22) Benzo[b]fluoranthene	8.979	252	89	1.39	ppb	100
23) Benzo(j,k)fluoranthene	8.979	252	89	1.39	ppb	100
24) Benzo[a]pyrene	9.283	252	88	1.47	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.321	276	100	1.85	ppb	100
26) Dibenz[a,h]anthracene	10.360	278	81	1.46	ppb	100
27) Benzo[g,h,i]perylene	10.544	276	118	1.97	ppb	100

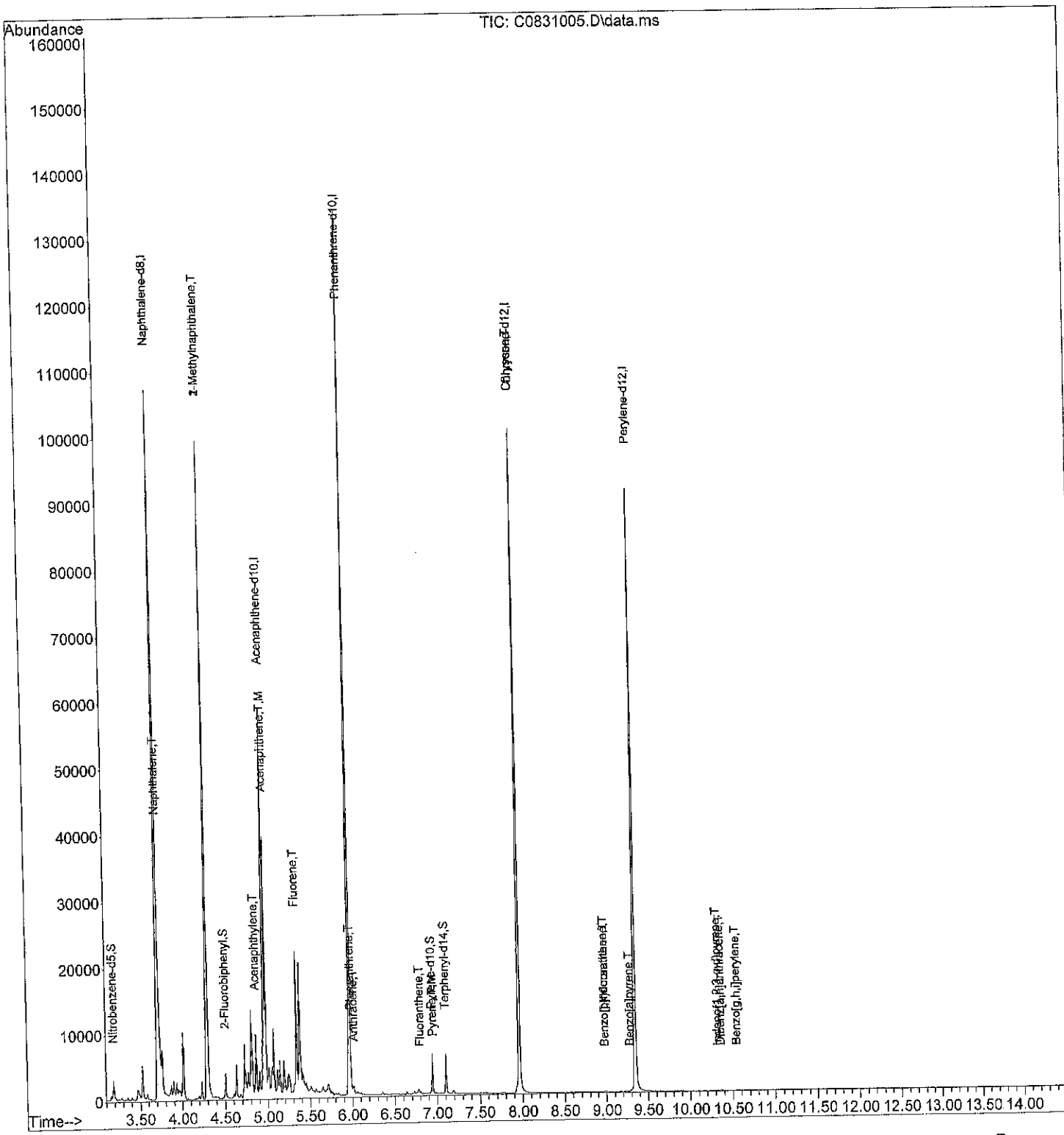
67.30
58.99
use
ZT
8-31-18

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831005.D
Acq On : 31 Aug 2018 10:25 am
Operator :
Sample : 08-326-01 10X
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 31 10:40:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830028.D
Acq On : 30 Aug 2018 7:11 pm
Operator :
Sample : 08-326-02
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Aug 30 19:26:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.774	136	105371	2000.00	ppb	0.00
6) Acenaphthene-d10	5.013	164	58111	2000.00	ppb	0.00
10) Phenanthrene-d10	6.025	188	109904	2000.00	ppb	0.00
17) Chrysene-d12	8.036	240	97201	2000.00	ppb	0.02
21) Perylene-d12	9.443	264	94417	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.252	82	2619	52.31	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 5.23%#			
7) 2-Fluorobiphenyl	4.559	172	32694	691.97	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 69.20%			
11) Pyrene-d10	6.999	212	43492	859.14	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 85.91%			
18) Terphenyl-d14	7.156	244	42225	945.97	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 94.60%#			
Target Compounds						Qvalue
3) Naphthalene	3.786	128	311	5.70	ppb	100
4) 2-Methylnaphthalene	4.290	142	202	5.57	ppb	100
5) 1-Methylnaphthalene	4.356	142	142	4.15	ppb	100
8) Acenaphthylene	4.913	152	135	2.20	ppb	100
9) Acenaphthene	5.037	153	1240	32.36	ppb	100
12) Fluorene	5.391	166	519	11.45	ppb	100
13) Phenanthrene	6.037	178	497	7.55	ppb	100
14) Anthracene	6.072	178	1300	19.91	ppb	100
15) Fluoranthene	6.860	202	1021	14.21	ppb	100
16) Pyrene	7.010	202	2549	34.30	ppb	100
19) Benzo[a]anthracene	8.032	228	498	1.75	ppb	100
20) Chrysene	8.032	228	498	~~8.12~~	ppb	100
22) Benzo[b]fluoranthene	9.069	252	214	3.67	ppb	100
23) Benzo(j,k)fluoranthene	9.069	252	214	~~3.66~~	ppb	100
24) Benzo[a]pyrene	9.381	252	175	3.19	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.430	276	126	2.54	ppb	100
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	10.652	276	209	3.80	ppb	100

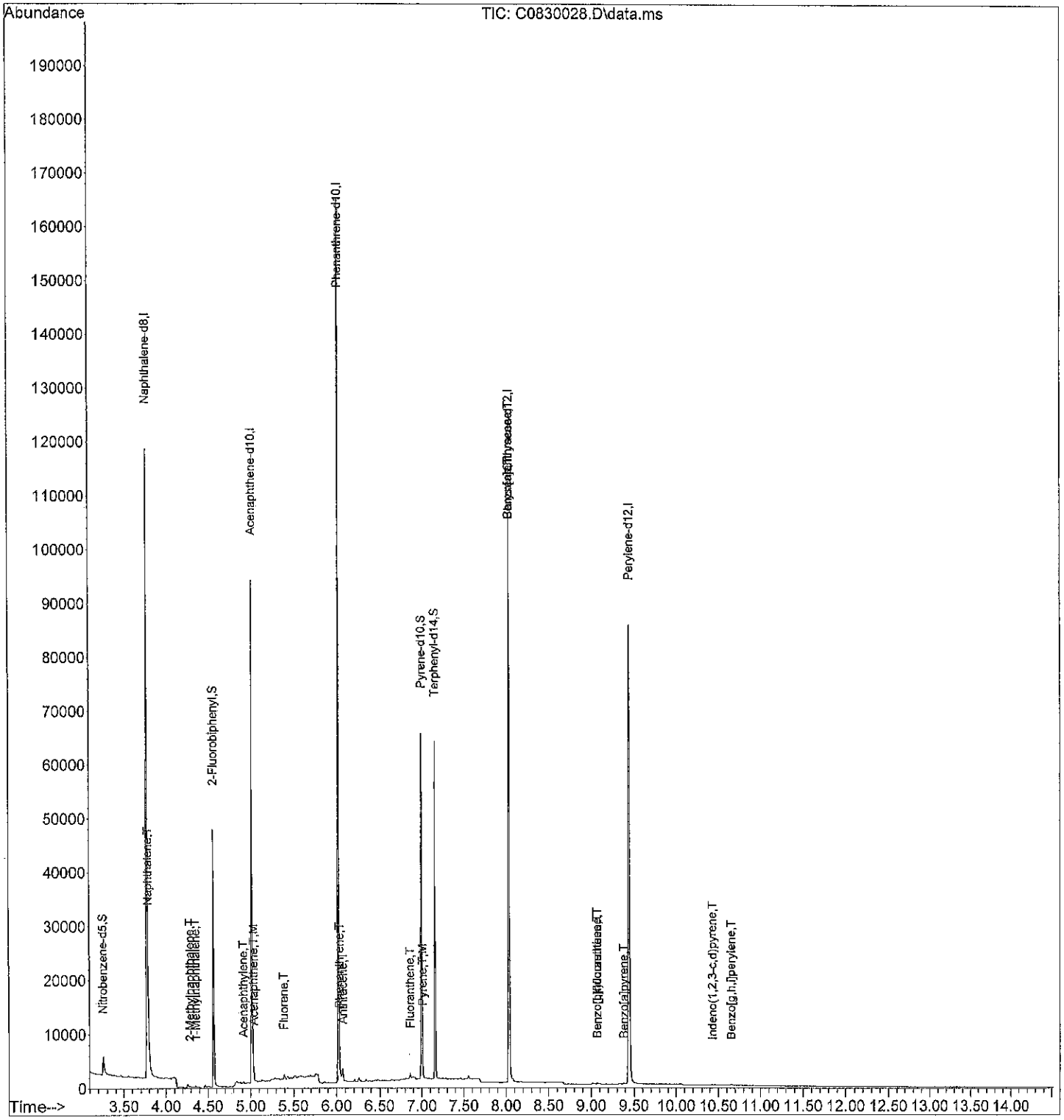
ST
8-31-18
7.35
3.80

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830028.D
Acq On : 30 Aug 2018 7:11 pm
Operator :
Sample : 08-326-02
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Aug 30 19:26:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830021.D
Acq On : 30 Aug 2018 4:37 pm
Operator :
Sample : 08-326-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 30 16:52:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

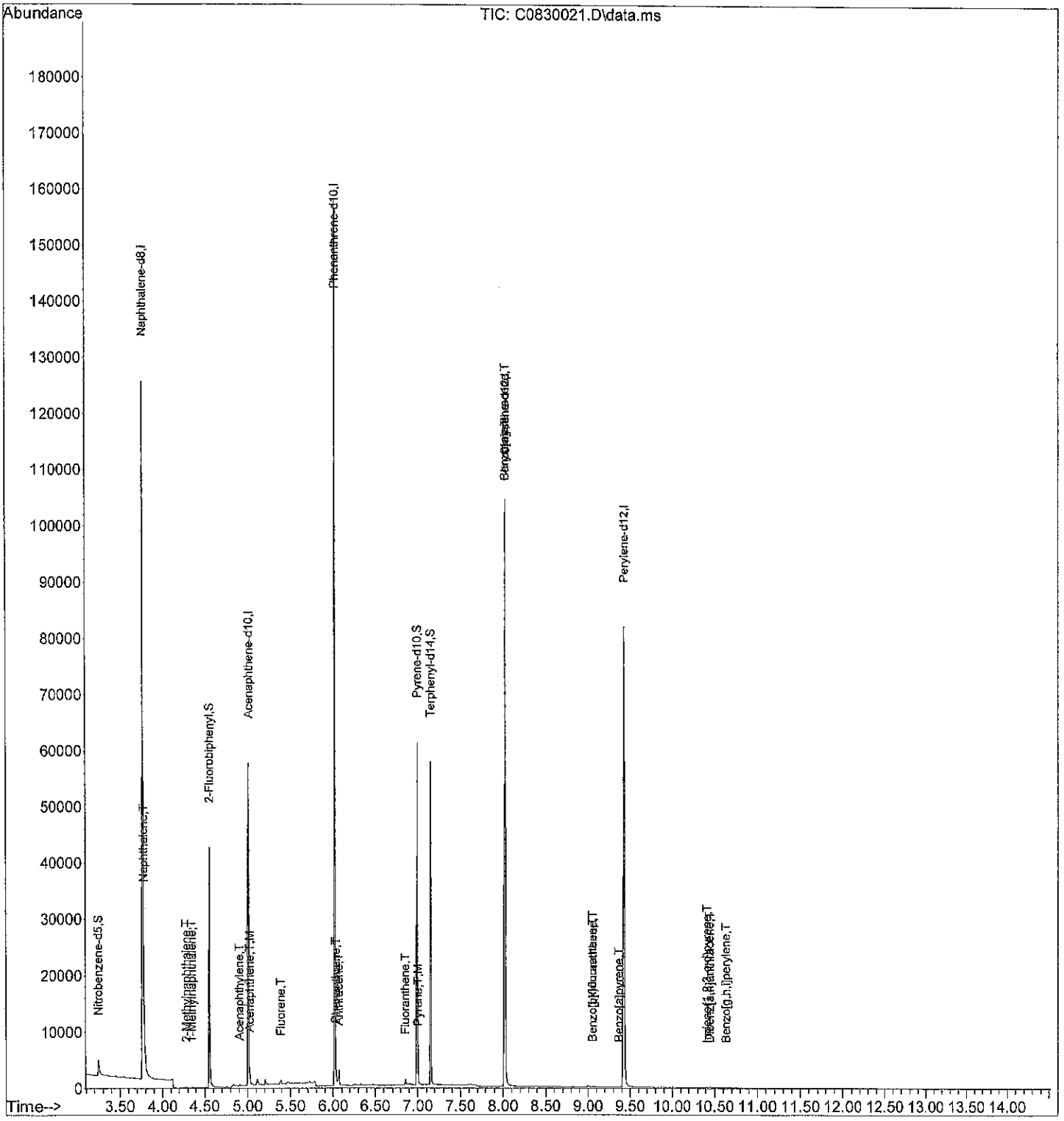
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	109039	2000.00	ppb	0.00
6) Acenaphthene-d10	5.013	164	54476	2000.00	ppb	0.00
10) Phenanthrene-d10	6.017	188	104563	2000.00	ppb	0.00
17) Chrysene-d12	8.025	240	95999	2000.00	ppb	0.00
21) Perylene-d12	9.424	264	93580	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	2245	43.33	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 4.33%#			
7) 2-Fluorobiphenyl	4.555	172	29881	674.63	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 67.46%			
11) Pyrene-d10	6.993	212	40687	844.78	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 84.48%			
18) Terphenyl-d14	7.149	244	38198	866.47	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 86.65%			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	245	4.34	ppb	100
4) 2-Methylnaphthalene	4.285	142	129	3.43	ppb	100
5) 1-Methylnaphthalene	4.352	142	70	1.98	ppb	100
8) Acenaphthylene	4.905	152	150	2.61	ppb	100
9) Acenaphthene	5.029	153	451	12.56	ppb	100
12) Fluorene	5.391	166	386	8.95	ppb	100
13) Phenanthrene	6.032	178	324	5.17	ppb	100
14) Anthracene	6.068	178	1551	24.96	ppb	100
15) Fluoranthene	6.853	202	854	12.50	ppb	100
16) Pyrene	7.004	202	896	12.67	ppb	100
19) Benzo[a]anthracene	8.021	228	408	0.35	ppb	100
20) Chrysene	8.021	228	408	~~6.73~~	ppb	1.52 100
22) Benzo[b]fluoranthene	9.053	252	87	1.50	ppb	100
23) Benzo(j,k)fluoranthene	9.053	252	87	~~1.50~~	ppb	100 1.66
24) Benzo[a]pyrene	9.365	252	100	1.84	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	114	2.32	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	150	2.98	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	125	2.30	ppb	100

ZT
8-31-18

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

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830021.D
Acq On : 30 Aug 2018 4:37 pm
Operator :
Sample : 08-326-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 30 16:52:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830035.D
Acq On : 30 Aug 2018 9:48 pm
Operator :
Sample : 08-326-04
Misc :
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Aug 30 22:02:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

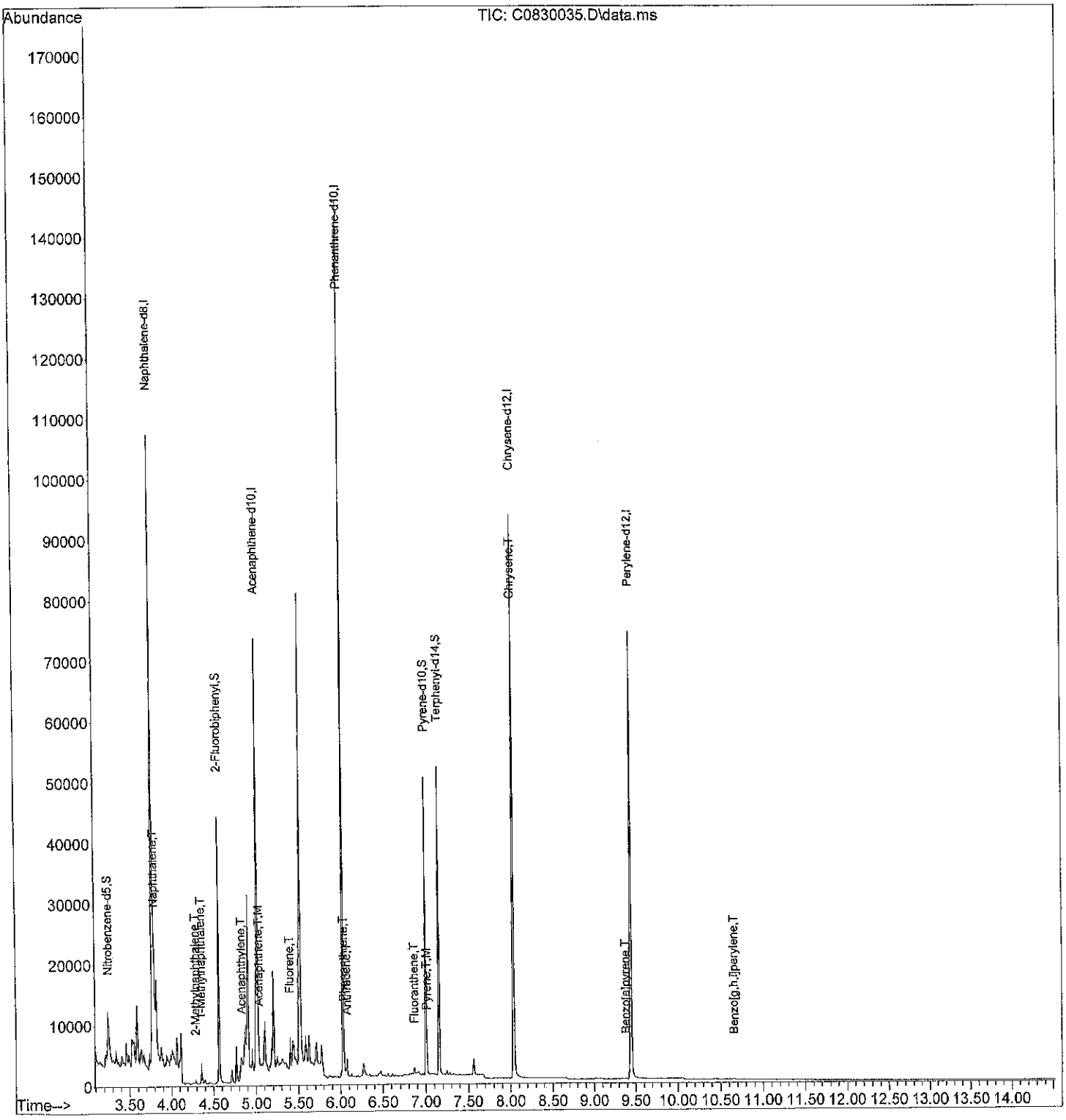
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.773	136	91338	2000.00	ppb	0.00
6) Acenaphthene-d10	5.013	164	75692	2000.00	ppb	0.00
10) Phenanthrene-d10	6.028	188	95256	2000.00	ppb	0.01
17) Chrysene-d12	8.036	240	84384	2000.00	ppb	0.01
21) Perylene-d12	9.442	264	82318	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.251	82	3203	73.81	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 7.38%#			
7) 2-Fluorobiphenyl	4.560	172	30622	497.58	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 49.76%			
11) Pyrene-d10	7.000	212	31750	723.63	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 72.36%			
18) Terphenyl-d14	7.157	244	34090	879.72	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 87.97%			
Target Compounds						Qvalue
3) Naphthalene	3.797	128	18442	~~889.70~~	ppb	100
4) 2-Methylnaphthalene	4.290	142	537	17.07	ppb	100
5) 1-Methylnaphthalene	4.357	142	2661	89.69	ppb	100
8) Acenaphthylene	4.828	152	1185	14.83	ppb	100
9) Acenaphthene	5.036	153	738	14.79	ppb	100
12) Fluorene	5.398	166	776	19.75	ppb	100
13) Phenanthrene	6.040	178	705	12.35	ppb	100
14) Anthracene	6.075	178	1811	32.00	ppb	100
15) Fluoranthene	6.867	202	987	15.85	ppb	100
16) Pyrene	7.012	202	841	13.06	ppb	100
19) Benzo[a]anthracene	8.032	228	237	Below Cal		100
20) Chrysene	8.032	228	237	~~4.45~~	ppb	100
22) Benzo[b]fluoranthene	0.000		0	~~N.D.~~		
23) Benzo(j,k)fluoranthene	0.000		0	~~N.D.~~		
24) Benzo[a]pyrene	9.380	252	121	2.53	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	~~N.D.~~		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	10.659	276	172	3.59	ppb	100

90.08
3.45
3.20
2.22
3.22
ET
8-31-18

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

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830035.D
Acq On : 30 Aug 2018 9:48 pm
Operator :
Sample : 08-326-04
Misc :
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Aug 30 22:02:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830029.D
Acq On : 30 Aug 2018 7:33 pm
Operator :
Sample : 08-326-05
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Aug 30 19:48:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.774	136	100873	2000.00	ppb	0.00
6) Acenaphthene-d10	5.014	164	54644	2000.00	ppb	0.00
10) Phenanthrene-d10	6.022	188	104033	2000.00	ppb	0.00
17) Chrysene-d12	8.025	240	94541	2000.00	ppb	0.00
21) Perylene-d12	9.432	264	93609	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.252	82	3455	72.09	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 7.21%#			
7) 2-Fluorobiphenyl	4.559	172	30884	695.13	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 69.51%			
11) Pyrene-d10	6.987	212	41252	860.88	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 86.09%			
18) Terphenyl-d14	7.150	244	37617	866.45	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 86.65%			
Target Compounds						Qvalue
3) Naphthalene	3.786	128	539	10.31	ppb	100
4) 2-Methylnaphthalene	4.290	142	137	3.94	ppb	100
5) 1-Methylnaphthalene	4.356	142	85	2.59	ppb	100
8) Acenaphthylene	4.829	152	1855	32.16	ppb	100
9) Acenaphthene	5.021	153	110	3.05	ppb	100
12) Fluorene	5.391	166	43	1.00	ppb	100
13) Phenanthrene	6.037	178	166	2.66	ppb	100
14) Anthracene	6.072	178	67	1.08	ppb	100
15) Fluoranthene	6.842	202	176	2.59	ppb	100
16) Pyrene	6.999	202	235	3.34	ppb	100
19) Benzo[a]anthracene	8.025	228	367	Below Cal		100
20) Chrysene	8.048	228	65	1.09	ppb	100
22) Benzo[b]fluoranthene	9.061	252	118	2.04	ppb	100
23) Benzo(j,k)fluoranthene	9.061	252	118	~~2.04~~	ppb	100
24) Benzo[a]pyrene	9.370	252	93	1.71	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.419	276	85	1.73	ppb	100
26) Dibenz[a,h]anthracene	10.454	278	51	1.01	ppb	100
27) Benzo[g,h,i]perylene	10.641	276	122	2.24	ppb	100

1.81

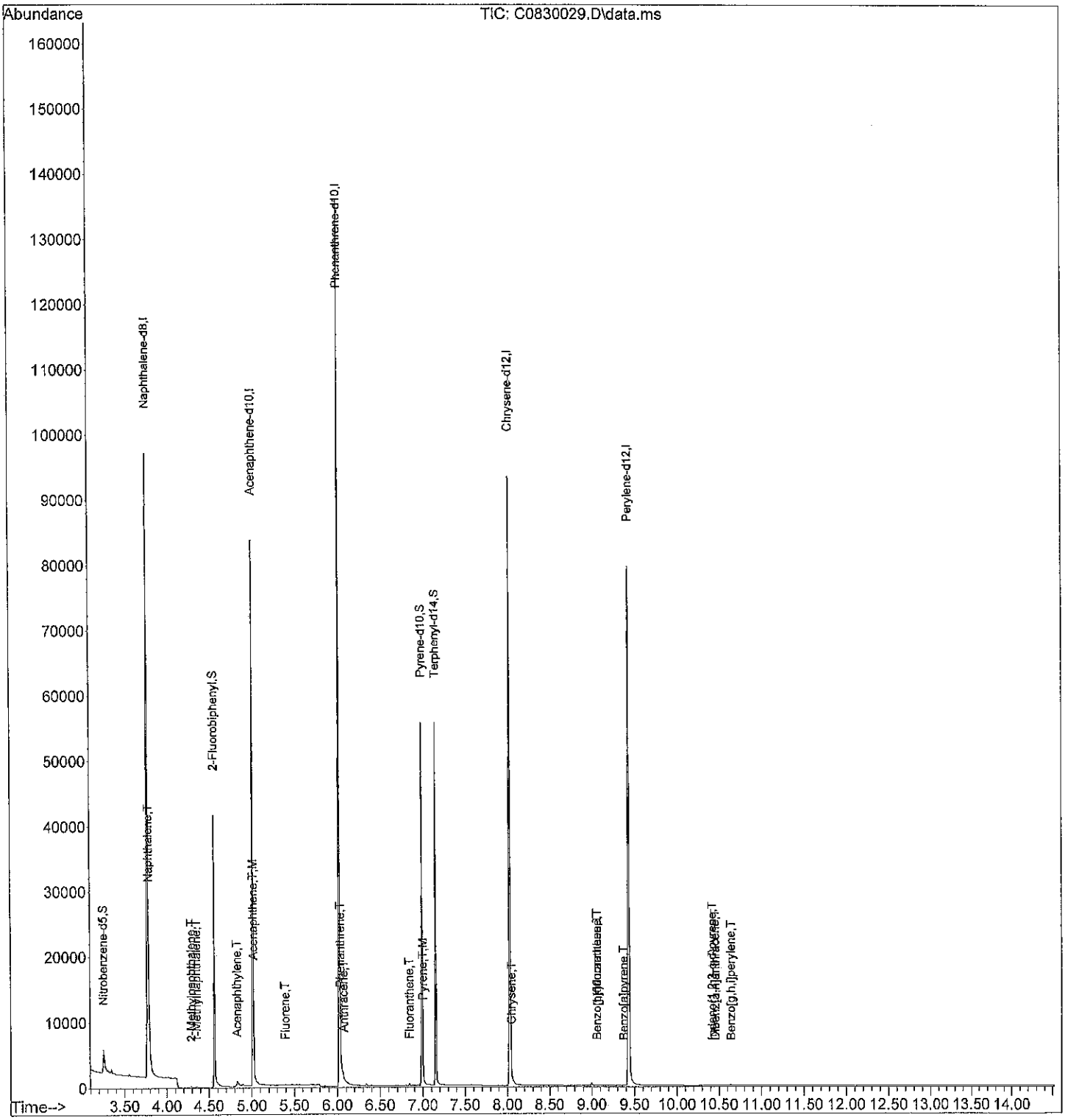
ST
8-31-18

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830029.D
Acq On : 30 Aug 2018 7:33 pm
Operator :
Sample : 08-326-05
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Aug 30 19:48:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830018.D
Acq On : 30 Aug 2018 3:25 pm
Operator :
Sample : MB0830W1 RR
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 30 15:40:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

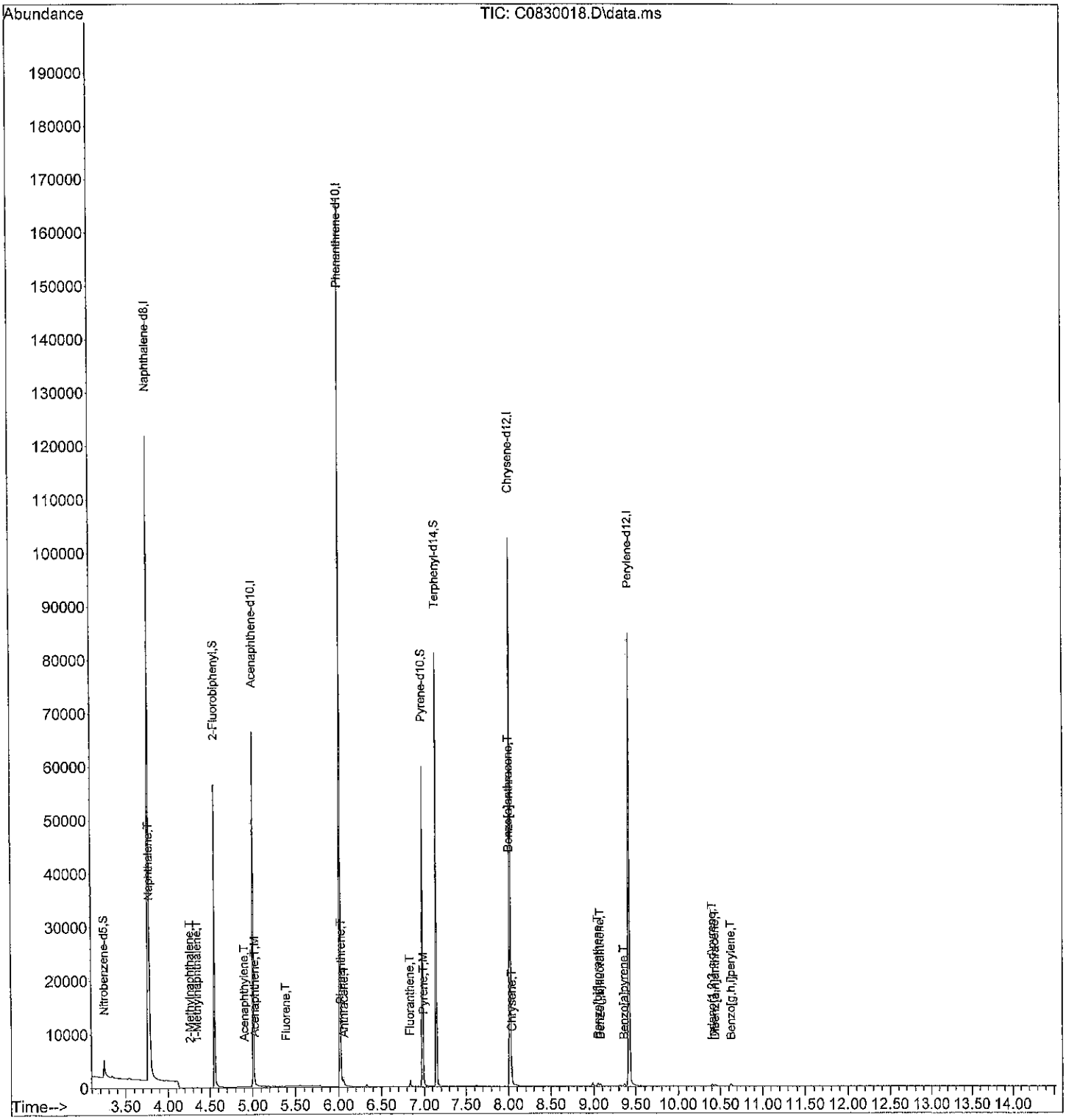
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	108426	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.006	164	55177	2000.00	ppb	-0.11
10) Phenanthrene-d10	6.017	188	103760	2000.00	ppb	-0.11
17) Chrysene-d12	8.017	240	95224	2000.00	ppb	-0.15
21) Perylene-d12	9.422	264	94472	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	2754	53.46	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 5.35%#			
7) 2-Fluorobiphenyl	4.555	172	37715	840.68	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 84.07%			
11) Pyrene-d10	6.982	212	41611	870.65	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.06%			
18) Terphenyl-d14	7.144	244	53518	1223.86	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 122.39%#			
Target Compounds						Qvalue
3) Naphthalene	3.779	128	152	2.71	ppb	100
4) 2-Methylnaphthalene	4.266	142	13	0.35	ppb	100
5) 1-Methylnaphthalene	4.352	142	43	1.22	ppb	100
8) Acenaphthylene	4.905	152	386	6.63	ppb	100
9) Acenaphthene	5.029	153	100	2.75	ppb	100
12) Fluorene	5.391	166	115	2.69	ppb	100
13) Phenanthrene	6.029	178	654	10.52	ppb	100
14) Anthracene	6.064	178	174	2.82	ppb	100
15) Fluoranthene	6.837	202	745	10.99	ppb	100
16) Pyrene	6.993	202	913	13.01	ppb	100
19) Benzo[a]anthracene	8.009	228	720	5.67	ppb	100
20) Chrysene	8.041	228	540	8.98	ppb	100
22) Benzo[b]fluoranthene	9.051	252	548	9.38	ppb	100
23) Benzo(j,k)fluoranthene	9.079	252	401	6.85	ppb	100
24) Benzo[a]pyrene	9.360	252	354	6.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	368	7.42	ppb	100
26) Dibenz[a,h]anthracene	10.442	278	325	6.40	ppb	100
27) Benzo[g,h,i]perylene	10.629	276	419	7.62	ppb	100

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

ZT
8-30-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830018.D
Acq On : 30 Aug 2018 3:25 pm
Operator :
Sample : MB0830W1 RR
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 30 15:40:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830022.D
Acq On : 30 Aug 2018 4:59 pm
Operator :
Sample : 08-326-03 MS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 30 17:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

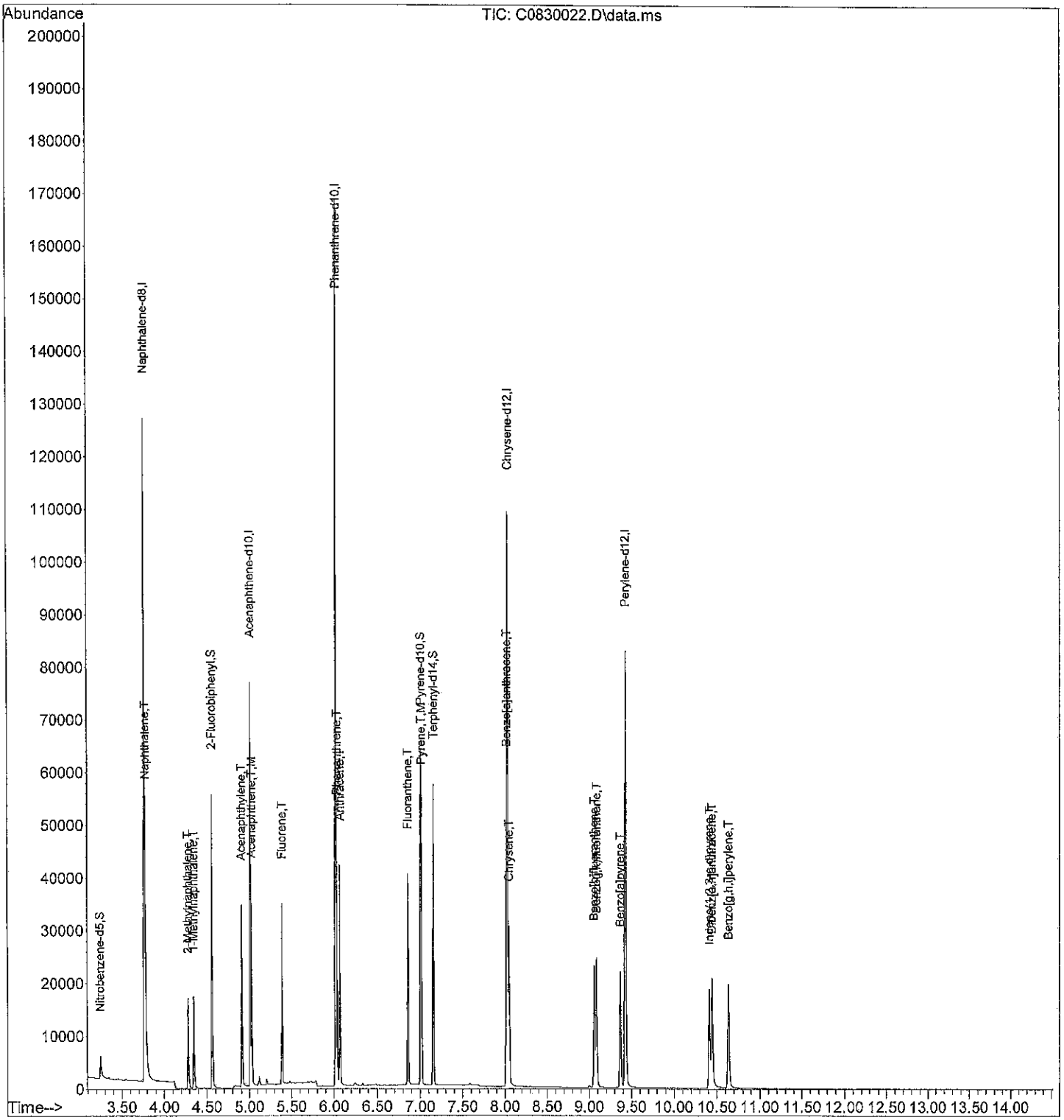
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	107315	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	55704	2000.00	ppb	0.00
10) Phenanthrene-d10	6.021	188	105332	2000.00	ppb	0.00
17) Chrysene-d12	8.028	240	95594	2000.00	ppb	0.00
21) Perylene-d12	9.427	264	92082	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	3596	70.53	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 7.05%#			
7) 2-Fluorobiphenyl	4.556	172	37284	823.21	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 82.32%			
11) Pyrene-d10	7.006	212	42497	875.92	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.59%			
18) Terphenyl-d14	7.157	244	42619	970.85	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 97.08%#			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	20281	364.76	ppb	100
4) 2-Methylnaphthalene	4.283	142	13129	355.17	ppb	100
5) 1-Methylnaphthalene	4.349	142	12633	362.39	ppb	100
8) Acenaphthylene	4.904	152	24386	414.73	ppb	100
9) Acenaphthene	5.028	153	15150	412.46	ppb	100
12) Fluorene	5.390	166	19566	450.43	ppb	100
13) Phenanthrene	6.032	178	26025	412.33	ppb	100
14) Anthracene	6.068	178	26941	430.45	ppb	100
15) Fluoranthene	6.855	202	31790	461.77	ppb	100
16) Pyrene	7.012	202	29241	410.61	ppb	100
19) Benzo[a]anthracene	8.016	228	27938	463.47	ppb	100
20) Chrysene	8.047	228	26847	444.85	ppb	100
22) Benzo[b]fluoranthene	9.056	252	25634	450.25	ppb	100
23) Benzo(j,k)fluoranthene	9.088	252	26082	457.42	ppb	100
24) Benzo[a]pyrene	9.369	252	24701	461.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.414	276	22865	472.94	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	23784	480.16	ppb	100
27) Benzo[g,h,i]perylene	10.636	276	24748	461.92	ppb	100

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

ZT
8-31-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830022.D
Acq On : 30 Aug 2018 4:59 pm
Operator :
Sample : 08-326-03 MS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 30 17:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830023.D
Acq On : 30 Aug 2018 5:21 pm
Operator :
Sample : 08-326-03 MSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 30 17:36:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

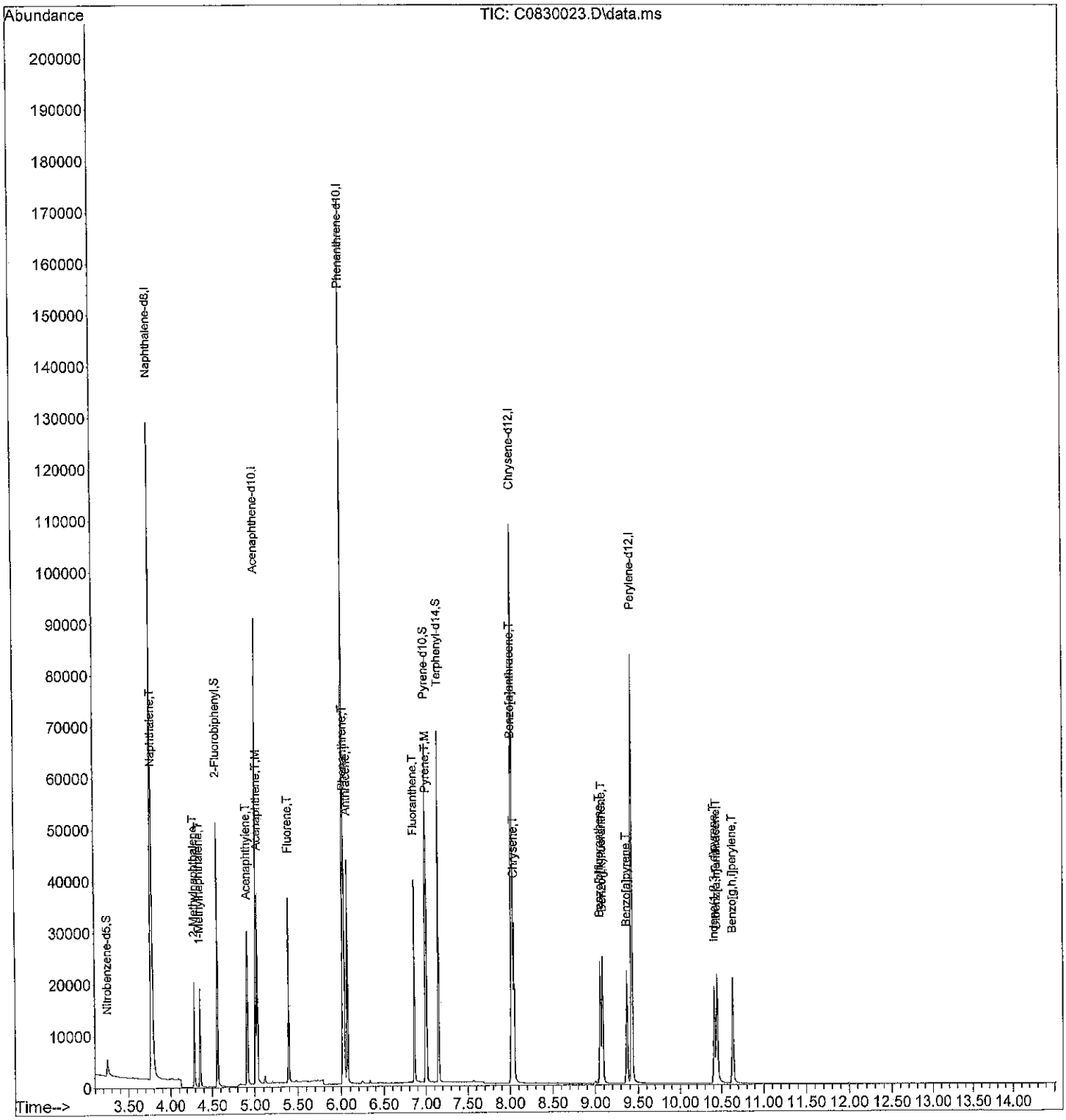
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	106899	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	56517	2000.00	ppb	0.00
10) Phenanthrene-d10	6.020	188	104342	2000.00	ppb	0.00
17) Chrysene-d12	8.028	240	94834	2000.00	ppb	0.00
21) Perylene-d12	9.427	264	91698	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	2797	55.07	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 5.51%#			
7) 2-Fluorobiphenyl	4.555	172	35428	770.98	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 77.10%			
11) Pyrene-d10	6.993	212	42535	885.02	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 88.50%			
18) Terphenyl-d14	7.150	244	43413	996.86	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 99.69%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	21859	394.67	ppb	100
4) 2-Methylnaphthalene	4.286	142	15398	418.17	ppb	100
5) 1-Methylnaphthalene	4.352	142	14349	413.22	ppb	100
8) Acenaphthylene	4.904	152	25184	422.14	ppb	100
9) Acenaphthene	5.027	153	16578	444.84	ppb	100
12) Fluorene	5.389	166	20227	470.07	ppb	100
13) Phenanthrene	6.032	178	26931	430.73	ppb	100
14) Anthracene	6.067	178	28780	464.19	ppb	100
15) Fluoranthene	6.854	202	33325	488.66	ppb	100
16) Pyrene	7.005	202	31684	449.14	ppb	100
19) Benzo[a]anthracene	8.016	228	27712	463.41	ppb	100
20) Chrysene	8.047	228	26520	442.96	ppb	100
22) Benzo[b]fluoranthene	9.056	252	25869	456.28	ppb	100
23) Benzo(j,k)fluoranthene	9.083	252	25361	446.64	ppb	100
24) Benzo[a]pyrene	9.368	252	24743	464.17	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.413	276	22640	470.25	ppb	100
26) Dibenz[a,h]anthracene	10.444	278	23098	468.27	ppb	100
27) Benzo[g,h,i]perylene	10.635	276	24286	455.19	ppb	100

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

ZT
8-31-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830023.D
Acq On : 30 Aug 2018 5:21 pm
Operator :
Sample : 08-326-03 MSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 30 17:36:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	93	0.00
2	S	Nitrobenzene-d5	500.000	385.568	22.9#	101	0.00
3	T	Naphthalene	500.000	510.997	-2.2	95	0.00
4	T	2-Methylnaphthalene	500.000	494.756	1.0	92	0.00
5	T	1-Methylnaphthalene	500.000	523.905	-4.8	97	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	93	0.00
7	S	2-Fluorobiphenyl	500.000	561.866	-12.4	106	0.00
8	T	Acenaphthylene	500.000	502.317	-0.5	95	0.00
9	T,M	Acenaphthene	500.000	498.060	0.4	93	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11	S	Pyrene-d10	500.000	521.177	-4.2	97	0.00
12	T	Fluorene	500.000	511.134	-2.2	96	0.00
13	T	Phenanthrene	500.000	484.729	3.1	93	0.00
14	T	Anthracene	500.000	489.372	2.1	91	0.00
15	T	Fluoranthene	500.000	498.236	0.4	94	0.00
16	T,M	Pyrene	500.000	526.531	-5.3	99	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	95	0.00
18	S	Terphenyl-d14	500.000	509.840	-2.0	99	0.00
19	T	Benzo[a]anthracene	500.000	502.185	-0.4	93	0.00
20	T	Chrysene	500.000	478.109	4.4	90	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	96	0.00
22	T	Benzo[b]fluoranthene	500.000	486.610	2.7	90	0.00
23	T	Benzo(j,k)fluoranthene	500.000	507.827	-1.6	99	0.00
24	T	Benzo[a]pyrene	500.000	466.208	6.8	88	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	491.991	1.6	93	0.00
26	T	Dibenz[a,h]anthracene	500.000	504.959	-1.0	95	0.00
27	T	Benzo[g,h,i]perylene	500.000	500.739	-0.1	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

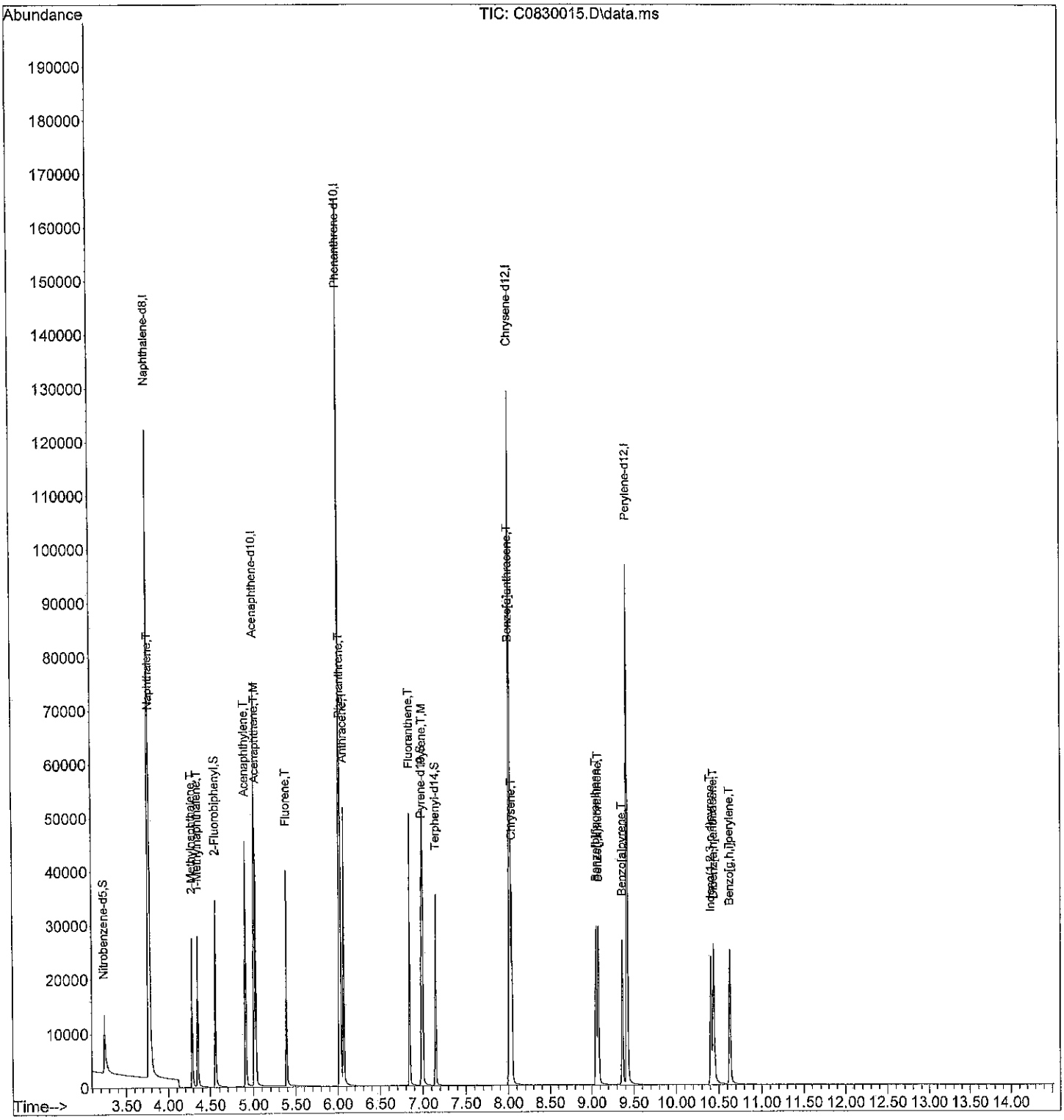
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	121192	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	60983	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.017	188	114380	2000.00	ppb	-0.11
17) Chrysene-d12	8.021	240	108137	2000.00	ppb	-0.15
21) Perylene-d12	9.424	264	107919	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.242	82	22201	385.57	ppb	-0.11
Spiked Amount 1000.000	Range 24 - 92		Recovery = 38.56%			
7) 2-Fluorobiphenyl	4.558	172	27859	561.87	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 56.19%			
11) Pyrene-d10	6.987	212	27458	521.18	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 52.12%			
18) Terphenyl-d14	7.150	244	25318	509.84	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 50.98%			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	32086	511.00	ppb	100
4) 2-Methylnaphthalene	4.285	142	20654	494.76	ppb	100
5) 1-Methylnaphthalene	4.352	142	20625	523.90	ppb	100
8) Acenaphthylene	4.905	152	32335	502.32	ppb	100
9) Acenaphthene	5.028	153	20028	498.06	ppb	100
12) Fluorene	5.391	166	24110	511.13	ppb	100
13) Phenanthrene	6.033	178	33223	484.73	ppb	100
14) Anthracene	6.068	178	33260	489.37	ppb	100
15) Fluoranthene	6.842	202	37247	498.24	ppb	100
16) Pyrene	6.999	202	40717	526.53	ppb	100
19) Benzo[a]anthracene	8.014	228	34207	502.19	ppb	100
20) Chrysene	8.045	228	32640	478.11	ppb	100
22) Benzo[b]fluoranthene	9.053	252	32469	486.61	ppb	100
23) Benzo(j,k)fluoranthene	9.081	252	33936	507.83	ppb	100
24) Benzo[a]pyrene	9.362	252	29248	466.21	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.407	276	27877	491.99	ppb	100
26) Dibenz[a,h]anthracene	10.442	278	29314	504.96	ppb	100
27) Benzo[g,h,i]perylene	10.629	276	31442	500.74	ppb	100

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

ZT
8-30-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C180831\
Data File : C0831004.D
Acq On : 31 Aug 2018 9:32 am
Operator :
Sample : PAH CCV0831-2
Misc : SV5-052-28
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	91	-0.06
2	S	Nitrobenzene-d5	500.000	146.307	70.7#	37	-0.05
3	T	Naphthalene	500.000	499.159	0.2	90	-0.05
4	T	2-Methylnaphthalene	500.000	480.247	4.0	87	-0.05
5	T	1-Methylnaphthalene	500.000	530.506	-6.1	95	-0.05
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	90	-0.06
7	S	2-Fluorobiphenyl	500.000	561.944	-12.4	103	-0.05
8	T	Acenaphthylene	500.000	502.116	-0.4	92	-0.05
9	T,M	Acenaphthene	500.000	515.105	-3.0	93	-0.05
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	95	-0.05
11	S	Pyrene-d10	500.000	500.761	-0.2	94	-0.07
12	T	Fluorene	500.000	481.649	3.7	91	-0.05
13	T	Phenanthrene	500.000	473.856	5.2	92	-0.06
14	T	Anthracene	500.000	495.828	0.8	93	-0.06
15	T	Fluoranthene	500.000	488.584	2.3	93	-0.06
16	T,M	Pyrene	500.000	491.112	1.8	93	-0.07
17	I	Chrysene-d12	2000.000	2000.000	0.0	95	-0.07
18	S	Terphenyl-d14	500.000	481.202	3.8	93	-0.07
19	T	Benzo[a]anthracene	500.000	497.622	0.5	92	-0.08
20	T	Chrysene	500.000	502.163	-0.4	94	-0.08
21	I	Perylene-d12	2000.000	2000.000	0.0	97	-0.09
22	T	Benzo[b]fluoranthene	500.000	469.701	6.1	88	-0.09
23	T	Benzo(j,k)fluoranthene	500.000	520.695	-4.1	102	-0.09
24	T	Benzo[a]pyrene	500.000	484.274	3.1	93	-0.09
25	T	Indeno(1,2,3-c,d)pyrene	500.000	474.618	5.1	91	-0.09
26	T	Dibenz[a,h]anthracene	500.000	507.878	-1.6	97	-0.09
27	T	Benzo[g,h,i]perylene	500.000	490.786	1.8	95	-0.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831004.D
Acq On : 31 Aug 2018 9:32 am
Operator :
Sample : PAH CCV0831-2
Misc : SV5-052-28
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

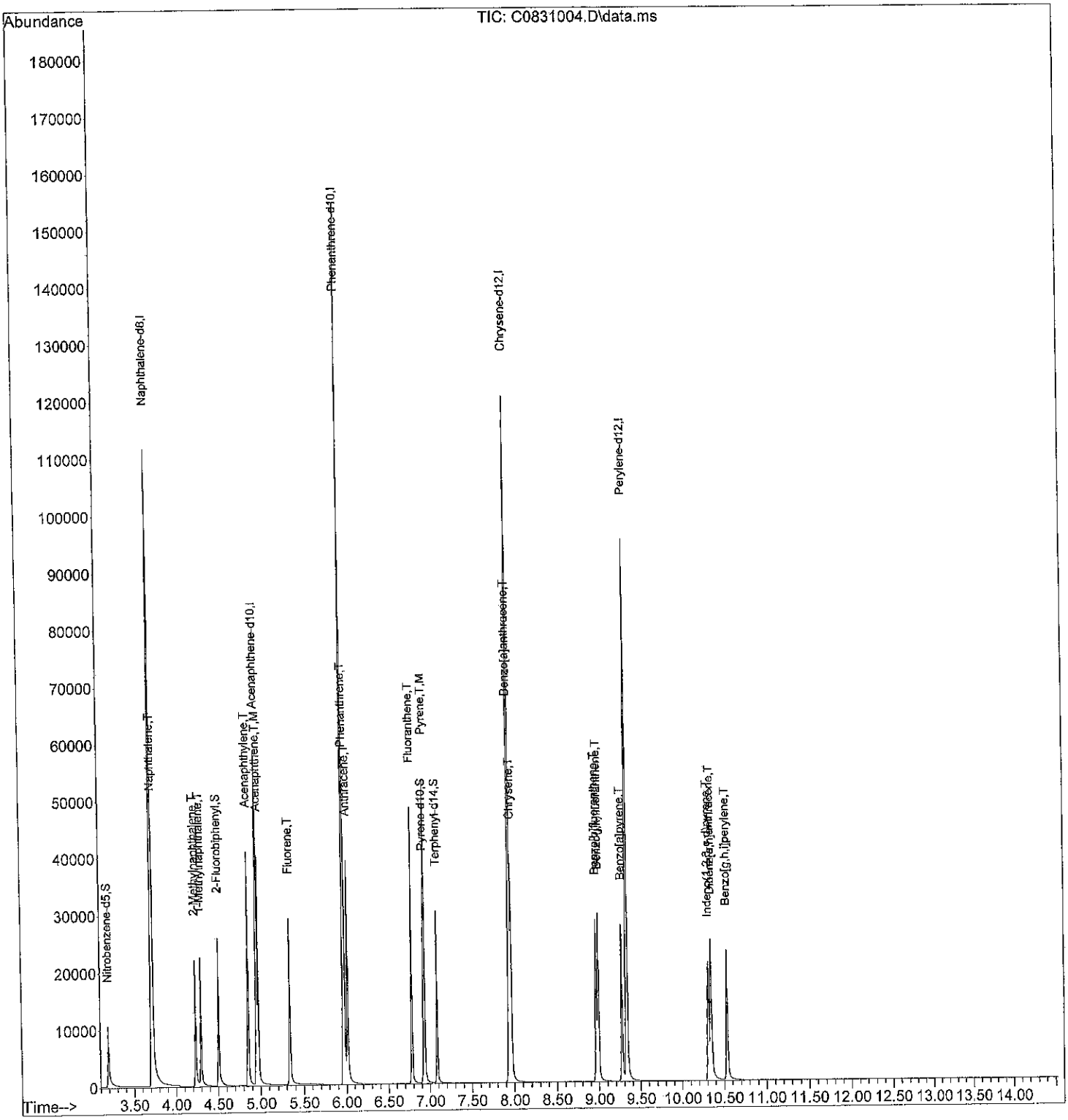
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.710	136	118065	2000.00	ppb	-0.06
6) Acenaphthene-d10	4.953	164	58915	2000.00	ppb	-0.06
10) Phenanthrene-d10	5.966	188	115124	2000.00	ppb	-0.05
17) Chrysene-d12	7.948	240	107572	2000.00	ppb	-0.07
21) Perylene-d12	9.334	264	109008	2000.00	ppb	-0.09
System Monitoring Compounds						
2) Nitrobenzene-d5	3.188	82	8207	146.31	ppb	-0.05
Spiked Amount 1000.000	Range 24 - 92		Recovery = 14.63%#			
7) 2-Fluorobiphenyl	4.504	172	26918	561.94	ppb	-0.05
Spiked Amount 1000.000	Range 25 - 89		Recovery = 56.19%			
11) Pyrene-d10	6.922	212	26554	500.76	ppb	-0.07
Spiked Amount 1000.000	Range 40 - 110		Recovery = 50.08%			
18) Terphenyl-d14	7.084	244	23771	481.20	ppb	-0.07
Spiked Amount 1000.000	Range 39 - 92		Recovery = 48.12%			
Target Compounds						Qvalue
3) Naphthalene	3.727	128	30534	499.16	ppb	100
4) 2-Methylnaphthalene	4.231	142	19531	480.25	ppb	100
5) 1-Methylnaphthalene	4.297	142	20346	530.51	ppb	100
8) Acenaphthylene	4.853	152	31226	502.12	ppb	100
9) Acenaphthene	4.977	153	20011	515.10	ppb	100
12) Fluorene	5.339	166	22867	481.65	ppb	100
13) Phenanthrene	5.977	178	32689	473.86	ppb	100
14) Anthracene	6.012	178	33918	495.83	ppb	100
15) Fluoranthene	6.782	202	36763	488.58	ppb	100
16) Pyrene	6.933	202	38225	491.11	ppb	100
19) Benzo[a]anthracene	7.936	228	33723	497.62	ppb	100
20) Chrysene	7.967	228	34103	502.16	ppb	100
22) Benzo[b]fluoranthene	8.967	252	31657	469.70	ppb	100
23) Benzo(j,k)fluoranthene	8.995	252	35147	520.69	ppb	100
24) Benzo[a]pyrene	9.272	252	30688	484.27	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.314	276	27164	474.62	ppb	100
26) Dibenz[a,h]anthracene	10.349	278	29781	507.88	ppb	100
27) Benzo[g,h,i]perylene	10.532	276	31128	490.79	ppb	100

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

ZT
8-31-18

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831004.D
Acq On : 31 Aug 2018 9:32 am
Operator :
Sample : PAH CCV0831-2
Misc : SV5-052-28
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Response Factor Report Corey

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Thu Aug 30 16:14:45 2018
Response Via : Initial Calibration

Calibration Files
10 =C0830007.D 20 =C0830008.D 50 =C0830009.D 100 =C0830010.D 200 =C0830011.D 500 =C0830012.D 1000=C0830013.D
5000=C0830014.D

		Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1)	I	Naphthalene-d8	----------ISTD----------									
2)	S	Nitrobenzene-d5	0.424	2.951	0.747	1.216	0.675	0.325	0.313	0.950		98.58
3)	T	Naphthalene	1.038	1.035	1.069	1.028	1.041	1.036	1.033	1.009	1.036	1.61
4)	T	2-Methylnaphth...	0.704	0.671	0.718	0.691	0.699	0.687	0.664	0.678	0.689	2.59
5)	T	1-Methylnaphth...	0.645	0.646	0.682	0.658	0.657	0.655	0.625	0.629	0.650	2.76
6)	I	Acenaphthene-d10	----------ISTD----------									
7)	S	2-Fluorobiphenyl	1.670	1.646	1.696	1.569	1.611	1.606	1.545	1.665	1.626	3.22
8)	T	Acenaphthylene	2.175	2.338	2.181	2.000	2.118	2.088	2.009	1.980	2.111	5.69
9)	T,M	Acenaphthene	1.347	1.488	1.370	1.240	1.296	1.318	1.274	1.216	1.319	6.50
10)	I	Phenanthrene-d10	----------ISTD----------									
11)	S	Pyrene-d10	0.934	0.913	0.954	0.919	0.913	0.933	0.905	0.900	0.921	1.95
12)	T	Fluorene	0.875	0.845	0.878	0.843	0.810	0.827	0.783	0.739	0.825	5.69
13)	T	Phenanthrene	1.327	1.230	1.264	1.190	1.176	1.171	1.125	1.104	1.198	6.11
14)	T	Anthracene	1.211	1.193	1.240	1.183	1.183	1.201	1.152	1.145	1.188	2.58
15)	T	Fluoranthene	1.382	1.292	1.370	1.301	1.300	1.306	1.273	1.233	1.307	3.71
16)	T,M	Pyrene	1.442	1.338	1.404	1.341	1.339	1.359	1.309	1.286	1.352	3.70
17)	I	Chrysene-d12	----------ISTD----------									
18)	S	Terphenyl-d14	1.123	0.905	0.955	0.877	0.885	0.897	0.875	0.830	0.918	9.76
19)	T	Benzo[a]anthra...	1.976	1.589	1.479	1.341	1.310	1.294	1.237	1.243	1.433	17.46
20)	T	Chrysene	1.344	1.254	1.321	1.246	1.264	1.281	1.210	1.181	1.263	4.25
21)	I	Perylene-d12	----------ISTD----------									
22)	T	Benzo[b]fluora...	1.311	1.212	1.261	1.218	1.187	1.280	1.199	1.225	1.237	3.49
23)	T	Benzo(j,k)fluo...	1.281	1.223	1.296	1.197	1.254	1.216	1.217	1.222	1.238	2.83
24)	T	Benzo[a]pyrene	1.218	1.141	1.189	1.130	1.132	1.172	1.138	1.182	1.163	2.76
25)	T	Indeno(1,2,3-c...	1.132	1.010	1.062	1.000	1.020	1.059	1.023	1.095	1.050	4.37
26)	T	Dibenz[a,h]ant...	1.109	1.044	1.098	1.007	1.057	1.093	1.072	1.127	1.076	3.62
27)	T	Benzo[g,h,i]pe...	1.251	1.154	1.200	1.126	1.137	1.164	1.132	1.146	1.164	3.63

(#) = Out of Range

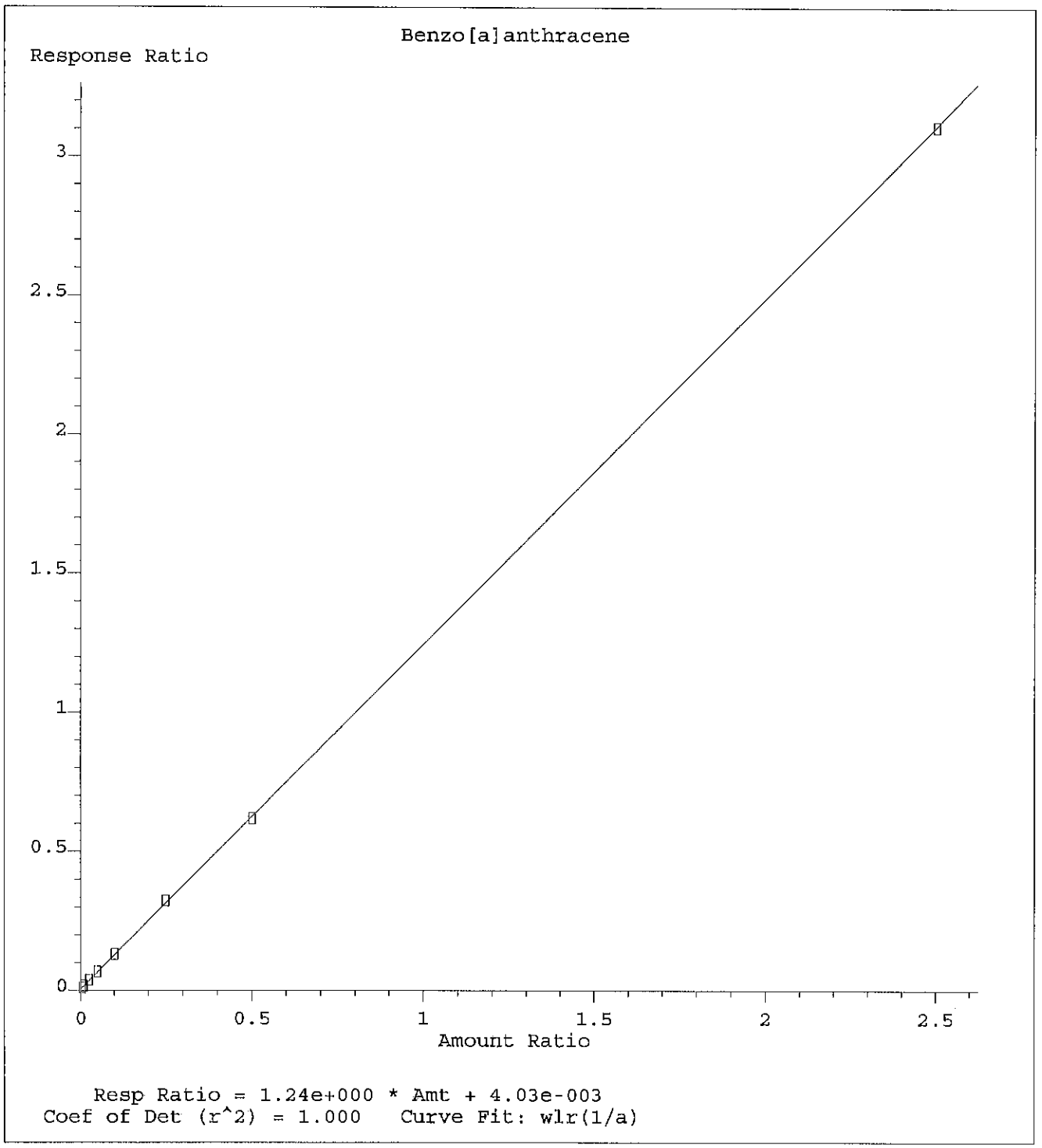
Compound List Report Corey

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Thu Aug 30 16:14:45 2018
Response Via : Initial Calibration

Total Cpnds : 27

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	3.770	1.000	A	0	A	R
2	S	Nitrobenzene-d5	82	3.242	0.860	A	0	A	R
3	T	Naphthalene	128	3.781	1.003	A	0	A	R
4	T	2-Methylnaphthalene	142	4.285	1.137	A	0	A	R
5	T	1-Methylnaphthalene	142	4.352	1.154	A	0	A	R
6	I	Acenaphthene-d10	164	5.013	1.000	A	0	A	R
7	S	2-Fluorobiphenyl	172	4.558	0.909	A	0	A	R
8	T	Acenaphthylene	152	4.905	0.978	A	0	A	R
9	T	Acenaphthene	153	5.028	1.003	A	0	A	R
10	I	Phenanthrene-d10	188	6.017	1.000	A	0	A	R
11	S	Pyrene-d10	212	6.987	1.161	A	0	A	R
12	T	Fluorene	166	5.391	0.896	A	0	A	R
13	T	Phenanthrene	178	6.033	1.003	A	0	A	R
14	T	Anthracene	178	6.068	1.008	A	0	A	R
15	T	Fluoranthene	202	6.842	1.137	A	0	A	R
16	T	Pyrene	202	6.999	1.163	A	0	A	R
17	I	Chrysene-d12	240	8.021	1.000	A	0	A	R
18	S	Terphenyl-d14	244	7.150	0.891	A	0	A	R
19	T	Benzo[a]anthracene	228	8.014	0.999	L	0	A	R
20	T	Chrysene	228	8.045	1.003	A	0	A	R
21	I	Perylene-d12	264	9.424	1.000	A	0	A	R
22	T	Benzo[b]fluoranthene	252	9.053	0.961	A	0	A	R
23	T	Benzo(j,k)fluoranthene	252	9.081	0.964	A	0	A	R
24	T	Benzo[a]pyrene	252	9.362	0.993	A	0	A	R
25	T	Indeno(1,2,3-c,d)pyrene	276	10.407	1.104	A	0	A	R
26	T	Dibenz[a,h]anthracene	278	10.442	1.108	A	0	A	R
27	T	Benzo[g,h,i]perylene	276	10.629	1.128	A	0	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All



Method Name: C:\MSDCHEM\1\METHODS\CSIM0830.M
Calibration Table Last Updated: Thu Aug 30 16:14:45 2018

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830007.D
Acq On : 30 Aug 2018 11:02 am
Operator :
Sample : 10 PPB
Misc : SV5-047-29
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 30 11:16:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

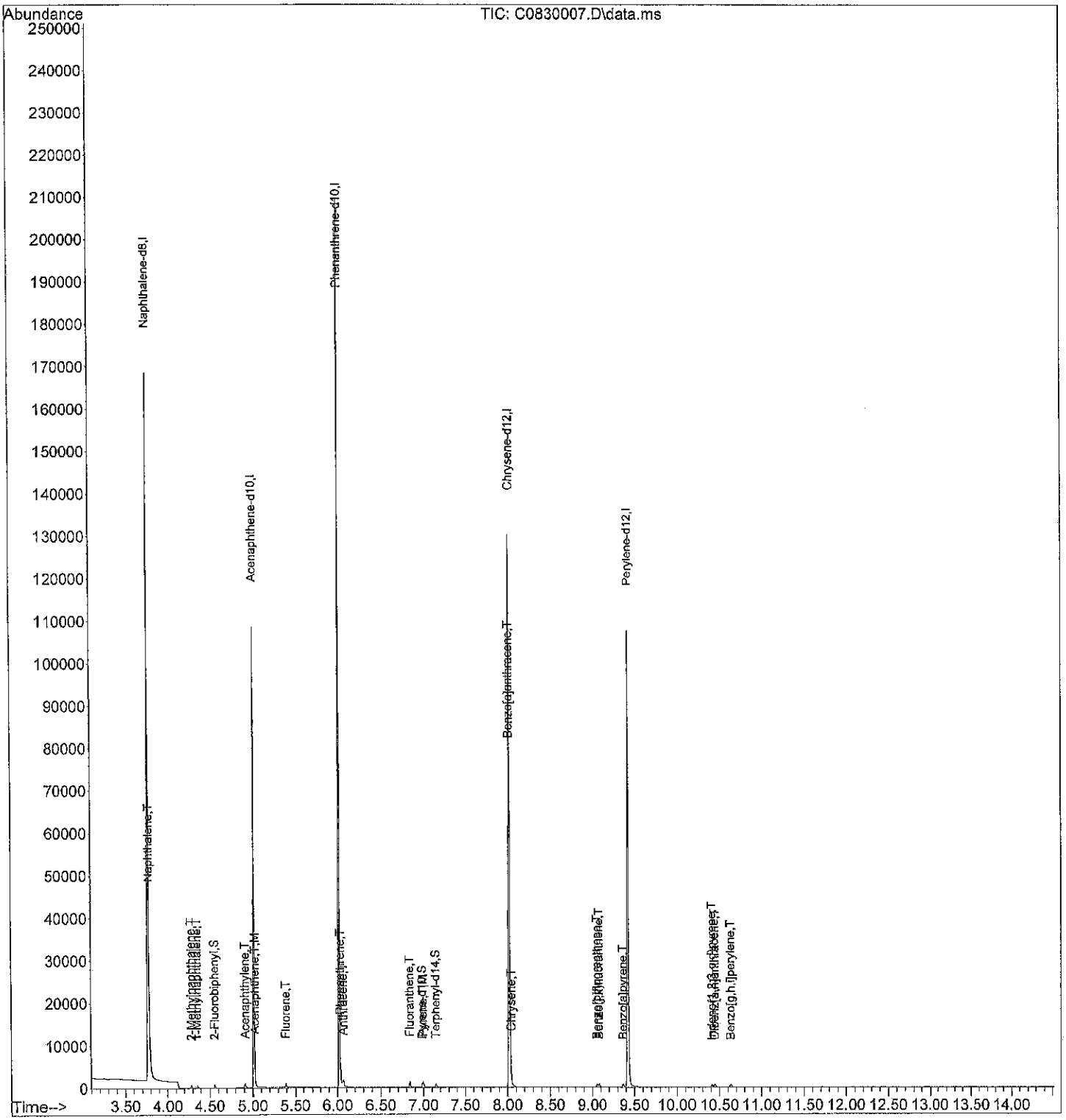
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	143494	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	71270	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	131245	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	119153	2000.00	ppb	-0.14
21) Perylene-d12	9.428	264	119411	2000.00	ppb	-0.16
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	4.556	172	595	9.32	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.93%#		
11) Pyrene-d10	6.983	212	613	9.66	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.97%#		
18) Terphenyl-d14	7.146	244	669	11.77	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery =	1.18%#		
Target Compounds						Qvalue
3) Naphthalene	3.780	128	745	9.82	ppb	100
4) 2-Methylnaphthalene	4.287	142	505	9.58	ppb	100
5) 1-Methylnaphthalene	4.353	142	463	9.23	ppb	100
8) Acenaphthylene	4.912	152	775	9.14	ppb	100
9) Acenaphthene	5.028	153	480	9.19	ppb	100
12) Fluorene	5.390	166	574	9.80	ppb	100
13) Phenanthrene	6.033	178	871	10.16	ppb	100
14) Anthracene	6.068	178	795	9.28	ppb	100
15) Fluoranthene	6.838	202	907	9.67	ppb	100
16) Pyrene	6.995	202	946	9.80	ppb	100
19) Benzo[a]anthracene	8.017	228	1177	7.06	ppb	100
20) Chrysene	8.044	228	801	9.63	ppb	100
22) Benzo[b]fluoranthene	9.053	252	783	9.27	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	765	9.29	ppb	100
24) Benzo[a]pyrene	9.365	252	727	9.11	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	676	9.08	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	662	8.78	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	747	9.36	ppb	100

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

ZT
8-30-18

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830007.D
Acq On : 30 Aug 2018 11:02 am
Operator :
Sample : 10 PPB
Misc : SV5-047-29
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 30 11:16:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830008.D
Acq On : 30 Aug 2018 11:23 am
Operator :
Sample : 20 PPB
Misc : SV5-047-28
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 30 11:38:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	143234	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.014	164	68528	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	130385	2000.00	ppb	-0.10
17) Chrysene-d12	8.025	240	119131	2000.00	ppb	-0.14
21) Perylene-d12	9.424	264	118529	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	608	29.74	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery =	2.97%#		
7) 2-Fluorobiphenyl	4.558	172	1128	18.39	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery =	1.84%#		
11) Pyrene-d10	6.987	212	1190	18.87	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery =	1.89%#		
18) Terphenyl-d14	7.150	244	1078	18.98	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery =	1.90%#		
Target Compounds						Qvalue
3) Naphthalene	3.782	128	1482	19.57	ppb	100
4) 2-Methylnaphthalene	4.285	142	961	18.26	ppb	100
5) 1-Methylnaphthalene	4.352	142	925	18.48	ppb	100
8) Acenaphthylene	4.906	152	1602 ~~2182~~	26.77	ppb	100
9) Acenaphthene	5.029	153	1020	20.30	ppb	100
12) Fluorene	5.391	166	1102	18.94	ppb	100
13) Phenanthrene	6.033	178	1604	18.83	ppb	100
14) Anthracene	6.068	178	1555	18.27	ppb	100
15) Fluoranthene	6.842	202	1684	18.07	ppb	100
16) Pyrene	6.999	202	1744	18.19	ppb	100
19) Benzo[a]anthracene	8.017	228	1893	15.70	ppb	100
20) Chrysene	8.044	228	1494	17.96	ppb	100
22) Benzo[b]fluoranthene	9.057	252	1437	17.13	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	1450	17.73	ppb	100
24) Benzo[a]pyrene	9.365	252	1352	17.08	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	1197	16.20	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	1237	16.53	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	1368	17.27	ppb	100

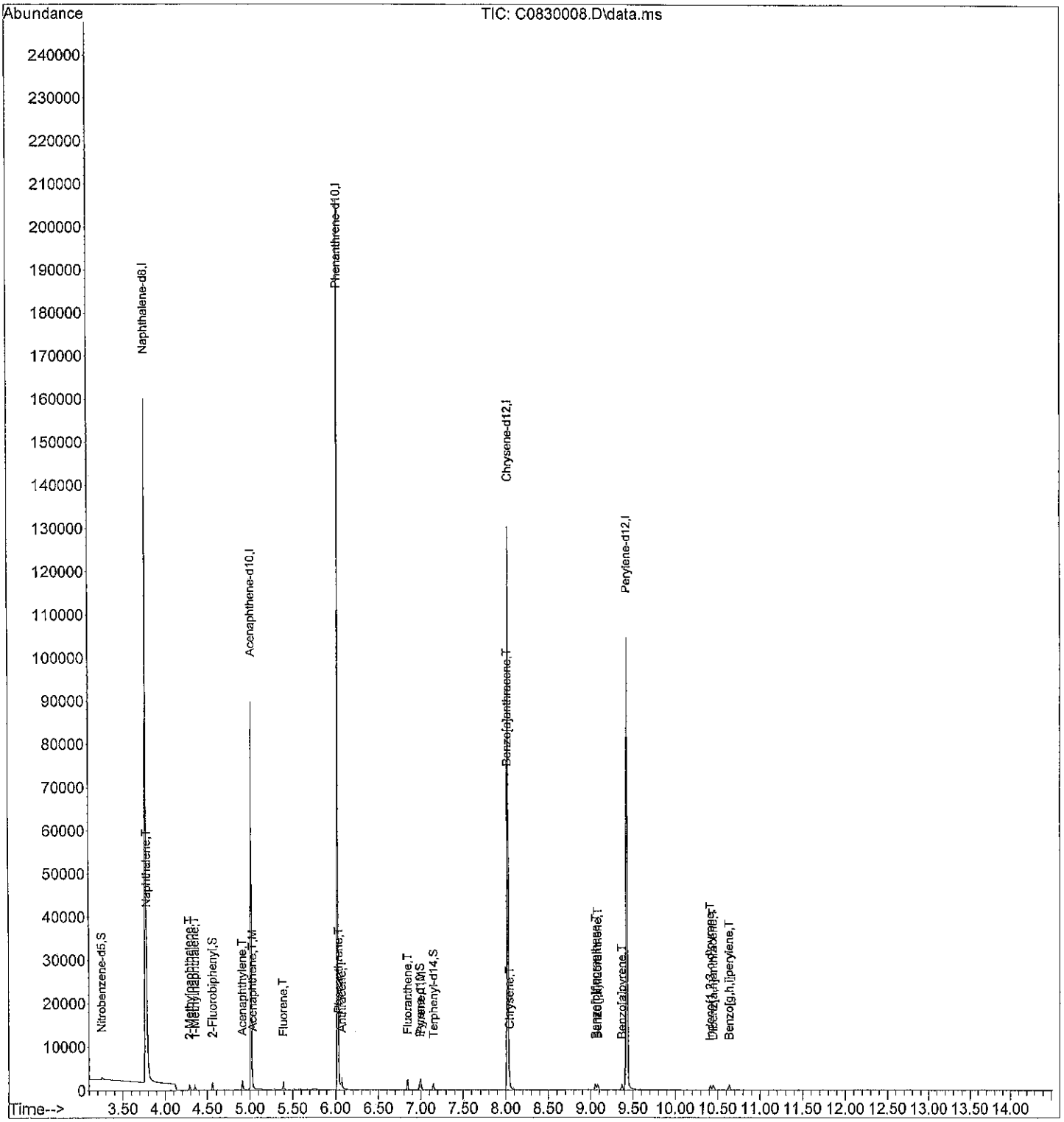
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830008.D
Acq On : 30 Aug 2018 11:23 am
Operator :
Sample : 20 PPB
Misc : SV5-047-28
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 30 11:38:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830009.D
Acq On : 30 Aug 2018 11:45 am
Operator :
Sample : 50 PPB
Misc : SV5-047-27
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 30 12:00:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	138246	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	69005	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	127889	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	117749	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	117571	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	10200	516.90	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 51.69%			
7) 2-Fluorobiphenyl	4.556	172	2926	47.36	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 4.74%#			
11) Pyrene-d10	6.988	212	3050	49.32	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 4.93%#			
18) Terphenyl-d14	7.150	244	2811	50.06	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 5.01%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	3696	50.57	ppb	100
4) 2-Methylnaphthalene	4.287	142	2482	48.87	ppb	100
5) 1-Methylnaphthalene	4.353	142	2357	48.79	ppb	100
8) Acenaphthylene	4.904	152	3763	45.84	ppb	100
9) Acenaphthene	5.028	153	2364	46.73	ppb	100
12) Fluorene	5.390	166	2807	49.20	ppb	100
13) Phenanthrene	6.032	178	4042	48.38	ppb	100
14) Anthracene	6.067	178	3964	47.48	ppb	100
15) Fluoranthene	6.843	202	4380	47.91	ppb	100
16) Pyrene	6.999	202	4490	47.74	ppb	100
19) Benzo[a]anthracene	8.016	228	4353	46.00	ppb	100
20) Chrysene	8.044	228	3888	47.30	ppb	100
22) Benzo[b]fluoranthene	9.056	252	3705	44.53	ppb	100
23) Benzo(j,k)fluoranthene	9.084	252	3810	46.98	ppb	100
24) Benzo[a]pyrene	9.364	252	3494	44.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.409	276	3121	42.60	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	3227	43.48	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	3526	44.87	ppb	100

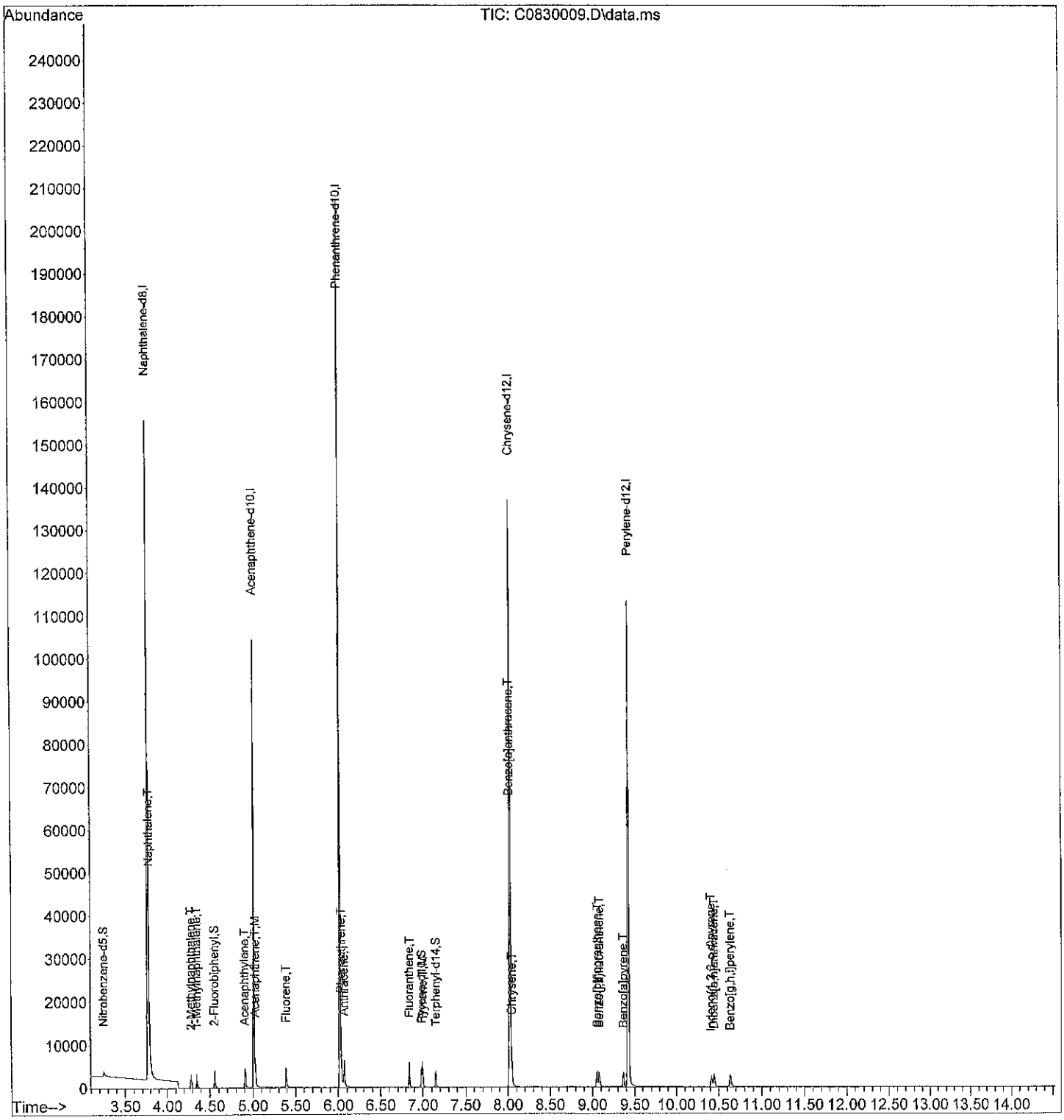
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830009.D
Acq On : 30 Aug 2018 11:45 am
Operator :
Sample : 50 PPB
Misc : SV5-047-27
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 30 12:00:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830010.D
Acq On : 30 Aug 2018 12:07 pm
Operator :
Sample : 100 PPB
Misc : SV5-047-26
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 30 12:22:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	135124	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	70294	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.020	188	127515	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	118297	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	117723	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	5045	261.57	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 26.16%			
7) 2-Fluorobiphenyl	4.556	172	5515	87.63	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 8.76%#			
11) Pyrene-d10	6.982	212	5857	94.98	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 9.50%#			
18) Terphenyl-d14	7.145	244	5188	91.97	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 9.20%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	6944	97.20	ppb	100
4) 2-Methylnaphthalene	4.287	142	4667	94.02	ppb	100
5) 1-Methylnaphthalene	4.353	142	4445	94.14	ppb	100
8) Acenaphthylene	4.905	152	7031	84.08	ppb	100
9) Acenaphthene	5.028	153	4359	84.59	ppb	100
12) Fluorene	5.390	166	5372	94.43	ppb	100
13) Phenanthrene	6.032	178	7585	91.05	ppb	100
14) Anthracene	6.067	178	7540	90.58	ppb	100
15) Fluoranthene	6.837	202	8296	91.01	ppb	100
16) Pyrene	6.994	202	8551	91.18	ppb	100
19) Benzo[a]anthracene	8.012	228	7930	89.21	ppb	100
20) Chrysene	8.044	228	7368	89.21	ppb	100
22) Benzo[b]fluoranthene	9.052	252	7170	86.07	ppb	100
23) Benzo(j,k)fluoranthene	9.079	252	7044	86.74	ppb	100
24) Benzo[a]pyrene	9.364	252	6654	84.62	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	5887	80.24	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	5930	79.80	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	6626	84.22	ppb	100

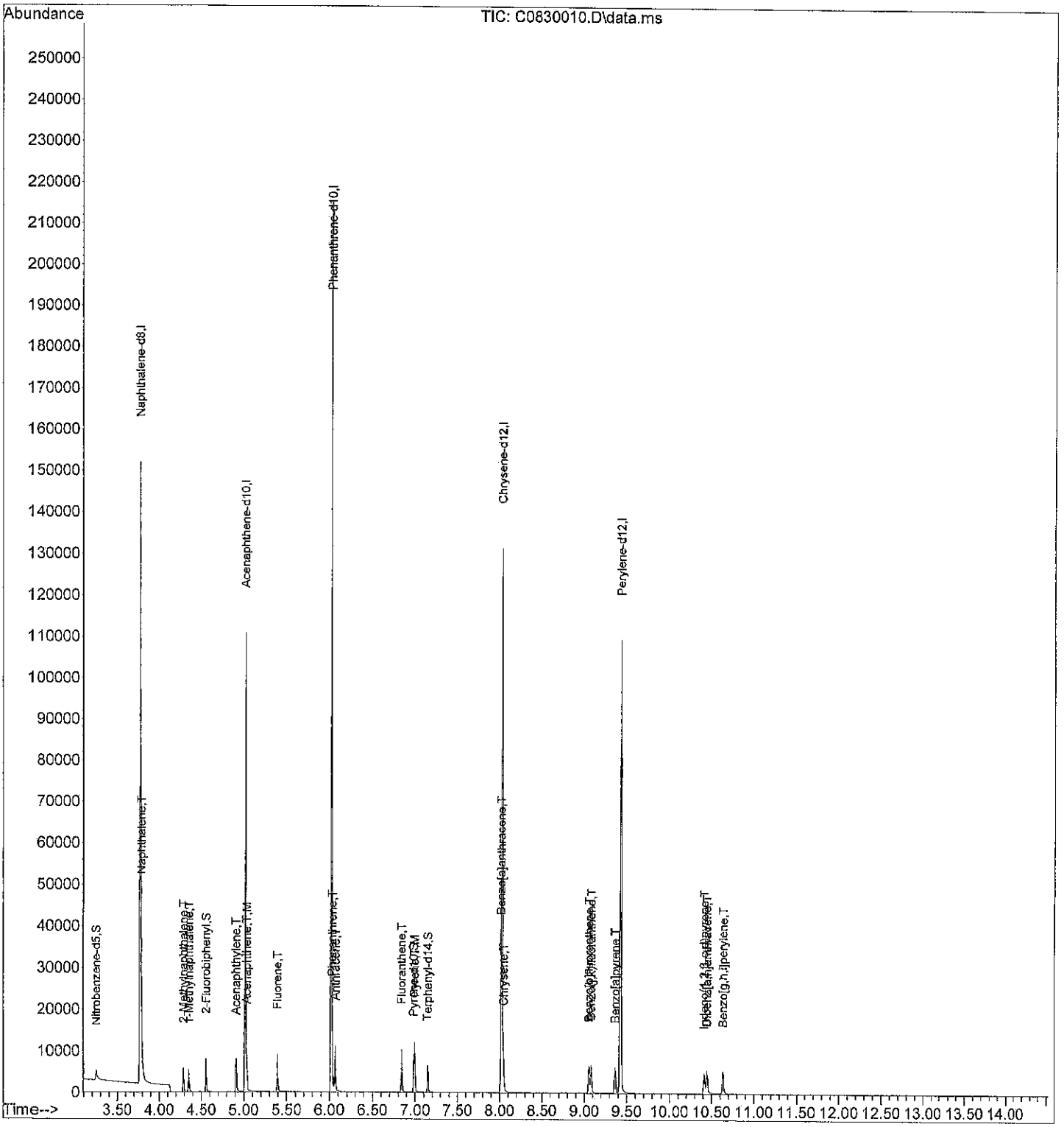
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830010.D
Acq On : 30 Aug 2018 12:07 pm
Operator :
Sample : 100 PPB
Misc : SV5-047-26
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 30 12:22:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830011.D
Acq On : 30 Aug 2018 12:29 pm
Operator :
Sample : 200 PPB
Misc : SV5-047-25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 30 12:43:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	132200	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.014	164	67339	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	125973	2000.00	ppb	-0.10
17) Chrysene-d12	8.022	240	116882	2000.00	ppb	-0.15
21) Perylene-d12	9.424	264	116674	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	16073	851.78	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 85.18%			
7) 2-Fluorobiphenyl	4.559	172	10851	179.99	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 18.00%#			
11) Pyrene-d10	6.982	212	11496	188.71	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 18.87%#			
18) Terphenyl-d14	7.150	244	10348	185.66	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 18.57%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	13762	196.90	ppb	100
4) 2-Methylnaphthalene	4.286	142	9235	190.17	ppb	100
5) 1-Methylnaphthalene	4.352	142	8690	188.12	ppb	100
8) Acenaphthylene	4.906	152	14265	178.08	ppb	100
9) Acenaphthene	5.029	153	8726	176.76	ppb	100
12) Fluorene	5.391	166	10198	181.45	ppb	100
13) Phenanthrene	6.033	178	14813	179.98	ppb	100
14) Anthracene	6.068	178	14898	181.16	ppb	100
15) Fluoranthene	6.843	202	16374	181.83	ppb	100
16) Pyrene	6.993	202	16866	182.04	ppb	100
19) Benzo[a]anthracene	8.014	228	15307	181.09	ppb	100
20) Chrysene	8.045	228	14771	181.02	ppb	100
22) Benzo[b]fluoranthene	9.054	252	13845	167.70	ppb	100
23) Benzo(j,k)fluoranthene	9.081	252	14636	181.86	ppb	100
24) Benzo[a]pyrene	9.362	252	13209	169.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	11896	163.60	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	12332	167.45	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	13262	170.08	ppb	100

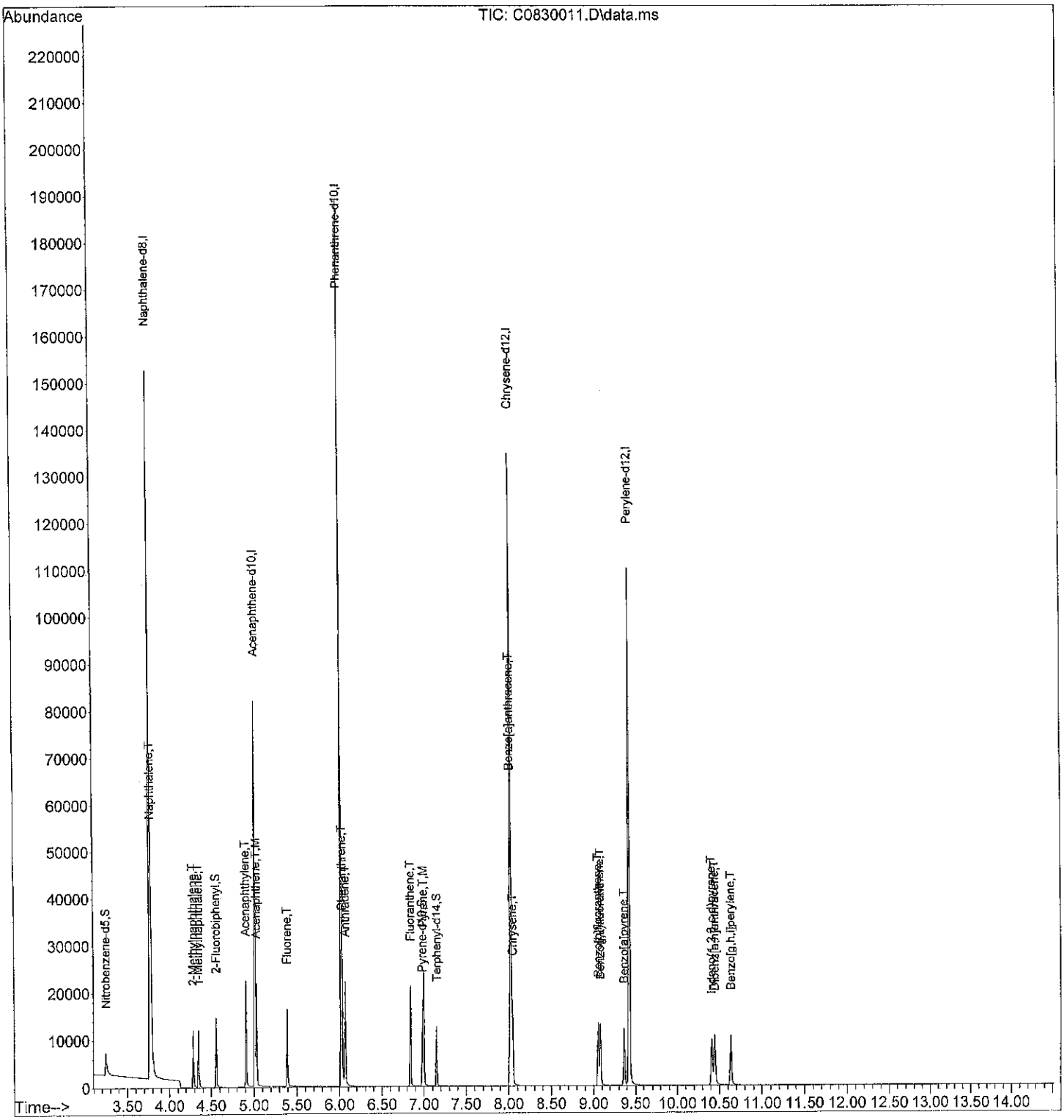
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
F-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830011.D
Acq On : 30 Aug 2018 12:29 pm
Operator :
Sample : 200 PPB
Misc : SV5-047-25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 30 12:43:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830012.D
Acq On : 30 Aug 2018 12:51 pm
Operator :
Sample : 500 PPB
Misc : SV5-047-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 30 13:05:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	130439	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	65226	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	121626	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	113679	2000.00	ppb	-0.14
21) Perylene-d12	9.423	264	112904	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	22027	1183.07	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 118.31%#			
7) 2-Fluorobiphenyl	4.556	172	26186	448.42	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 44.84%			
11) Pyrene-d10	6.982	212	28370	482.35	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 48.23%			
18) Terphenyl-d14	7.145	244	25502	470.45	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 47.04%			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	33788	489.94	ppb	100
4) 2-Methylnaphthalene	4.286	142	22400	467.49	ppb	100
5) 1-Methylnaphthalene	4.353	142	21356	468.55	ppb	100
8) Acenaphthylene	4.905	152	34044	438.77	ppb	100
9) Acenaphthene	5.029	153	21490	449.42	ppb	100
12) Fluorene	5.391	166	25138	463.26	ppb	100
13) Phenanthrene	6.032	178	35602	448.03	ppb	100
14) Anthracene	6.068	178	36505	459.77	ppb	100
15) Fluoranthene	6.837	202	39718	456.83	ppb	100
16) Pyrene	6.994	202	41312	461.83	ppb	100
19) Benzo[a]anthracene	8.012	228	36775	457.80	ppb	100
20) Chrysene	8.044	228	36399	458.63	ppb	100
22) Benzo[b]fluoranthene	9.053	252	36118	452.08	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	34331	440.82	ppb	100
24) Benzo[a]pyrene	9.365	252	33067	438.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	29897	424.90	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	30851	432.90	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	32845	435.28	ppb	100

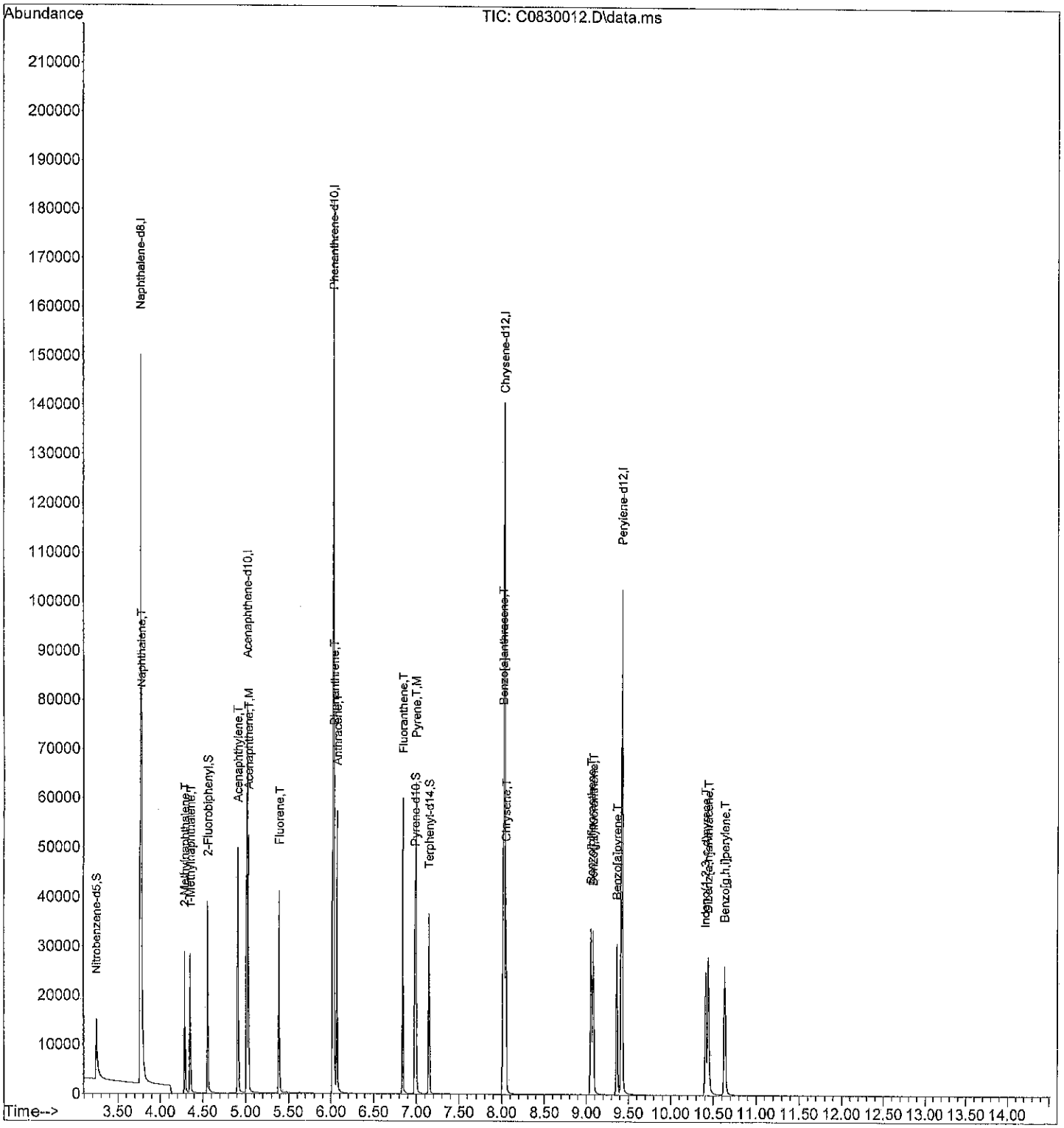
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830012.D
Acq On : 30 Aug 2018 12:51 pm
Operator :
Sample : 500 PPB
Misc : SV5-047-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 30 13:05:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830013.D
Acq On : 30 Aug 2018 1:12 pm
Operator :
Sample : 1000 PPB
Misc : SV5-047-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 30 13:27:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

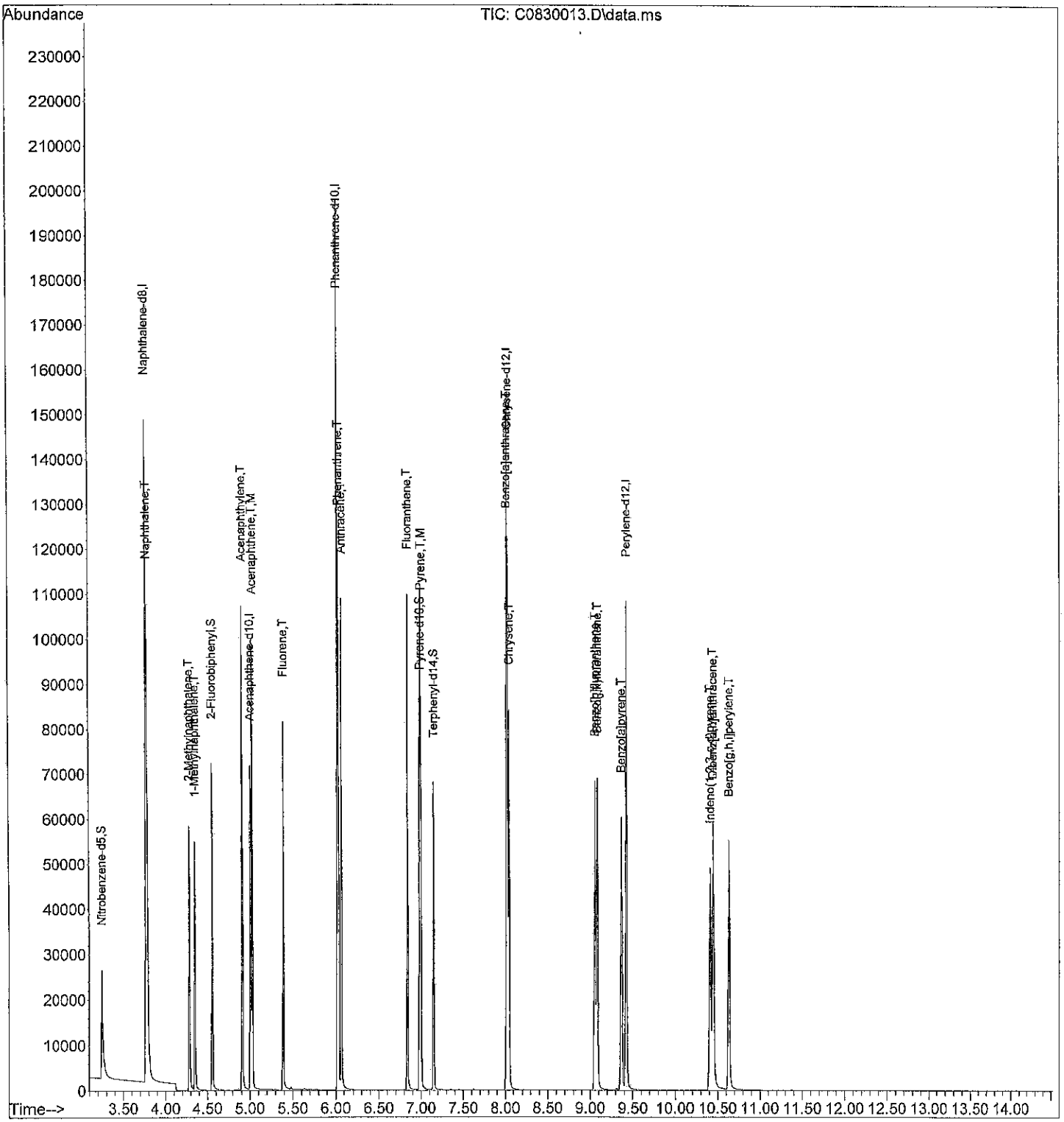
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	132708	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.006	164	66236	2000.00	ppb	-0.11
10) Phenanthrene-d10	6.018	188	125299	2000.00	ppb	-0.11
17) Chrysene-d12	8.025	240	120159	2000.00	ppb	-0.14
21) Perylene-d12	9.426	264	119904	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	21534	1136.81	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 113.68%#			
7) 2-Fluorobiphenyl	4.555	172	51176	862.99	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 86.30%			
11) Pyrene-d10	6.988	212	56678	935.40	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 93.54%			
18) Terphenyl-d14	7.150	244	52571	917.51	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 91.75%			
Target Compounds						Qvalue
3) Naphthalene	3.779	128	68555	977.08	ppb	100
4) 2-Methylnaphthalene	4.286	142	44071	904.04	ppb	100
5) 1-Methylnaphthalene	4.352	142	41504	895.03	ppb	100
8) Acenaphthylene	4.906	152	66528	844.35	ppb	100
9) Acenaphthene	5.029	153	42206	869.20	ppb	100
12) Fluorene	5.391	166	49043	877.30	ppb	100
13) Phenanthrene	6.033	178	70504	861.25	ppb	100
14) Anthracene	6.068	178	72184	882.48	ppb	100
15) Fluoranthene	6.842	202	79763	890.52	ppb	100
16) Pyrene	6.999	202	82000	889.82	ppb	100
19) Benzo[a]anthracene	8.014	228	74306	881.63	ppb	100
20) Chrysene	8.045	228	72713	866.78	ppb	100
22) Benzo[b]fluoranthene	9.055	252	71862	846.97	ppb	100
23) Benzo(j,k)fluoranthene	9.083	252	72961	882.15	ppb	100
24) Benzo[a]pyrene	9.364	252	68252	852.16	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.409	276	61324	820.66	ppb	100
26) Dibenz[a,h]anthracene	10.444	278	64245	848.85	ppb	100
27) Benzo[g,h,i]perylene	10.635	276	67895	847.26	ppb	100

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

ZT
8-30-18

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830013.D
Acq On : 30 Aug 2018 1:12 pm
Operator :
Sample : 1000 PPB
Misc : SV5-047-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 30 13:27:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830014.D
Acq On : 30 Aug 2018 1:34 pm
Operator :
Sample : 5000 PPB
Misc : SV5-047-22
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 30 13:49:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	131768	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	66604	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	125823	2000.00	ppb	-0.10
17) Chrysene-d12	8.028	240	121605	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	120485	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	103211	5487.55	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 548.76%#			
7) 2-Fluorobiphenyl	4.559	172	277320	4650.68	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 465.07%#			
11) Pyrene-d10	6.988	212	283127	4653.19	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 465.32%#			
18) Terphenyl-d14	7.151	244	252328	4351.44	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 435.14%#			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	332467	4772.28	ppb	100
4) 2-Methylnaphthalene	4.286	142	223347	4614.25	ppb	100
5) 1-Methylnaphthalene	4.353	142	207101	4497.97	ppb	100
8) Acenaphthylene	4.912	152	329663	4160.87	ppb	100
9) Acenaphthene	5.035	153	202518	4147.67	ppb	100
12) Fluorene	5.390	166	232399	4139.92	ppb	100
13) Phenanthrene	6.036	178	347300	4224.80	ppb	100
14) Anthracene	6.071	178	360262	4386.03	ppb	100
15) Fluoranthene	6.843	202	387985	4313.64	ppb	100
16) Pyrene	7.000	202	404617	4372.40	ppb	100
19) Benzo[a]anthracene	8.016	228	377967	4459.92	ppb	100
20) Chrysene	8.051	228	359123	4230.05	ppb	100
22) Benzo[b]fluoranthene	9.064	252	369064	4328.86	ppb	100
23) Benzo(j,k)fluoranthene	9.091	252	368166	4429.91	ppb	100
24) Benzo[a]pyrene	9.372	252	355926	4422.47	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.425	276	329785	4392.02	ppb	100
26) Dibenz[a,h]anthracene	10.456	278	339612	4465.53	ppb	100
27) Benzo[g,h,i]perylene	10.651	276	345182	4286.76	ppb	100

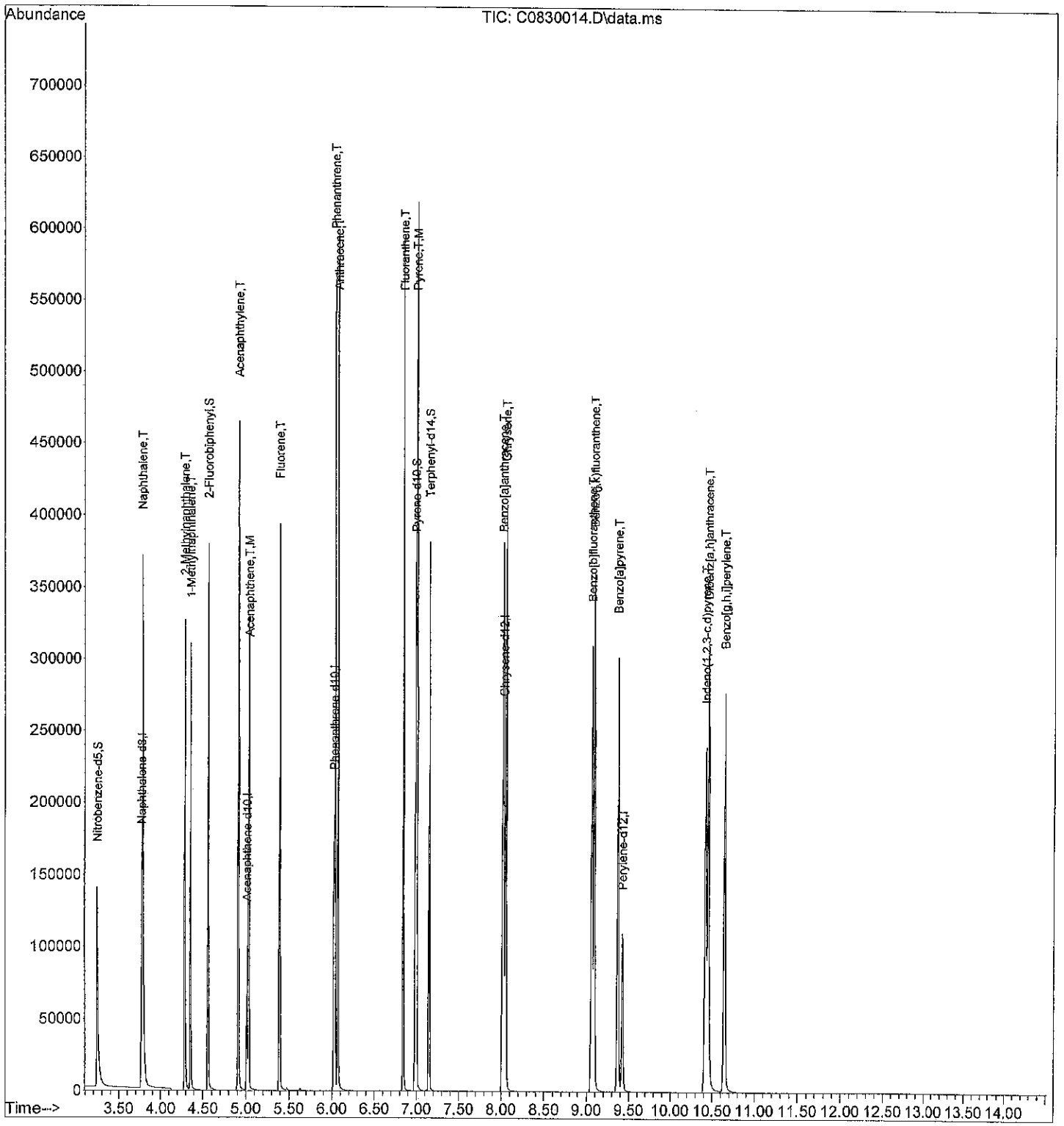
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830014.D
Acq On : 30 Aug 2018 1:34 pm
Operator :
Sample : 5000 PPB
Misc : SV5-047-22
ALS Vial : 14 Sample Multiplier: 1

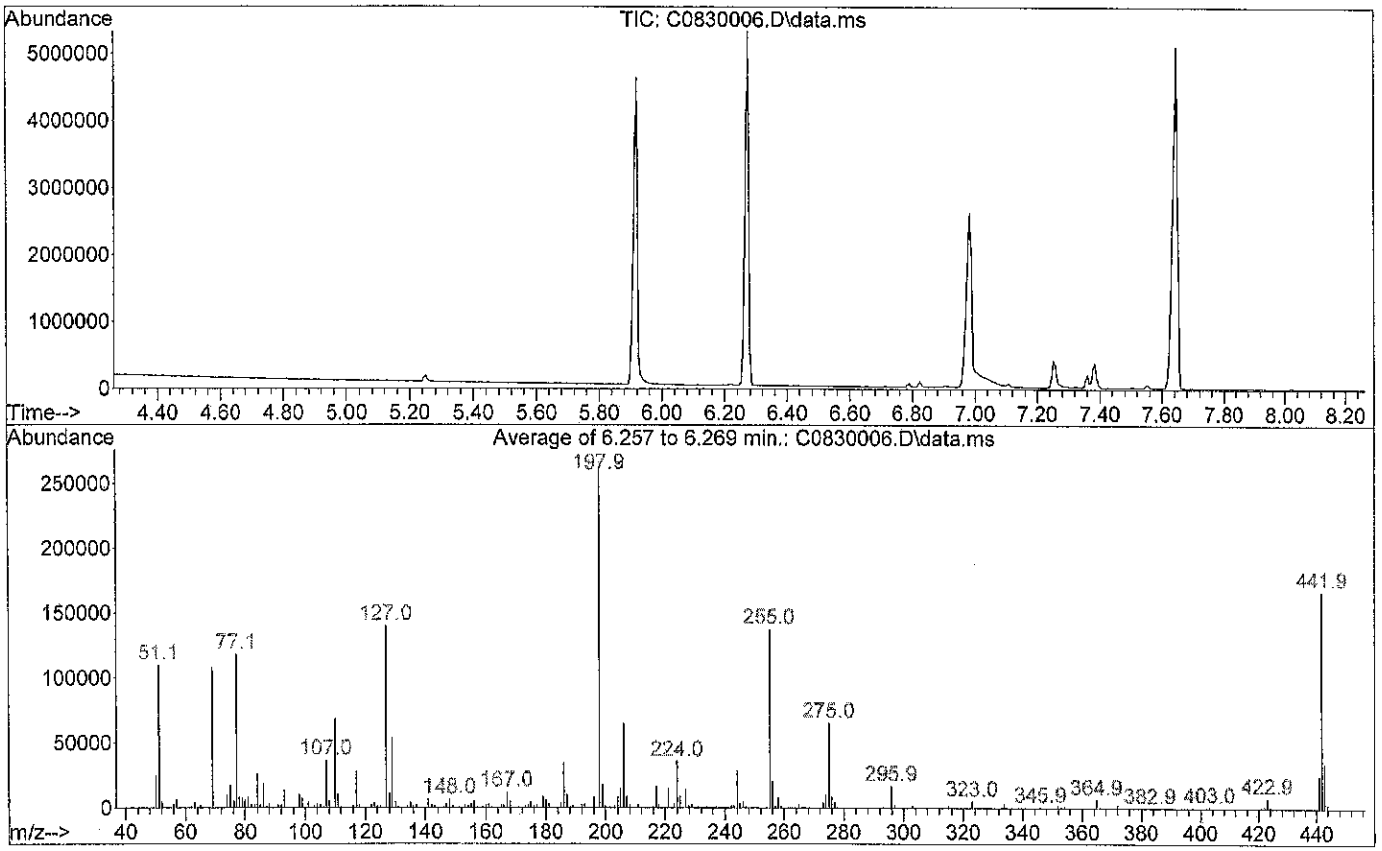
Quant Time: Aug 30 13:49:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Wed Aug 22 14:19:05 2018



Spectrum Information: Average of 6.257 to 6.269 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	41.9	110317	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.3	108584	PASS
70	69	0.00	2	0.8	877	PASS
127	198	10	80	53.4	140594	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	263077	PASS
199	198	5	9	7.0	18361	PASS
275	198	10	60	25.1	66002	PASS
365	198	0.10	100	2.7	7080	PASS
441	443	0.01	100	73.9	25438	PASS
442	198	40	110	63.8	167853	PASS
443	442	15	24	20.5	34413	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 30 10:55:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

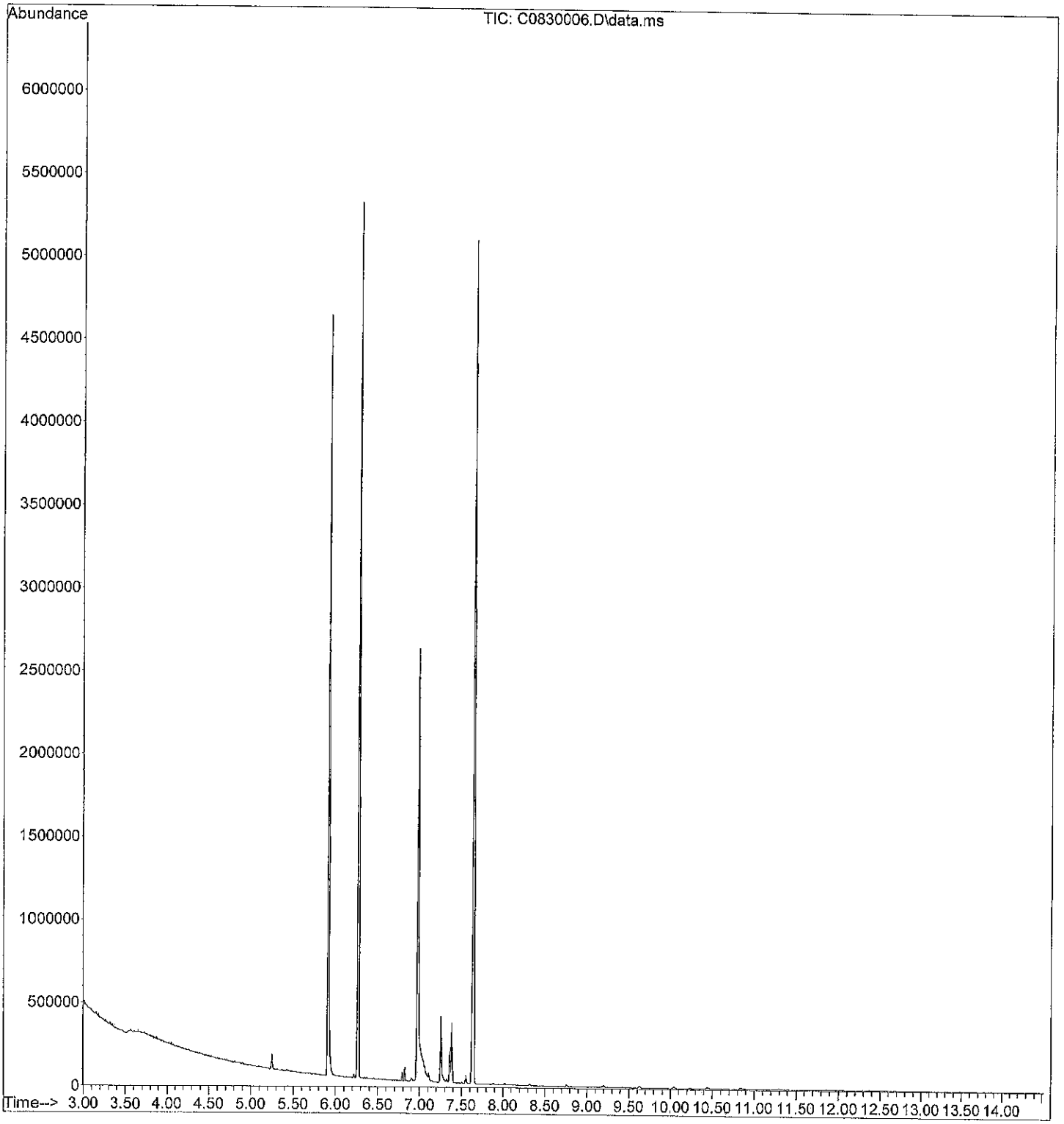
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	0.000	136	0	0.00	ppb	-4.61
6) Acenaphthene-d10	0.000	164	0	0.00	ppb	-5.84
10) Phenanthrene-d10	0.000	188	0	0.00	ppb	-6.87
17) Chrysene-d12	0.000	240	0	0.00	ppb	-9.11
21) Perylene-d12	0.000	264	0	0.00	ppb	-10.62
System Monitoring Compounds						
2) Nitrobenzene-d5	4.091	82	482	0.00	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	0.000	172	0	0.00	ppb	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.00%#		
11) Pyrene-d10	0.000	212	0	0.00	ppb	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.00%#		
18) Terphenyl-d14	0.000	244	0	0.00	ppb	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Naphthalene	0.000		0	N.D.		
4) 2-Methylnaphthalene	0.000		0	N.D.		
5) 1-Methylnaphthalene	0.000		0	N.D.		
8) Acenaphthylene	0.000		0	N.D.		
9) Acenaphthene	5.920	153	1484	Below MDL		
12) Fluorene	6.274	166	3428	Below MDL		
13) Phenanthrene	0.000		0	N.D.		
14) Anthracene	0.000		0	N.D.		
15) Fluoranthene	7.646	202	22700	Below MDL		
16) Pyrene	0.000		0	N.D.		
19) Benzo[a]anthracene	0.000		0	N.D.		
20) Chrysene	0.000		0	N.D.		
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	0.000		0	N.D.		
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	0.000		0	N.D.		
28) Pentachlorophenol	0.000		0	N.D.		
29) Benzidine	0.000		0	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 30 10:55:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

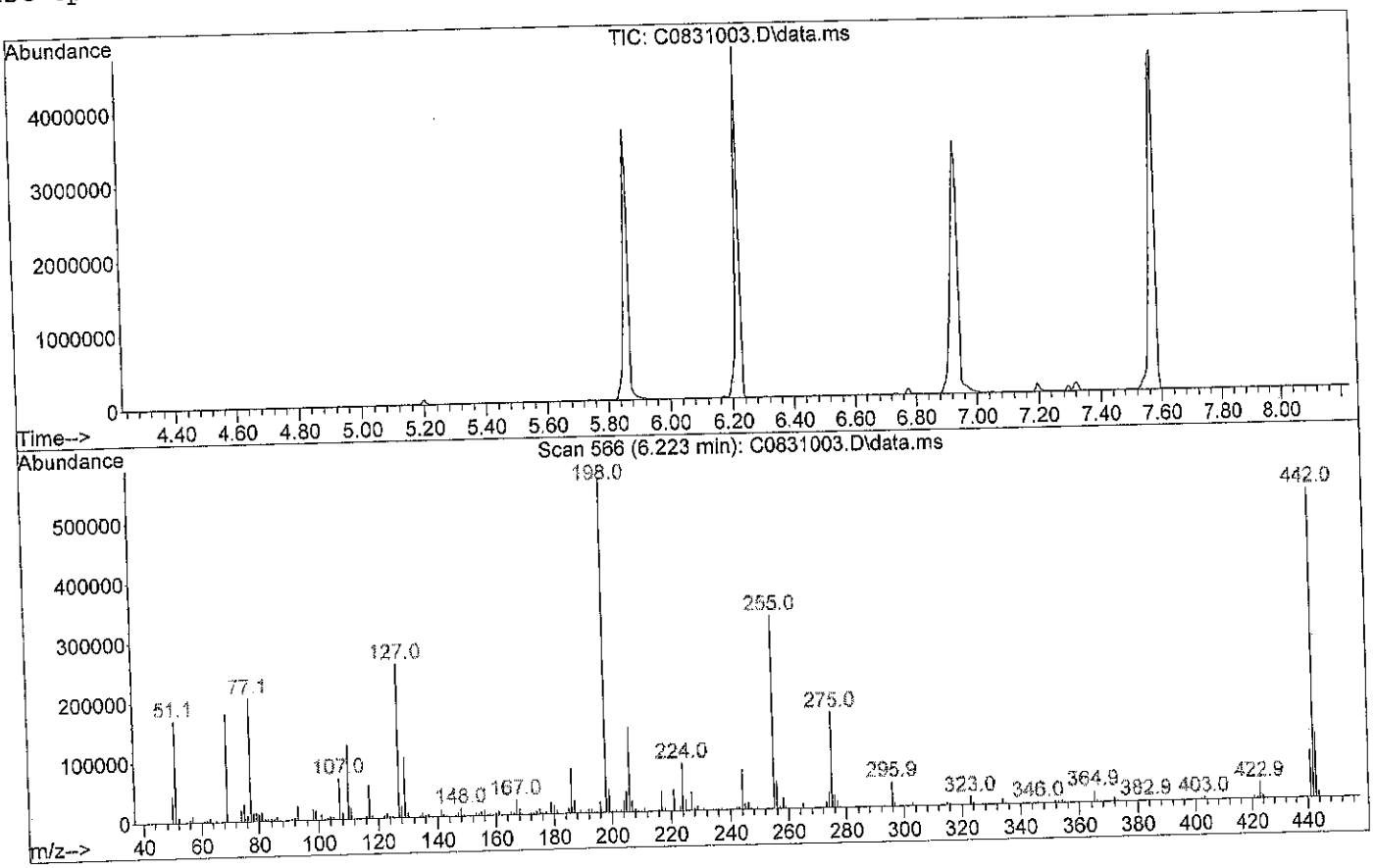


DFTPP

Data Path : X:\SEMIVOLS\COREY\DATA\C180831\
Data File : C0831003.D
Acq On : 31 Aug 2018 9:10 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 3 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Title : PAH'S BY SIMS
Last Update : Wed May 02 13:33:26 2012



Spectrum Information: Scan 566

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	30.3	170304	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	32.2	180928	PASS
70	69	0.00	2	0.6	1047	PASS
127	198	25	75	45.9	257664	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	561792	PASS
199	198	5	9	6.8	38080	PASS
275	198	10	30	28.6	160768	PASS
365	198	0.75	100	3.4	19104	PASS
441	443	0.01	100	72.9	78632	PASS
442	198	40	110	92.6	520128	PASS
443	442	15	24	20.7	107920	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831003.D
Acq On : 31 Aug 2018 9:10 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 09:25:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

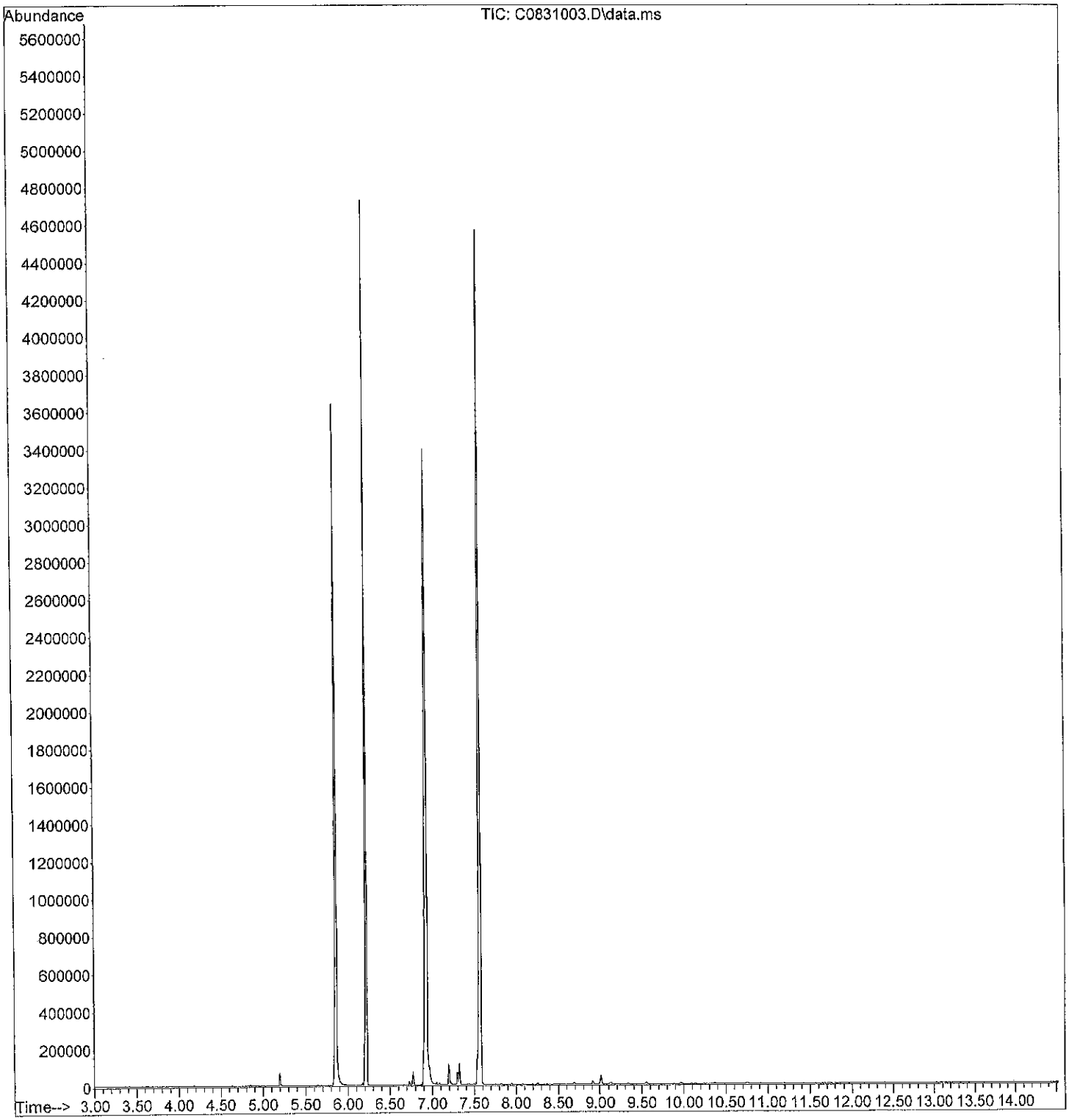
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	0.000	136	0	0.00 ppb	-4.61
6) Acenaphthene-d10	0.000	164	0	0.00 ppb	-5.84
10) Phenanthrene-d10	0.000	188	0	0.00 ppb	-6.87
17) Chrysene-d12	0.000	240	0	0.00 ppb	-9.11
21) Perylene-d12	0.000	264	0	0.00 ppb	-10.62
System Monitoring Compounds					
2) Nitrobenzene-d5	0.000	82	0	0.00 ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#	
7) 2-Fluorobiphenyl	0.000	172	0	0.00 ppb	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.00%#	
11) Pyrene-d10	0.000	212	0	0.00 ppb	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.00%#	
18) Terphenyl-d14	0.000	244	0	0.00 ppb	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.00%#	
Target Compounds					Qvalue
3) Naphthalene	0.000		0	N.D.	
4) 2-Methylnaphthalene	0.000		0	N.D.	
5) 1-Methylnaphthalene	0.000		0	N.D.	
8) Acenaphthylene	0.000		0	N.D.	
9) Acenaphthene	5.863	153	1558	Below MDL	
12) Fluorene	6.223	166	3089	Below MDL	
13) Phenanthrene	0.000		0	N.D.	
14) Anthracene	0.000		0	N.D.	
15) Fluoranthene	7.583	202	23658	Below MDL	
16) Pyrene	0.000		0	N.D.	
19) Benzo[a]anthracene	0.000		0	N.D.	
20) Chrysene	0.000		0	N.D.	
22) Benzo[b]fluoranthene	0.000		0	N.D.	
23) Benzo(j,k)fluoranthene	0.000		0	N.D.	
24) Benzo[a]pyrene	0.000		0	N.D.	
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.	
26) Dibenz[a,h]anthracene	0.000		0	N.D.	
27) Benzo[g,h,i]perylene	0.000		0	N.D.	
28) Pentachlorophenol	0.000		0	N.D.	
29) Benzidine	0.000		0	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831003.D
Acq On : 31 Aug 2018 9:10 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 09:25:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration



GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C180830\C0830006.D
Tune Time : 30 Aug 2018 10:40 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C180830\C0830015.D

	(PRY)	(NPT)	(ACE)	(PHN)
		121192	60983	114380
		(CRY)	(PRY)	
		108137	107919	

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0830007.D								
	10 PPB	0*	1*	1*	1*	143494	71270	131245
			119153		119411			
C0830008.D								
	20 PPB	3*	2*	2*	2*	143234	68528	130385
			119131		118529			
C0830009.D								
	50 PPB	52	5*	5*	5*	138246	69005	127889
			117749		117571			
C0830010.D								
	100 PPB	26	9*	9*	9*	135124	70294	127515
			118297		117723			
C0830011.D								
	200 PPB	85	18*	19*	19*	132200	67339	125973
			116882		116674			
C0830012.D								
	500 PPB	118*	45	48	47	130439	65226	121626
			113679		112904			
C0830013.D								
	1000 PPB	114*	86	94	92	132708	66236	125299
			120159		119904			
C0830014.D								
	5000 PPB	549*	465*	465*	435*	131768	66604	125823
			121605		120485			
C0830015.D								
	PAH ICV	39	56	52	51	121192	60983	114380
			108137		107919			
C0830016.D								
	MB0828S1	53	103*	103	101*	107959	53726	101445
			95211		95310			
C0830017.D								
	MB0830W1	6*	83	88	120*	106146	54709	101553
			93775		92888			
C0830018.D								
	MB0830W1 R	5*	84	87	122*	108426	55177	103760
			95224		94472			
C0830019.D								
	SB0830W1	2*	51	84	83	109744	57343	105297
			97562		96490			
C0830020.D								

	SB0830W1 D	4*	87	100	99*	108891	54183	101848
				93880		93749		
C0830021.D								
	08-326-03	4*	67	84	87	109039	54476	104563
				95999		93580		
C0830022.D								
	08-326-03	7*	82	88	97*	107315	55704	105332
				95594		92082		
C0830023.D								
	08-326-03	6*	77	89	100*	106899	56517	104342
				94834		91698		
C0830024.D								
	08-309-01	4*	53	85	87	100263	50866	96942
				90293		90810		
C0830025.D								
	08-309-02	4*	42	86	83	101871	88226	101787
				93978		93939		
C0830026.D								
	08-309-03	5*	43	94	90	106302	97373	106634
				97950		99247		
C0830027.D								
	08-326-01	6*	30	96	100*	113703	132308*	111615
				98196		98039		
C0830028.D								
	08-326-02	5*	69	86	95*	105371	58111	109904
				97201		94417		
C0830029.D								
	08-326-05	7*	70	86	87	100873	54644	104033
				94541		93609		
C0830030.D								
	08-348-01	7*	74	96	85	106995	60990	111661
				109776		113052		
C0830031.D								
	08-348-02	6*	70	89	91	102577	53273	104991
				92703		93260		
C0830032.D								
	08-348-03	5*	69	88	94*	117415	66500	114526
				93117		91977		
C0830033.D								
	08-348-04	7*	76	93	95*	102653	55318	106363
				96143		95202		
C0830034.D								
	08-348-05	6*	59	83	84	103304	56299	107518
				97538		97305		
C0830035.D								
	08-326-04	7*	50	72	88	91338	75692	95256
				84384		82318		

(fails) - fails 12hr time check * - fails criteria

Created: Fri Aug 31 14:46:26 2018 Corey

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C180831\C0831003.D
Tune Time : 31 Aug 2018 9:10 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C180831\C0831004.D

(PRY)	(NPT)	(ACE)	(PHN)
	118065	58915	115124

(CRY)	(PRY)
107572	109008

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0831005.D	08-326-01	1*	7*	10*	11*	110820	54898	106122
		101686		103189				
C0831006.D	08-348-01	1*	8*	9*	9*	112590	56018	105686
		98659		102074				
C0831007.D	08-344-01	945*	3147*	248*	2931*	106192	55659	101190
		93767		92871				
C0831008.D	08-348-03	0*	1*	1*	1*	119851	61774	121221
		112410		114502				
C0831009.D	08-348-03	0*	2*	2*	2*	108716	54444	106993
		100535		102651				
C0831010.D	08-292-02	390*	1300*	88	1152*	115742	59910	111264
		101669		101424				
C0831011.D	MB0831W1	1082*	3220*	255*	3009*	105466	56640	102034
		94451		94962				
C0831012.D	08-344-01	1033*	3415*	246*	2737*	113906	59946	111161
		100587		101411				
C0831013.D	08-324-01	1167*	3701*	277*	3159*	101475	54208	97949
		89052		88935				
C0831014.D	08-324-02	663*	2545*	76	2178*	108764	57188	106522
		97377		100182				
C0831015.D	08-143-02	6*	7*	11*	9*	123541	64258	114445
		107463		113804				

(fails) - fails 12hr time check * - fails criteria

Created: Sat Sep 01 12:02:51 2018 Corey

Sequence Name: C:\msdchem\1\sequence\C180830.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\C180830\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	C0830001 SIMSCAN DFTPP
2)	Sample 2	C0830002 CSIM0822 PAH CCV0830-1
3)	Sample 3	C0830003 CSIM0822 SB0830W1
4)	Sample 4	C0830004 CSIM0822 SBD0830W1
5)	Sample 5	C0830005 CSIM0822 PAH CCV0830-2
6)	Sample 6	C0830006 SIMSCAN DFTPP
7)	Sample 7	C0830007 CSIM0830 10 PPB
8)	Sample 8	C0830008 CSIM0830 20 PPB
9)	Sample 9	C0830009 CSIM0830 50 PPB
10)	Sample 10	C0830010 CSIM0830 100 PPB
11)	Sample 11	C0830011 CSIM0830 200 PPB
12)	Sample 12	C0830012 CSIM0830 500 PPB
13)	Sample 13	C0830013 CSIM0830 1000 PPB
14)	Sample 14	C0830014 CSIM0830 5000 PPB
15)	Sample 15	C0830015 CSIM0830 PAH ICV
16)	Sample 16	C0830016 CSIM0830 MB0828S1
17)	Sample 17	C0830017 CSIM0830 MB0830W1
18)	Sample 18	C0830018 CSIM0830 MB0830W1 RR
19)	Sample 19	C0830019 CSIM0830 SB0830W1
20)	Sample 20	C0830020 CSIM0830 SB0830W1 DUP
21)	Sample 21	C0830021 CSIM0830 08-326-03
22)	Sample 22	C0830022 CSIM0830 08-326-03 MS
23)	Sample 23	C0830023 CSIM0830 08-326-03 MSD
24)	Sample 24	C0830024 CSIM0830 08-309-01
25)	Sample 25	C0830025 CSIM0830 08-309-02
26)	Sample 26	C0830026 CSIM0830 08-309-03
27)	Sample 27	C0830027 CSIM0830 08-326-01
28)	Sample 28	C0830028 CSIM0830 08-326-02
29)	Sample 29	C0830029 CSIM0830 08-326-05
30)	Sample 30	C0830030 CSIM0830 08-348-01
31)	Sample 31	C0830031 CSIM0830 08-348-02
32)	Sample 32	C0830032 CSIM0830 08-348-03
33)	Sample 33	C0830033 CSIM0830 08-348-04
34)	Sample 34	C0830034 CSIM0830 08-348-05
35)	Sample 35	C0830035 CSIM0830 08-326-04
36)	Sample 36	C0830036 CSIM0830 BLANK TEST
37)	Sample 37	C0830037 CSIM0830 BLANK TEST
38)	Sample 38	C0830038 CSIM0830 BLANK TEST
39)	Sample 39	C0830039 CSIM0830 BLANK TEST
40)	Sample 40	C0830040 CSIM0830 BLANK TEST
41)	Sample 41	C0830041 CSIM0830 BLANK TEST
42)	Sample 42	C0830042 CSIM0830 BLANK TEST
43)	Sample 43	C0830043 CSIM0830 BLANK TEST

	Line	Type	Vial	DataFile	Method	Sample Name
44)		Sample	44	C0830044	CSIM0830	BLANK TEST
45)		Sample	45	C0830045	CSIM0830	BLANK TEST
46)		Sample	46	C0830046	CSIM0830	CCV TEST

Sequence Name: C:\msdchem\1\sequence\C180831.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\C180831\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	C0831001 SIMSCAN DFTPP
2)	Sample 2	C0831002 CSIM0830 PAH CCV0831-1
3)	Sample 3	C0831003 SIMSCAN DFTPP
4)	Sample 4	C0831004 CSIM0830 PAH CCV0831-2
5)	Sample 5	C0831005 CSIM0830 08-326-01 10X
6)	Sample 6	C0831006 CSIM0830 08-348-01 10X
7)	Sample 7	C0831007 CSIM0830 08-344-01
8)	Sample 8	C0831008 CSIM0830 08-348-03 100X
9)	Sample 9	C0831009 CSIM0830 08-348-03 50X
10)	Sample 10	C0831010 CSIM0830 08-292-02 5X
11)	Sample 11	C0831011 CSIM0830 MB0831W1
12)	Sample 12	C0831012 CSIM0830 08-344-01
13)	Sample 13	C0831013 CSIM0830 08-324-01
14)	Sample 14	C0831014 CSIM0830 08-324-02
15)	Sample 15	C0831015 CSIM0830 08-143-02 5X
16)	Sample 16	C0831016 CSIM0830 M

OnSite Environmental Inc.

EPA 8270 EXTRACTION LOG

Date Extracted: 8/30/18 Time Ext. _____ am/pm

Surrogate Std. ID: SVS-050-03

Analysis: PAH

Spike Std. ID: SVS-050-02

Matrix: H_2O

OSE TRAVELER #	pH	SAMPLE W/V	INTER VOLUME	SAMPLE FIN VOL	AMT SUR	AMT SPIKE	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
MB 083018W1	<2	1000mL	30mL	1mL	1mL	—	No	TL	
SB 083018W1						1mL			
SBD 083018W1									
08-309-01c		1571-515							
02c		1583-598							
03c		1568-585							
08-326-01a		1580-587							
02b		1585-589							
03c		1578-619							
03b MSD		1580-649				1mL			
03a MS		1564-621							
04b		1571-572							
05b		1575-538							
08-342-01c		1571-627							
02c		1576-609							
03c		1580-618							
04c		1572-616							
05c		1570-601							
06c		1581-589							
08-348-01b		1580-647							
02b		1578-592							
03b		1574-571							
04b		1581-601							
05b		1580-581							

Clean-up (L)Alumina

Work continued from Page									
Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
BNA CCV	SVS01901	SVS018 12/12	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	12-14-17
1,4 Dioxane	SVS01902	SV417401	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SVS01903	SVS01009	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SVS01904	SVS01009	10 ppm	1		1			12-15-17
BNA CCV	SVS01905	SVS018 12/12	200 ppm	20/20 ul		20 ppm			1
PAH CCV	SVS01906	SVS01009	10 ppm	10 ul		500 ppb			12-19-17
PAH CCV	SVS01907	SVS01009	1	1		1			12-20-17
BNA CCV	SVS01908	SVS018 12/12	200 ppm	20/200 ul		20 ppm			1
PAH CCV	SVS01909	SVS01009	10 ppm	10 ul		500 ppb			12-21-17
PAH CCV	SVS01910	SVS01009	10 ppm	10 ul		500 ppb			12-27-17
PAH CCV	SVS01911	SVS01009	10 ppm	10 ul		500 ppb			12-29-17
DFTPP	SVS01912	SV420404	1000 ppm	50 ul	1.0 mL	50 ppm		ZT	1-2-18
Cal Mix #5	SVS01913	31995 Recieved 2/24/17 8270 Calibration Mix #5, Revised Lot# A0121340 Expire: 08/2022 Store: 10°C or colder 1 mL ZT 2000 µg/mL each in Methylene Chloride RESTEK Sonication required. Mix is photosensitive.						ZT	1-2-18
PAH Stock	SVS01914	SVS01903	2000 ppm	1.0 mL	20 mL	100 ppm	MeCl2	ZT	1-2-18
PAH Matrix Spike	SVS01915	SVS01914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone		
PAH CCV	SVS01916	SVS01009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	1-2-18
BNA CCV	SVS01917	SVS018 12/12	200 ppm	20/200 ul		20 ppm			
BNA CCV	SVS01918	SVS018 12/12	200 ppm	20/200 ul	200 ul	20 ppm	MeCl2	ZT	01-3-18
PAH CCV	SVS01919	SVS01009	10 ppm	10 ul	200 ul	500 ppb			1-3-18
PAH CCV	SVS01920	SVS01009	10 ppm						1-4-18
PAH CCV	SVS01921	SVS01009	10 ppm						1-5-18
PAH ICV	SVS01922	SVS01010	10 ppm						1
PAH CCV	SVS01923	SVS01009	10 ppm						11-8-18
PAH CCV	SVS01924								1
PAH CCV	SVS01925								11-9-18
PAH CCV	SVS01926								11-10-18
BNA CCV	SVS01927	SVS018 12/12	200 ppm	20/20 ul	200 ul	20 ppm			1

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
BNA 60	SV502001	SV5018 10/12	200 ppm	60/60 ul	200 ul	60 ppm	MeCl2	ZT	1-10-18
50	02			50/60		50			
35	03			35/35		35			
20	04			40/40	400 ul	20			
10	05			10/10	200 ul	10			
5	06	SV502004	20 ppm	50		5			
2	07			20		2			
1	08			10		1			
BNA ICV	SV502009	SV5 009-17 000-15	200 ppm	20/20		20			
BNA CCV	SV502010	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm			1-11-18
BNA CCV	SV502011	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm			1-15-18
PAH CCV	SV502012	SV501009	10 ppm	10 ul	200 ul	500 ppb			1
PAH CCV	SV502013	SV501009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	1-16-18
BNA CCV	SV502014	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm	1	1	1
8270 Surr. Stock	SV502015							ZT	1-17-18
8270 Surr.	SV502016	SV502015	4000 ppm	2 mL	100 mL	80 ppm	Acetone	ZT	1-17-18
PAH INST.	SV502017	SV501719	4000 ppm	40 ul	4 mL	40 ppm	MeCl2	ZT	1
PAH ICV	SV502018	SV501010	10 ppm	10 ul	200 ul	500 ppb	MeCl2	1	1
BNA CCV	SV502019	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm	1	1	1
Revised B/N Surr.	SV502020							ZT	1-17-18
PAH MDL Surr.	SV502021	SV502020	1000 ppm	5 ul	10 mL	0.5 ppm	Acetone	ZT	1-17-18

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280

Signal Word Warning

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280

Signal Word Warning

31887
Revised B/N Surrogate Mix
Lot# A0124675
Expire: 01/2023 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Sonication required. Mix is photosensitive

Recieved 9-21-17

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page

ANALYTE	LAB ID	STOCK ID	STOCK CONC.	STOCK VOL.	FINAL VOL.	FINAL CONC.	SOLVENT	ANALYST	DATE
Cal Mix #5 PAH	SV502301	31995 8270 Calibration Mix #5, Revised Lot# A0122625 Expire: 10/2022 Store: 10°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK Sonication required. Mix is photosensitive. Recieved 2-24-17 ZT						ZT	2-2-18
PAH CCV Mix	SV502302	SV502301	2000 ppm	50 µl	10 mL	10 ppm	$MeCl_2$	ZT	2-2-18
		SV502020	1000 ppm	100 µl	〃	〃	〃	〃	〃
PAH INST.	SV502303	SV501719	4000 ppm	40 µl	4 mL	40 ppm	$MeCl_2$	ZT	
PAH Ical									
5000	SV502304	SV502302	10 ppm	500 µl	10 mL	5000 ppb	$MeCl_2$	ZT	2-2-18
1000	05	〃	〃	100	〃	1000	〃	〃	〃
500	06	〃	〃	50	〃	500	〃	〃	〃
200	07	〃	〃	20	〃	200	〃	〃	〃
100	08	〃	〃	10	〃	100	〃	〃	〃
50	09	SV502305	1000 ppb	50	〃	50	〃	〃	〃
20	10	〃	〃	20	〃	20	〃	〃	〃
10	11	〃	〃	10	〃	10	〃	〃	〃
PAH ICV	SV502312	SV501010	10 ppm	10	200 µl	500	〃	〃	2-5-18
PAH ICV	SV502313	SV501010	〃	〃	〃	〃	〃	〃	〃
PAH CCV	SV502314	SV502302	10 ppm	10 µl	200 µl	500 ppb	$MeCl_2$	ZT	2-6-18
BNA CCV	SV502315	SV501819	200 ppm	20/20 µl	200 µl	20 ppm	〃	〃	〃
PAH CCV	SV502316	SV502302	10 ppm	10 µl	200 µl	500 ppb	〃	〃	2-7-18
BNA CCV	SV502317	SV501819	200 ppm	20/20 µl	200 µl	20 ppm	〃	〃	〃
PAH CCV	SV502318	SV502302	10 ppm	10 µl	〃	500 ppb	〃	〃	〃
PAH INST	SV502319	SV501719	4000 ppm	40 µl	4 mL	40 ppm	〃	〃	〃
PAH ICV	SV502320	SV501010	10 ppm	10 µl	200 µl	500 ppb	〃	〃	〃
1,4 dioxane Std. (ICV)	SV502321	31853 1,4-dioxane Lot# A0128697 Expire: 09/2022 Store: 0°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK						ZT	2-8-18
1,4 dioxane	SV502322	SV502321	2000 ppm	10 µl	2 mL	10 ppm	$MeCl_2$	ZT	2-8-18
ICV Stock		SV502020	1000 ppm	20 µl	〃	〃	〃	〃	

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	ANALYST	DATE
PAH ICAL 5000	SVS-033-01	SVS-023-02	10 ppm	500 µl	1.0 ml	5000 ppb	MeCl2	ZT	4-17-18
1000	-02			100 µl		1000			
500	-03			50		500			
200	-04			20		200			
100	-05			10		100			
50	-06	SVS-33-02	1.0 ppm	50		50			
20	-07			20		20			
10	-08			10		10			
BNA ICV	SVS-33-09	SVS-26 4/5	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	
PAH ICV	SVS-33-10	SVS-10-10	10 ppm	10 µl	200 µl	500 ppb	2	2	
PAH CCV	SVS-33-11	SVS-022-2	10 ppm	10 µl	200 µl	500 ppb	MeCl2	ZT	4-17-18
BNA CCV	SVS-33-12	SVS-26 4/5	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	4-02-18
BNA CCV	SVS033313	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	4-13-18
PAH CCV	SVS033314	SVS02302	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SVS033315	SVS02302	10 ppm	10 ul	200 ul	500 ppb			4-16-18
BNA CCV	SVS033316	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm			
PAH CCV	SVS033317	SVS02302	10 ppm	10 ul	200 ul	500 ppb			4-17-18
PAH INST	SVS033318	SVS03025	4000 ppm	40 ml	4 mL	40 ppm			
PAH CCV	SVS033319	SVS02302	10 ppm	10 ul	200 ul	500 ppb			
DFTPP MIX	SVS033320							ZT	4-17-18
DFTPP	SVS033321	SVS033320	1000 ppm	50 ul	1.0 mL	50 ppm	MeCl2	ZT	4-17-18
PAH Surr. Stock	SVS033322							ZT	4-17-18
PAH Surr.	SVS033323	SVS033322	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	4-17-18
BNA CCV	SVS033324	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2		
PAH CCV	SVS033325	SVS02302	10 ppm	10 ul	200 ul	500 ppb			4-18-18
BNA CCV	SVS033326	SVS026 4/5	200 ppm	20/20 ul	1	20 ppm			

NOTEBOOK INSERT LABEL

EPA 8270 GC/MS Tuning Solution II 47548-U
Lot: XA19099V EXP: MAR/2019 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED:_____
SUPELCO Solutions within.
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

31887 US/EN
Revised B/N Surrogate Mix
Lot# A0134896
Expire: 01/2024 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Rec. 4-3-18 ZT

Work continued to Page

SIGNATURE DATE

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Work continued from Page

Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH										
	ICV	SV503401							ZT	4-18-18
	Stock Solution									
PAH	ICV	SV503402	SV503401	2000 ppm	50 ul	10 mL	10 ppm	MeCl2	ZT	4-18-18
	Stock		SV502020	1000 ppm	100 ul	"	"	"	"	
PAH	ICV	SV503403	SV503402	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	4-18-18
PAH	CCV	SV503404	SV502302	10 ppm	10 ul	200 ul	500 ppb			4-19-18
BNA	CCV	SV503405	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			4-19-18
PAH	CCV	SV503406	SV502302	10 ppm	10 ul	200 ul	500 ppb			"
PAH	ICV	SV503407	SV503402	10 ppm	10 ul	200 ul	500 ppb			
PAH	CCV	SV503408	SV502302	10 ppm	10 ul	200 ul	500 ppb			4-20-18
BNA	CCV	SV503409	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			"
BNA	60	SV503410	SV502645	200 ppm	60/60 ul	200 ul	60 ppm			4-22-18
	50	-11			50/50		50			
	35	-12			35/35		35			
	20	-13			40/40	400 ul	20			
	10	-14			10/10	200 ul	10			
	5	-15	SV503413	20 ppm	50		5			
	2	-16	"	"	20		2			
	1	-17	"	"	10		1			
BNA	ICV	SV503418	SV501845	200 ppm	20/20 ul		20			
BNA	CCV	SV503419	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			4-23-18
PAH	CCV	SV503420	SV502302	10 ppm	10 ul	200 ul	500 ppb			
PAH	CCV	SV503421	SV502302	10 ppm	10 ul	200 ul				
PAH	CCV	SV503422	SV502302	10 ppm	10 ul	200 ul				4-24-18
PAH	CCV	SV503423	SV502302	10 ppm	10 ul	200 ul				4-25-18
~~PAH~~	~~CCV~~	~~SV503~~								

NOTEBOOK INSERT LABEL

Polynuclear Aromatic Hydrocarbons Mix CRM47543

Lot: ~~LC053ZV~~ XA26145V EXP: APR/~~2017~~ 2020 STORAGE: REFRIGERATE 1 x 1ml

DATE RECEIVED:

SUPELCO Solutions within. 595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

4.29

~~Work continued to Page~~

SIGNATURE DATE

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Work continued from Page

Analyte		Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst Date	Date
PAH	CCV	SVS044461	SVS023002	10 ppm	10 ul	200 ul	500 ppb	$MeCl_2$	ZT	6-15-18
PAH	CCV	SVS044402	SVS023002	10 ppm	10 ul	200 ul	500 ppb			
PAH	ICV	SVS044403	SVS023402	10 ppm	10 ul	200 ul	"			
PAH	CCV	SVS044404	SVS023201	2000 ppm	50 ul	10 mL	10 ppm			
MIX			SVS020220	1000 ppm	100 ul	"	"			
PAH	5000	SVS044405	SVS044404	10 ppm	500 ul	1.0 mL	5000 ppb			
	1000	06			100		1000			
	500	07			50		500			
	200	08			20		200			
	100	09			10		100			
	50	10	SVS044406	1000 ppb	50		50			
	20	11			20		20			
	10	12			10		10			
PAH	1000	SVS044413	SVS044404	10 ppm	100 ul	1.0 mL	1000 ppb			6-18-18
	50	SVS044414	SVS044413	1000 ppb	50		50			
	20	15			20		20			
	10	16			10		10			
PAH	5000	SVS044417	SVS044404	10 ppm	500 ul		5000 ppb			
PAH	ICV	SVS044418	SVS023402	10 ppm	10 ul	200 ul	500 ppb			
PAH	ICV	SVS044419	"	"	"	"	"			
DFTPP		SVS044420	SVS033220	1000 ppm	50 ul	1 ml	50 ppm	$MeCl_2$	lm	6-19-18
PAH	CCV	SVS044421 ~~SVS033220~~	SVS044404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
BNA	CCV	SVS044422	SVS043899	200 ppm	20/20 ul	200 ul	20 ppm	"	"	"
BNA	CCV	SVS044423	SVS043899	200 ppm	20/20 ul	200 ul	20 ppm	"	ZT	6-20-18
PAH	CCV	SVS044424	SVS044404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
BNA	CCV	SVS044425	SVS043899	200 ppm	20/20 ul	200 ul	20 ppm	"	"	6-21-18
PAH	CCV	SVS044426	SVS044404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
BNA	60	SVS044427	SVS043899	200 ppm	60/60 ul	200 ul	60 ppm	"	"	"
	50	28			50/50		50			
	35	29			35/35		35			
	20	30			40/40	400 ul	20			
	10	31			10/10	200 ul	10			
BNA	ICV	32	SVS039½		20/20 ul	"	20 ppm	"	"	"

Work continued to Page

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Work continued from Page

	Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
	1,4-diox			SV420422	2000 ppm	10 ul	2 mL	10 ppm	MeCl2	ZT	7-11-18
	Stock		SV504701	SV502090	1000 ppm	20 ul	1	+			
5	100	1,4-Diox	SV504702	SV~~502090~~ 042701	10 ppm	10 ul	1 mL	100 ppb			
	200		03			20		200			
	500		04			50		500			
	1000		05			100		1000			
	2000		06			200		2000			
10	1,4-Diox ICV		07	~~SV504701~~ 042327		10 ul	200 ul	500 ppb			
	PAH	CCV	SV504708	SV504404	10 ppm	10 ul	200 ul	500 ppb			7-12-18
	BNA	CCV	SV504709	SV504389	200 ppm	20/200 ul	200 ul	20 ppm			
	PAH	CCV	SV504710	SV504404	10 ppm	10 ul	200 ul	500 ppb			7-13-18
	PAH	ICV	SV504711	SV503402	10 ppm	10 ul	200 ul	500 ppb			
15	PAH	INST.	SV504712	SV503025	4000 ppm	40 ul	4 mL	40 ppm			
	TCLP										
	Std.		SV504713							ZT	
20	TCLP	Spike	SV504714	SV504713	2000 ppm	1.0 mL	10 mL	200 ppm	Acetone	ZT	7-13-18
	PAH	CCV	SV504715	SV504404	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	7-16-18
	BNA	CCV	SV504716	SV504389	200 ppm	20/200 ul		20 ppm			
	DFTPP		SV504717	SV503320	1000 ppm	50 ul	1 mL	50 ppm			7-17-18
	PAH	CCV	SV504718	SV504404	10 ppm	10 ul	200 ul	500 ppb			
25	BNA	CCV	SV504719	SV504389	200 ppm	20/200 ul		20 ppm			
	BNA	CCV	SV504720	SV504389	200 ppm	20/200 ul		1			7-18-18
	PAH	CCV	SV504721	SV504404	10 ppm	10 ul		500 ppb			
	PAH	5000	SV504722	SV504404	10 ppm	500 ul	1.0 mL	5000 ppb			
		1000	23			100		1000			
30		500	24			50		500			
		200	25			20		200			
		100	26			10		100			
		50	27	SV504723	1000 ppb	50		50			
		20	28			20		20			
35		10	29			10		10			

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

TCLP-BNA 1 mL
Semi-Volatile Spiking Solution
2.0 mg/mL in CH2Cl2
Lot: 215091295 13 comp(s)
Exp: Sep 29, 2018 Storage: Refrig (0-5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H350 H360, H350 P338
P360 P331 P233 P262
P202 P284 P284 P280

Signal Word: Warning

Work continued to Page

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50 TITLE

PROJECT NO.

BOOK NO.

Work continued from Page

	Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
	8270		SVS05001	SVS04911	2000 ppm	2.0 mL	50 mL	80 ppm	1:1 Acetone	ZT	8-6-18
	Spike			SVS04912	1000 ppm	"	"	40 ppm	"	"	"
5	PAH	Spike	SVS05002	SVS01914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	ZT	"
	INSTD		SVS05003								
	Stock										

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

Z-014J 1 mL
Internal Standard Mix
4.0 mg/mL in CH2Cl2
Lot: 217111166 6 comp(s)
Exp: Nov 14, 2027 Storage: Ambient (>5 °C)/Sonicate

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P281 P280

Signal Word: Warning

10	BNA	INST	SVS05004	SVS05003	4000 ppm	500 µl	4 mL	500 ppm	MeCl2	ZT	8-6-18
	BNA	60	SVS05005	SVS04389	200 ppm	60/60 µl	200 µl	60 ppm			
		50	06			50/50		50			
		35	07			35/35		35			
		20	08			40/40	400 µl	20			
15		10	09			10/10	200 µl	10			
		5	10	SVS05008	20 ppm	50		5			
		2	11			20		2			
		1	12			10		1			
	BNA	ICV	SVS05013	SVS03915	200 ppm	20/20 µl		20 ppm			
20	BNA	CCV	SVS05014	SVS04389	200 ppm	20/50 µl		20 ppm			8-7-18
	PAH	CCV	SVS05015	SVS04404	10 ppm	50 µl		500 ppb			
	PAH	INST.	SVS05016	SVS03025	4000 ppm	40 µl	4 mL	40 ppm			
	PAH	CCV	SVS05017	SVS04404	10 ppm	10 µl	200 µl	500 ppb			
	PAH	ICV	SVS05018	SVS03402	10 ppm	50 µl					
25	PAH	CCV	SVS05019	SVS04404	10 ppm	10 µl					8-8-18
	PAH	CCV	SVS05020	SVS04404	10 ppm	10 µl					8-9-18
	BNA	CCV	SVS05021	SVS04389	200 ppm	20/20 µl		20 ppm			"
	PAH										
	Surr.		SVS05022							ZT	8-14-18
30	Stock										

31887
Revised B/N Surrogate Mix
Lot# A0124675
Expire: 01/2023 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Agitation required. Mix is photosensitive.
ZT Rec. 1-26-18

	PAH	Surr.	SVS05023	SVS05022	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	8-14-18
	BNA	CCV	SVS05024	SVS04389	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	"
35	PAH	CCV	SVS05025	SVS04404	10 ppm	10 µl	200 µl	500 ppb	"	"	"

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Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
DFTPP	SV505101	SV503320	1000 ppm	50 ul	1 mL	50 ppm	MeCl2	ET	8-15-18
PAH CCV	SV505102	SV504404	10 ppm	10 ul	200 ul	500 ppb			1
PAH CCV	SV505103	SV504404	10 ppm	10 ul	200 ul	500 ppb			8-16-18
BNA CCV	SV505104	SV504306	200 ppm	20/50 ul	200 ul	20 ppm			
BNA Ical	SV505105	SV504306	1000 ppm	500 ul	2.5 mL	200 ppm			
#1									
BNA Ical	SV505106	SV504305	1000 ppm	500 ul	2.5 mL	200 ppm	MeCl2	ET	8-16-18
#2		SV504307	2000	250					
		SV501811	4000	125					
BNA 60	SV505107	SV505115/6	200 ppm	60/50 ul	200 ul	60 ppm			
50	08			50/50		50			
35	09			35/35		35			
20	10			40/40	400 ul	20			
10	11			10/10	200 ul	10			
5	12	SV505110	20 ppm	50		5			
2	13			20		2			
1	14			10		1			
BNA ICV	SV505115	SV503912	200 ppm	20/20 ul		20 ppm			
PAH CCV	SV505116	SV504404	10 ppm	10 ul		500 ppb			8-17-18
SR BNA 1	SV505117	SV505110	20 ppm	10 ul		1 ppm			
BNA ICV	SV505118	SV503912	200 ppm	20/20 ul		20 ppm			
PAH CCV	SV505119	SV504404	10 ppm	10 ul		500 ppb			8-20-18
BNA CCV	SV505120	SV505115/6	200 ppm	20/20 ul		20 ppm			
BNA 60	SV505121	SV505115/6	200 ppm	60/60 ul	200 ul	60 ppm			
50	22			50/50		50			
35	23			35/35		35			
20	24			40/40	400 ul	20			
10	25			10/10	200 ul	10			
5	26	SV505124	20 ppm	50		5			
2	27			20		2			
1	28			10		1			
BNA ICV	29	SV503912	200 ppm	20/20 ul		20			
PAH CCV	SV505130	SV504404	10 ppm	10 ul		500 ppb			8-21-18

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SIGNATURE DATE

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Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH CCV	SV505201	SV504404	10 ppm	10 ul	200 ul	500 ppb	$MeCl_2$	ZT	8-22-18
BNA CCV	SV505202	SV505 5/6	200 ppm	20/20 ul	1	20 ppm			
PAH INST	SV505203	SV505003	4000 ppm	40 ul	4 mL	40 ppm			
PAH CCV	SV505204	SV504404	10 ppm	10 ul	200 ul	500 ppb			
1,4 Diox CCV	SV505205	SV504701	10 ppm						
PAH ICV	SV505206	SV503402						VM	8-22-18
1,4 dioxane Spike	SV505207	SV502321	2000 ppm	125 ul	50 mL	5 ppm	Acetone	ZT	8-22-18
1,4 dioxane ICV Stock	SV505208	SV502321	2000 ppm	10 ul	2 mL	10 ppm	$MeCl_2$		
ICV Diox	SV505209	SV502020	1000 ppm	20 ul					
PAH CCV	SV505210	SV505208	10 ppm	10 ul	200 ul	500 ppb			
BNA CCV	SV505211	SV504404	10 ppm	10 ul	200 ul	500 ppb			8-23-18
PAH CCV	SV505212	SV505 5/6	200 ppm	20/20 ul		20 ppm			
BNA CCV	SV505213	SV504404	10 ppm	10 ul		500 ppb			8-24-18
1,4 Diox CCV	SV505214	SV505 5/6	200 ppm	20/20 ul		20 ppm			
PAH CCV	SV505215	SV504701	10 ppm	10 ul		500 ppb			
BNA CCV	SV505216	SV504404	10 ppm	10 ul		500 ppb			8-27-18
BNA CCV	SV505217	SV505 5/6	200 ppm	20/20 ul		20 ppm			
PAH CCV	SV505218	SV504404	10 ppm	10 ul		500 ppb			8-28-18
1,4 Diox CCV	SV505219	SV504701	10 ppm	10 ul		500 ppb			
BNA CCV	SV505220	SV505 5/6	200 ppm	20/20 ul		20 ppm		MM	8-29-18
PAH CCV	SV505221	SV504404	10 ppm	10 ul		500 ppb			
PAH CCV	SV505222	SV504404							8-30-18
BNA CCV	SV505223	SV505 5/6	200 ppm	20/20 ul		20 ppm			
PAH INST.	SV505224	SV505003	4000 ppm	40 ul	4 mL	40 ppm		ZT	8-30-18
PAH CCV	SV505225	SV504404	10 ppm	10 ul	200 ul	500 ppb			
PAH ICV	SV505226	SV503402	10 ppm	10 ul					
BNA CCV	SV505227	SV505 5/6	200 ppm	20/20 ul		20 ppm		MM	8-31-18
PAH CCV	SV505228	SV504404	10 ppm	10 ul		500 ppb			
BNA INST	SV505229	SV505003	4000 ppm	500 ul	4 mL	500 ppm		ZT	8-31-18
BNA CCV	SV505230	SV505 5/6	200 ppm	20/20 ul	200 ul	20 ppm			
BNA CCV	SV505231	SV505 5/6							9-1-18

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SIGNATURE DATE

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Pentachlorophenol by EPA 8151A Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data File : F0830020.D
Sample : 08-326-01

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:48:16
Operator :
Misc :
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 17:02:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.727	8.387	10526338	18695225	85.456	131.487	#
		Spiked Amount 100.000				Recovery =	85.46%	131.49%	
		Target Compounds							
1)	A	Dalapon	0.000	3.471	0	2447061	N.D.	25.681	#
2)	A	2,4,6-Tri...	7.059f	6.744	1074801	862083	1.121	0.773	#
4)	A	Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A	MCPA	9.330	0.000	6787426	0	15701.579	N.D.	#
7)	A	Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A	2,4-D	10.056f	9.738	34103755	443094	246.517	2.463	#
9)	A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A	2,4-DB	0.000	11.700f	0	20300787	N.D.	238.908	#
13)	a	Bentazon	0.000	0.000	0	0	N.D.	N.D.	
14)	A	Dinoseb	13.136	0.000	27565353	0	128.173	N.D.	#

Interference KAS 8-31-18

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

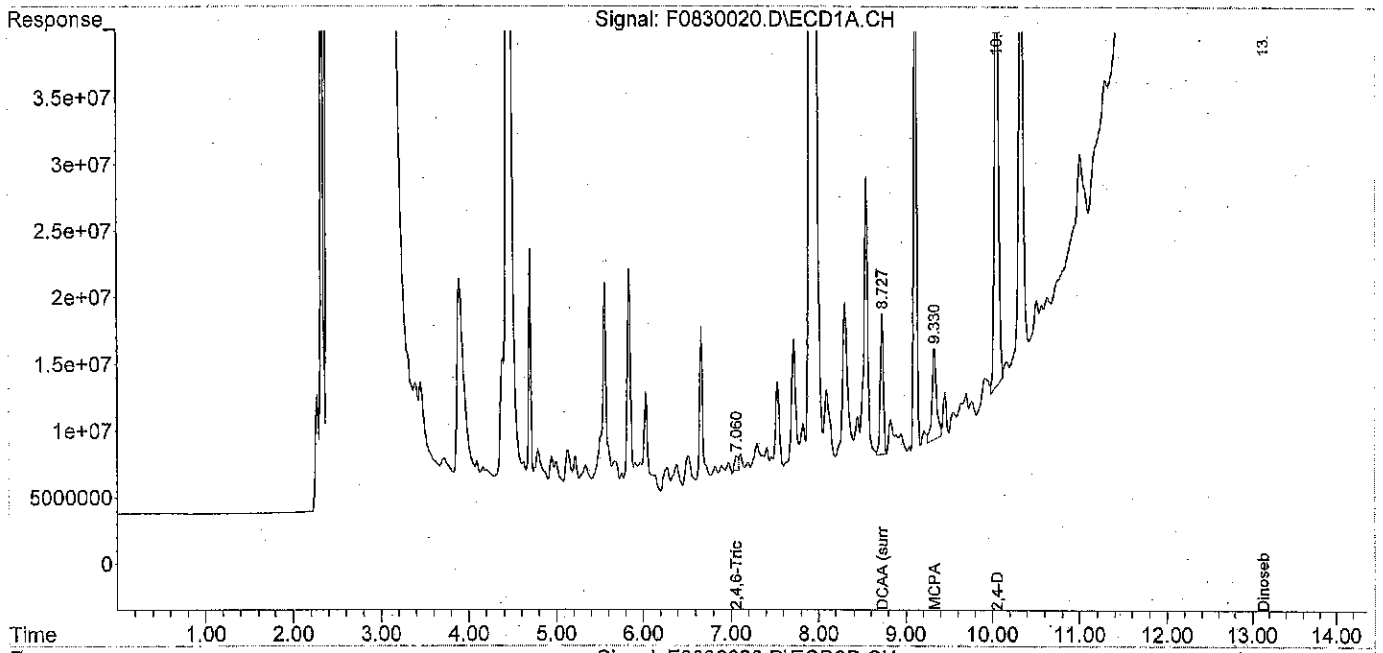
Quantitation Report (Not Reviewed)

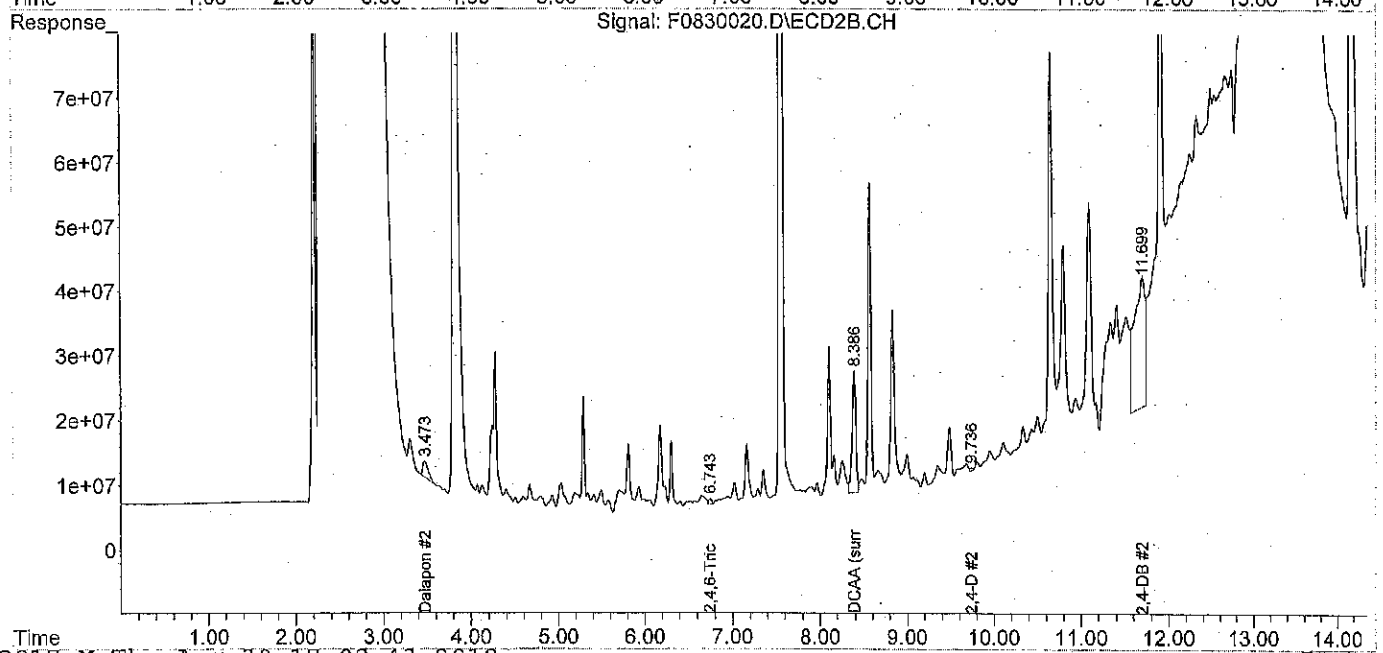
Data File : F0830020.D
Sample : 08-326-01

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:48:16
Operator :
Misc :
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 17:02:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830021.D
Sample : 08-326-02

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 17:07:37
Operator :
Misc :
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:44:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.713f	8.390	11758281	24314794	95.457m	171.011	#
		Spiked Amount 100.000			Recovery	=	95.46%	171.01%	
		Target Compounds							
1)	A	Dalapon	3.883f	0.000	29606201	0	402.355	N.D.	#
2)	A	2,4,6-Tri...	0.000	6.752	0	13118577	N.D.	11.758	#
4)	A	Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A	MCPA	9.333	0.000	3289735	0	7783.062	N.D.	#
7)	A	Dichlorprop	9.796	0.000	2666043	0	22.619	N.D.	#
8)	A	2,4-D	0.000	9.732	0	8975449	N.D.	49.883	#
9)	A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A	2,4-DB	0.000	11.700f	0	28567839	N.D.	336.198	#
13)	a	Bentazon	0.000	0.000	0	0	N.D.	N.D.	
14)	A	Dinoseb	13.153f	0.000	37384174	0	173.829	N.D.	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 8-31-18

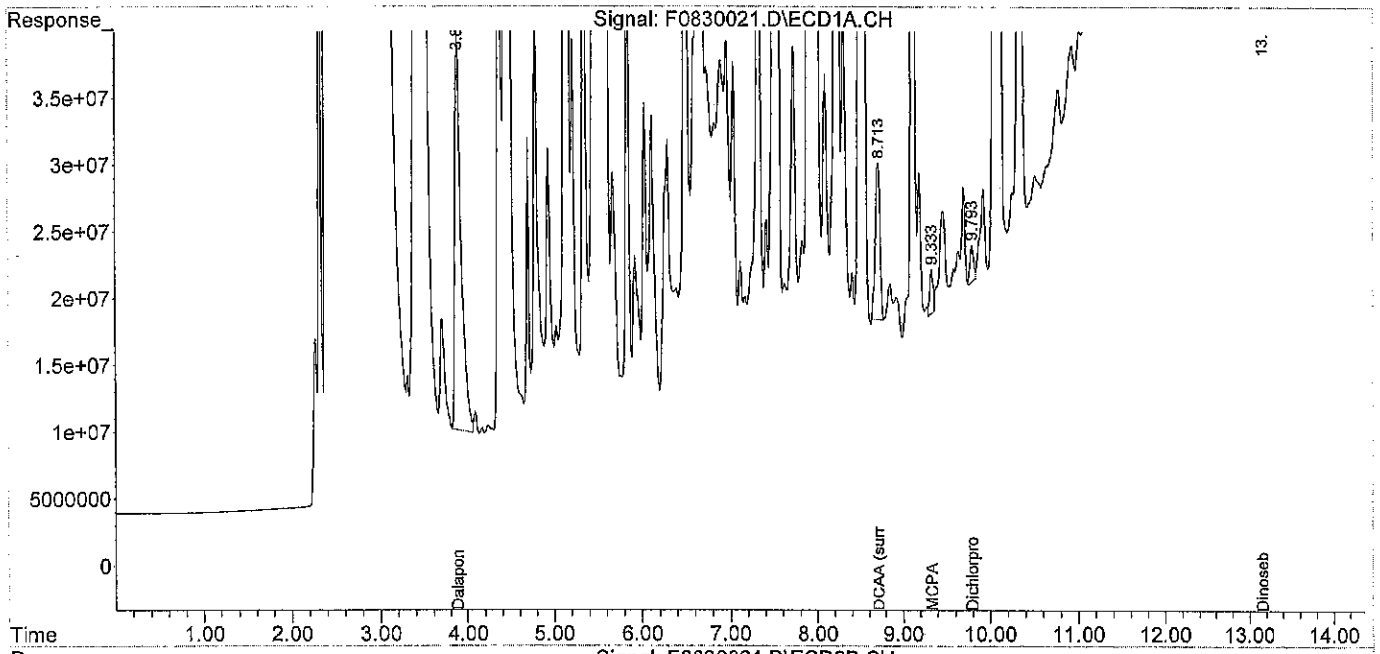
Quantitation Report (QT Reviewed)

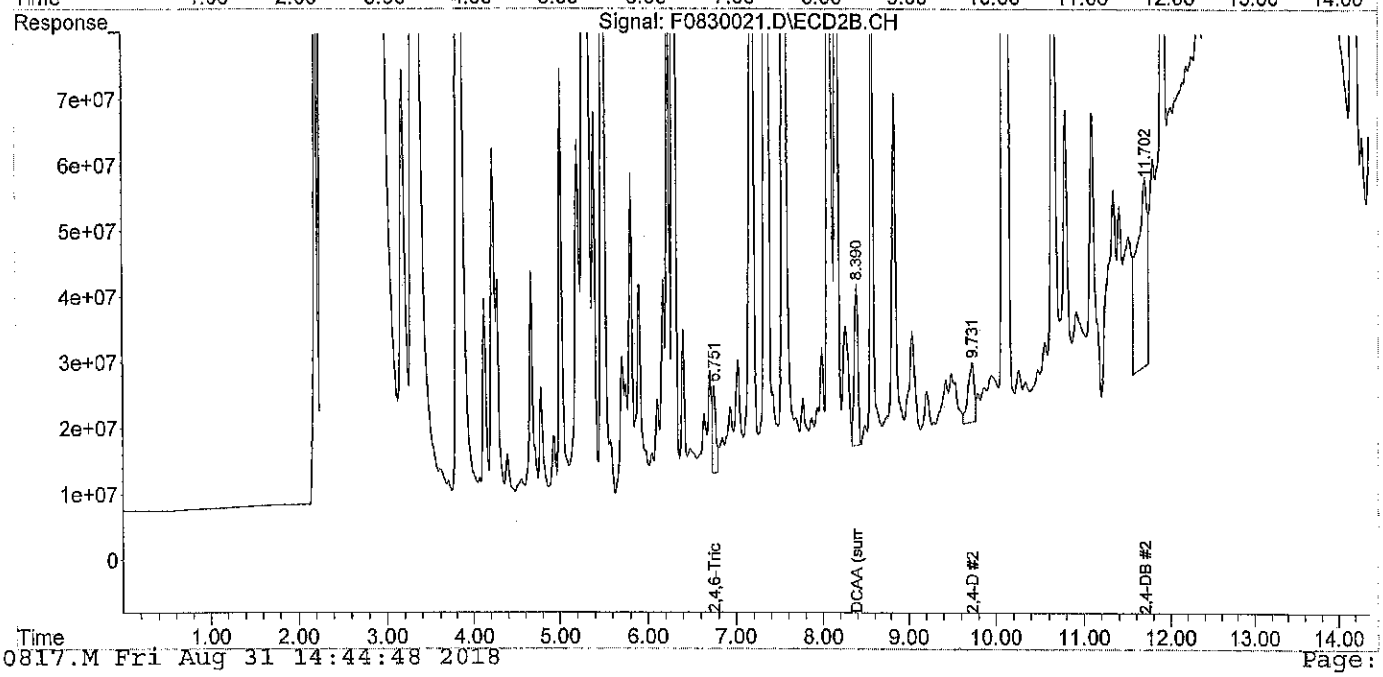
Data File : F0830021.D
Sample : 08-326-02

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 17:07:37
Operator :
Misc :
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:44:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830014.D
Sample : 08-326-03

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:52:07
Operator :
Misc :
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:17:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.732	8.382	9982085	3208095	81.037	225.631 #
	Spiked Amount 100.000			Recovery	=	81.04%	225.63%
	Target Compounds						
1)	A Dalapon	3.875f	3.459	24629776	2259975	334.724	23.718 #
2)	A 2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4)	A Dicamba	0.000	8.638f	0	2756589	N.D.	5.218 #
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.
6)	A MCPA	9.334	0.000	7576699	0	17488.436	N.D. #
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.
8)	A 2,4-D	10.062	9.722f	72229869	480666	522.110	2.671m#
9)	A Pentachlo...	0.000	9.981f	0	2214982	N.D.	0.567m#
10)	A 2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.
12)	A 2,4-DB	12.044f	0.000	2139951	0	31.421m	N.D. #
13)	a Bentazon	0.000	12.623f	0	91860109	N.D.	1269.346 #
14)	A Dinoseb	0.000	0.000	0	0	N.D.	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

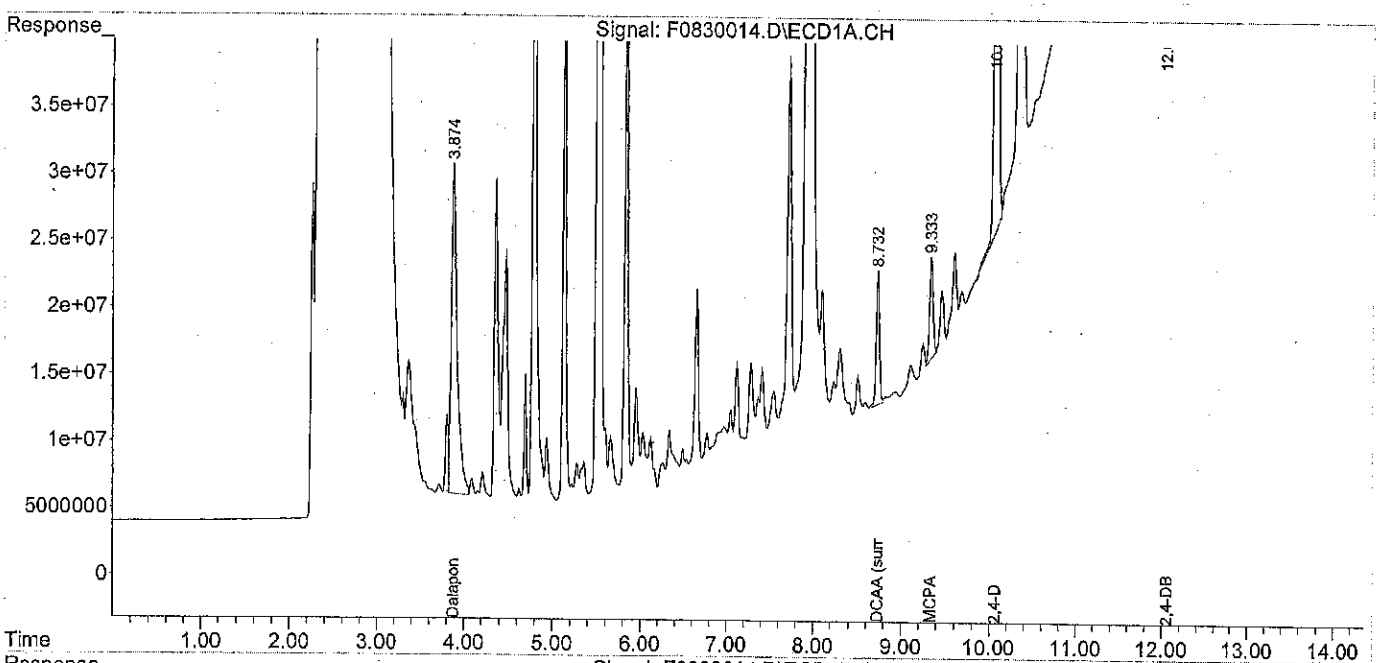
Quantitation Report (QT Reviewed)

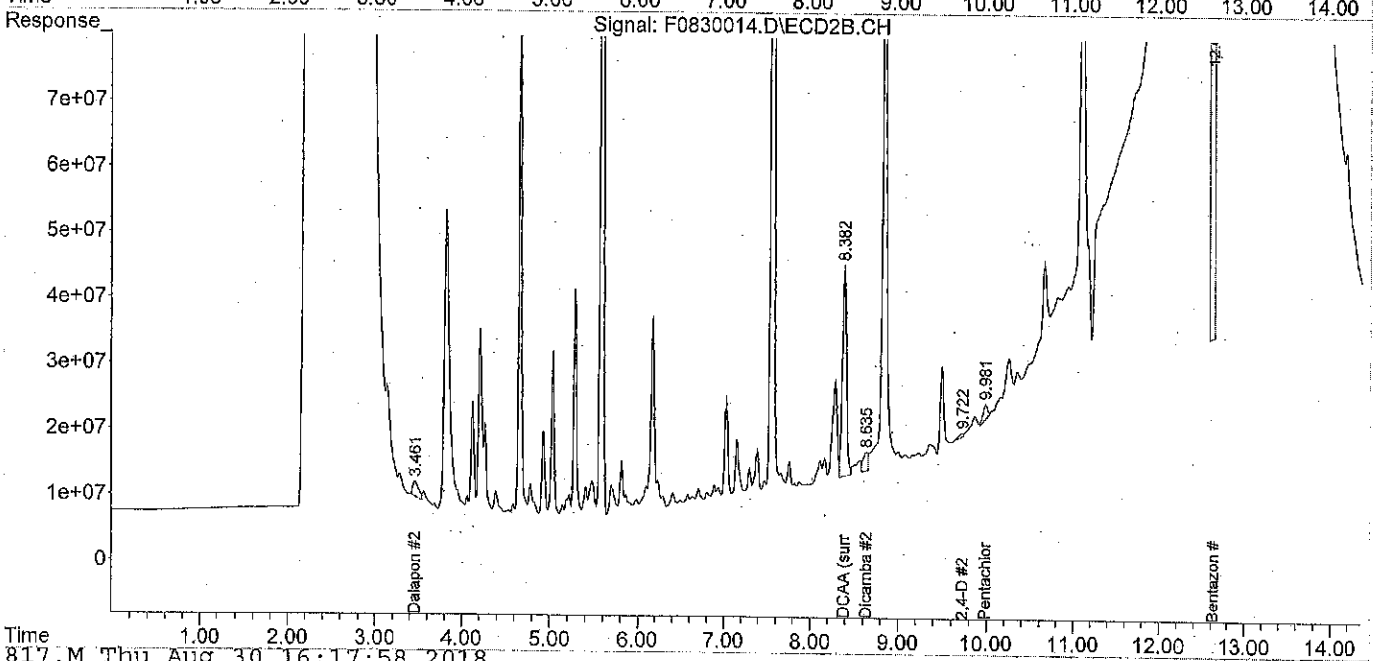
Data File : F0830014.D
Sample : 08-326-03

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:52:07
Operator :
Misc :
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:17:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830022.D
Sample : 08-326-04

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 17:26:52
Operator :
Misc :
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:45:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.730	8.386	8184978	19387880	66.448m	136.359	#
	Spiked Amount 100.000				Recovery =	66.45%	136.36%	
	Target Compounds							
1)	A Dalapon	0.000	3.471	0	1554257	N.D.	16.311	#
2)	A 2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A Dicamba	0.000	8.630f	0	3695913	N.D.	6.996	#
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A MCPA	9.333	0.000	3252076	0	7697.804	N.D.	#
7)	A Dichlorprop	9.799	0.000	1697478	0	14.401	N.D.	#
8)	A 2,4-D	10.057f	0.000	42141028	0	304.615	N.D.	#
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A 2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A 2,4-DB	0.000	0.000	0	0	N.D.	N.D.	
13)	a Bentazon	13.005	0.000	43347448	0	897.666	N.D.	#
14)	A Dinoseb	13.153f	12.083	29108542	41887637	135.349	121.878	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KCMS 8-31-18

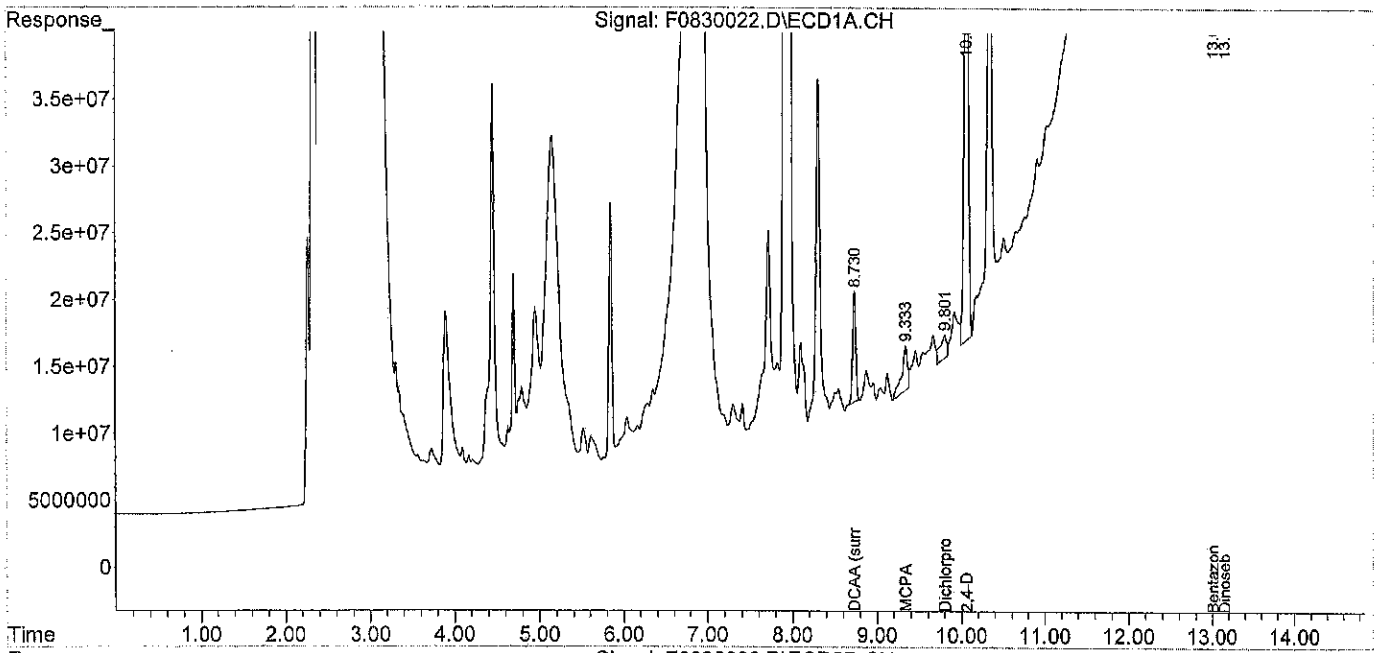
Quantitation Report (QT Reviewed)

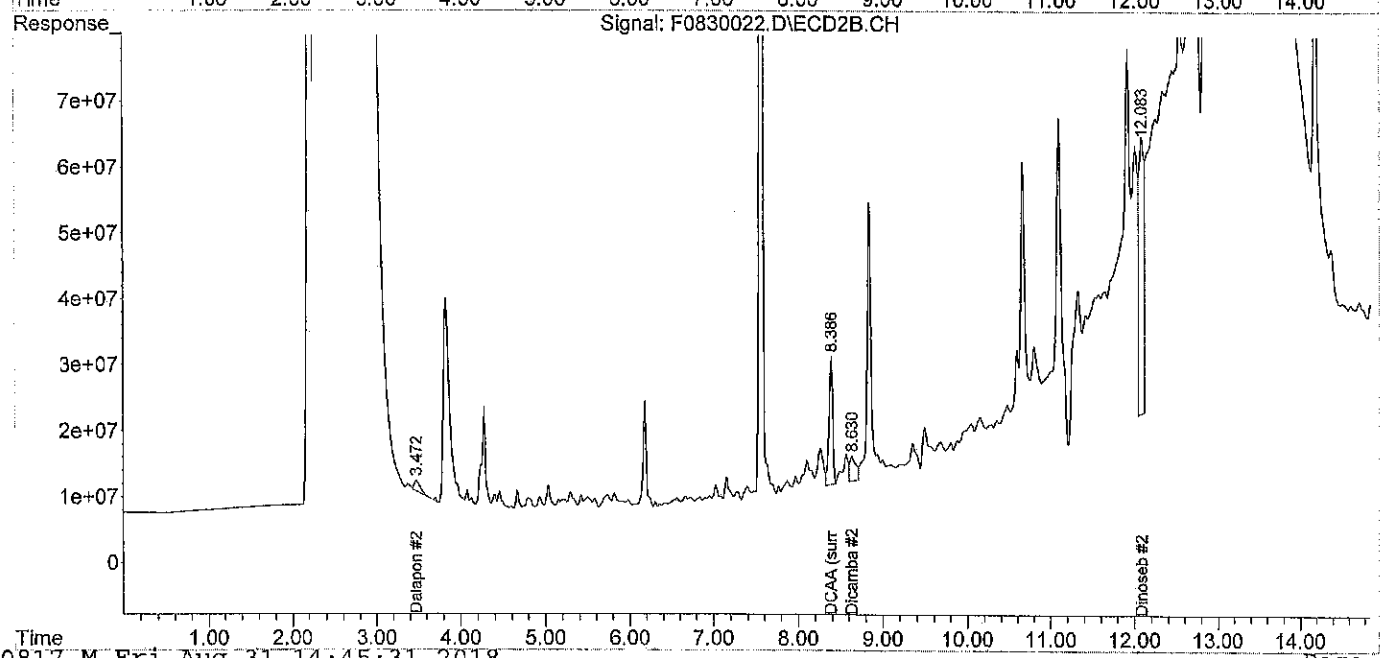
Data File : F0830022.D
Sample : 08-326-04

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 17:26:52
Operator :
Misc :
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:45:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830023.D
Sample : 08-326-05

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 17:46:47
Operator :
Misc :
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:45:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.731	8.394	8385832	8522383	68.079m	59.940m	
	Spiked Amount 100.000			Recovery	=	68.08%	59.94%	
	Target Compounds							
1) A	Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2) A	2,4,6-Tri...	0.000	6.731f	0	503067	N.D.	0.451	#
4) A	Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6) A	MCPA	9.333	0.000	3431531	0	8104.077	N.D.	#
7) A	Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.	
9) A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10) A	2,4,5-TP	11.097	0.000	1561636	0	2.695	N.D.	#
11) A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12) A	2,4-DB	12.009f	11.705	3097132	3046744	45.475	35.855	
13) a	Bentazon	0.000	0.000	0	0	N.D.	N.D.	
14) A	Dinoseb	13.150f	12.085	1986396	4602985	9.236	13.393	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

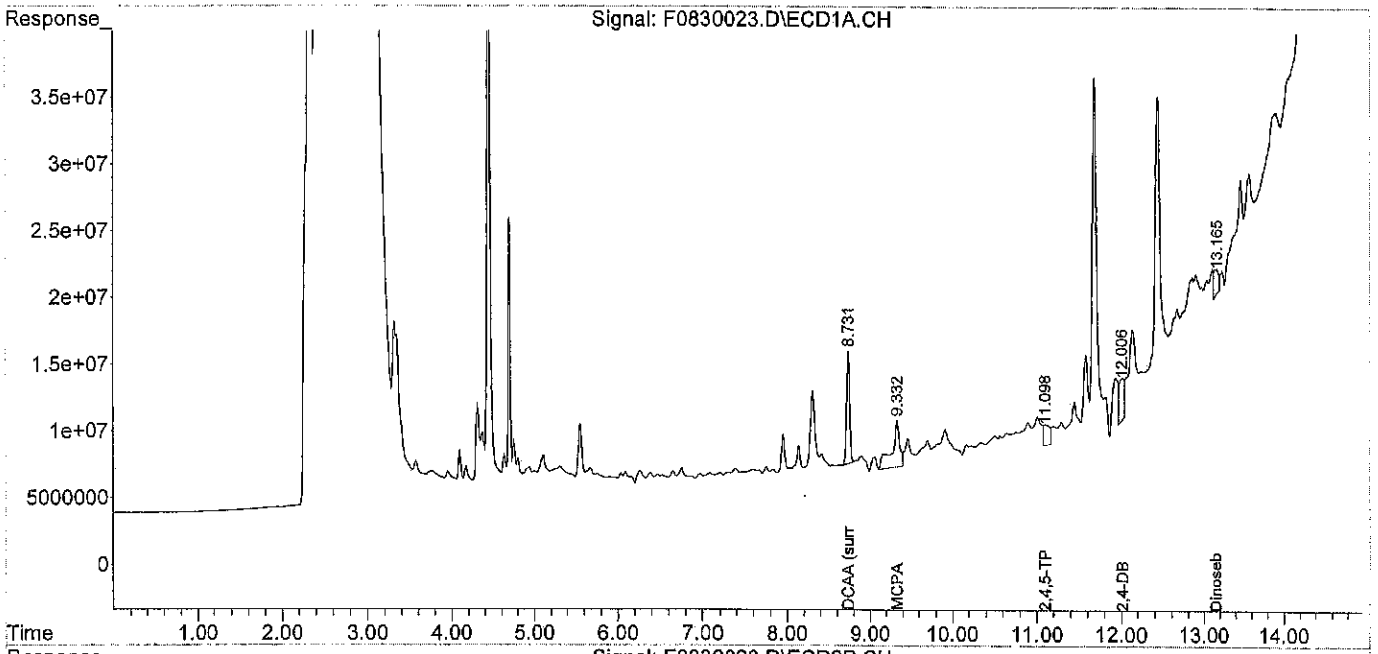
Quantitation Report (QT Reviewed)

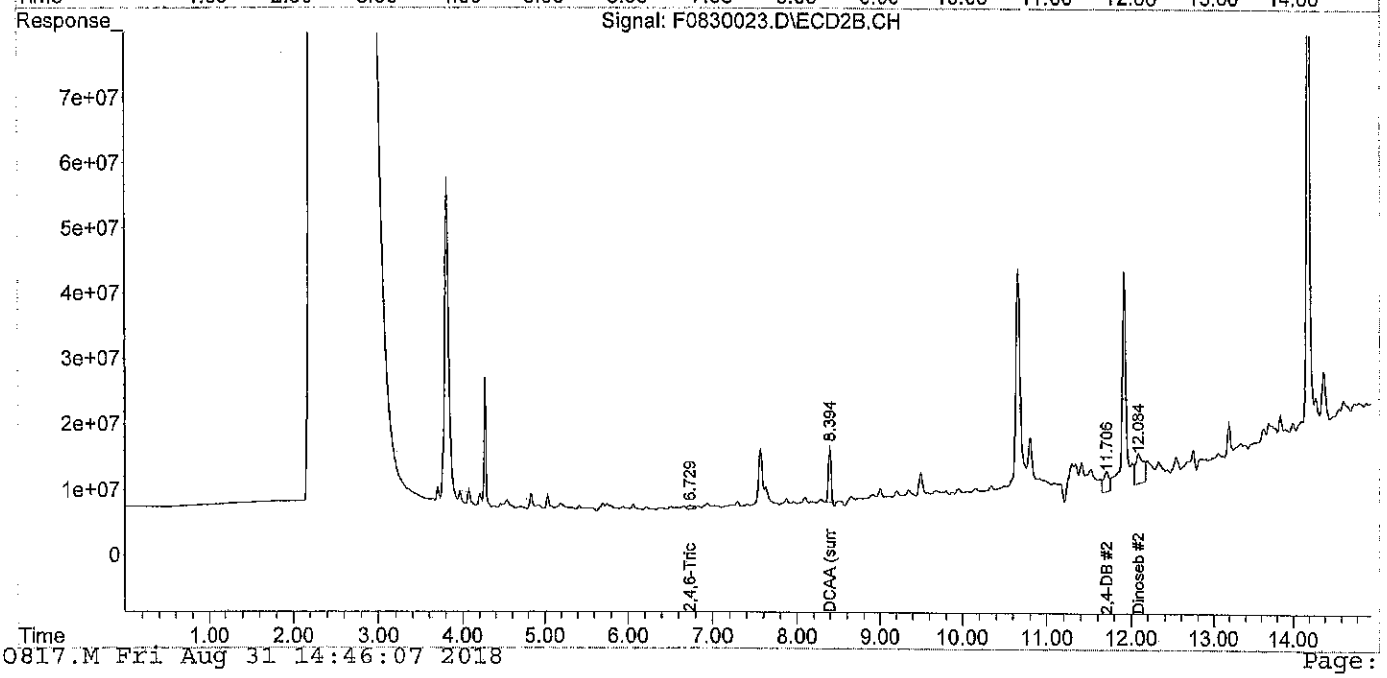
Data File : F0830023.D
Sample : 08-326-05

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 17:46:47
Operator :
Misc :
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:45:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830005.D
Sample : MB0830W1

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 11:56:56
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:38:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.740f	8.391	9930532	9891619	80.619	69.570m
	Spiked Amount 100.000			Recovery	=	80.62%	69.57%
	Target Compounds						
1) A	Dalapon	0.000	0.000	0	0	N.D.	N.D.
2) A	2,4,6-Tri...	0.000	6.737f	0	1700480	N.D.	1.524 #
4) A	Dicamba	0.000	0.000	0	0	N.D.	N.D.
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.
6) A	MCPA	9.342f	0.000	3016895	0	7165.373m	N.D. #
7) A	Dichlorprop	9.780f	9.386f	145891	597087	1.238m	4.265m#
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.
9) A	Pentachlo...	10.385f	0.000	280012	0	0.089m	N.D. #
10) A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.
11) A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.
12) A	2,4-DB	12.005f	11.702f	398139	1317535	5.846m	15.505m#
13) a	Bentazon	13.008	0.000	575086	0	11.909m	N.D. #
14) A	Dinoseb	13.115f	12.082	215078	951445	1.000m	2.768m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

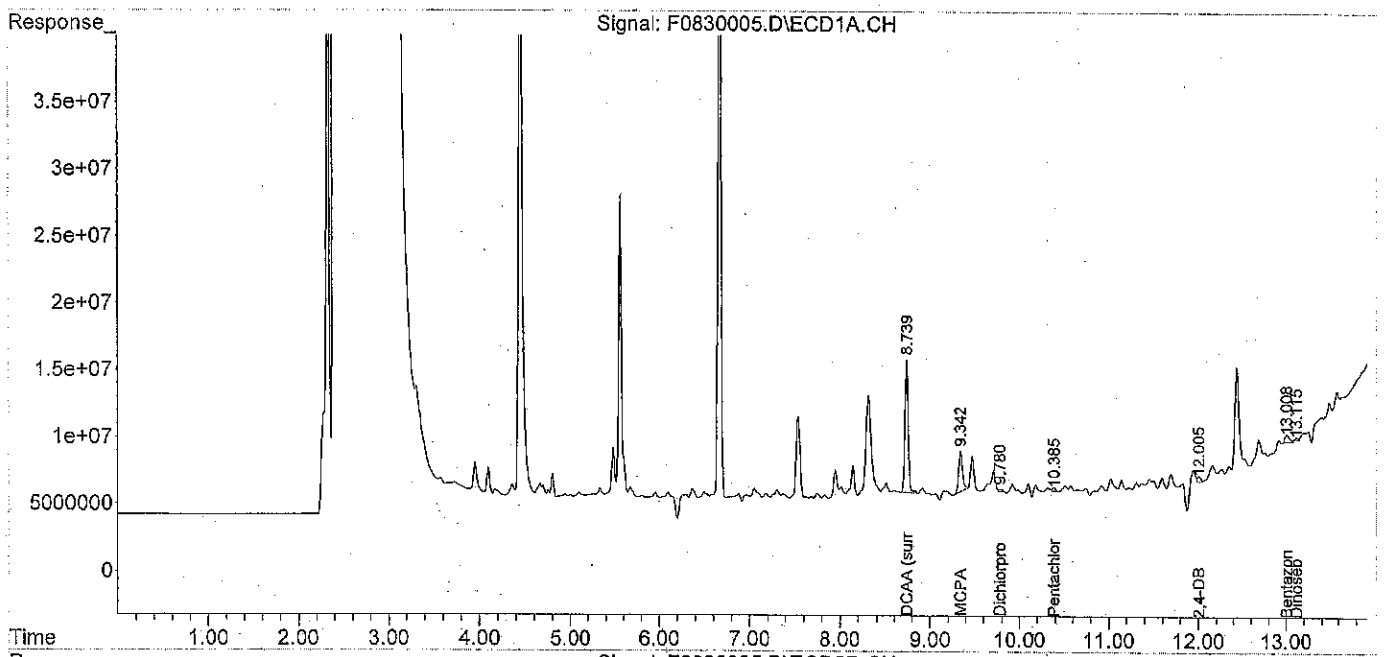
Quantitation Report (QT Reviewed)

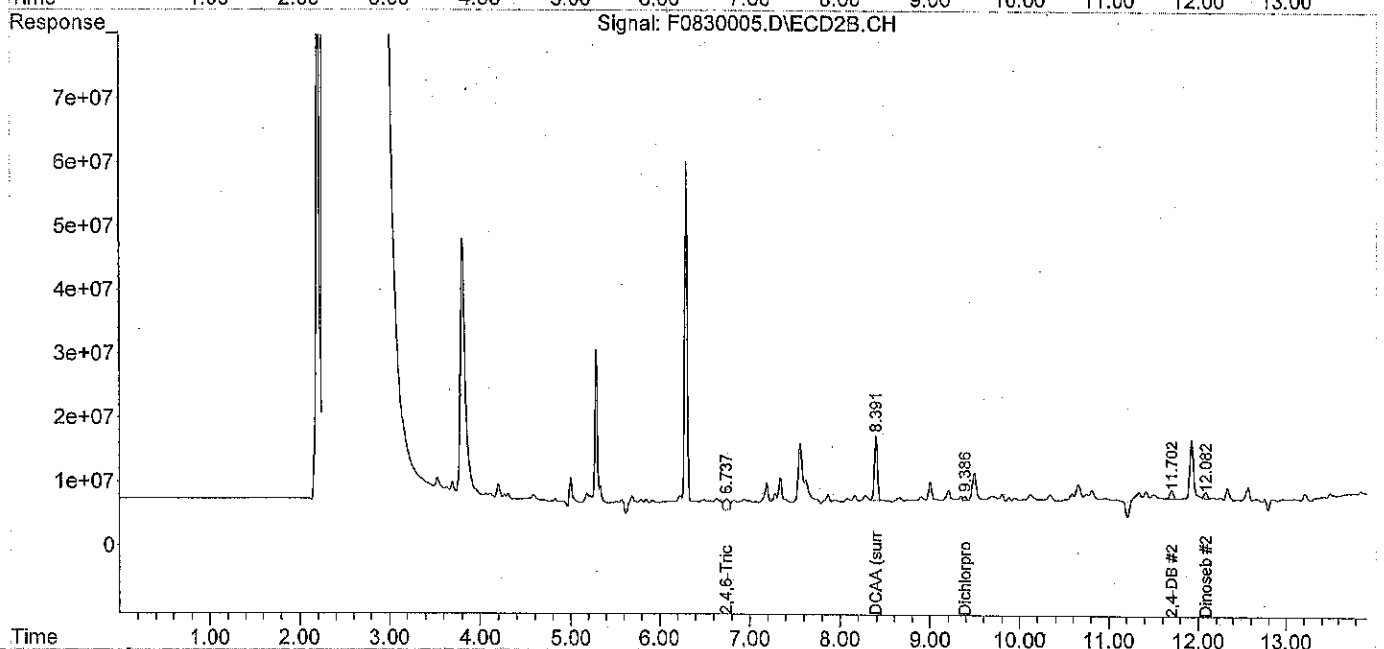
Data File : F0830005.D
Sample : MB0830W1

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 11:56:56
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:38:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830015.D
Sample : 08-326-03 MS

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:11:27
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:19:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.728	8.384	9510533	27161102	77.209m	191.029 #
	Spiked Amount 100.000			Recovery	=	77.21%	191.03%
	Target Compounds						
1) A	Dalapon	3.876f	3.473	29907210	8680566	406.445	91.099 #
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4) A	Dicamba	8.976	8.620	69542188	76480836	161.253m	144.776m
5) A	MCPP	9.152	8.705	4971636	6599786	16850.656	19420.608
6) A	MCPA	9.330	8.970	11210094	6704797	25714.178	14400.176 #
7) A	Dichlorprop	9.796	9.375	22637481	23895904	192.055	170.696
8) A	2,4-D	10.061	9.732	81465641	26830201	588.871	149.116 #
9) A	Pentachlo...	10.397	9.991	48791703	51751787	15.582	13.245
10) A	2,4,5-TP	11.088	10.683	129.4E6	152.4E6	223.251m	199.983m
11) A	2,4,5-T	11.415	11.123	119.0E6	142.6E6	245.163m	220.835m
12) A	2,4-DB	12.028	11.710	20102269	18289251	295.162m	215.236m#
13) a	Bentazon	0.000	0.000	0	0	N.D.	N.D.
14) A	Dinoseb	13.134	12.081	59785073	77569448	277.989m	225.700m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

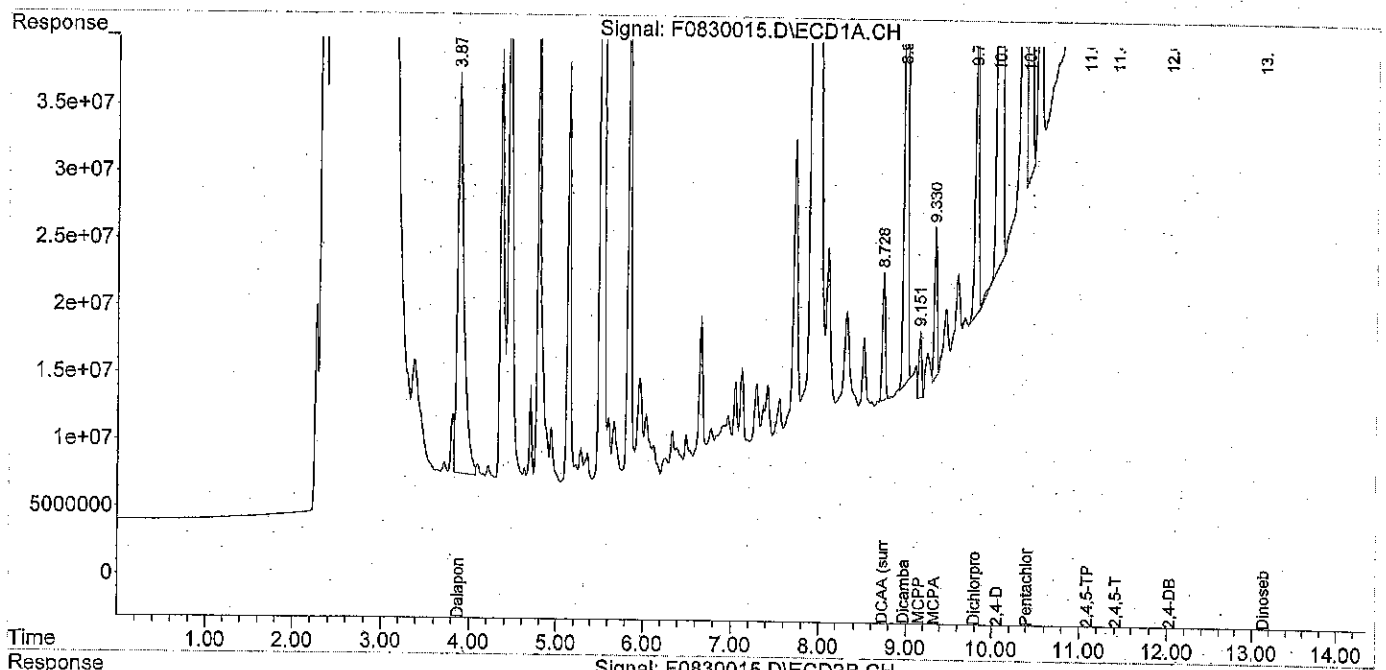
Quantitation Report (QT Reviewed)

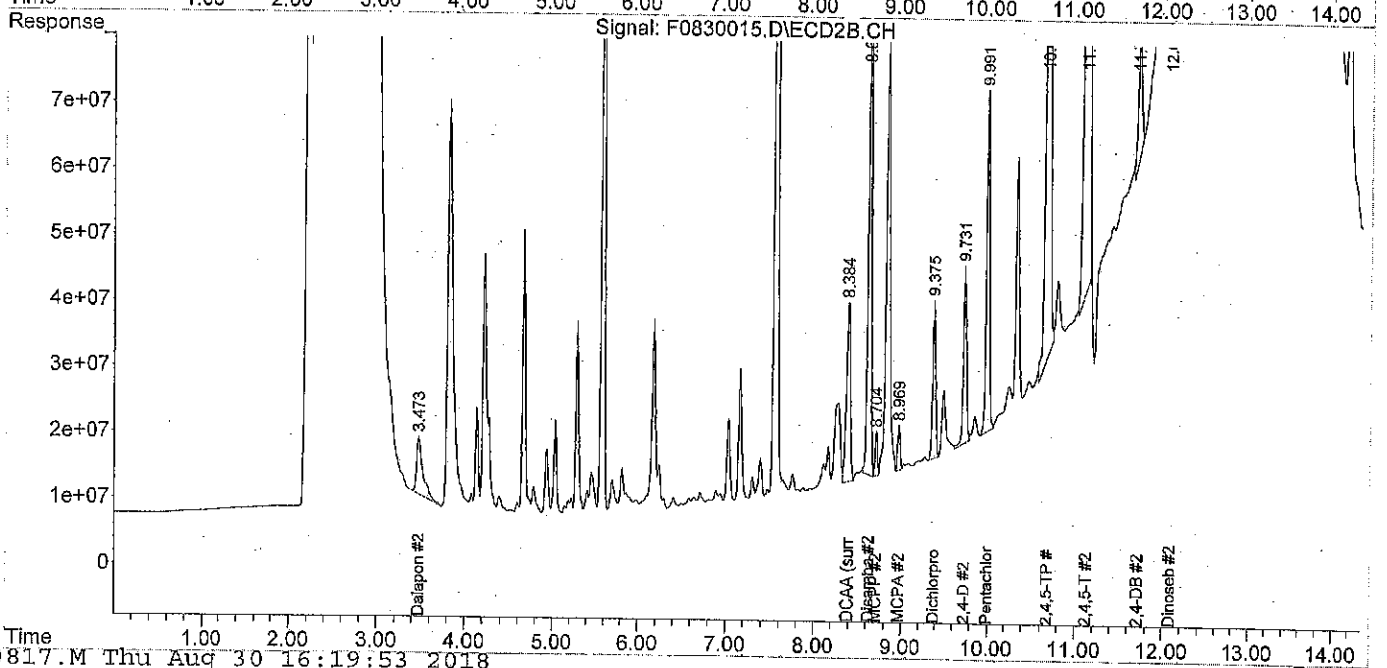
Data File : F0830015.D
Sample : 08-326-03 MS

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:11:27
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:19:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830016.D
Sample : 08-326-03 MSD

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:30:51
Operator :
Misc :
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:21:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.728	8.382	11365119	37580686	92.265m	264.312 #
Spiked Amount	100.000			Recovery	=	92.27%	264.31%
	Target Compounds						
1) A	Dalapon	3.874f	3.471	35621608	10731710	484.105	112.625m#
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4) A	Dicamba	8.975	8.620	90316864	95668125	209.425	181.097
5) A	MCPP	9.152	8.704	6149634	7970841	20300.172	22948.105
6) A	MCPA	9.330	8.970	12691158	8427500	29067.198	17904.519 #
7) A	Dichlorprop	9.796	9.374	26122778	27944462	221.624	199.617
8) A	2,4-D	10.060	9.732	113.6E6	30949152	821.425	172.008 #
9) A	Pentachlo...	10.397	9.991	56298231	59049611	17.979	15.113
10) A	2,4,5-TP	11.088	10.683	149.4E6	169.4E6	257.838m	222.282m
11) A	2,4,5-T	11.413	11.121	135.7E6	170.2E6	279.569m	263.665m
12) A	2,4-DB	12.028	11.710	22279889	19803991	327.136m	233.062m#
13) a	Bentazon	0.000	0.000	0	0	N.D.	N.D.
14) A	Dinoseb	13.131	12.078	71046524	85446110	330.352m	248.618m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

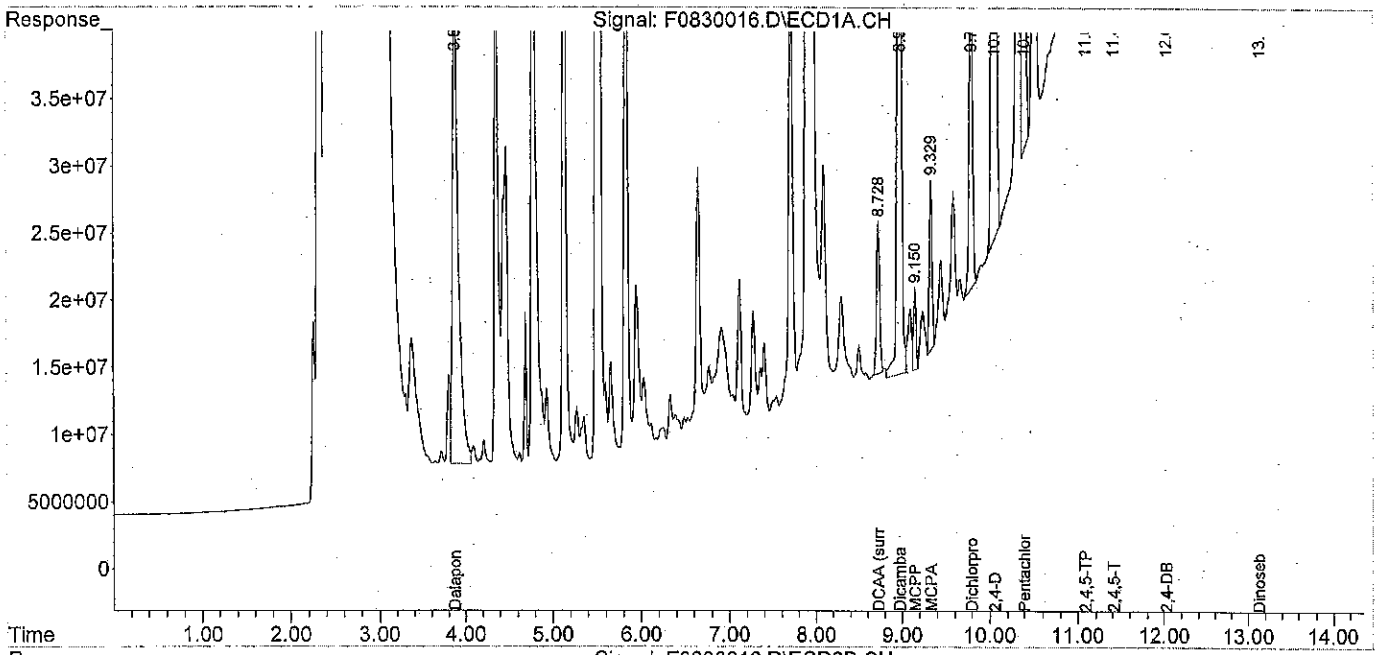
Quantitation Report (QT Reviewed)

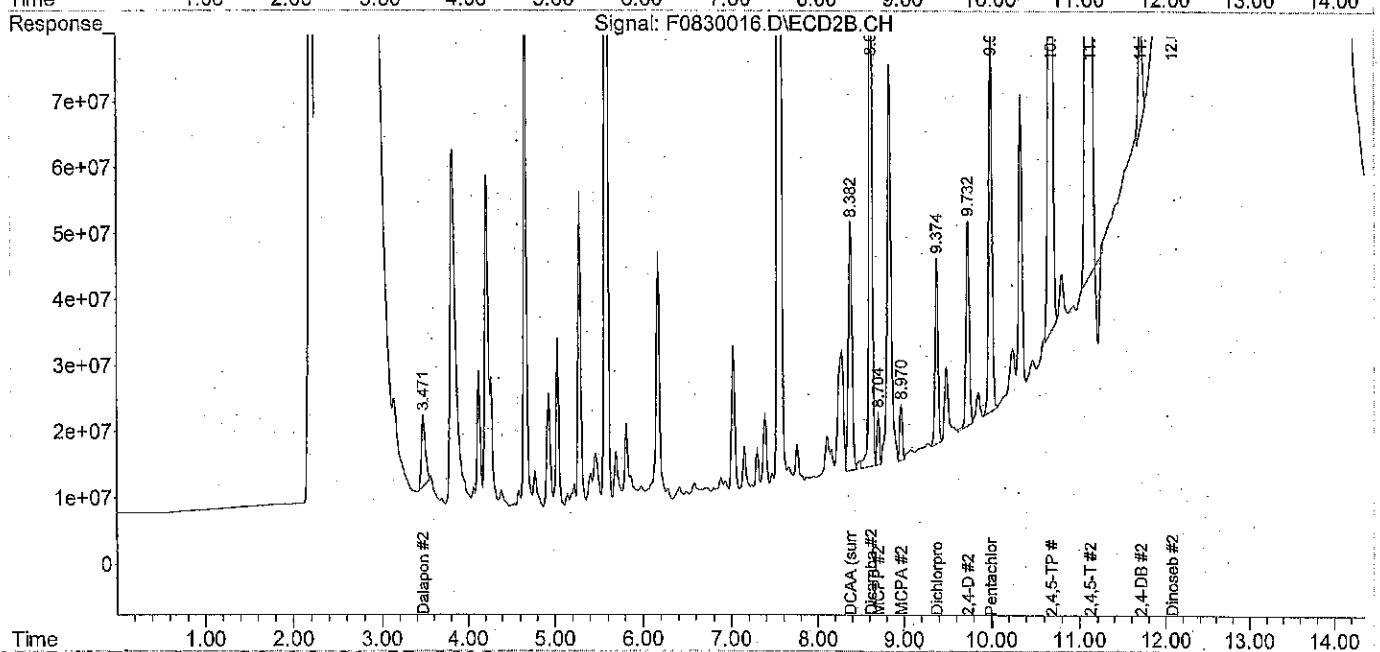
Data File : F0830016.D
Sample : 08-326-03 MSD

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:30:51
Operator :
Misc :
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:21:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Response Factor Report Frank

Method Path : C:\msdchem\1\METHODS\
Method File : H180817.M
Title : Herbicides
Last Update : Mon Aug 27 09:31:20 2018
Response Via : Initial Calibration

Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

	Compound	1	2	3	4	5	6	Avg		%RSD
3) S	DCAA (surr)	1.221	1.556	1.327	1.248	1.173	1.135	1.232	E5	12.57
9) A	Pentachloroph...	3.353	3.873	3.189	3.051	2.906	2.848	3.131	E6	11.56

Signal #2 Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

	Compound	1	2	3	4	5	6	Avg		%RSD
3) S	DCAA (surr)			1.811	1.471	1.363	1.345	1.422	E5	14.67
9) A	Pentachloroph...	4.312	4.842	4.063	3.914	3.723	3.557	3.907	E6	12.88

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

H180817.M Wed Aug 29 11:44:27 2018

Quantitation Report (Not Reviewed)

Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.737	8.407	244148	510653	1.982	3.592	#
	Spiked Amount 100.000			Recovery	=	1.98%	3.59%	
	Target Compounds							
1) A	Dalapon	0.000	3.477	0	234822	N.D.	2.464	#
2) A	2,4,6-Tri...	7.081	6.758	1003548	1175072	1.046	1.053	
4) A	Dicamba	8.982	8.631	928730	1429532	2.154	2.706	#
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6) A	MCPA	0.000	0.000	0	0	N.D.	N.D.	
7) A	Dichlorprop	9.805	9.393	233714	269658	1.983	1.926	
8) A	2,4-D	10.078	9.750	265427	374007	1.919	2.079	
9) A	Pentachlo...	10.409	10.006	670577	862436	0.214	0.221	
10) A	2,4,5-TP	11.100	10.699	1184588	1619682	2.044	2.125	
11) A	2,4,5-T	11.431	11.145	899426	1294334	1.853	2.005	
12) A	2,4-DB	12.040	0.000	95151	0	1.397	N.D.	#
13) a	Bentazon	13.011	12.651	96634	189139	2.001	2.614	#
14) A	Dinoseb	13.149	12.093	312688	735842	1.454	2.141	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

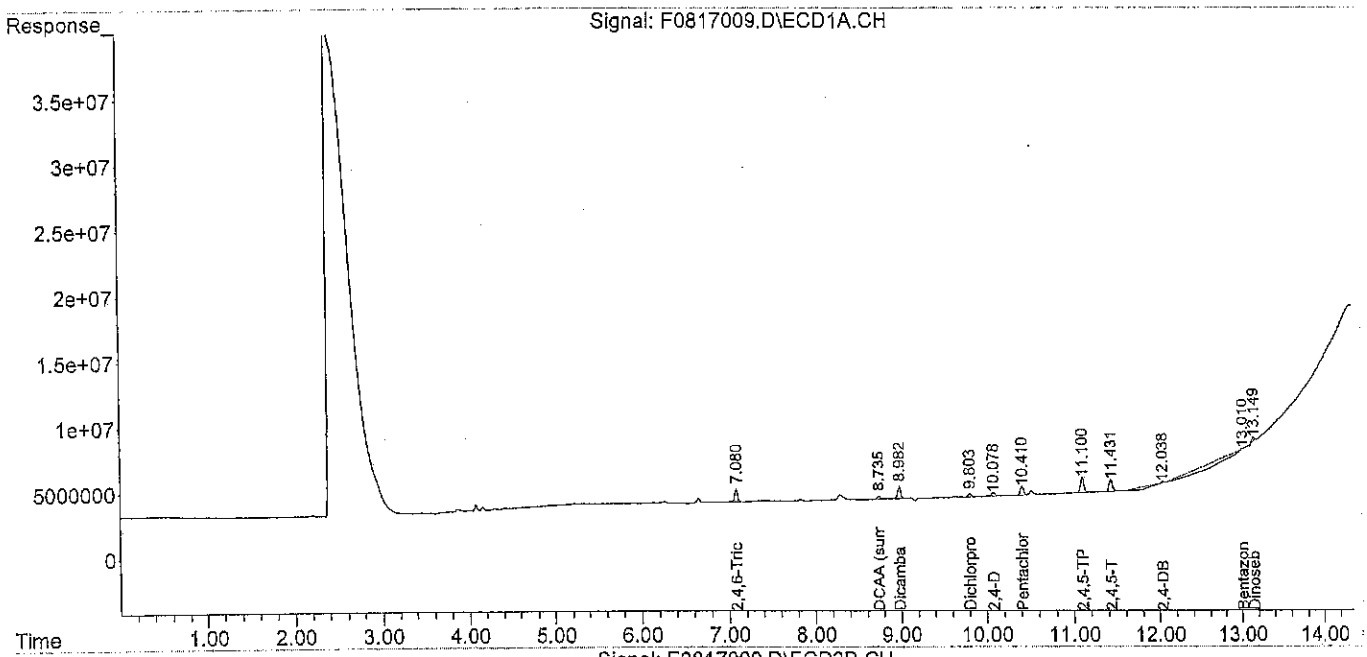
Quantitation Report (Not Reviewed)

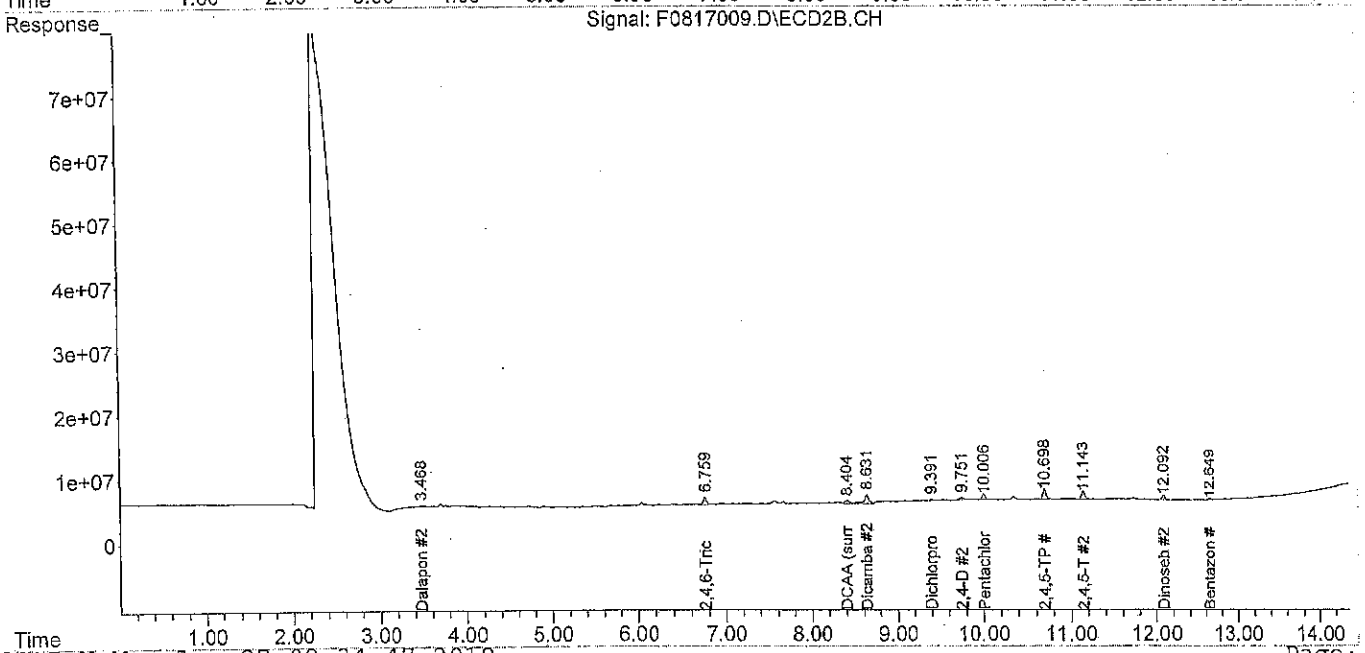
Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.735	8.403	777921	1240643	6.315	8.726	#
Spiked Amount	100.000			Recovery	=	6.31%	8.73%	
	Target Compounds							
1) A	Dalapon	3.864	3.473	433588	563057	5.893	5.909	
2) A	2,4,6-Tri...	7.081	6.758	2812928	3339271	2.933	2.993	
4) A	Dicamba	8.981	8.630	2737180	3628346	6.347	6.868	
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6) A	MCPA	9.335	0.000	121656	0	610.762	N.D.	#
7) A	Dichlorprop	9.805	9.392	768391	819685	6.519	5.855	
8) A	2,4-D	10.078	9.747	828605	1081324	5.990	6.010	
9) A	Pentachlo...	10.408	10.005	1936680	2420924	0.618	0.620	
10) A	2,4,5-TP	11.099	10.698	3379558	4663673	5.832	6.120	
11) A	2,4,5-T	11.430	11.144	2665633	3722944	5.491	5.767	
12) A	2,4-DB	12.037	11.727	381563	513964	5.603	6.049	
13) a	Bentazon	13.009	12.653	238341	417110	4.936	5.764	
14) A	Dinoseb	13.144	12.092	1241096	2116004	5.771	6.157	

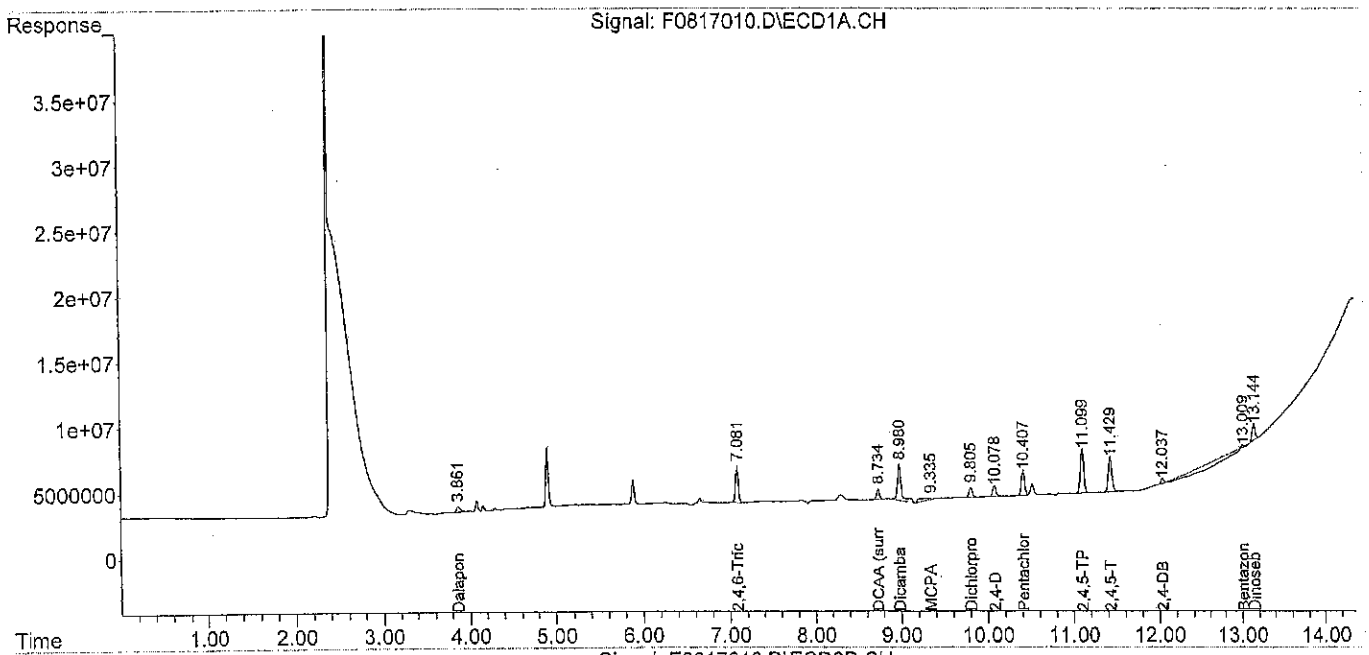
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

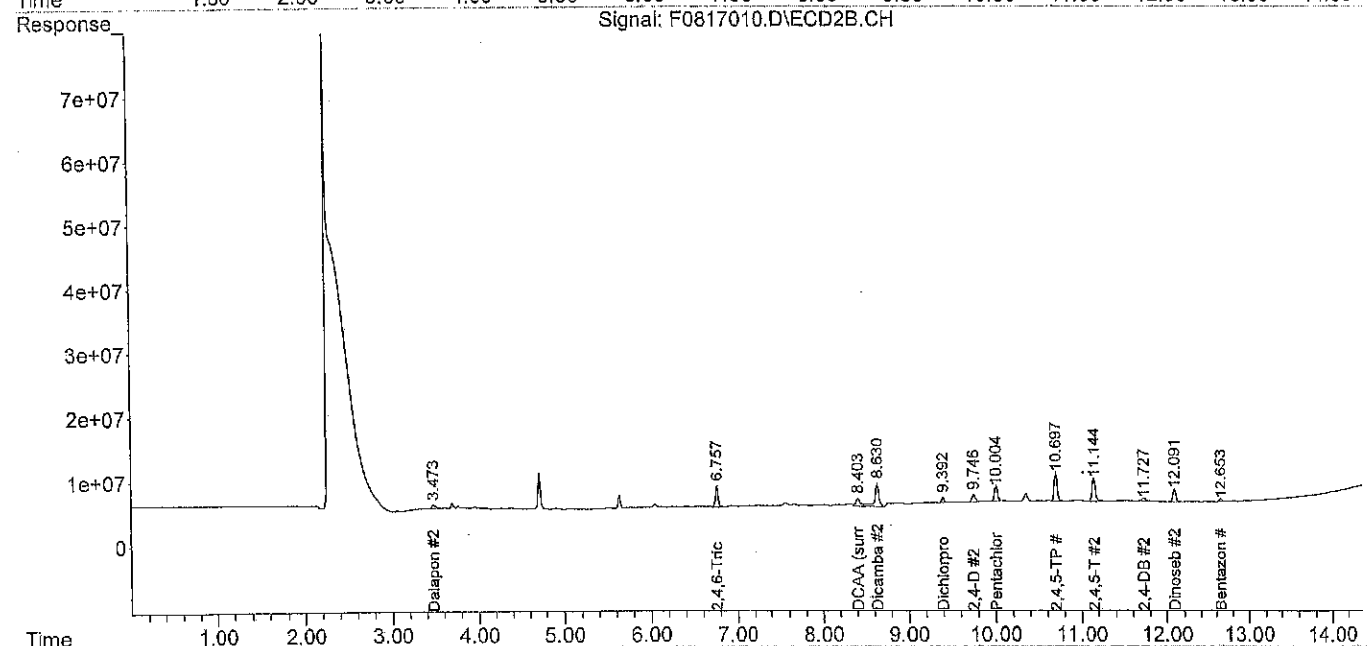
Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.734	8.403	1326771	1811094	10.771	12.738
Spiked Amount	100.000			Recovery	=	10.77%	12.74%
	Target Compounds						
1) A	Dalapon	3.865	3.473	770736	929282	10.474	9.752
2) A	2,4,6-Tri...	7.082	6.759	4640576	5380756	4.839	4.823
4) A	Dicamba	8.980	8.629	4250607	5592040	9.856	10.586
5) A	MCPP	9.157	8.711	10189	334	2322.111m	2441.300m
6) A	MCPA	9.335	8.976	225902	100237	846.768m	965.094m
7) A	Dichlorprop	9.805	9.388	1247076	1498144	10.580	10.702
8) A	2,4-D	10.077	9.746	1412974	1817263	10.214	10.100
9) A	Pentachlo...	10.408	10.004	3189050	4062901	1.018	1.040
10) A	2,4,5-TP	11.099	10.698	5638516	7542591	9.730	9.897
11) A	2,4,5-T	11.428	11.142	4671215	6321650	9.622	9.792
12) A	2,4-DB	12.036	11.728	660054	840753	9.692	9.894
13) a	Bentazon	13.008	12.652	442679	674246	9.167	9.317
14) A	Dinoseb	13.141	12.091	2282616	3508038	10.614	10.207

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

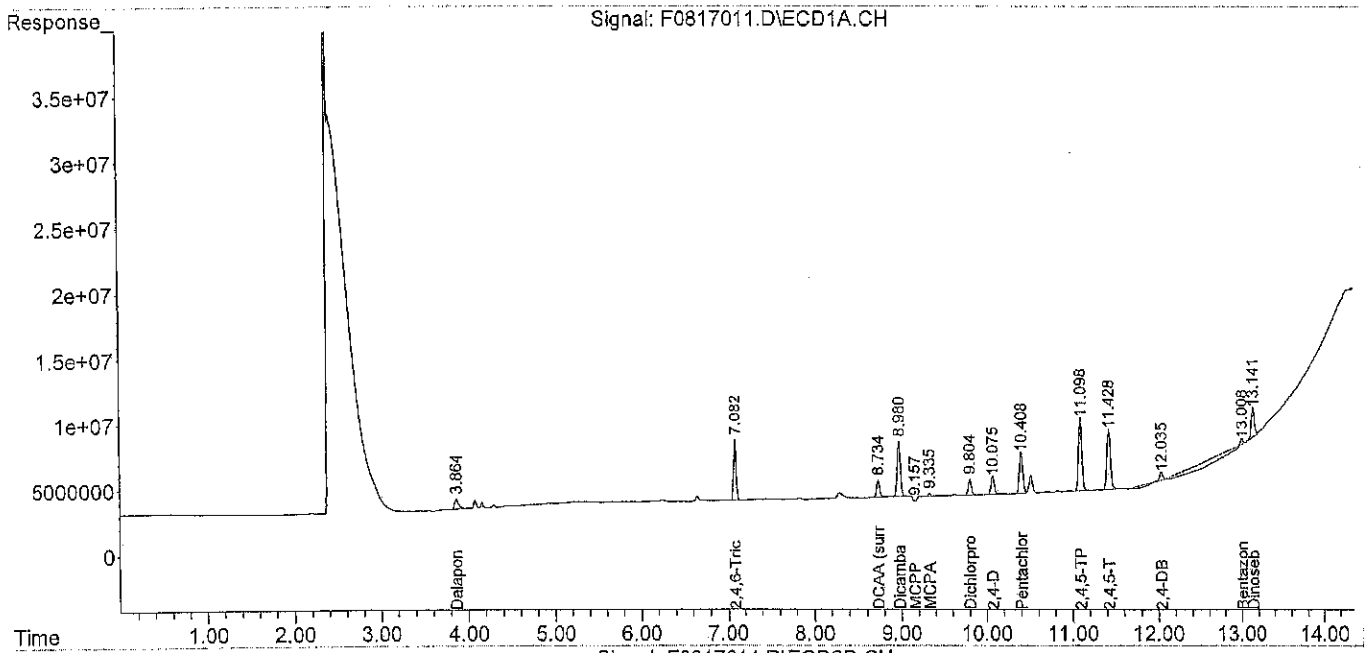
Quantitation Report (QT Reviewed)

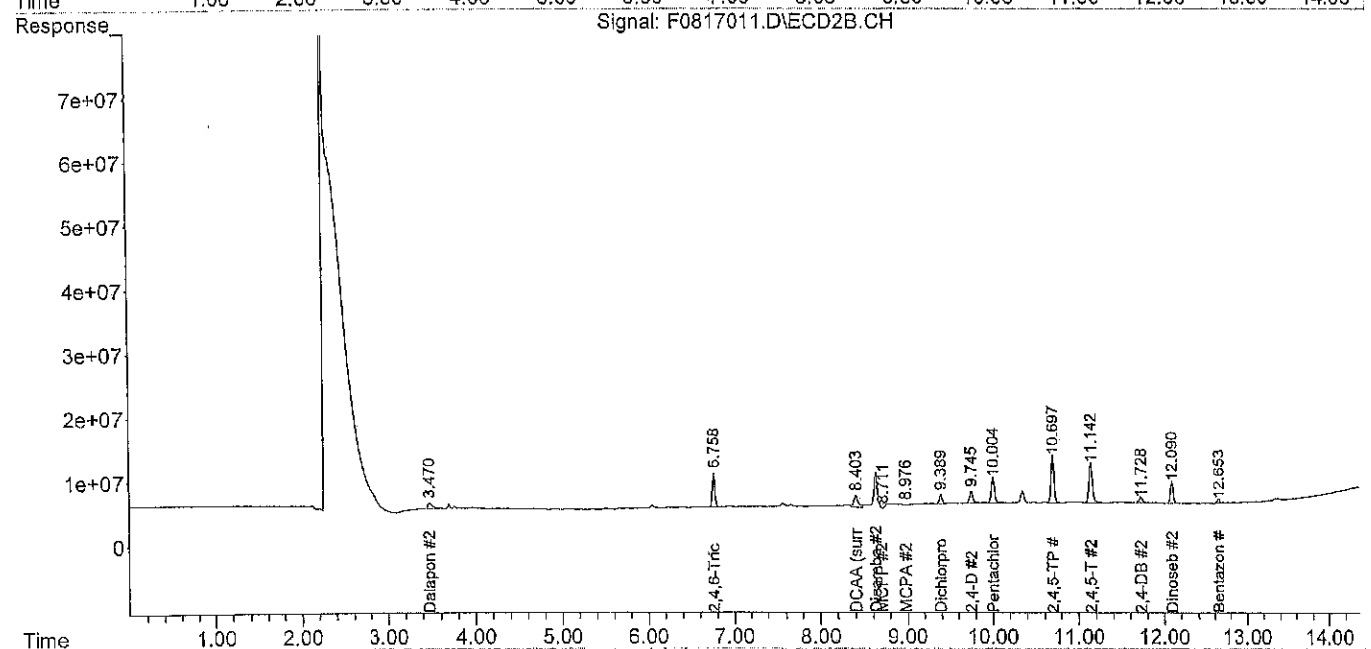
Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.735	8.403	3120475	3677033	25.333	25.861
	Spiked Amount 100.000			Recovery	=	25.33%	25.86%
	Target Compounds						
1) A	Dalapon	3.865	3.473	1855417	2249731	25.216	23.610
2) A	2,4,6-Tri...	7.083	6.759	11354167	13199763	11.839	11.831
4) A	Dicamba	8.980	8.630	10068427	12558353	23.347	23.773
5) A	MCPP	9.157	8.712	199811	265631	2877.380	3123.865
6) A	MCPA	9.336	8.980	1048400	969997	2708.842	2734.370
7) A	Dichlorprop	9.805	9.388	2966815	3776783	25.170	26.979
8) A	2,4-D	10.076	9.745	3455529	4654121	24.978	25.867
9) A	Pentachlo...	10.407	10.004	7628348	9784346	2.436	2.504
10) A	2,4,5-TP	11.098	10.697	13752088	18343572	23.732	24.070
11) A	2,4,5-T	11.427	11.142	11707613	15290891	24.117	23.686
12) A	2,4-DB	12.035	11.726	1698799	2078253	24.944	24.458
13) a	Bentazon	13.005	12.653	1192894	1651396	24.703	22.819
14) A	Dinoseb	13.142	12.091	5347366	8238683	24.864	23.972

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

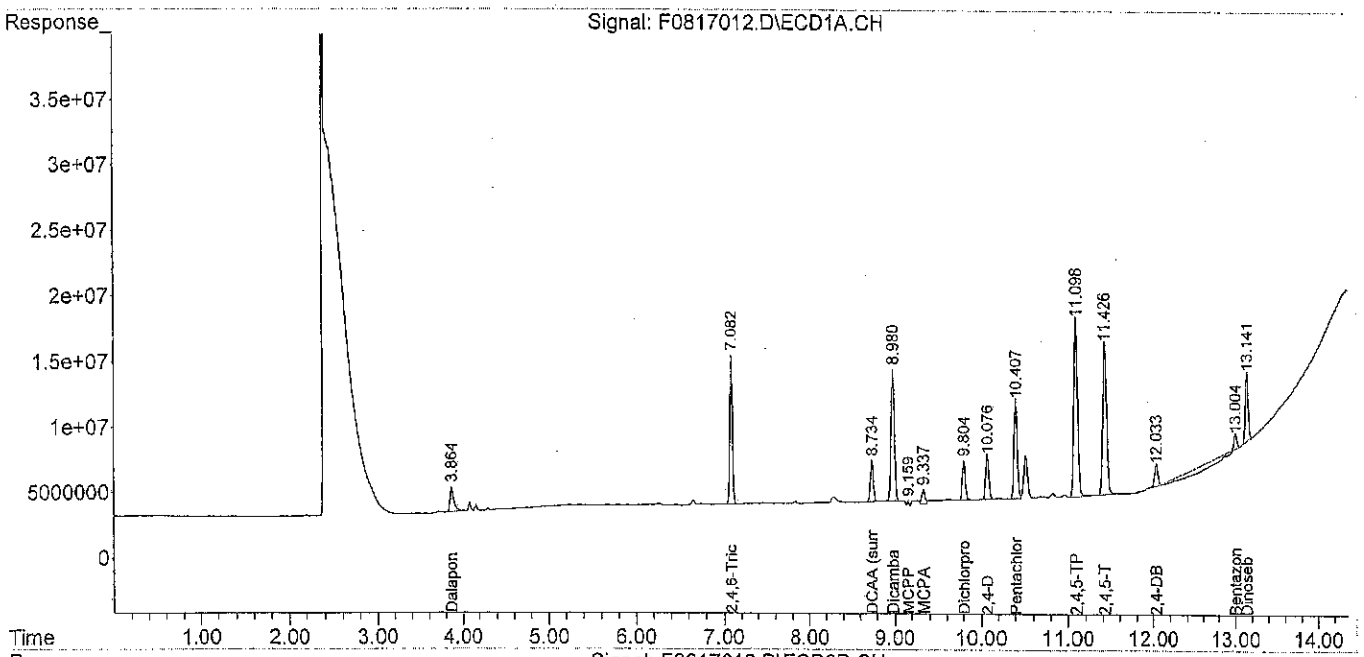
Quantitation Report (Not Reviewed)

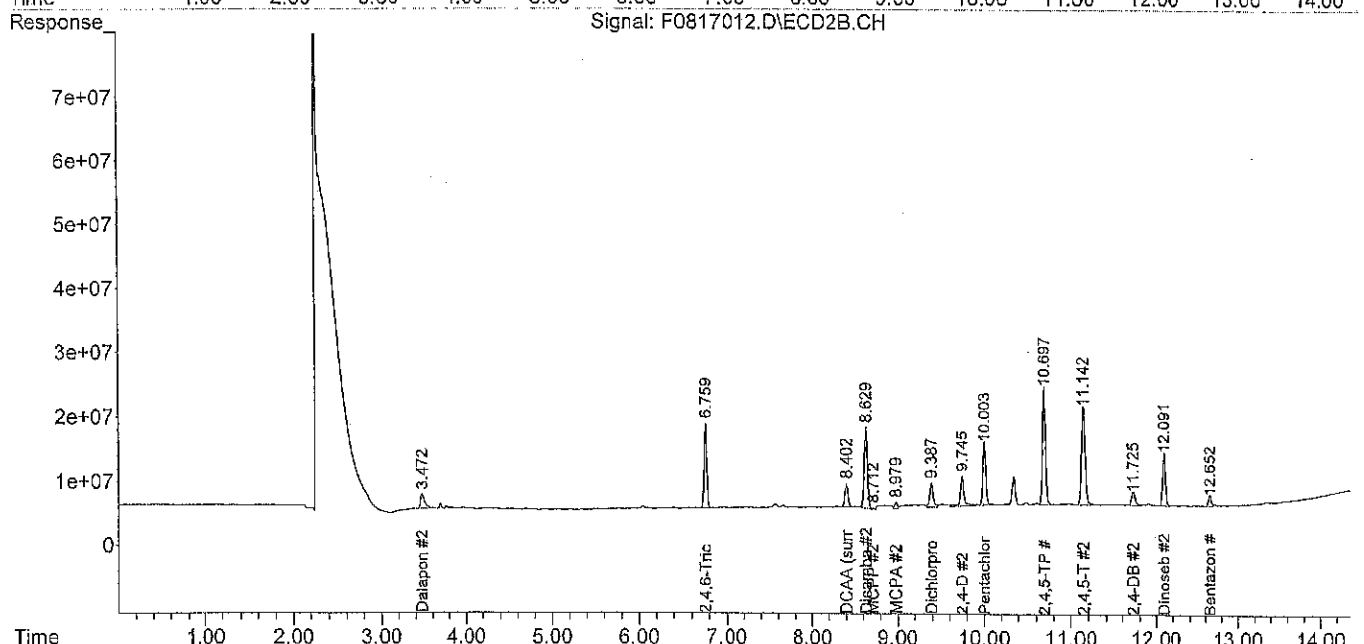
Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.733	8.401	5864299	6814069	47.608	47.925
	Spiked Amount 100.000			Recovery	=	47.61%	47.92%
	Target Compounds						
1) A	Dalapon	3.864	3.472	3513619	4289384	47.751	45.015
2) A	2,4,6-Tri...	7.082	6.758	22083231	25328645	23.026	22.701
4) A	Dicamba	8.980	8.630	19506123	23646638	45.231	44.762
5) A	MCPP	9.156	8.712	972672	1022364	5140.540	5070.816
6) A	MCPA	9.335	8.978	2036145	2152226	4945.026	5139.277
7) A	Dichlorprop	9.803	9.386	5516326	7047700	46.800	50.344
8) A	2,4-D	10.074	9.744	6672898	8962952	48.235	49.814
9) A	Pentachlo...	10.406	10.003	14530907	18616464	4.641	4.765
10) A	2,4,5-TP	11.097	10.697	26647731	35111974	45.986	46.073
11) A	2,4,5-T	11.426	11.141	22911810	30006336	47.196	46.480
12) A	2,4-DB	12.034	11.725	3454487	3993012	50.722	46.991
13) a	Bentazon	12.999f	12.648	2477630	3371122	51.308	46.583
14) A	Dinoseb	13.135f	12.090	10836859	15985248	50.389	46.511

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

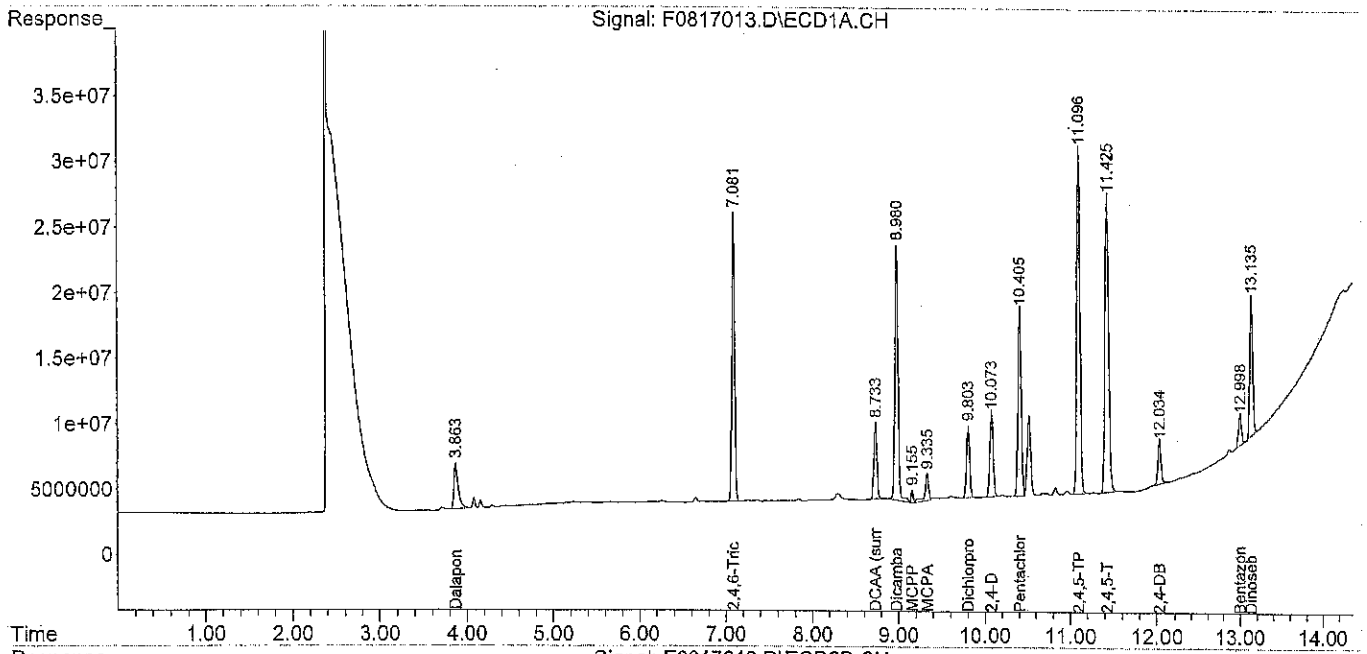
Quantitation Report (Not Reviewed)

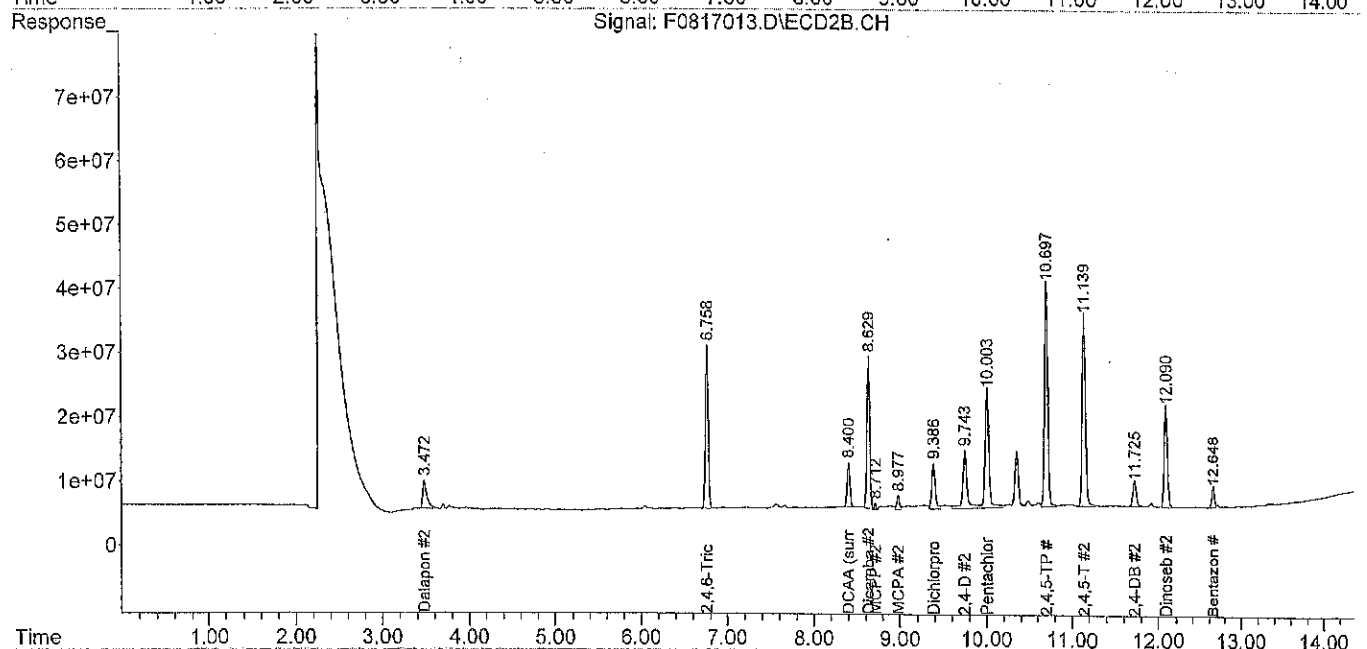
Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.731	8.400	11348388	13451287	92.129	94.605
		Spiked Amount 100.000			Recovery	=	92.13%	94.61%
		Target Compounds						
1)	A	Dalapon	3.865	3.473	6866529	8704228	93.318	91.347
2)	A	2,4,6-Tri...	7.081	6.758	44483672	50899710	46.383	45.620
4)	A	Dicamba	8.979	8.629	39334858	46144001	91.209	87.349
5)	A	MCPP	9.154	8.710	2488021	2706431	9577.916	9403.643
6)	A	MCPA	9.333	8.977	4187625	4322945	9815.820	9554.981
7)	A	Dichlorprop	9.801	9.385	10771858	12839484	91.388	91.717
8)	A	2,4-D	10.072	9.742	13053849	16533000	94.359	91.887
9)	A	Pentachlo...	10.404	10.001	28483043	35567736	9.096	9.103
10)	A	2,4,5-TP	11.096	10.695	54693437	69891107	94.384	91.709
11)	A	2,4,5-T	11.424	11.139	47347378	60940230	97.531	94.397
12)	A	2,4-DB	12.033	11.723	6898744	7999385	101.294	94.140
13)	a	Bentazon	13.003	12.650	4877862	6590466	101.014	91.069
14)	A	Dinoseb	13.139	12.089	21937455	32320424	102.005	94.041

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

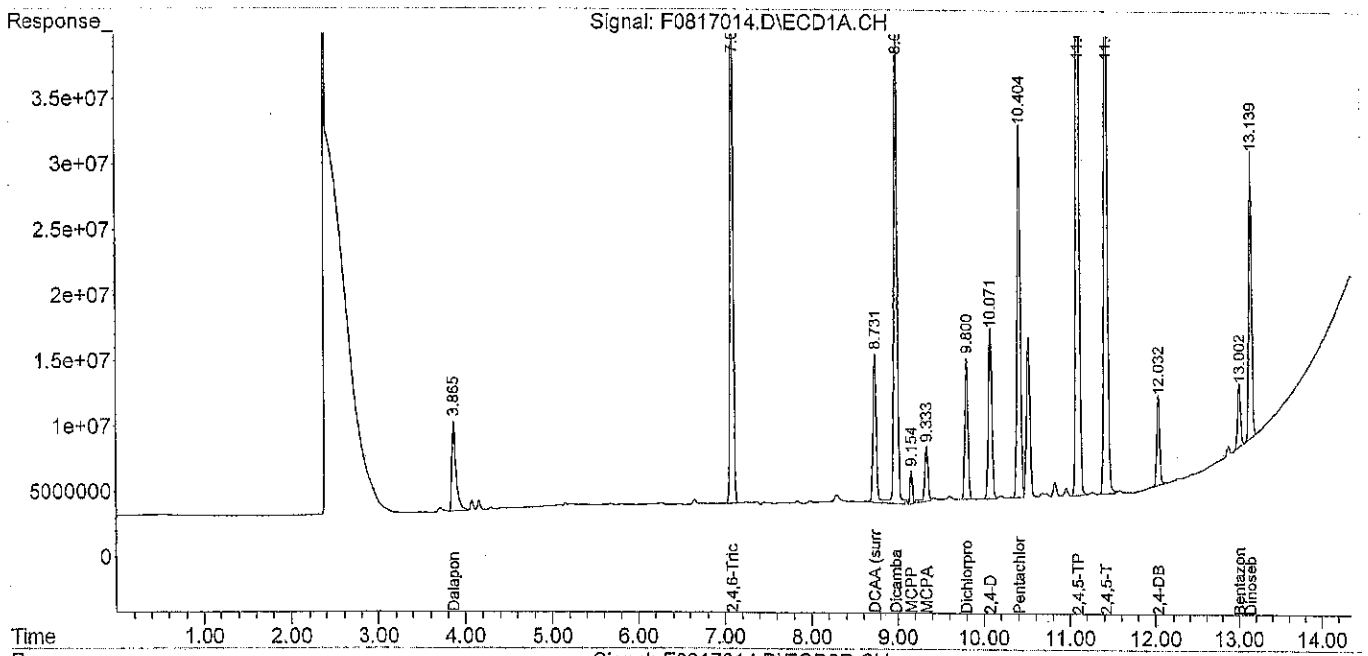
Quantitation Report (Not Reviewed)

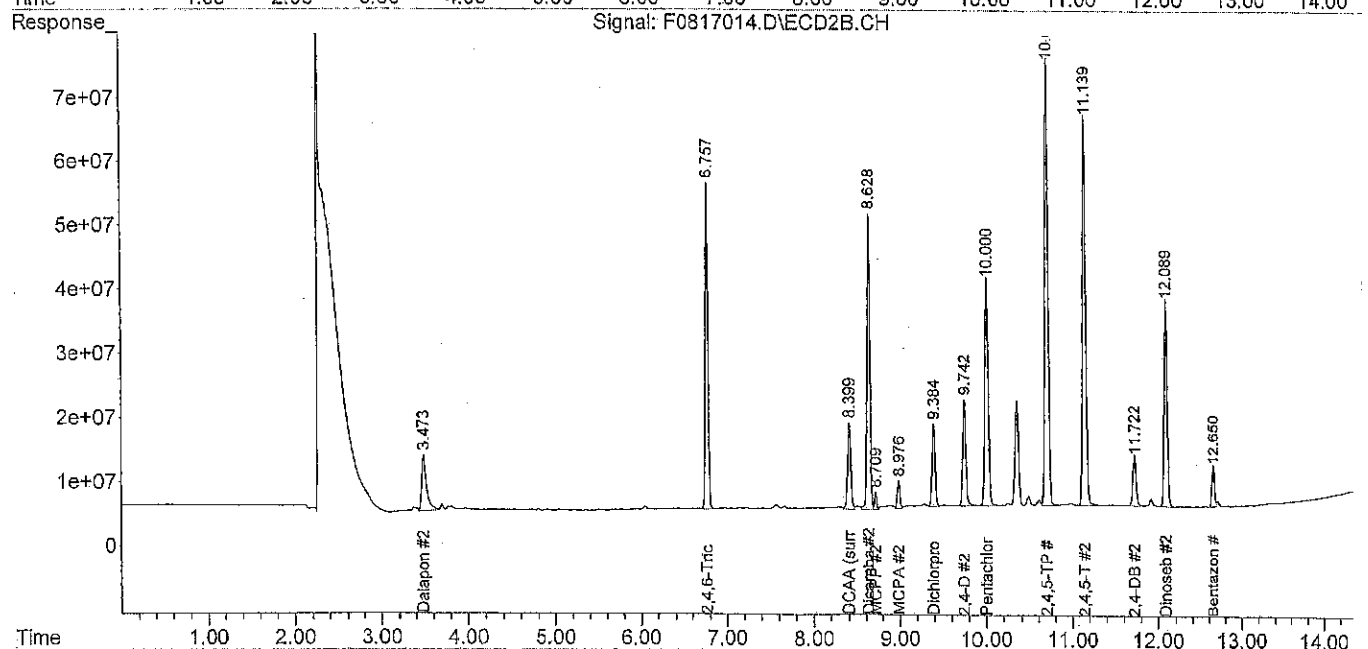
Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.732	8.400	26255998	30148769	213.154	212.042
	Spiked Amount 100.000			Recovery	=	213.15%	212.04%
	Target Compounds						
1) A	Dalapon	3.867	3.475	16477193	21035245	223.929	220.756
2) A	2,4,6-Tri...	7.082	6.759	110.5E6	127.8E6	115.239	114.526
4) A	Dicamba	8.979	8.628	94350654	111.8E6	218.779	211.657
5) A	MCPP	9.156	8.711	6752926	7530404	22066.787	21814.934
6) A	MCPA	9.333	8.978	10206538	10786773	23442.201	22703.782
7) A	Dichlorprop	9.800	9.383	24717008	29583680	209.698	211.326
8) A	2,4-D	10.071	9.741	30823171	38043250	222.804	211.436
9) A	Pentachlo...	10.404	10.001	67787156	80426329	21.649	20.584
10) A	2,4,5-TP	11.096	10.696	134.4E6	169.3E6	231.873	222.207
11) A	2,4,5-T	11.424	11.139	116.5E6	151.0E6	239.955	233.880
12) A	2,4-DB	12.031	11.722	16678647	19089306	244.893	224.651
13) a	Bentazon	13.002	12.651	11612604	15572024	240.481	215.178
14) A	Dinoseb	13.139f	12.089	50893105	75489719	236.643	219.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

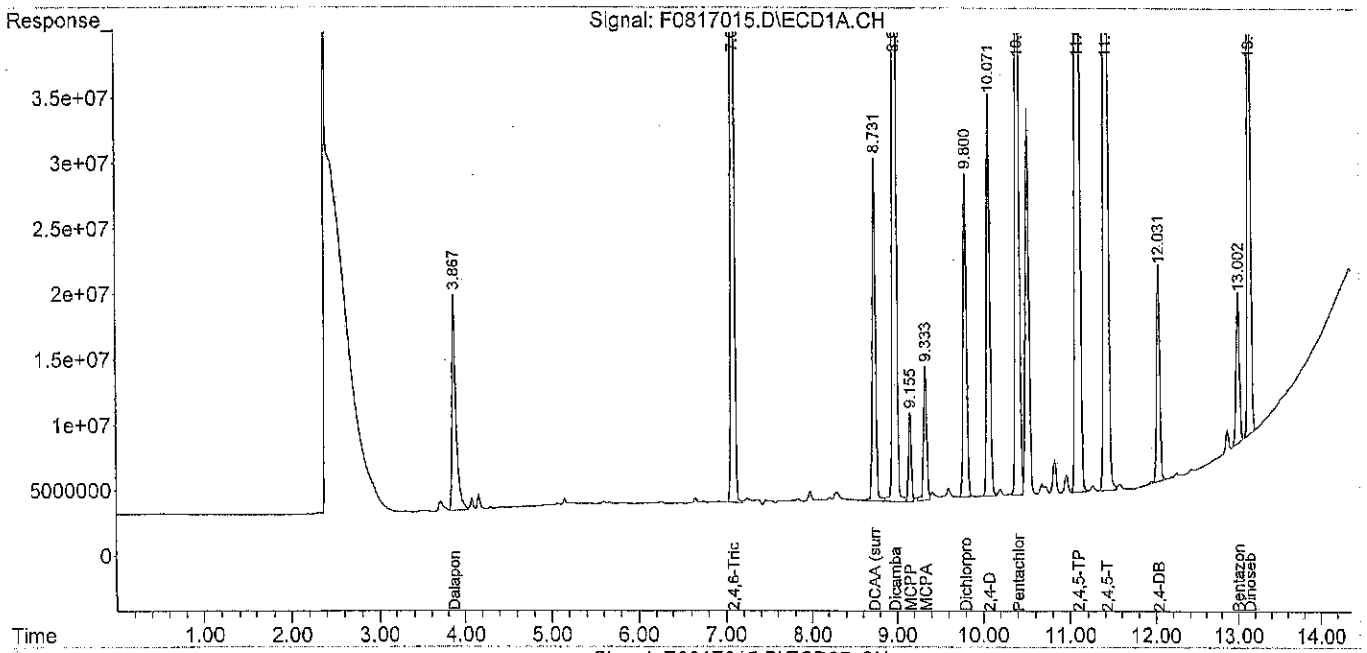
Quantitation Report (Not Reviewed)

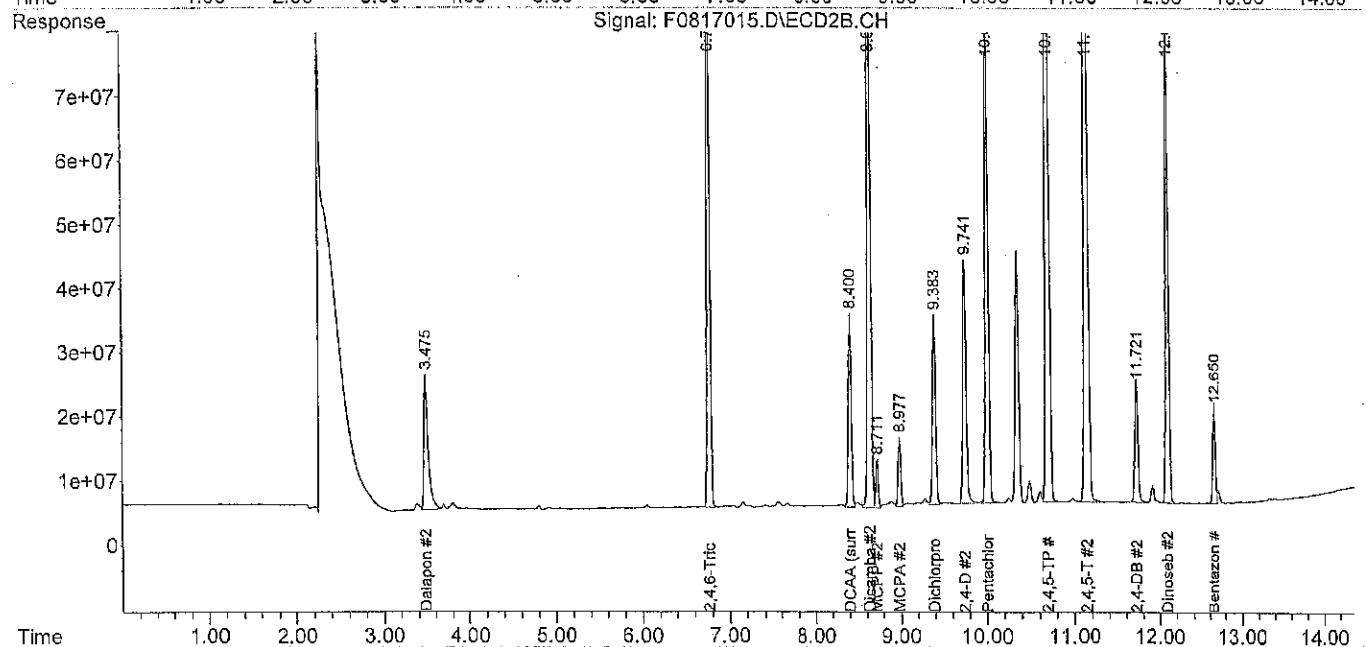
Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.732	8.401	57240466	66758932	464.695	469.528
	Spiked Amount 100.000			Recovery	=	464.70%	469.53%
	Target Compounds						
1) A	Dalapon	3.873	3.481	36111007	46193314	490.756	484.780
2) A	2,4,6-Tri...	7.084	6.760	262.5E6	307.4E6	273.730	275.508
4) A	Dicamba	8.979	8.628	224.8E6	264.5E6	521.275	500.754
5) A	MCPP	9.157	8.714	16801253	19124519	51491.177	51644.689
6) A	MCPA	9.336	8.981	23691471	25451703	53971.106	52535.373
7) A	Dichlorprop	9.799	9.382f	56064531	66294862	475.648	473.566
8) A	2,4-D	10.070	9.740	70747424	85752556	511.395	476.593
9) A	Pentachlo...	10.403	10.000	155.9E6	181.5E6	49.780	46.448
10) A	2,4,5-TP	11.095	10.695	318.2E6	393.8E6	549.044	516.783
11) A	2,4,5-T	11.422	11.138	283.9E6	357.8E6	584.755	554.208
12) A	2,4-DB	12.030f	11.721	41104828	44301446	603.543	521.358
13) a	Bentazon	12.999f	12.648	26780768	35928681	554.593	496.471
14) A	Dinoseb	13.135f	12.088	117.1E6	166.6E6	544.262	484.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

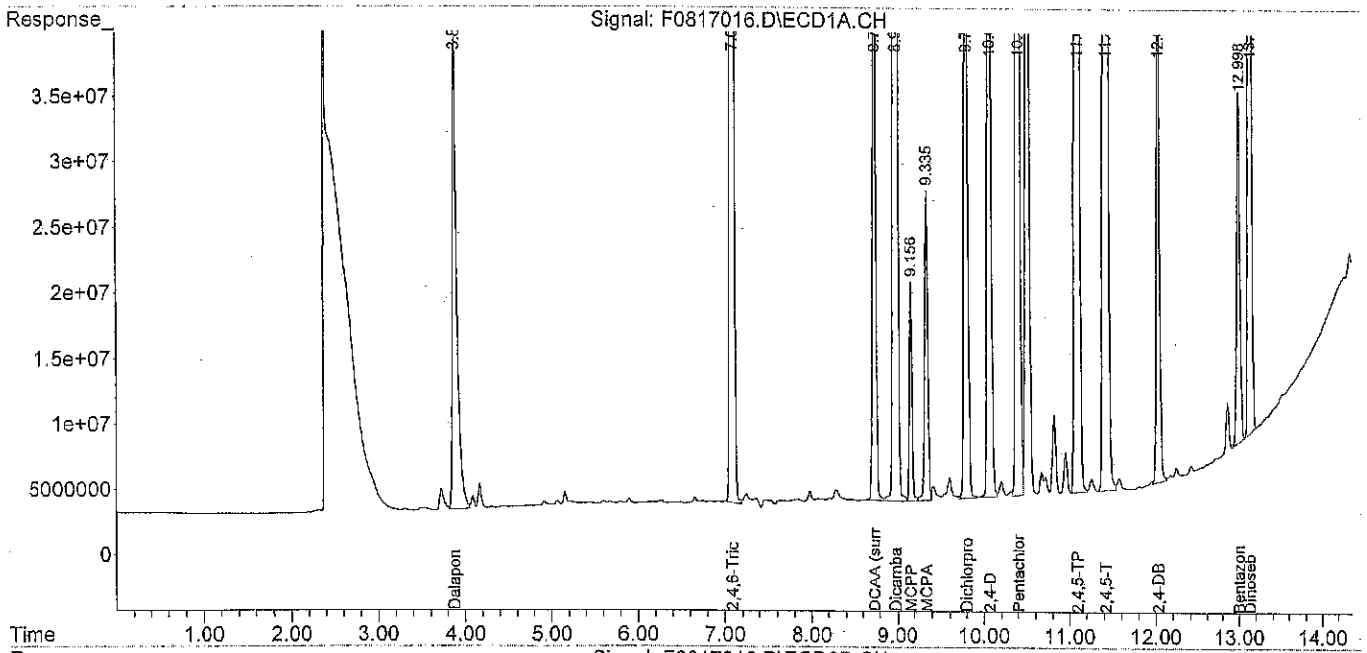
Quantitation Report (Not Reviewed)

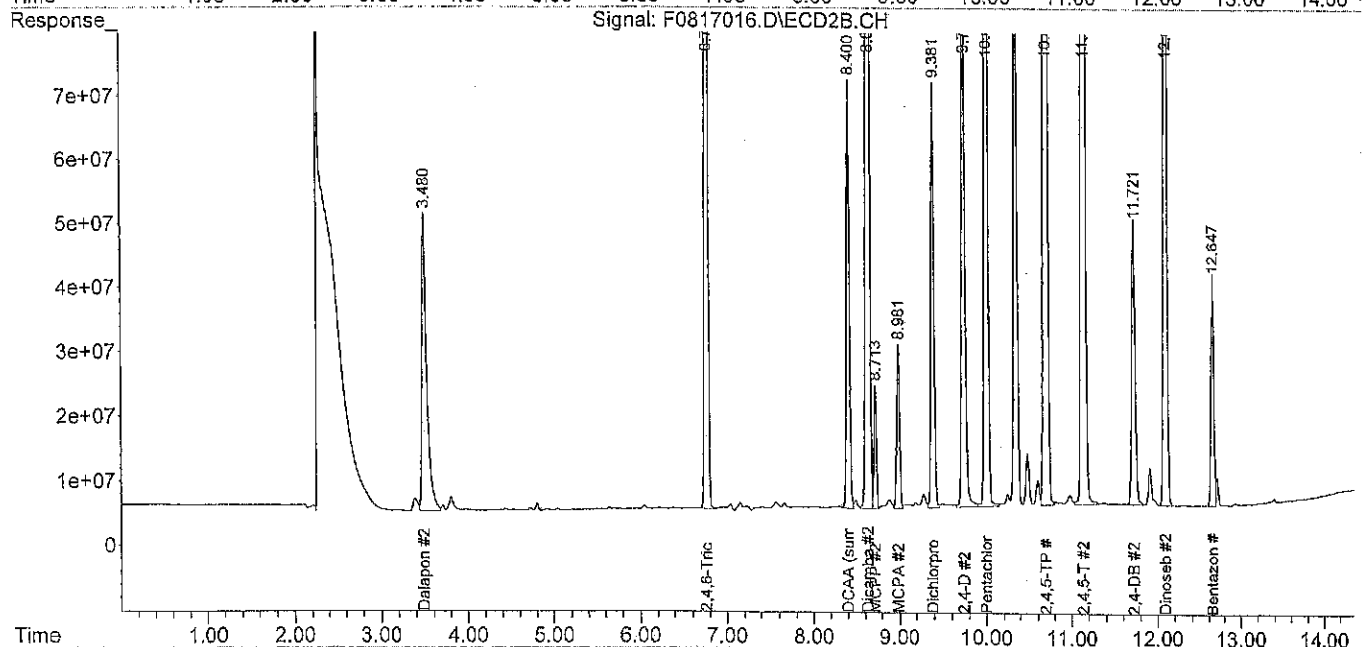
Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.753f	0.000	960161	0	7.795	N.D.	#
	Spiked Amount 100.000			Recovery	=	7.80%	0.00%	
	Target Compounds							
1)	A Dalapon	3.866	3.474	6807754	8572406	92.519	89.964	
2)	A 2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A Dicamba	8.980	8.629	39483953	47293331	91.555	89.525	
5)	A MCPP	9.156	8.710	2639608	2834563	10021.806	9733.305	
6)	A MCPA	9.334	8.978	4386424	4659850	10265.887	10240.318	
7)	A Dichlorprop	9.802	9.385	10278317	12258239	87.201	87.565	
8)	A 2,4-D	10.074	9.744	12265306	15653918	88.659	87.001	
9)	A Pentachlo...	0.000	9.994f	0	240126	N.D.	0.061	#
10)	A 2,4,5-TP	11.097	10.697	51725738	66892655	89.263	87.774	
11)	A 2,4,5-T	11.424	11.140	48874445	63677945	100.677	98.638	
12)	A 2,4-DB	12.030	11.724	8907892	8593975	130.795	101.137	
13)	a Bentazon	13.001f	12.651	57292593	7187699	1186.451	99.321	#
14)	A Dinoseb	13.139	12.090	23459537	34548327	109.082	100.523	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

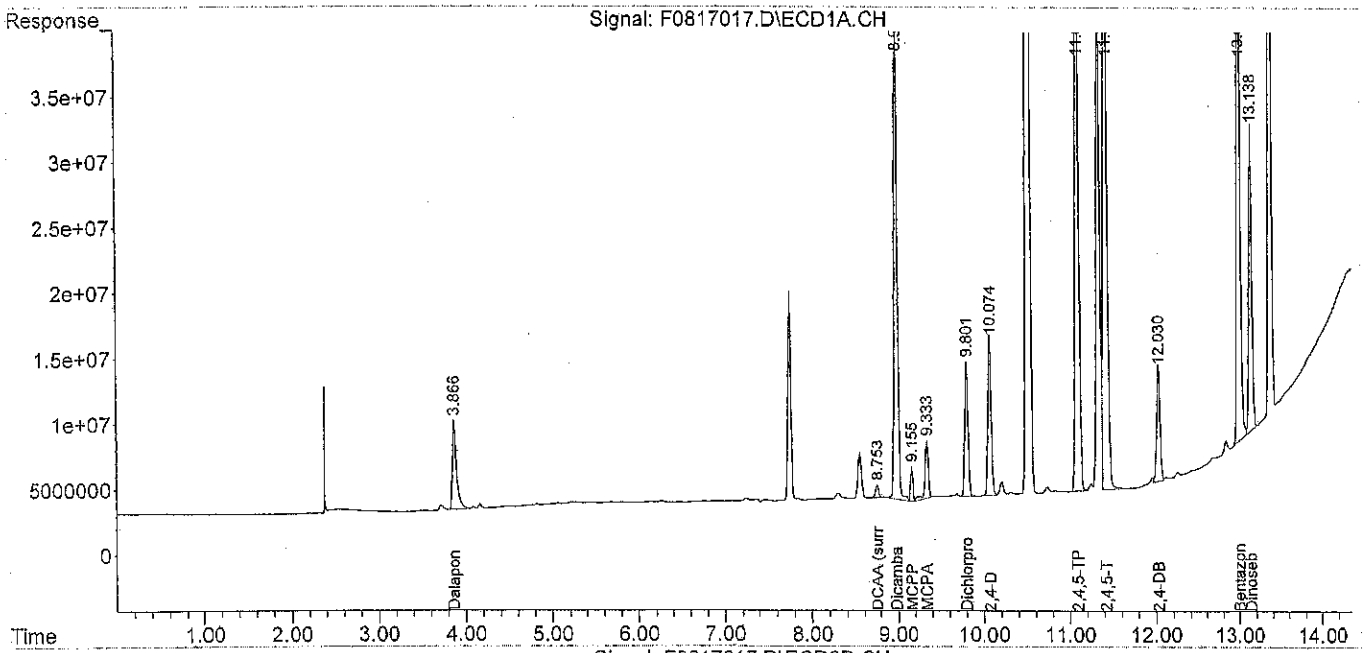
Quantitation Report (Not Reviewed)

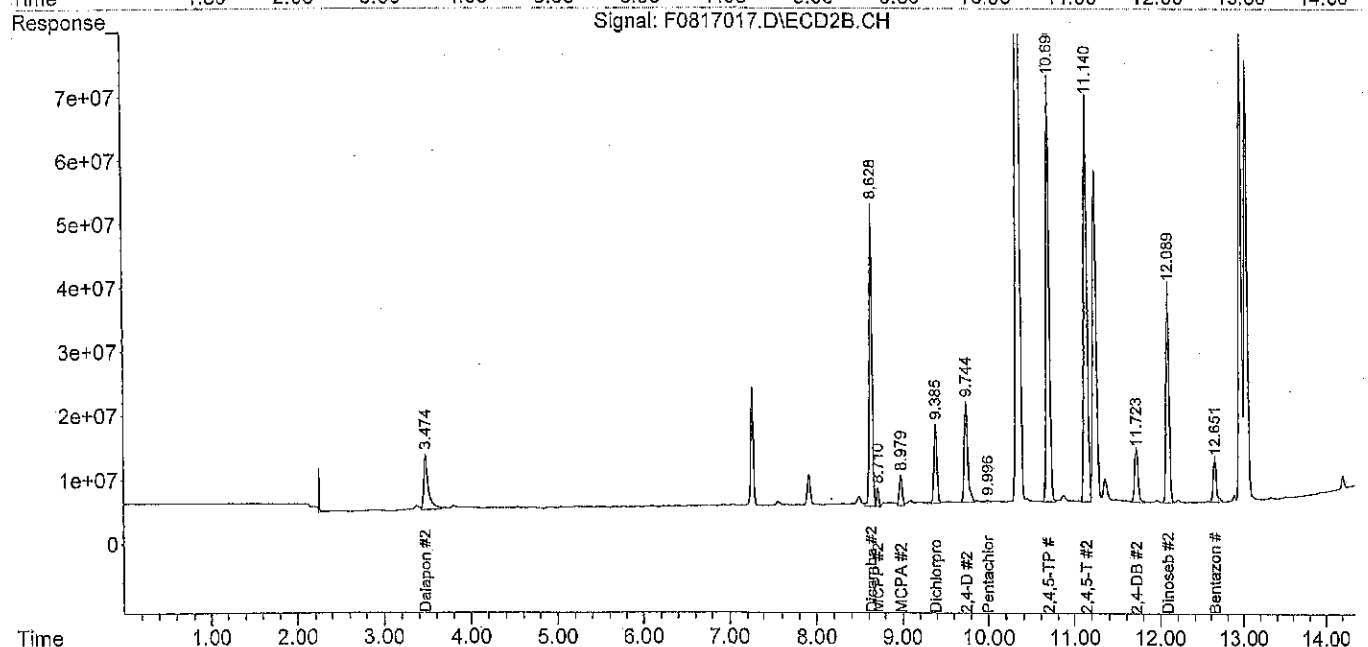
Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:05:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	107.046	-7.0	116	0.00
9 A	Pentachlorophenol	10.000	10.490	-4.9	115	0.00
Signal #2						
3 S	DCAA (surr)	100.000	95.587	4.4	101	0.00
9 A	Pentachlorophenol	10.000	8.950	10.5	98	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:23:21 2018

Evaluate Continuing Calibration Report

Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:45:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	108.157	-8.2	117	0.00
9 A	Pentachlorophenol	10.000	10.404	-4.0	114	0.00
Signal #2						
3 S	DCAA (surr)	100.000	100.128	-0.1	106	0.00
9 A	Pentachlorophenol	10.000	9.315	6.9	102	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:24:15 2018

Evaluate Continuing Calibration Report

Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	107.095	-7.1	116	0.00
9 A	Pentachlorophenol	10.000	10.362	-3.6	114	0.00
Signal #2						
3 S	DCAA (surr)	100.000	96.365	3.6	102	0.00
9 A	Pentachlorophenol	10.000	9.168	8.3	101	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:24:58 2018

Evaluate Continuing Calibration Report

Data File : F0830026.D
Sample : HERBCCV 0830-4 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 18:45:27
Operator :
Misc :
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 18:59:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	108.577	-8.6	118	0.00
9 A	Pentachlorophenol	10.000	10.457	-4.6	115	0.00
Signal #2						
3 S	DCAA (surr)	100.000	98.343	1.7	104	0.00
9 A	Pentachlorophenol	10.000	9.237	7.6	101	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:25:36 2018

Quantitation Report (Not Reviewed)

Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 10:41:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:21 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.728	8.391f	13185824	13590865	107.046	95.587
		Spiked Amount 100.000			Recovery	=	107.05%	95.59%
		Target Compounds						
1)	A	Dalapon	3.864	3.465f	8244319	9866359	112.042	103.543
2)	A	2,4,6-Tri...	7.079	6.750	54267911	52823177	56.585	47.344
4)	A	Dicamba	8.975	8.619f	45881643	46640894	106.390	88.290
5)	A	MCPP	9.152	8.702	2908306	2784309	10808.633	9604.012
6)	A	MCPA	9.328	8.968	4866708	4325234	11353.215	9559.637
7)	A	Dichlorprop	9.797	9.376f	12728383	12207255	107.987	87.201
8)	A	2,4-D	10.068	9.732f	14996446	15976533	108.401	88.794
9)	A	Pentachlo...	10.399	9.991f	32846744	34969476	10.490	8.950
10)	A	2,4,5-TP	11.091	10.686f	51296014	67893566	88.521	89.088
11)	A	2,4,5-T	11.421f	11.129f	53874394	59006473	110.976	91.401
12)	A	2,4-DB	12.028f	11.713	7966950	7540365	116.979	88.738
13)	a	Bentazon	13.000f	12.642	4926233	6385099	102.016	88.231
14)	A	Dinoseb	13.136f	12.081f	23195763	28732408	107.856	83.601

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

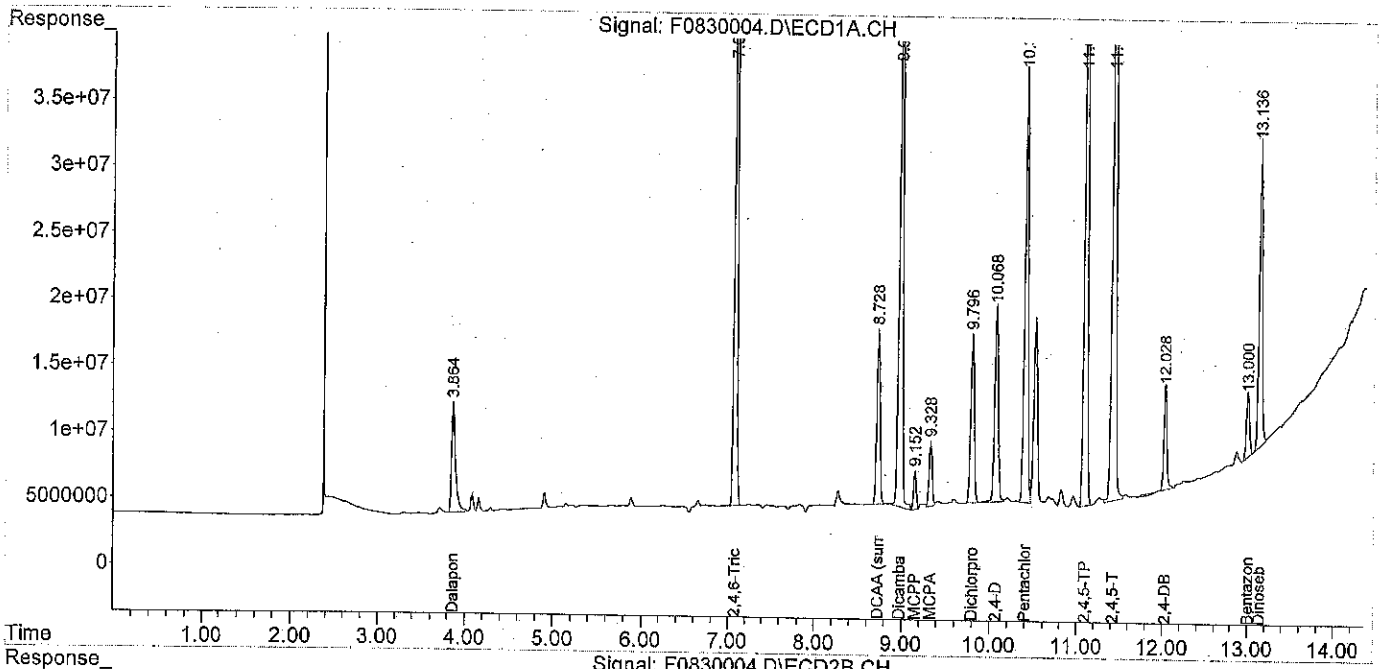
Quantitation Report (Not Reviewed)

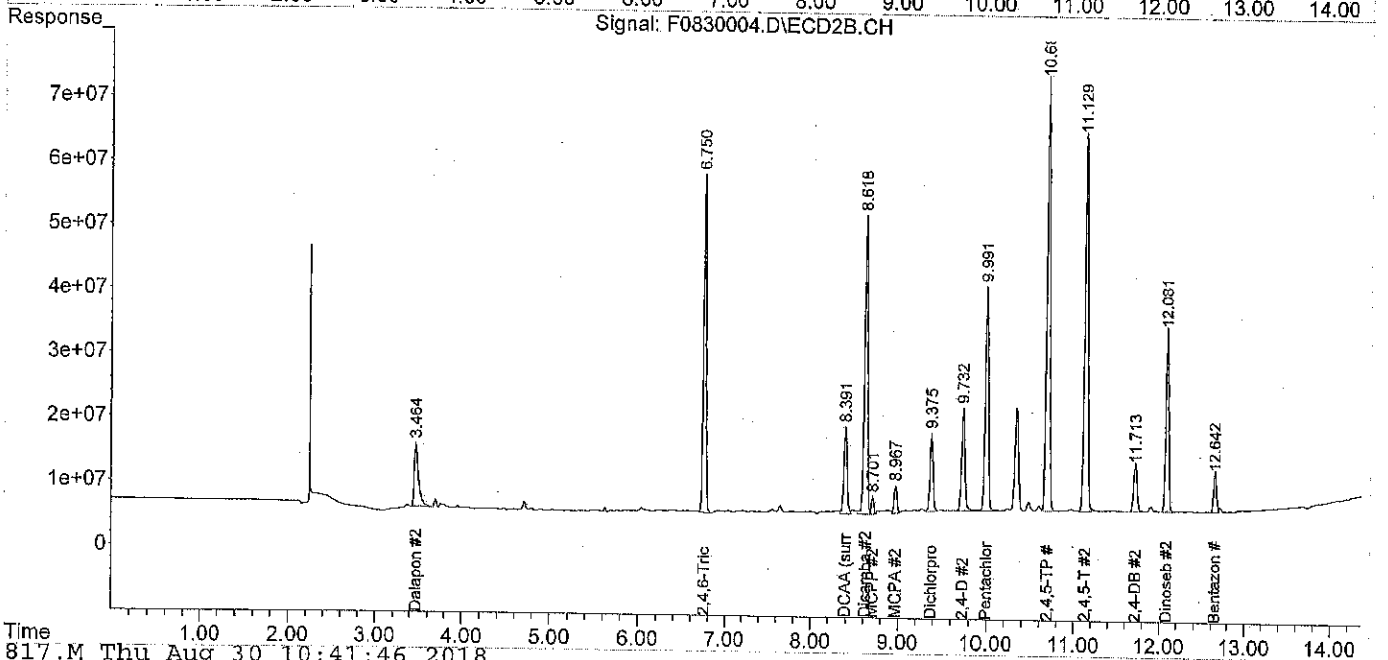
Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 10:41:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:21 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:44:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KMS 8-30-18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.730	8.393	13322608	14236559	108.157	100.128	
		Spiked Amount 100.000			Recovery	=	108.16%	100.13%	
		Target Compounds							
1)	A	Dalapon	3.867	3.467	8194475	10671290	111.365	111.991	
2)	A	2,4,6-Tri...	7.081	6.752	53518773	54417163	55.804	48.773	
4)	A	Dicamba	8.977	8.621	46011478	48315475	106.691	91.460	
5)	A	MCPP	9.153	8.703	2535450	2592265	9716.801	9109.913	
6)	A	MCPA	9.331	8.971	4603880	4242185	10758.191	9390.699	
7)	A	Dichlorprop	9.798	9.378	12319390	12642914	104.517	90.313	
8)	A	2,4-D	10.069	9.735	15506690	17278442	112.089	96.030	
9)	A	Pentachlo...	10.401	9.994	32577559	36395124	10.404	9.315	
10)	A	2,4,5-TP	11.093	10.689	59601705	72963900	102.855	95.741	
11)	A	2,4,5-T	11.421	11.132	53673565	63374547	110.562	98.168	
12)	A	2,4-DB	12.029	11.715	8307230	7852979	121.975 -22	92.417	
13)	a	Bentazon	13.000	12.645	5864539	6355626	121.447 -4	87.824	#
14)	A	Dinoseb	13.137	12.084	25010215	31705041	116.292	92.251	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

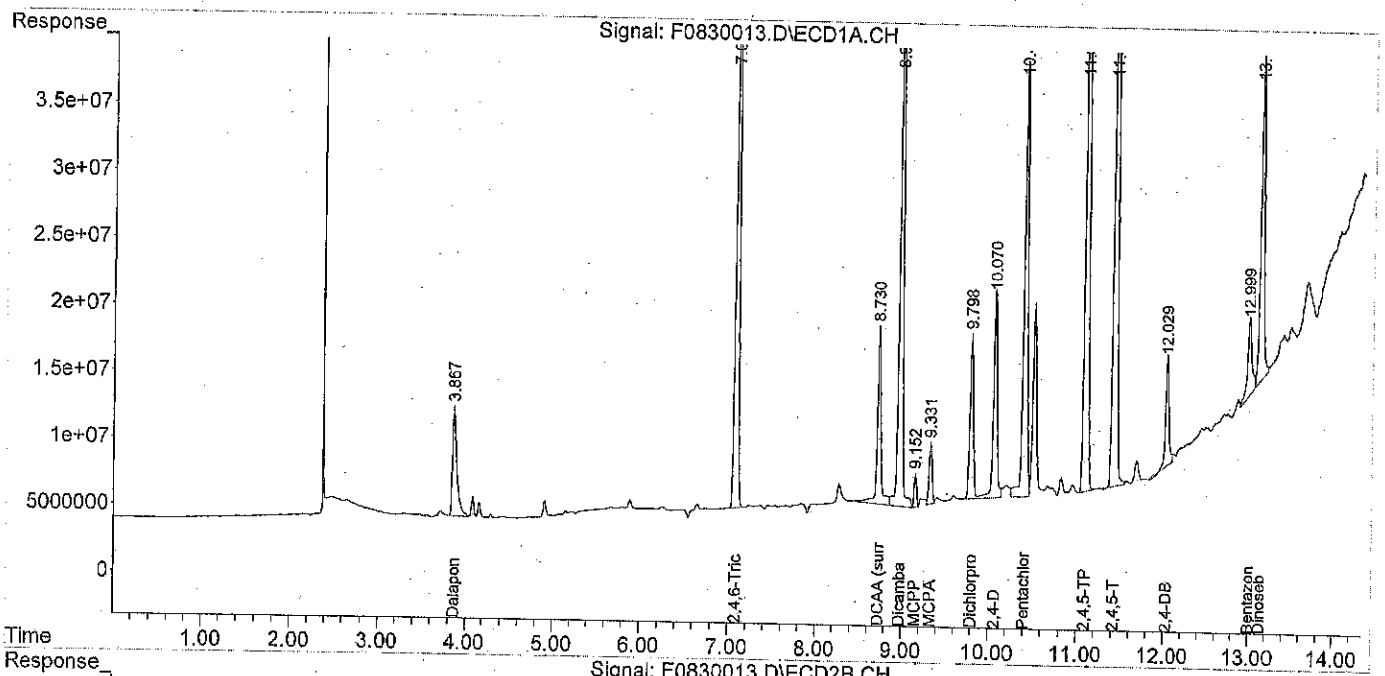
Quantitation Report (Not Reviewed)

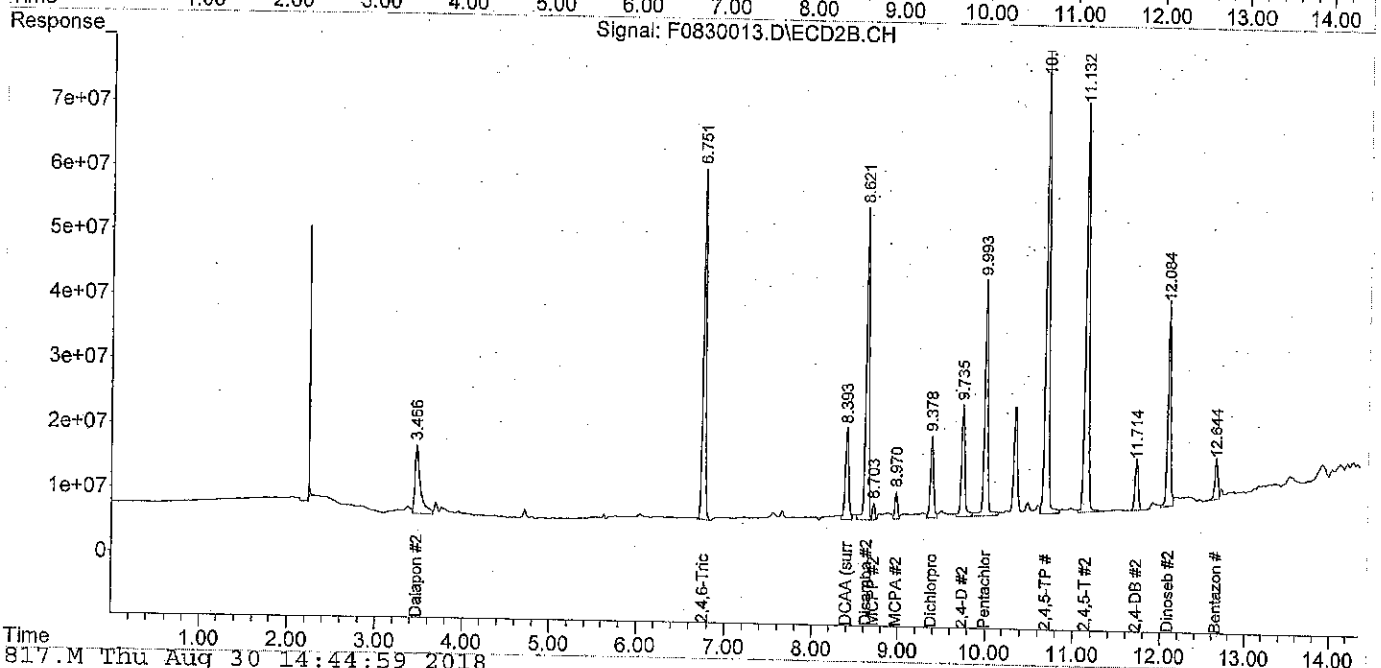
Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:44:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KMS 8/30/18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.729	8.392	13191837	13701406	107.095	96.365	
	Spiked Amount 100.000			Recovery	=	107.10%	96.36%	
	Target Compounds							
1) A	Dalapon	3.867	3.468	8000341	10349491	108.726	108.614	
2) A	2,4,6-Tri...	7.080	6.751	53120920	53235555	55.389	47.713	
4) A	Dicamba	8.975	8.620	45946536	46597479	106.540	88.208	
5) A	MCPP	9.151	8.703	2593114	2561947	9885.658	9031.909	
6) A	MCPA	9.330	8.969	4392949	4222554	10280.658	9350.763	
7) A	Dichlorprop	9.797	9.377	12462977	12504147	105.735	89.321	
8) A	2,4-D	10.068	9.734	15049915	17123145	108.788	95.166	
9) A	Pentachlo...	10.399	9.993	32446109	35821207	10.362	9.168	
10) A	2,4,5-TP	11.092	10.688	63866458	70419925	110.214	92.403	
11) A	2,4,5-T	11.420	11.131	55643351	61088545	114.620	94.627	
12) A	2,4-DB	12.028	11.715	8287229	7765095	121.682	91.383	
13) a	Bentazon	12.996	12.642	5400555	6060180	111.838	83.741	#
14) A	Dinoseb	13.133	12.083	21763386	27347886	101.195	79.573	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

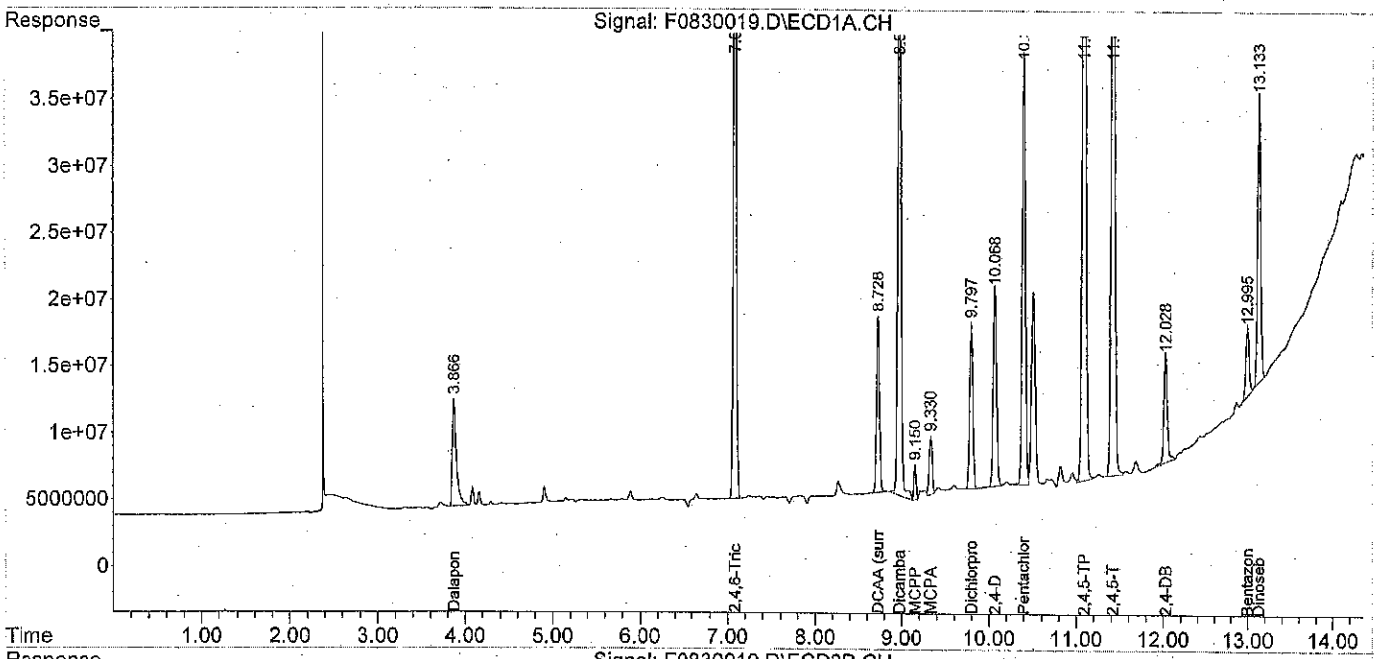
Quantitation Report (Not Reviewed)

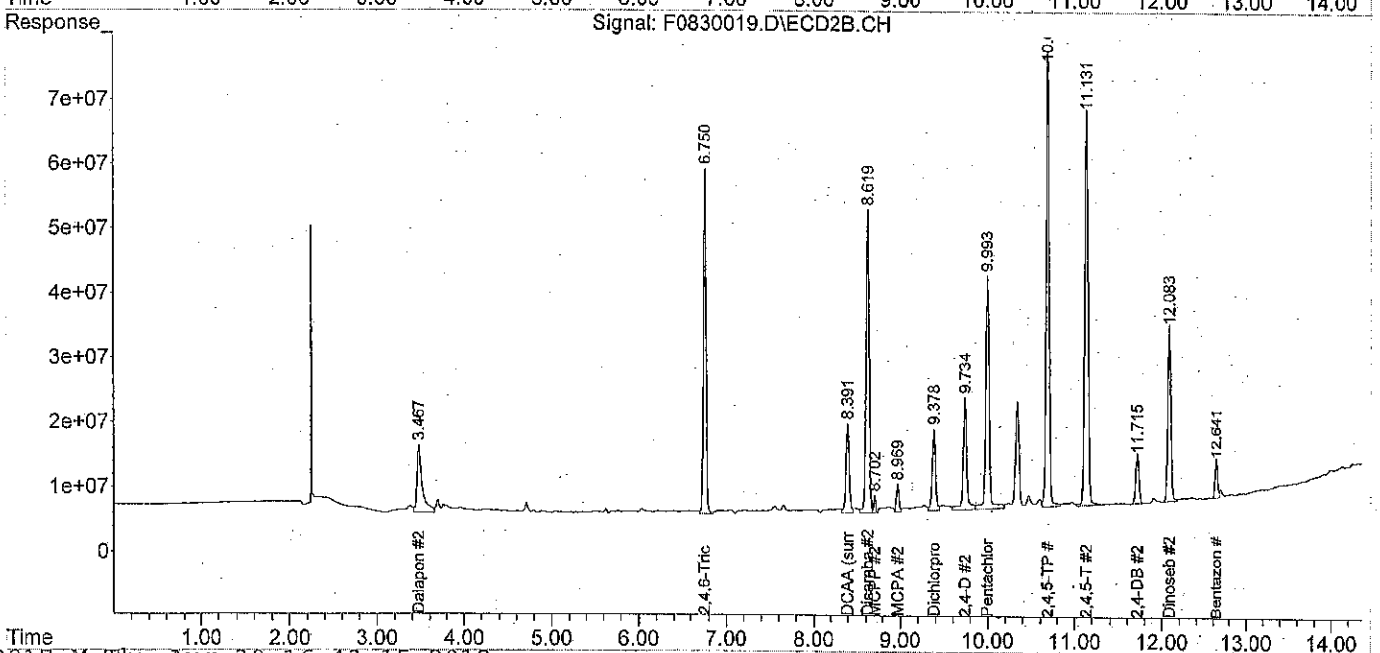
Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830026.D
Sample : HERBCCV 0830-4 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 18:45:27
Operator :
Misc :
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 18:59:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.729	8.394	13374428	13982716	108.577	98.343
		Spiked Amount 100.000			Recovery	=	108.58%	98.34%
		Target Compounds						
1)	A	Dalapon	3.867	3.468	7984690	9567291	108.514	100.405
2)	A	2,4,6-Tri...	7.081	6.752	51736644	53494276	53.946	47.945
4)	A	Dicamba	8.976	8.621	45724774	47551982	106.026	90.014
5)	A	MCPP	9.152	8.704	2563607	2672452	9799.255	9316.221
6)	A	MCPA	9.331	8.971	4544175	4317827	10623.023	9544.570
7)	A	Dichlorprop	9.798	9.379	12398871	12650343	105.191	90.366
8)	A	2,4-D	10.068	9.736	15189049	17393782	109.793	96.671
9)	A	Pentachlo...	10.401	9.994	32744468	36090638	10.457	9.237
10)	A	2,4,5-TP	11.091	10.689	64374073	70765982	111.090	92.857
11)	A	2,4,5-T	11.419	11.131	56326249	62511074	116.027	96.830
12)	A	2,4-DB	12.027	11.716	8242859	8039623	121.030	94.614
13)	a	Bentazon	12.994	12.643	5371383	6282450	111.234	86.812
14)	A	Dinoseb	13.132	12.083	22103794	27452521	102.778	79.877

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

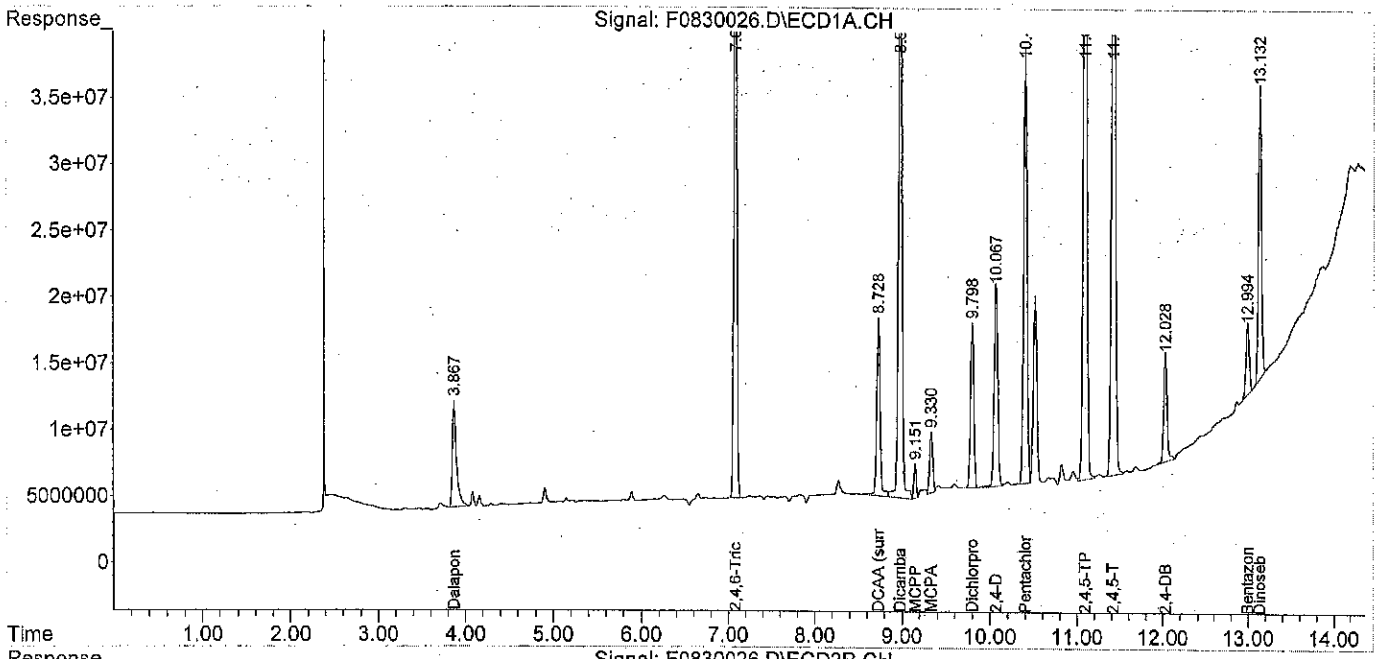
Quantitation Report (Not Reviewed)

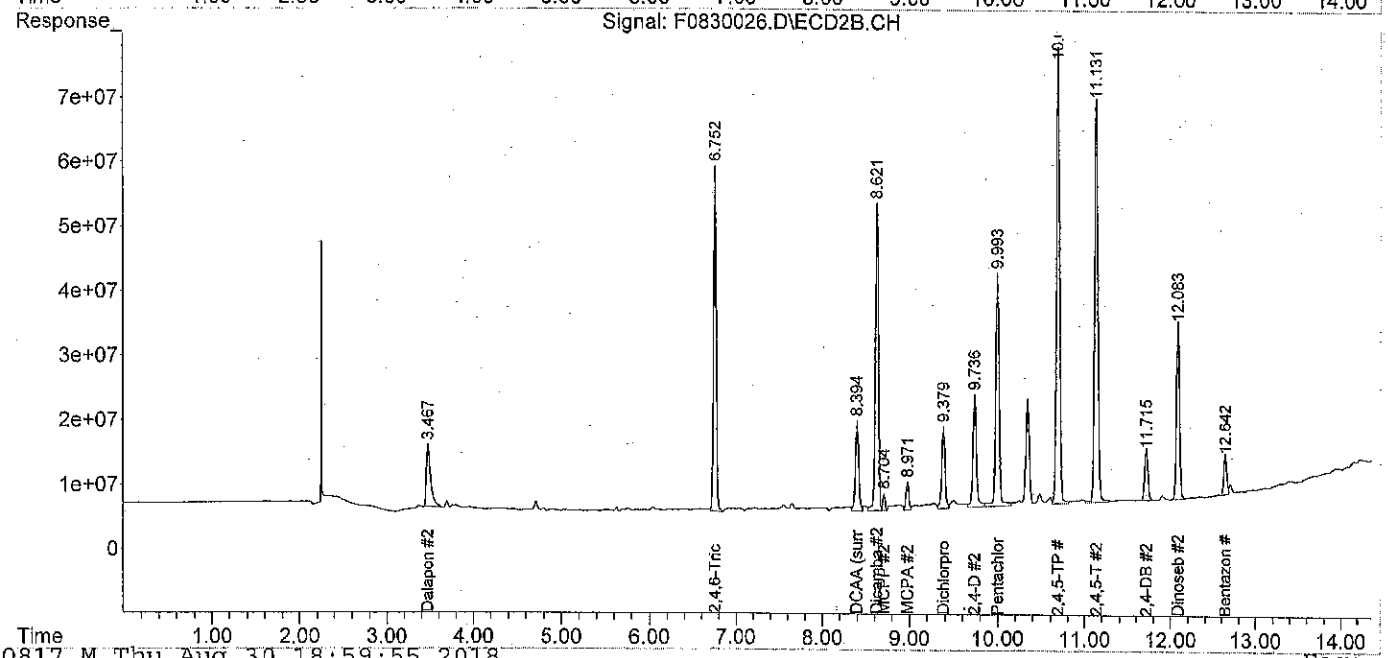
Data File : F0830026.D
Sample : HERBCCV 0830-4 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 18:45:27
Operator :
Misc :
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 18:59:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Sequence Name: C:\msdchem\1\sequence\F180830.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180830\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

	Line		Sample Name/Misc Info		
1)	Sample	1	F0830001	H180817	HEX
2)	Sample	2	F0830002	H180817	HEX
3)	Sample	3	F0830003	H180817	HEX
4)	Sample	4	F0830004	H180817	HERBCCV 0830-1 (PS4-51-06)
5)	Sample	5	F0830005	H180817	MB0830W1
6)	Sample	6	F0830006	H180817	SB0830W1
7)	Sample	7	F0830007	H180817	SB0830W1 DUP
8)	Sample	8	F0830008	H180817	08-309-01
9)	Sample	9	F0830009	H180817	08-309-02
10)	Sample	10	F0830010	H180817	08-309-03
11)	Sample	11	F0830011	H180817	HEX
12)	Sample	12	F0830012	H180817	HEX
13)	Sample	13	F0830013	H180817	HERBCCV 0830-2 (PS4-51-06)
14)	Sample	14	F0830014	H180817	08-326-03
15)	Sample	15	F0830015	H180817	08-326-03 MS
16)	Sample	16	F0830016	H180817	08-326-03 MSD
17)	Sample	17	F0830017	H180817	HEX
18)	Sample	18	F0830018	H180817	HEX
19)	Sample	19	F0830019	H180817	HERBCCV 0830-3 (PS4-51-06)
20)	Sample	20	F0830020	H180817	08-326-01
21)	Sample	21	F0830021	H180817	08-326-02
22)	Sample	22	F0830022	H180817	08-326-04
23)	Sample	23	F0830023	H180817	08-326-05
24)	Sample	24	F0830024	H180817	HEX
25)	Sample	25	F0830025	H180817	HEX
26)	Sample	26	F0830026	H180817	HERBCCV 0830-4 (PS4-51-06)
27)	Sample	27	F0830027	H180817	08-348-01
28)	Sample	28	F0830028	H180817	08-348-02
29)	Sample	29	F0830029	H180817	08-348-03
30)	Sample	30	F0830030	H180817	08-348-04
31)	Sample	31	F0830031	H180817	08-348-05
32)	Sample	32	F0830032	H180817	HEX
33)	Sample	33	F0830033	H180817	HEX
34)	Sample	34	F0830034	H180817	HERBCCV 0830-5 (PS4-51-06)

Sequence Name: C:\msdchem\1\sequence\F180817.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180817\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info	
1)	Sample	1	F0817001 PC180813 HEX
2)	Sample	2	F0817002 PC180813 HEX
3)	Sample	3	F0817003 PC180813 HEX
4)	Sample	4	F0817004 PC180813 PCBCCV 0817-1 (PS4-53-07)
5)	Sample	5	F0817005 H180817 hex
6)	Sample	6	F0817006 H180817 hex
7)	Sample	7	F0817007 H180817 hex
8)	Sample	8	F0817008 H180817 hex
9)	Calibration	9	F0817009 H180817 HERB IC 2.0 ppm PS4-51-08
10)	Calibration	10	F0817010 H180817 HERB IC 5.0 ppm PS4-51-09
11)	Calibration	11	F0817011 H180817 HERB IC 10 ppm PS4-51-10
12)	Calibration	12	F0817012 H180817 HERB IC 25 ppm PS4-51-11
13)	Calibration	13	F0817013 H180817 HERB IC 50 ppm PS4-51-12
14)	Calibration	14	F0817014 H180817 HERB IC 100 ppm PS4-51-13
15)	Calibration	15	F0817015 H180817 HERB IC 250 ppm PS4-51-14
16)	Calibration	16	F0817016 H180817 HERB IC 500 ppm PS4-51-15
17)	Sample	17	F0817017 H180817 HERB ICV PS4-055-09
18)	Sample	18	F0817018 PC180817 HEX
19)	Sample	19	F0817019 PC180817 HEX
20)	Calibration	20	F0817020 PC180817 PCB IC 0.020 ppm PS4-054-08
21)	Calibration	21	F0817021 PC180817 PCB IC 0.050 ppm PS4-054-09
22)	Calibration	22	F0817022 PC180817 PCB IC 0.10 ppm PS4-054-10
23)	Calibration	23	F0817023 PC180817 PCB IC 0.25 ppm PS4-054-11
24)	Calibration	24	F0817024 PC180817 PCB IC 0.50 ppm PS4-054-12
25)	Calibration	25	F0817025 PC180817 PCB IC 0.75 ppm PS4-054-13
26)	Calibration	26	F0817026 PC180817 PCB IC 1.0 ppm PS4-054-14
27)	Calibration	27	F0817027 PC180817 PCB IC 2.0 ppm PS4-054-15
28)	Calibration	28	F0817028 PC180817 AR1221 SPQ PS4-055-01
29)	Calibration	29	F0817029 PC180817 AR1232 SPQ PS4-055-02
30)	Calibration	30	F0817030 PC180817 AR1242 SPQ PS4-055-03
31)	Calibration	31	F0817031 PC180817 AR1248 SPQ PS4-055-04
32)	Calibration	32	F0817032 PC180817 AR1254 SPQ PS4-055-05
33)	Calibration	33	F0817033 PC180817 AR1262 SPQ PS4-055-06
34)	Calibration	34	F0817034 PC180817 AR1268 SPQ PS4-055-07
35)	Sample	35	F0817035 PC180817 PCB ICV PS4-055-08

Environmental Inc.

PCB'S EXTRACTION LOG

Date: 08/30/01 Time Ext. _____ am/pm

Analysis: Herbicide

Matrix: Water

Surrogate Std. I.D: PS4-53-02

Spike Std. I.D: PS4-53-03

LAB ID	pH	SAMPLE W/V	INTER VOLUME	ALIQUOT TAKEN	ALIQUOT FIN VOL	SAMPLE FIN VOL	AMT SUR	AMT SPK	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
MB0830W1	<2	1000 mL	180			10 mL	100 uL	—	—	MM/RD	
SB0830W1		↓						250uL			
SB0830W1dup		↓						↓			
08-309-01d		1567/510						—			
02a		1513/513									
03a		1580/514									
08-326-01d		1577/510									
02a		1581/508									
03g		1587/511						↓			
03h MS		1577/512						250uL			
03e MSD		1575/511						↓			
04c		1571/509									heavy emulsion
05c	↓	1575/511	↓	↓	↓	↓	↓	↓	↓	↓	
08-348-01a		1576/519						—			Heavy Emulsion
02a		1586/515									
03a		1570/510									
04a		1577/513									
05a	↓	1569/507	↓	↓	↓	↓	↓	↓	↓	↓	

Clean-up (A)Acid cleanup (S)Silica gel cleanup (F)Florisil cleanup (H)Mercury Cleanup

TITLE **PROJECT**

Continued from page

NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
PesticideAL	BS4-5101	PNZ-13-01					Acetone	4-20-18	KMS	10-20-18
DDT, Endrin	↓	↓	500ppm	5 µL	25mL	100ppb	Hexane	↓	↓	↓
Pest/PCB Soil Surr	BS4-5102			0.25		20ppm	Acetone	4-23-18	KMS	4-23-18
TCMX		PNZ-12-17	2000ppm	0.25mL						10
DCB		PNZ-12-27	1000ppm	0.5mL						
Pest/Mid/Low	BS4-5103	BS4-49-01	25ppm	100 µL	25mL	100ppb	Hexane	4-25-18	KMS	10-25-18
Pest/PCB Soil Surr	BS4-5104					20ppm	Acetone	5-3-18	KMS	11-3-18
TCMX		PNZ-12-17	2000ppm	0.25mL						
DCB	↓	PNZ-12-27	1000ppm	0.5mL						
HerbStock	BS4-5105				10mL		Acetone/ Hexane	5-7-18	KMS	12-7-18
Herbs, ME		PNZ-13-05	100ppm	0.5mL		5ppm				
DCAA, ME		PNZ-13-06								
Bentazon, ME		PNZ-13-07								
2,4,6-TCP ME		PNZ-12-13		0.25mL		2.5ppm				
PCP, ME		PNZ-12-09		50µL		0.5ppm				
HerbCCV	BS4-5106	BS4-5105	5ppm	0.5mL	25mL	100ppb	Hexane			11-7-18
HerbSurr	BS4-5107									
DCAA		PNZ-12-16	100ppm	1mL	10mL	10ppm	Hexane	5-15-18	KMS	11-15-18
Herbstd							Hexane	5-18-18	KMS	11-8-18
2 ppb	BS4-5108	BS4-5105	5ppm	10 µL	25mL	2 ppb				
5	09			↓	10mL	5				
10	10			20 µL		10				
25	11			50		25				
50	12			100		50				
100	13			200		100				
250	14			500		250				
500	15			1mL		500				

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TITLE

PROJECT

	NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
	Continued from page										
	Test PCB Surr	PS45304				25 mL	20 ppm	Acetone	6-21-18	KMS	12-4-18
	TCMX	↓	PNZ-13-09	2000 ppm	0.25 mL						
	DCB		PNZ-13-11	1000 ppm	0.5 mL						
	Herb MDL	PS45302				10 mL		MeOH	6-22-18	KMS	7-26-18
	10 Herbs		PNZ-13-18	100 ppm	200 µL		2.0 ppm				
	Dalapon		PNZ-13-13	1000 ppm	80 µL		8.0 ppm				
	PCP		PS4-40-10	100 ppm	20 µL		0.2 ppm				
	DCAA		PNZ-12-16	100 ppm	100 µL		1.0 ppm				
	2,4,6-TCP		PNZ-11-19	100 ppm	↓		↓				
	Bentazon	↓	PNZ-13-20	1000 ppm	20 µL		2.0 ppm	↓	↓	↓	↓
	Herb Spike	PS45303						MeOH	7-2-18	KMS	12-19
	10 Herbs	↓	PNZ-13-18	100 ppm	1 mL		10 ppm	↓	↓	↓	↓
	PCP Acid		PNZ-13-19	5000 ppm	2 µL	↓	1.0 ppm				
	EDB Surr	PS45304									
	TCMX		PNZ-12-09	2000 ppm	17.5 µL	100 mL	0.35 ppm	MeOH	7-16-18	KMS	8-6-19
	Test PCB Surr	PS45305			0.25 mL	25 mL	20 ppm	Acetone			
	TCMX		PNZ-13-09	2000 ppm	0.5 mL						
	DCB		PNZ-13-11	1000 ppm	0.5 mL	↓	↓	↓	↓	↓	↓
	PCB Stock	PS45306				10 mL		Hexane	7-23-18	KMS	1-6-19
	AR1016	↓	PNZ-12-03	0.25 mL	1000 ppm		25 ppm				
	AR1260		10-25	25	↓		↓				
	TCMX		13-11	50 µL	2000 ppm		5 ppm				
	DCB		13-09	50 µL	1000 ppm	↓	↓	↓	↓	↓	↓
	PCB CCV	PS45307	PS45306		0.5 mL	25 mL		Hexane			
	AR1016/1260			25 ppm			0.5 ppm				
	TCMX/DCB			5 ppm			0.1 ppm				

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BOOK PAGE

TITLE

PROJECT

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NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
Toxaphene SPQ	PS4-54-01		100ppm	0.1mL	10mL	1.0ppm	Hexane	7-27-18	KMS	1-27-19
Pest ICV	PS4-54-02		1000ppm	5µL	50mL	100ppb	↓	↓	↓	↓
Pest/PCB Soil Surr	PS4-54-03				25mL	20ppm	Acetone	8-7-18	KMS	2-7-19
TCMX		PN2-13-09	2000ppm	0.25mL		10ppm	↓	↓	↓	↓
DCB		PN2-13-11	1000ppm	0.5mL		10ppm				
Herbsurr	PS4-54-04	PN2-13-21	100ppm	1mL	10mL	10ppm	MeOH	8-8-18	KMS	2-8-19
PCBs/Spike	PS4-54-05									
AR1260		PN2-13-12	5000ppm	0.5mL	25mL	100ppm	Acetone	8-10-18	KMS	2-10-19
AR1221										↓
~~AR1016/Stock~~	PS4-54-06				10mL		Hexane	8-11-18	KMS	2-11-19
~~AR1254~~		PN2-13-15	1000ppm	0.25mL		25ppm				
TCMX		PN2-13-09	2000ppm	25µL		5ppm				
DCB		PN2-13-11	1000ppm	50µL						
AR1248/Stock	PS4-54-07									
AR1248		PN2-13-14	1000ppm	0.25mL		25ppm				
TCMX		PN2-13-09	2000ppm	25µL		5ppm				
DCB		PN2-13-11	1000ppm	50µL						
PCB/CL		PS4-54-06								
						ppm				
0.02	PS4-54-08		25/5ppm	20µL	25mL	0.02/0.004				1-15-19
0.05	09			50µL		0.05/0.01				
0.1	10			100µL		0.1/0.02				
0.25	11			0.25mL		0.25/0.05				
0.5	12			0.5mL		0.5/0.1				
0.75	13			0.75mL		0.75/0.15				
1.0	14			1mL		1.0/0.2				
2.0	15			0.8mL	10mL	2.0/0.4				

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PROJECT

Continued from page	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
NAME										
AR122SPQ	PS4655-01	PS4-0547-06	25 ppm	0.5mL	25mL	0.5 ppm	Hexane	8-1-18	KMS	2-1-19
TCMX/DCB	↓	↓	5 ppm	↓	↓	0.1 ppm	↓	↓	↓	↓
AR1262SPQ	02	PS4-4605	25 ppm			0.5 ppm				1-18-19
TCMX/DCB	↓	↓	5 ppm			0.1 ppm				↓
AR1262SPQ	03	PS4-4606	25 ppm			0.5 ppm				1-18-19
TCMX/DCB	↓	↓	5 ppm			0.1 ppm				
AR1248SPQ	04	PS4654-07	25 ppm			0.5 ppm				2-1-19
TCMX/DCB	↓	↓	5 ppm			0.1 ppm				
AR1254SPQ	05	PS4-4607	25 ppm			0.5 ppm				1-8-19
TCMX/DCB	↓	↓	5 ppm	↓		0.1 ppm				
AR1016/1260	06	PN2-1308	100 ppm	0.125mL		0.5 ppm				2-11-19
AR1268SPQ	07	PN2-12-11	↓	↓		↓				↓
RBICV	08	PS4-4608		0.5 mL						1-8-19
AR1016/1260	↓	↓	25 ppm	↓		0.5 ppm				↓
TCMX/DCB	↓	↓	5 ppm	↓	↓	0.1 ppm	↓	↓	↓	↓
HerbICV	PS4655-09	PN2-1317	100ppm	10 µL	10mL	100ppb	Acetone/Hexane	8-17-18	KMS	2-7-19
PestICC							Hexane			
1 ppb	PS4655-10	PS4-4901	25 ppm	1 µL	25mL	1 ppb	↓	↓	↓	1-5-19
2 ppb	11	↓	↓	2	↓	2				↓
5	12			5		5				
10	13			10		10				
25	14			25		25				
50	15			50		50				
100	16			100		100				
200	17			200		200				
400	18	↓	↓	400	↓	400	↓	↓	↓	↓

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OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 26, 2018

Sydney Bronson
GeoEngineers, Inc.
1101 Fawcett Avenue South, Unit 200
Tacoma, WA 98402

Re: Analytical Data for Project 0356-114-08
Laboratory Reference No. 1808-327

Dear Sydney:

Enclosed are the analytical results and associated quality control data for samples submitted on August 29, 2018.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

Case Narrative

Samples were collected on August 27 and 28, 2018 and received by the laboratory on August 29, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

PAHs EPA 8270D/SIM Analysis

Sample DP2018-ISS8-6-8 had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
DP2018-ISS18-10-13	08-327-03	Soil	8-27-18	8-29-18	
DP2018-ISS18-15-16	08-327-04	Soil	8-27-18	8-29-18	
DP2018-ISS17-5-7	08-327-06	Soil	8-27-18	8-29-18	
DP2018-ISS17-10-13	08-327-07	Soil	8-27-18	8-29-18	
DP2018-ISS15-8-9	08-327-12	Soil	8-27-18	8-29-18	
DP2018-ISS15-11-13	08-327-13	Soil	8-27-18	8-29-18	
DP2018-ISS13-5-8	08-327-16	Soil	8-27-18	8-29-18	
DP2018-ISS13-10-12	08-327-17	Soil	8-27-18	8-29-18	
DP2018-ISS13-15-18	08-327-18	Soil	8-27-18	8-29-18	
DP2018-ISS13-18.5-19	08-327-19	Soil	8-27-18	8-29-18	
DP2018-ISS12-10-13	08-327-22	Soil	8-27-18	8-29-18	
DP2018-ISS12-15-16.5	08-327-23	Soil	8-27-18	8-29-18	
DP2018-ISS10-7-8	08-327-25	Soil	8-27-18	8-29-18	
DP2018-ISS10-10-12	08-327-26	Soil	8-27-18	8-29-18	
DP2018-ISS9-5-8	08-327-28	Soil	8-28-18	8-29-18	
DP2018-ISS9-10-14	08-327-29	Soil	8-28-18	8-29-18	
DP2018-ISS8-6-8	08-327-32	Soil	8-28-18	8-29-18	
DP2018-ISS8-10-11	08-327-33	Soil	8-28-18	8-29-18	
DP2018-ISS8-11-13	08-327-34	Soil	8-28-18	8-29-18	
DP2018-ISS8-15-18	08-327-35	Soil	8-28-18	8-29-18	
DP2018-ISS3-7-10	08-327-39	Soil	8-28-18	8-29-18	
DP2018-ISS3A-7-9	08-327-41	Soil	8-28-18	8-29-18	
DP2018-ISS3A-10-13	08-327-42	Soil	8-28-18	8-29-18	
DP2018-ISS3A-15-18	08-327-43	Soil	8-28-18	8-29-18	
DP2018-ISS11-5-6	08-327-45	Soil	8-28-18	8-29-18	
DP2018-ISS11-19-20	08-327-46	Soil	8-28-18	8-29-18	

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS18-10-13**					
Laboratory ID:	08-327-03					
Diesel Range Organics	**730**	76	NWTPH-Dx	9-4-18	9-5-18	M
Lube Oil Range Organics	**1400**	150	NWTPH-Dx	9-4-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***73***	***50-150***				
Client ID:	**DP2018-ISS18-15-16**					
Laboratory ID:	08-327-04					
Diesel Range Organics	**250**	65	NWTPH-Dx	9-4-18	9-6-18	M
Lube Oil	**480**	130	NWTPH-Dx	9-4-18	9-6-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***85***	***50-150***				
Client ID:	**DP2018-ISS17-5-7**					
Laboratory ID:	08-327-06					
Diesel Range Organics	**46**	30	NWTPH-Dx	9-4-18	9-6-18	N
Lube Oil Range Organics	**160**	60	NWTPH-Dx	9-4-18	9-6-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***76***	***50-150***				
Client ID:	**DP2018-ISS17-10-13**					
Laboratory ID:	08-327-07					
Diesel Range Organics	**300**	45	NWTPH-Dx	9-4-18	9-4-18	N,M
Lube Oil Range Organics	**1100**	89	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***66***	***50-150***				
Client ID:	**DP2018-ISS15-8-9**					
Laboratory ID:	08-327-12					
Diesel Range Organics	**ND**	30	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***87***	***50-150***				
Client ID:	**DP2018-ISS15-11-13**					
Laboratory ID:	08-327-13					
Diesel Range Organics	**ND**	30	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***87***	***50-150***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS13-5-8**					
Laboratory ID:	08-327-16					
Diesel Range Organics	**1500**	69	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil	**270**	140	NWTPH-Dx	9-4-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***83***	***50-150***				
Client ID:	**DP2018-ISS13-10-12**					
Laboratory ID:	08-327-17					
Diesel Range Organics	**160**	31	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***79***	***50-150***				
Client ID:	**DP2018-ISS13-15-18**					
Laboratory ID:	08-327-18					
Diesel Range Organics	**460**	63	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil	**290**	130	NWTPH-Dx	9-4-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***80***	***50-150***				
Client ID:	**DP2018-ISS13-18.5-19**					
Laboratory ID:	08-327-19					
Diesel Range Organics	**ND**	27	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	54	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***78***	***50-150***				
Client ID:	**DP2018-ISS12-10-13**					
Laboratory ID:	08-327-22					
Diesel Range Organics	**9600**	150	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil Range Organics	**450**	310	NWTPH-Dx	9-4-18	9-5-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***115***	***50-150***				
Client ID:	**DP2018-ISS12-15-16.5**					
Laboratory ID:	08-327-23					
Diesel Range Organics	**700**	30	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***90***	***50-150***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS10-7-8**					
Laboratory ID:	08-327-25					
Diesel Range Organics	**8400**	130	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil Range Organics	**460**	270	NWTPH-Dx	9-4-18	9-5-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***145***	***50-150***				
Client ID:	**DP2018-ISS10-10-12**					
Laboratory ID:	08-327-26					
Diesel Range Organics	**11000**	120	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil Range Organics	**640**	230	NWTPH-Dx	9-4-18	9-5-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***148***	***50-150***				
Client ID:	**DP2018-ISS9-5-8**					
Laboratory ID:	08-327-28					
Diesel Range Organics	**1100**	29	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**72**	59	NWTPH-Dx	9-4-18	9-4-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***125***	***50-150***				
Client ID:	**DP2018-ISS9-10-14**					
Laboratory ID:	08-327-29					
Diesel Range Organics	**43**	30	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***79***	***50-150***				
Client ID:	**DP2018-ISS8-6-8**					
Laboratory ID:	08-327-32					
Diesel Range Organics	**25000**	280	NWTPH-Dx	9-4-18	9-6-18	
Lube Oil Range Organics	**1300**	560	NWTPH-Dx	9-4-18	9-6-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***---***	***50-150***				S
Client ID:	**DP2018-ISS8-10-11**					
Laboratory ID:	08-327-33					
Diesel Range Organics	**6800**	150	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil Range Organics	**440**	290	NWTPH-Dx	9-4-18	9-5-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***114***	***50-150***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS8-11-13**					
Laboratory ID:	08-327-34					
Diesel Range Organics	**110**	28	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	55	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***92***	***50-150***				
Client ID:	**DP2018-ISS8-15-18**					
Laboratory ID:	08-327-35					
Diesel Range Organics	**70**	30	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***84***	***50-150***				
Client ID:	**DP2018-ISS3-7-10**					
Laboratory ID:	08-327-39					
Diesel Range Organics	**1200**	31	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil	**410**	62	NWTPH-Dx	9-4-18	9-5-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***99***	***50-150***				
Client ID:	**DP2018-ISS3A-7-9**					
Laboratory ID:	08-327-41					
Diesel Range Organics	**ND**	150	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil	**890**	300	NWTPH-Dx	9-4-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***78***	***50-150***				
Client ID:	**DP2018-ISS3A-10-13**					
Laboratory ID:	08-327-42					
Diesel Range Organics	**910**	200	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil	**1600**	400	NWTPH-Dx	9-4-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***93***	***50-150***				
Client ID:	**DP2018-ISS3A-15-18**					
Laboratory ID:	08-327-43					
Diesel Range Organics	**160**	45	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**300**	90	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***93***	***50-150***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS11-5-6**					
Laboratory ID:	08-327-45					
Diesel Range Organics	**3600**	55	NWTPH-Dx	9-4-18	9-5-18	
Lube Oil Range Organics	**240**	110	NWTPH-Dx	9-4-18	9-5-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***116***	***50-150***				
Client ID:	**DP2018-ISS11-19-20**					
Laboratory ID:	08-327-46					
Diesel Range Organics	**ND**	27	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	54	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***87***	***50-150***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS18-10-13**					
Laboratory ID:	08-327-03					
Naphthalene	**1.5**	0.16	EPA 8270D/SIM	9-10-18	9-16-18	
2-Methylnaphthalene	**3.4**	0.16	EPA 8270D/SIM	9-10-18	9-16-18	
1-Methylnaphthalene	**18**	0.16	EPA 8270D/SIM	9-10-18	9-16-18	
Acenaphthylene	**0.19**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Acenaphthene	**1.0**	0.16	EPA 8270D/SIM	9-10-18	9-16-18	
Fluorene	**0.91**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Phenanthrene	**0.65**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Anthracene	**0.14**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Fluoranthene	**0.48**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Pyrene	**0.50**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]anthracene	**0.18**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Chrysene	**0.19**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[b]fluoranthene	**0.19**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo(j,k)fluoranthene	**0.069**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]pyrene	**0.18**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Indeno(1,2,3-c,d)pyrene	**0.11**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Dibenz[a,h]anthracene	**0.022**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[g,h,i]perylene	**0.12**	0.0081	EPA 8270D/SIM	9-10-18	9-14-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***68***	***40 - 117***				
Pyrene-d10	***76***	***38 - 119***				
Terphenyl-d14	***87***	***47 - 135***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS12-15-16.5**					
Laboratory ID:	08-327-23					
Naphthalene	**0.098**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
2-Methylnaphthalene	**6.4**	0.32	EPA 8270D/SIM	9-10-18	9-16-18	
1-Methylnaphthalene	**8.4**	0.32	EPA 8270D/SIM	9-10-18	9-16-18	
Acenaphthylene	**0.12**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Acenaphthene	**0.58**	0.32	EPA 8270D/SIM	9-10-18	9-16-18	
Fluorene	**0.55**	0.32	EPA 8270D/SIM	9-10-18	9-16-18	
Phenanthrene	**1.2**	0.32	EPA 8270D/SIM	9-10-18	9-16-18	
Anthracene	**0.030**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Fluoranthene	**0.072**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Pyrene	**0.11**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]anthracene	**0.016**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Chrysene	**0.024**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[b]fluoranthene	**0.014**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo(j,k)fluoranthene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]pyrene	**0.010**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Indeno(1,2,3-c,d)pyrene	**0.0067**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Dibenz[a,h]anthracene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[g,h,i]perylene	**0.0071**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***70***	***40 - 117***				
Pyrene-d10	***84***	***38 - 119***				
Terphenyl-d14	***94***	***47 - 135***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS8-6-8**					
Laboratory ID:	08-327-32					
Naphthalene	**2.8**	0.060	EPA 8270D/SIM	9-10-18	9-16-18	
2-Methylnaphthalene	**700**	6.0	EPA 8270D/SIM	9-10-18	9-17-18	
1-Methylnaphthalene	**420**	6.0	EPA 8270D/SIM	9-10-18	9-17-18	
Acenaphthylene	**3.5**	0.060	EPA 8270D/SIM	9-10-18	9-16-18	
Acenaphthene	**24**	0.30	EPA 8270D/SIM	9-10-18	9-16-18	
Fluorene	**27**	0.30	EPA 8270D/SIM	9-10-18	9-16-18	
Phenanthrene	**57**	6.0	EPA 8270D/SIM	9-10-18	9-17-18	
Anthracene	**2.6**	0.060	EPA 8270D/SIM	9-10-18	9-16-18	
Fluoranthene	**2.4**	0.060	EPA 8270D/SIM	9-10-18	9-16-18	
Pyrene	**4.2**	0.060	EPA 8270D/SIM	9-10-18	9-16-18	
Benzo[a]anthracene	**0.48**	0.060	EPA 8270D/SIM	9-10-18	9-16-18	
Chrysene	**0.75**	0.060	EPA 8270D/SIM	9-10-18	9-16-18	
Benzo[b]fluoranthene	**0.39**	0.060	EPA 8270D/SIM	9-10-18	9-16-18	
Benzo(j,k)fluoranthene	**0.15**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]pyrene	**0.34**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Indeno(1,2,3-c,d)pyrene	**0.20**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Dibenz[a,h]anthracene	**0.046**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[g,h,i]perylene	**0.21**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***30***	***40 - 117***				Q
Pyrene-d10	***83***	***38 - 119***				
Terphenyl-d14	***86***	***47 - 135***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS8-11-13**					
Laboratory ID:	08-327-34					
Naphthalene	**0.038**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
2-Methylnaphthalene	**7.4**	0.29	EPA 8270D/SIM	9-10-18	9-16-18	
1-Methylnaphthalene	**4.8**	0.059	EPA 8270D/SIM	9-10-18	9-17-18	
Acenaphthylene	**0.053**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Acenaphthene	**0.25**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Fluorene	**0.28**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Phenanthrene	**0.64**	0.059	EPA 8270D/SIM	9-10-18	9-17-18	
Anthracene	**0.012**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Fluoranthene	**0.022**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Pyrene	**0.042**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]anthracene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Chrysene	**0.0069**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[b]fluoranthene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo(j,k)fluoranthene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]pyrene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Dibenz[a,h]anthracene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[g,h,i]perylene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***81***	***40 - 117***				
Pyrene-d10	***92***	***38 - 119***				
Terphenyl-d14	***101***	***47 - 135***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A

Matrix: Soil
Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS18-10-13**					
Laboratory ID:	08-327-03					
Pentachlorophenol	**ND**	6.3	EPA 8151A	9-10-18	9-14-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***74***	***9-84***				
Client ID:	**DP2018-ISS12-15-16.5**					
Laboratory ID:	08-327-23					
Pentachlorophenol	**ND**	6.3	EPA 8151A	9-10-18	9-14-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***70***	***9-84***				
Client ID:	**DP2018-ISS8-6-8**					
Laboratory ID:	08-327-32					
Pentachlorophenol	**ND**	6.3	EPA 8151A	9-10-18	9-12-18	X
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***65***	***9-84***				
Client ID:	**DP2018-ISS8-11-13**					
Laboratory ID:	08-327-34					
Pentachlorophenol	**ND**	6.3	EPA 8151A	9-10-18	9-14-18	X
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***73***	***9-84***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

TOTAL ORGANIC CARBON
EPA 9060A

Matrix: Soil
Units: % Carbon

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DP2018-ISS18-10-13**					
Laboratory ID:	08-327-03					
Total Organic Carbon	**21**	1.4	EPA 9060A	9-20-18	9-20-18	
Client ID:	**DP2018-ISS12-15-16.5**					
Laboratory ID:	08-327-23					
Total Organic Carbon	**0.62**	0.065	EPA 9060A	9-20-18	9-20-18	
Client ID:	**DP2018-ISS8-6-8**					
Laboratory ID:	08-327-32					
Total Organic Carbon	**5.8**	0.34	EPA 9060A	9-20-18	9-20-18	
Client ID:	**DP2018-ISS8-11-13**					
Laboratory ID:	08-327-34					
Total Organic Carbon	**0.31**	0.061	EPA 9060A	9-20-18	9-21-18	

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0904S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***80***	***50-150***				
Laboratory ID:	MB0904S3					
Diesel Range Organics	**ND**	25	NWTPH-Dx	9-4-18	9-4-18	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***85***	***50-150***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-327-13										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						***87***	***77***	***50-150***			
Laboratory ID:	08-327-19										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						***78***	***66***	***50-150***			
Laboratory ID:	08-327-46										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						***87***	***91***	***50-150***			

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCV0904F-V1	100	95.9	4.1	+/-15%
CCV0904F-V2	100	100	-0.1	+/-15%
CCV0904F-V3	100	97.7	2.3	+/-15%
CCV0904F-V4	100	102	-2.3	+/-15%
CCV0905F-V1	100	100	0.2	+/-15%
CCV0905F-V2	100	102	-1.7	+/-15%
CCV0905F-V3	100	101	-1.3	+/-15%
CCV0905F-V4	100	104	-4.1	+/-15%
CCV0906F-V1	100	98.8	1.2	+/-15%
CCV0906F-V2	100	101	-1.4	+/-15%

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0910S1					
Naphthalene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
2-Methylnaphthalene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
1-Methylnaphthalene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Acenaphthylene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Acenaphthene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Fluorene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Phenanthrene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Anthracene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Fluoranthene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Pyrene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]anthracene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Chrysene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[b]fluoranthene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo(j,k)fluoranthene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[a]pyrene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Dibenz[a,h]anthracene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Benzo[g,h,i]perylene	**ND**	0.0050	EPA 8270D/SIM	9-10-18	9-14-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***86***	***40 - 117***				
Pyrene-d10	***94***	***38 - 119***				
Terphenyl-d14	***100***	***47 - 135***				

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0910S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0719**	**0.0756**	0.0833	0.0833	86	91	54 - 114	5	15	
Acenaphthylene	**0.0802**	**0.0863**	0.0833	0.0833	96	104	59 - 119	7	15	
Acenaphthene	**0.0789**	**0.0830**	0.0833	0.0833	95	100	58 - 117	5	15	
Fluorene	**0.0829**	**0.0877**	0.0833	0.0833	100	105	61 - 122	6	15	
Phenanthrene	**0.0752**	**0.0796**	0.0833	0.0833	90	96	58 - 121	6	15	
Anthracene	**0.0797**	**0.0848**	0.0833	0.0833	96	102	66 - 126	6	15	
Fluoranthene	**0.0829**	**0.0881**	0.0833	0.0833	100	106	62 - 126	6	15	
Pyrene	**0.0846**	**0.0901**	0.0833	0.0833	102	108	61 - 126	6	15	
Benzo[a]anthracene	**0.0828**	**0.0883**	0.0833	0.0833	99	106	64 - 132	6	15	
Chrysene	**0.0814**	**0.0864**	0.0833	0.0833	98	104	64 - 127	6	15	
Benzo[b]fluoranthene	**0.0806**	**0.0861**	0.0833	0.0833	97	103	57 - 128	7	15	
Benzo(j,k)fluoranthene	**0.0831**	**0.0890**	0.0833	0.0833	100	107	62 - 130	7	15	
Benzo[a]pyrene	**0.0802**	**0.0861**	0.0833	0.0833	96	103	62 - 125	7	15	
Indeno(1,2,3-c,d)pyrene	**0.0775**	**0.0818**	0.0833	0.0833	93	98	55 - 130	5	15	
Dibenz[a,h]anthracene	**0.0787**	**0.0847**	0.0833	0.0833	94	102	58 - 129	7	15	
Benzo[g,h,i]perylene	**0.0761**	**0.0820**	0.0833	0.0833	91	98	57 - 129	7	15	
Surrogate:										
2-Fluorobiphenyl					***82***	***83***	***40 - 117***			
Pyrene-d10					***89***	***93***	***38 - 119***			
Terphenyl-d14					***92***	***97***	***47 - 135***			

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A
QUALITY CONTROL

Matrix: Soil
Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0910S2					
Pentachlorophenol	**ND**	6.3	EPA 8151A	9-10-18	9-10-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***79***	***9-84***				
Laboratory ID:	MB0910S2					
Pentachlorophenol	**ND**	6.3	EPA 8151A	9-10-18	9-14-18	X
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***82***	***9-84***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-327-32										
	MS	MSD	MS	MSD		MS	MSD				
Pentachlorophenol	**12.2**	**12.8**	25.0	25.0	ND	**49**	**51**	35-125	5	23	
Surrogate:											
DCAA						***69***	***79***	***9-84***			

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

TOTAL ORGANIC CARBON
EPA 9060A
QUALITY CONTROL

Matrix: Soil
Units: % Carbon

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0920S1					
Total Organic Carbon	**ND**	0.042	EPA 9060A	9-20-18	9-20-18	

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	08-395-32								
	ORIG	DUP							
Total Organic Carbon	**0.0926**	**0.0998**	NA	NA	NA	NA	8	26	
SPIKE BLANK									
Laboratory ID:	SB0920S1								
	SB		SB		SB				
Total Organic Carbon	**44.8**		42.1	NA	106	94-123	NA	NA	

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

TOTAL ORGANIC CARBON
EPA 9060A
CONTINUING CALIBRATION SUMMARY

Analyte	Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
Total Organic Carbon	ICV052317N	42.1	41.7	0.90	+/- 10%
Total Organic Carbon	CCV1092018N	42.1	43.4	-3.1	+/- 10%
Total Organic Carbon	CCV2092018N	42.1	45.8	-8.7	+/- 10%
Total Organic Carbon	CCV3092118N	42.1	45.7	-8.6	+/- 10%
Total Organic Carbon	CCV4092118N	42.1	43.5	-3.2	+/- 10%
Total Organic Carbon	CCV5092418N	42.1	43.8	-3.9	+/- 10%
Total Organic Carbon	CCV6092418N	42.1	44.4	-5.4	+/- 10%

Date of Report: September 26, 2018
Samples Submitted: August 29, 2018
Laboratory Reference: 1808-327
Project: 0356-114-08

% MOISTURE

Date Analyzed: 9-4-18

Client ID	Lab ID	% Moisture
DP2018-ISS18-10-13	08-327-03	67
DP2018-ISS18-15-16	08-327-04	22
DP2018-ISS17-5-7	08-327-06	16
DP2018-ISS17-10-13	08-327-07	44
DP2018-ISS15-8-9	08-327-12	18
DP2018-ISS15-11-13	08-327-13	15
DP2018-ISS13-5-8	08-327-16	28
DP2018-ISS13-10-12	08-327-17	20
DP2018-ISS13-15-18	08-327-18	20
DP2018-ISS13-18.5-19	08-327-19	8
DP2018-ISS12-10-13	08-327-22	19
DP2018-ISS12-15-16.5	08-327-23	16
DP2018-ISS10-7-8	08-327-25	6
DP2018-ISS10-10-12	08-327-26	13
DP2018-ISS9-5-8	08-327-28	15
DP2018-ISS9-10-14	08-327-29	17
DP2018-ISS8-6-8	08-327-32	11
DP2018-ISS8-10-11	08-327-33	15
DP2018-ISS8-11-13	08-327-34	9
DP2018-ISS8-15-18	08-327-35	17
DP2018-ISS3-7-10	08-327-39	19
DP2018-ISS3A-7-9	08-327-41	17
DP2018-ISS3A-10-13	08-327-42	37
DP2018-ISS3A-15-18	08-327-43	45
DP2018-ISS11-5-6	08-327-45	9
DP2018-ISS11-19-20	08-327-46	7

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0356-114-08
Project Name: RG Haley/ PRDI Upland Survay
Project Manager: Sydney Bronson
Sampled by: Paul Robinette

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ ~~Standard (7 Days)~~

X 5 DAYS (other)

Laboratory Number: 08-327

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A PCP ONLY	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	TOC by EPA 9060A			HOLD	% Moisture
1	DP2018-ISS18-1-4	8/27/2018	1030	S	1																					X	
2	DP2018-ISS18-5-8	8/27/2018	1035	S	1																					X	
3	DP2018-ISS18-10-13	8/27/2018	1040	S	1				(X)					O				O					O			~~X~~	(X)
4	DP2018-ISS18-15-16	8/27/2018	1045	S	1				(X)																	~~X~~	(X)
5	DP2018-ISS17-2-4	8/27/2018	1050	S	1																					X	
6	DP2018-ISS17-5-7	8/27/2018	1055	S	1				(X)																	~~X~~	(X)
7	DP2018-ISS17-10-13	8/27/2018	1110	S	1				(X)																	~~X~~	(X)
8	DP2018-ISS17-15-16	8/27/2018	1115	S	1																					X	
9	DP2018-ISS17-17-18	8/27/2018	1120	S	1																					X	
10	DP2018-ISS15-1-3	8/27/2018	1155	S	1																					X	

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Received	[signature]	OSE	8/29/18	0915
Relinquished				
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Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

PCP analysis by SW8151 - special reporting limits: only report down to 6.3 ug/kg (soil) and 0.04 ug/kg (water).

PAH analysis by SW8270-SIM - special reporting limit (soil only): 5 ug/kg for all analytes.

(X) Added 8/31/18 ~~BG~~ ~~STA~~ (5 DAYS)
O Added 9/10/18. DB (STA)

Data Package: Standard ☐ Level III ☐ Level IV ☑

Chromatograms with final report ☑ Electronic Data Deliverables (EDDs) ☑

Chain of Custody

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Company: GeoEngineers
Project Number: 0356-114-08
Project Name: RG Haley/ PRDI Upland Survay
Project Manager: Sydney Bronson
Sampled by: Paul Robinette

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ ~~Standard (7 Days)~~
☒ 5 DAYS (other)

Laboratory Number: 08-327

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	TOC by EPA 9060A			HOLD	% Moisture
11	DP2018-ISS15-5-6	8/27/2018	1200	S	1																					X	
12	DP2018-ISS15-8-9	8/27/2018	1205	S	1				X																	X	X
13	DP2018-ISS15-11-13	8/27/2018	1210	S	1				X																	X	X
14	DP2018-ISS15-15-17	8/27/2018	1215	S	1																					X	
15	DP2018-ISS13-1-3	8/27/2018	1415	S	1																					X	
16	DP2018-ISS13-5-8	8/27/2018	1420	S	1				X																	X	X
17	DP2018-ISS13-10-12	8/27/2018	1425	S	1				X																	X	X
18	DP2018-ISS13-15-18	8/27/2018	1435	S	1				X																	X	X
19	DP2018-ISS13-18.5-19	8/27/2018	1445	S	1				X																	X	X
20	DP2018-ISS12-1-4	8/27/2018	1315	S	1																					X	

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Relinquished		Alpha	8-29-18	9:15
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Relinquished				
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Reviewed/Date		Reviewed/Date		

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Data Package: Standard ☐ Level III ☐ Level IV ☑

Chromatograms with final report ☑ Electronic Data Deliverables (EDDs) ☑

Chain of Custody

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Sampled by: Paul Robinette

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ ~~Standard (7 Days)~~
☒ 5 DAYS (other)

Laboratory Number: 08-327

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21	DP2018-ISS12-5-6.5	8/27/2018	1320	S	1																					X	
22	DP2018-ISS12-10-13	8/27/2018	1325	S	1				X																	~~X~~	X
23	DP2018-ISS12-15-16.5	8/27/2018	1330	S	1				X					O				O					O			~~X~~	X
24	DP2018-ISS10-1-4	8/27/2018	1550	S	1																					X	
25	DP2018-ISS10-7-8	8/27/2018	1555	S	1				X																	~~X~~	X
26	DP2018-ISS10-10-12	8/27/2018	1600	S	1				X																	~~X~~	X
27	DP2018-ISS9-1-4	8/28/2018	0840	S	1																					X	
28	DP2018-ISS9-5-8	8/28/2018	0850	S	1				X																	~~X~~	X
29	DP2018-ISS9-10-14	8/28/2018	0905	S	1				X																	~~X~~	X
30	DP2018-ISS9-15-18	8/28/2018	0915	S	1																					X	

	Signature	Company	Date	Time
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Relinquished				
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Comments/Special Instructions

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Data Package: Standard ☐ Level III ☐ Level IV ☑

Chromatograms with final report ☑ Electronic Data Deliverables (EDDs) ☑

Chain of Custody

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Project Name: RG Haley/ PRDI Upland Survay
Project Manager: Sydney Bronson
Sampled by: Paul Robinette

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ ~~Standard (7 Days)~~
☒ 5 DAYS (other)

Laboratory Number: 08-327

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A PCP only	Total RCRA Metals	Total MTCA Metals	~~TCLP Metals~~ TOC	HEM (oil and grease) 1664A	TOC by EPA 9060A			HOLD	% Moisture
31	DP2018-ISS8-1-3	8/28/2018	1015	S	1																					X	
32	DP2018-ISS8-6-8	8/28/2018	1020	S	1				X					O				O			O					~~X~~	X
33	DP2018-ISS8-10-11	8/28/2018	1025	S	1				X																	~~X~~	X
34	DP2018-ISS8-11-13	8/28/2018	1030	S	1				X					O				O			O					~~X~~	X
35	DP2018-ISS8-15-18	8/28/2018	1035	S	1				X																	~~X~~	X
36	DP2018-ISS5-1-2.5	8/28/2018	1055	S	1																					X	
37	DP2018-ISS5-8-10	8/28/2018	1115	S	1																					X	
38	DP2018-ISS3-1-2	8/28/2018	1300	S	1																					X	
39	DP2018-ISS3-7-10	8/28/2018	1305	S	1				X																	~~X~~	X
40	DP2018-ISS3A-1-2	8/28/2018	1520	S	1																					X	

	Signature	Company	Date	Time
Relinquished	Paul Robinette	GE		
Received	[illegible]	Alpha	8-29-18	7:46
Relinquished	[illegible]	Alpha	8-29-18	9:15
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Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

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Data Package: Standard ☐ Level III ☐ Level IV ☑

Chromatograms with final report ☑ Electronic Data Deliverables (EDDs) ☑

Chain of Custody

28

OnSite Environmental Inc.
Analytical Laboratory Testing Services
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Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 0356-114-08
Project Name: RG Haley/ PRDI Upland Survay
Project Manager: Sydney Bronson
Sampled by: Paul Robinette

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ ~~Standard (7 Days)~~
☒ 5 DAYS (other)

Laboratory Number: 08-327

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A PCP ONLY	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	TOC by EPA 9060A			HOLD	% Moisture
41	DP2018-ISS3A-7-9	8/28/2018	1525	S	1				X																	HOLD	X
42	DP2018-ISS3A-10-13	8/28/2018	1530	S	1				X																	HOLD	X
43	DP2018-ISS~~18~~3A-15-18	8/28/2018	1540	S	1				X																	HOLD	X
44	DP2018-ISS11-1-3	8/28/2018	1400	S	1																						
45	DP2018-ISS11-5-6	8/28/2018	1405	S	1				X																		X
46	DP2018-ISS11-19-20	8/28/2018	1415	S	1				X																		X

	Signature	Company	Date	Time
Relinquished		GEI		
Received		Alpha	8-29-18	7:46
Relinquished		Alpha	8-29-18	9:15
Received		ORE	8/29/18	0915
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

PCP analysis by SW8151 - special reporting limits: only report down to 6.3 ug/kg (soil) and 0.04 ug/kg (water).

PAH analysis by SW8270-SIM - special reporting limit (soil only): 5 ug/kg for all analytes.

Data Package: Standard ☐ Level III ☐ Level IV ☑

Chromatograms with final report ☑ Electronic Data Deliverables (EDDs) ☑

Sample/Cooler Receipt and Acceptance Checklist

Client: GER

Client Project Name/Number: 1356-114-08

OnSite Project Number: 08-327

Initiated by: MW

Date Initiated: 8/29/18

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	(No)	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	(N/A)	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	(N/A)	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 1, 2	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)		
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	(No)	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	(Yes)	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	(N/A)	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	(N/A)	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4

Explain any discrepancies:

2.4) #43) -1SS18- on COC, -1SS3A- on label - drove ★

Sample DP2018-1SS11-1-3 8/28/18 1400 not on COC (1) Added

Sample DP2018-1SS11-5-6 " 1405 not on COC (1)

Sample DP2018-1SS11-19-20 " 1415 not on COC (1)

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

DJ

//SERVER\OSE\Administration\forms\cooler_checklist.xls

Complete Data Package

- NWTPH-Dx
- PAHs EPA 8270D/SIM
- Pentachlorophenol EPA 8151A
- TOC by SM 5310B

NWTPH-DIESEL Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V28.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 3:13
Operator : JT
Sample : 08-327-03
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 03:49:04 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.514	100707787	36.527	PPM
Spiked Amount	50.000		Recovery =	73.05%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.893	5789809	NoCal	PPM
3) H	Gasoline	3.500	30455112	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	511451255	198.298	PPM
5) H	Diesel Fuel #2 (06-...	14.000	619411318	260.085	PPM
6) H	Oil (06-07-18)	22.000	915626662	498.406	PPM
7) H	Oil Acid Clean (06-12...	22.000	915626662	366.489	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	560719510	240.483	PPM
9) H	Oil Combo (06-07-18)	22.000	845073889	466.452	PPM
10) H	Oil Acid Clean Combo ...	22.000	845073889	341.884	PPM
11) H	Alaska 102 DF2 ()	13.025	641878844	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	650320781	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	592557642	232.741	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1453318079	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1453318079	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1465455206	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	376730955	155.038	PPM
18) H	Oil Acid Clean MO Com...	22.000	800708030	331.707	PPM
19) H	Oil MO Combo (06-07-18)	22.000	800708030	454.033	PPM

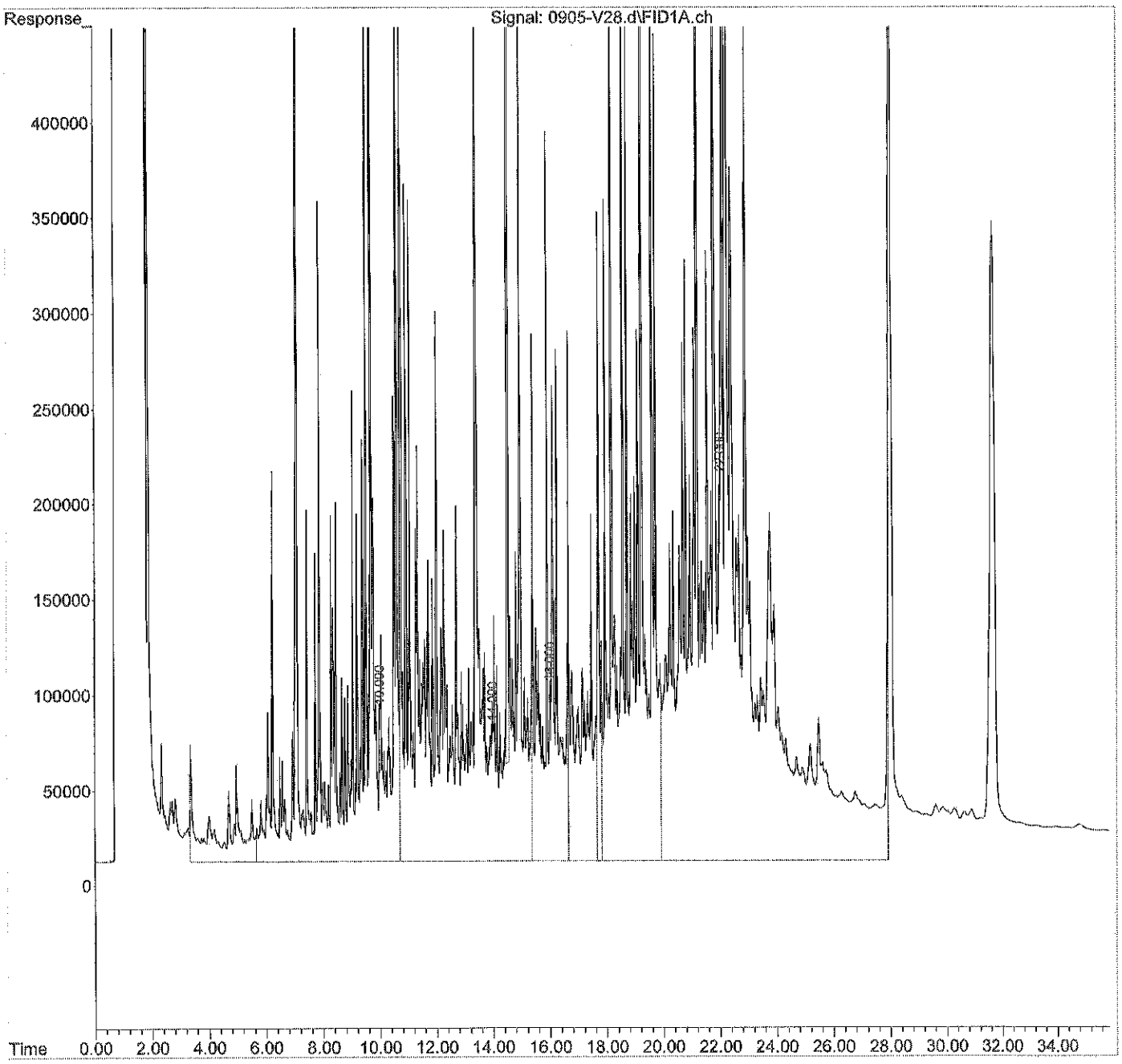
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V28.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 3:13
Operator : JT
Sample : 08-327-03
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 03:49:04 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V06.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 11:04
Operator : JT
Sample : 08-327-04 2X
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 11:40:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

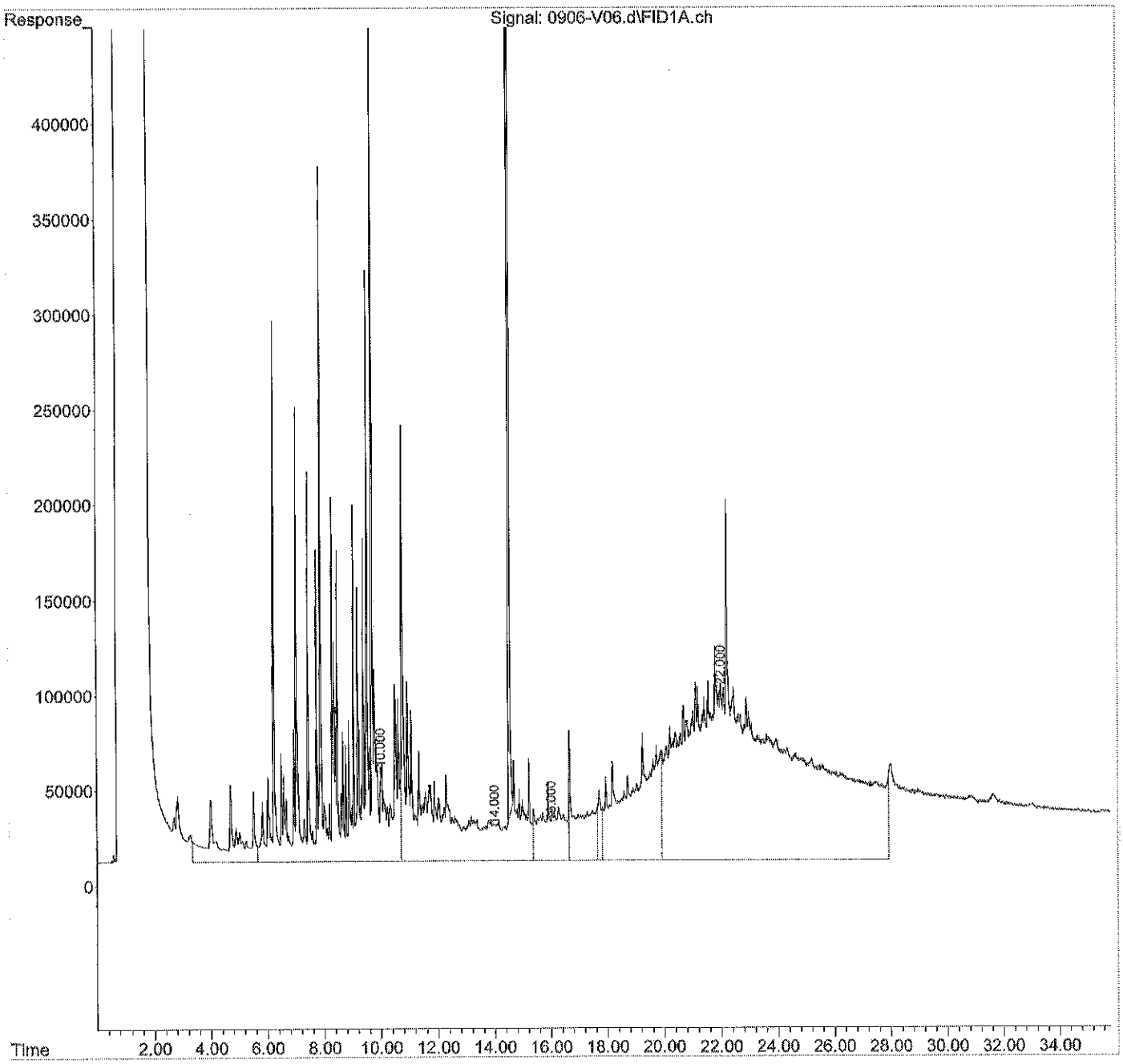
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.509	57684702	21.151	PPM
Spiked Amount	50.000		Recovery =	42.30%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	22773233	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	228751174	87.479	PPM
5) H	Diesel Fuel #2 (06-...	14.000	248988201	103.685	PPM
6) H	Oil (06-07-18)	22.000	369346999	193.986	PPM
7) H	Oil Acid Clean (06-12...	22.000	369346999	135.851	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	231022133	98.407	PPM
9) H	Oil Combo (06-07-18)	22.000	351753355	187.235	PPM
10) H	Oil Acid Clean Combo ...	22.000	351753355	130.525	PPM
11) H	Alaska 102 DF2 ()	13.025	254959725	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	212628946	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	160002700	63.076	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	603067330	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	603067330	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	609290090	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	107910526	45.202	PPM
18) H	Oil Acid Clean MO Com...	22.000	336817909	127.598	PPM
19) H	Oil MO Combo (06-07-18)	22.000	336817909	184.013	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V06.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 11:04
Operator : JT
Sample : 08-327-04 2X
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 11:40:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V04.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 9:44
Operator : JT
Sample : 08-327-06
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 10:20:49 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.514	104178515	37.768 PPM
Spiked Amount	50.000		Recovery =	75.54%
Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	12288331	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	72047657	26.052 PPM
5) H	Diesel Fuel #2 (06-...	14.000	122422967	50.246 PPM
6) H	Oil (06-07-18)	22.000	288518462	148.944 PPM
7) H	Oil Acid Clean (06-12...	22.000	288518462	101.726 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	92581952	38.749 PPM
9) H	Oil Combo (06-07-18)	22.000	260314866	135.482 PPM
10) H	Oil Acid Clean Combo ...	22.000	260314866	91.348 PPM
11) H	Alaska 102 DF2 ()	13.025	132249493	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	180693388	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	168307774	66.333 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	358423625	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	358423625	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	362177035	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	92190376	38.779 PPM
18) H	Oil Acid Clean MO Com...	22.000	235268895	82.917 PPM
19) H	Oil MO Combo (06-07-18)	22.000	235268895	124.903 PPM

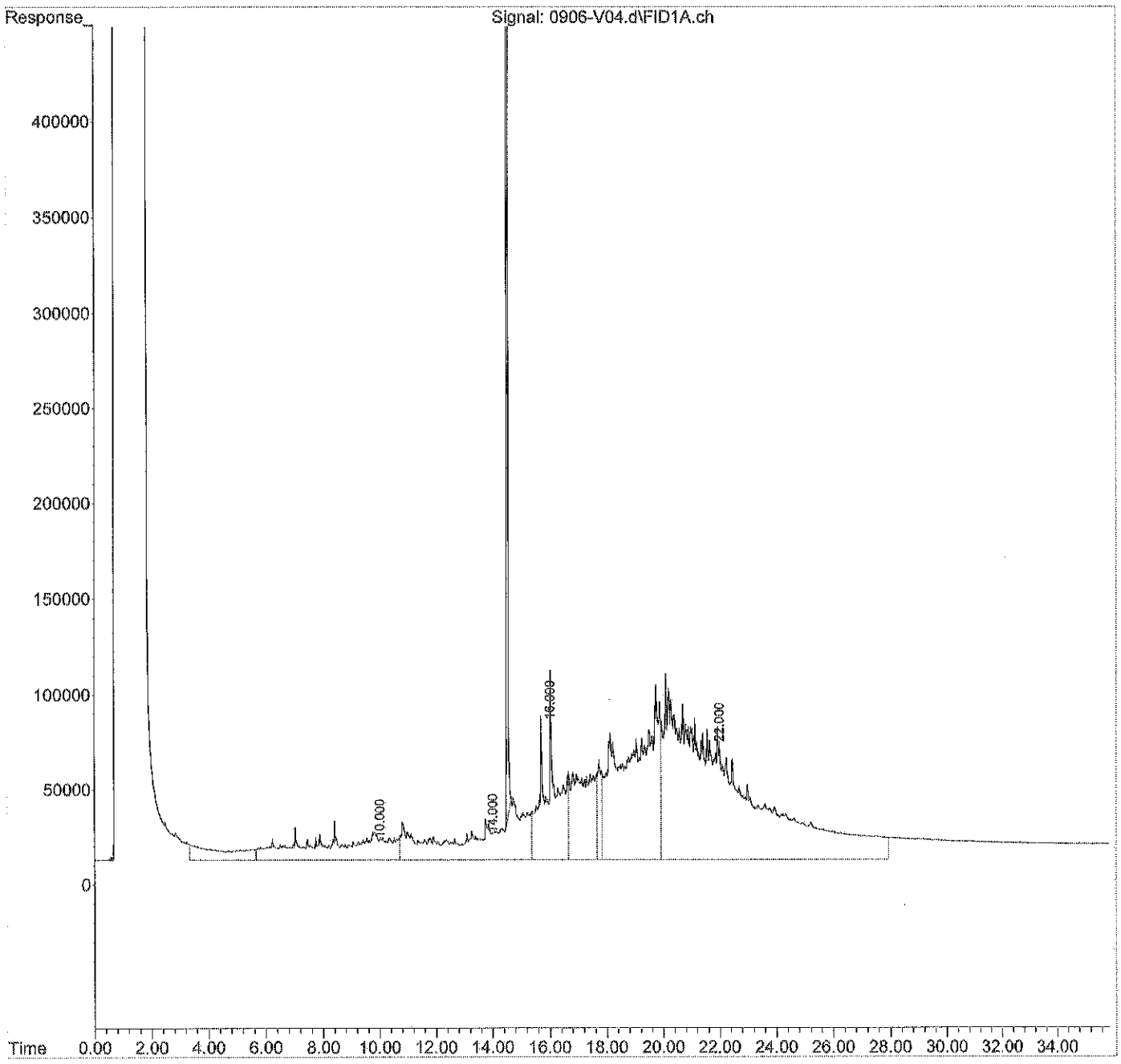
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V04.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 9:44
Operator : JT
Sample : 08-327-06
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 10:20:49 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V33.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 6:52
Operator : JT
Sample : 08-327-07
Misc :
ALS Vial : 33 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 07:28:55 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.513	91414454	33.206	PPM
Spiked Amount	50.000		Recovery =	66.41%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.894	7240726	NoCal	PPM
3) H	Gasoline	3.500	28619606	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	313877414	120.849	PPM
5) H	Diesel Fuel #2 (06-...	14.000	483298948	202.616	PPM
6) H	Oil (06-07-18)	22.000	1197891439	655.701	PPM
7) H	Oil Acid Clean (06-12...	22.000	1197891439	485.660	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	386615176	165.457	PPM
9) H	Oil Combo (06-07-18)	22.000	1106526061	614.433	PPM
10) H	Oil Acid Clean Combo ...	22.000	1106526061	453.901	PPM
11) H	Alaska 102 DF2 ()	13.025	526557010	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	838850344	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	785875050	308.567	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1605440458	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1605440458	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1615234767	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	336423163	138.569	PPM
18) H	Oil Acid Clean MO Com...	22.000	1027816319	431.634	PPM
19) H	Oil MO Combo (06-07-18)	22.000	1027816319	586.227	PPM

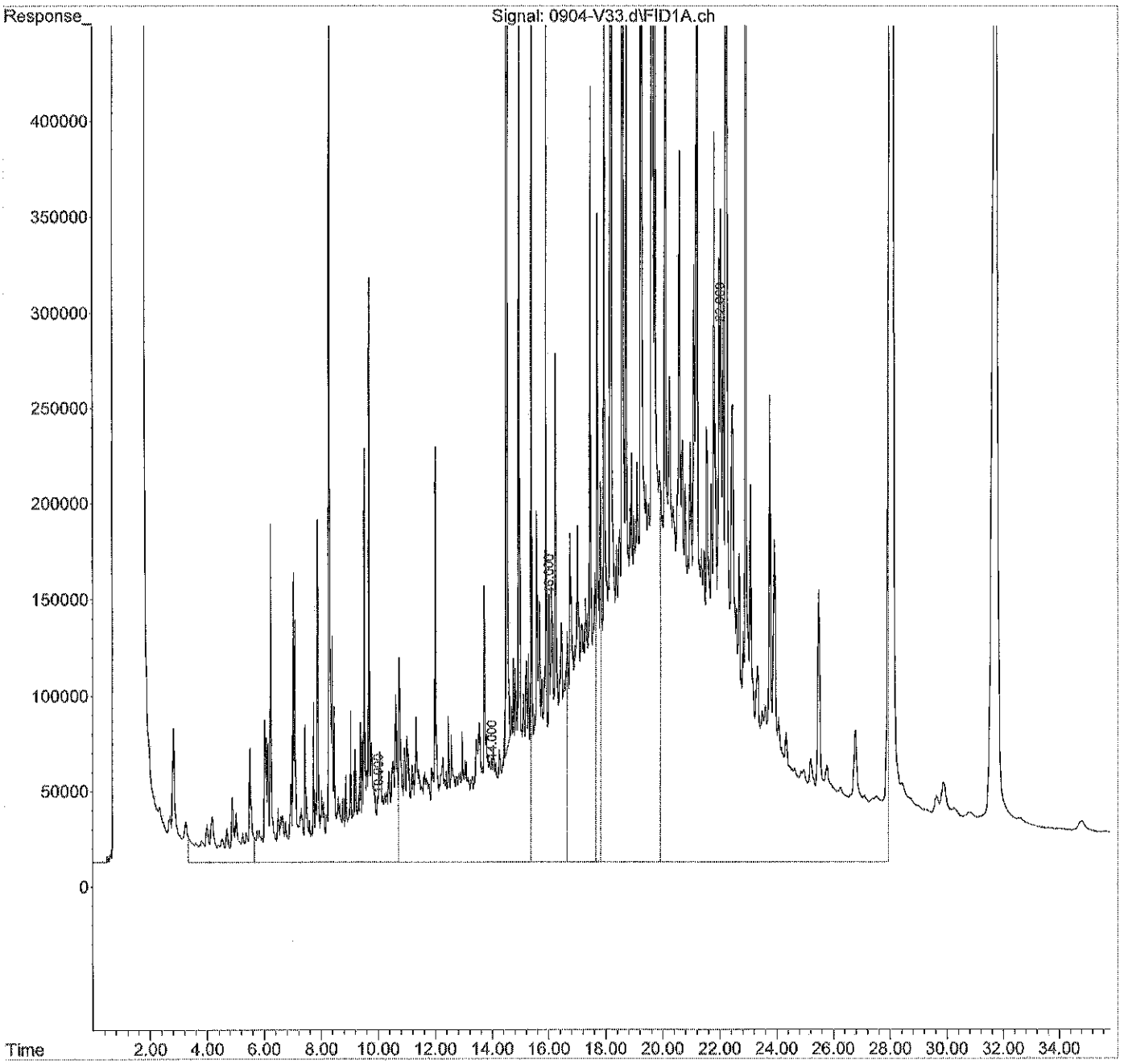
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V33.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 6:52
Operator : JT
Sample : 08-327-07
Misc :
ALS Vial : 33 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 07:28:55 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V12.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 16:52
Operator : JT
Sample : 08-327-12
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 17:28:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.517	119833367	43.362	PPM
Spiked Amount	50.000		Recovery =	86.72%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	10329440	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	31553926	10.178	PPM
5) H	Diesel Fuel #2 (06-...	14.000	31367986	11.801	PPM
6) H	Oil (06-07-18)	22.000	45702631	13.632	PPM
7) H	Oil Acid Clean (06-12...	22.000	45702631	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	28497573	11.134	PPM
9) H	Oil Combo (06-07-18)	22.000	42393052	12.139	PPM
10) H	Oil Acid Clean Combo ...	22.000	42393052	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	32274522	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	22592746	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	23949233	9.710	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	73606829	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	73606829	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	77299066	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	17931920	8.438	PPM
18) H	Oil Acid Clean MO Com...	22.000	39940770	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	39940770	11.207	PPM

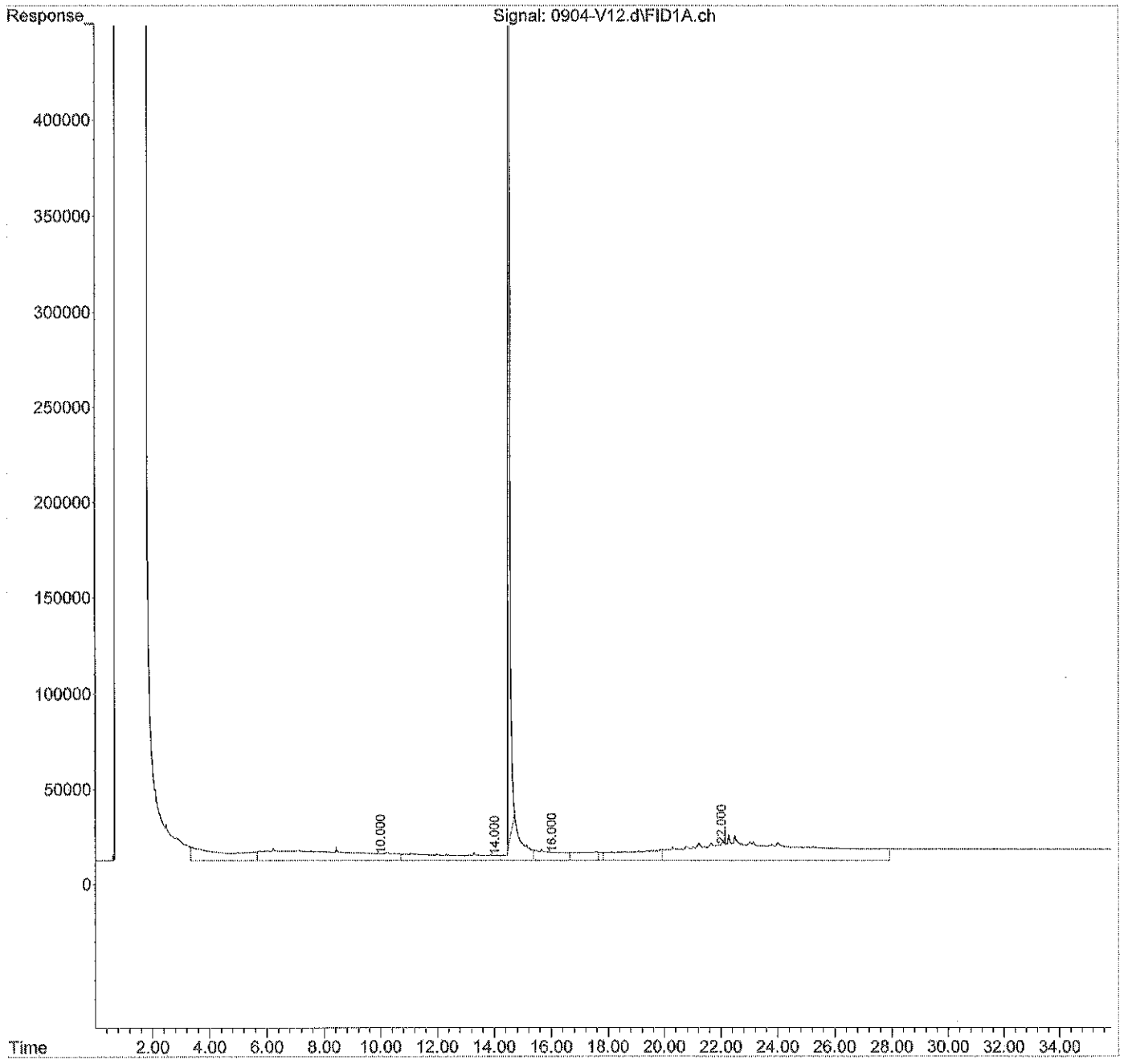
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V12.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 16:52
Operator : JT
Sample : 08-327-12
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 17:28:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V15.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 18:52
Operator : JT
Sample : 08-327-13
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 19:28:36 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.516	120197562	43.493	PPM
Spiked Amount	50.000		Recovery =	86.99%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	10049284	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	29791858	9.487	PPM
5) H	Diesel Fuel #2 (06-...	14.000	29019928	10.810	PPM
6) H	Oil (06-07-18)	22.000	37326704	8.964	PPM
7) H	Oil Acid Clean (06-12...	22.000	37326704	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	26911630	10.450	PPM
9) H	Oil Combo (06-07-18)	22.000	34041808	7.412	PPM
10) H	Oil Acid Clean Combo ...	22.000	34041808	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	29649229	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16412400	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	20546611	8.376	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	63525628	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	63525628	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	67088010	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	16933998	8.030	PPM
18) H	Oil Acid Clean MO Com...	22.000	32224731	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	32224731	6.716	PPM

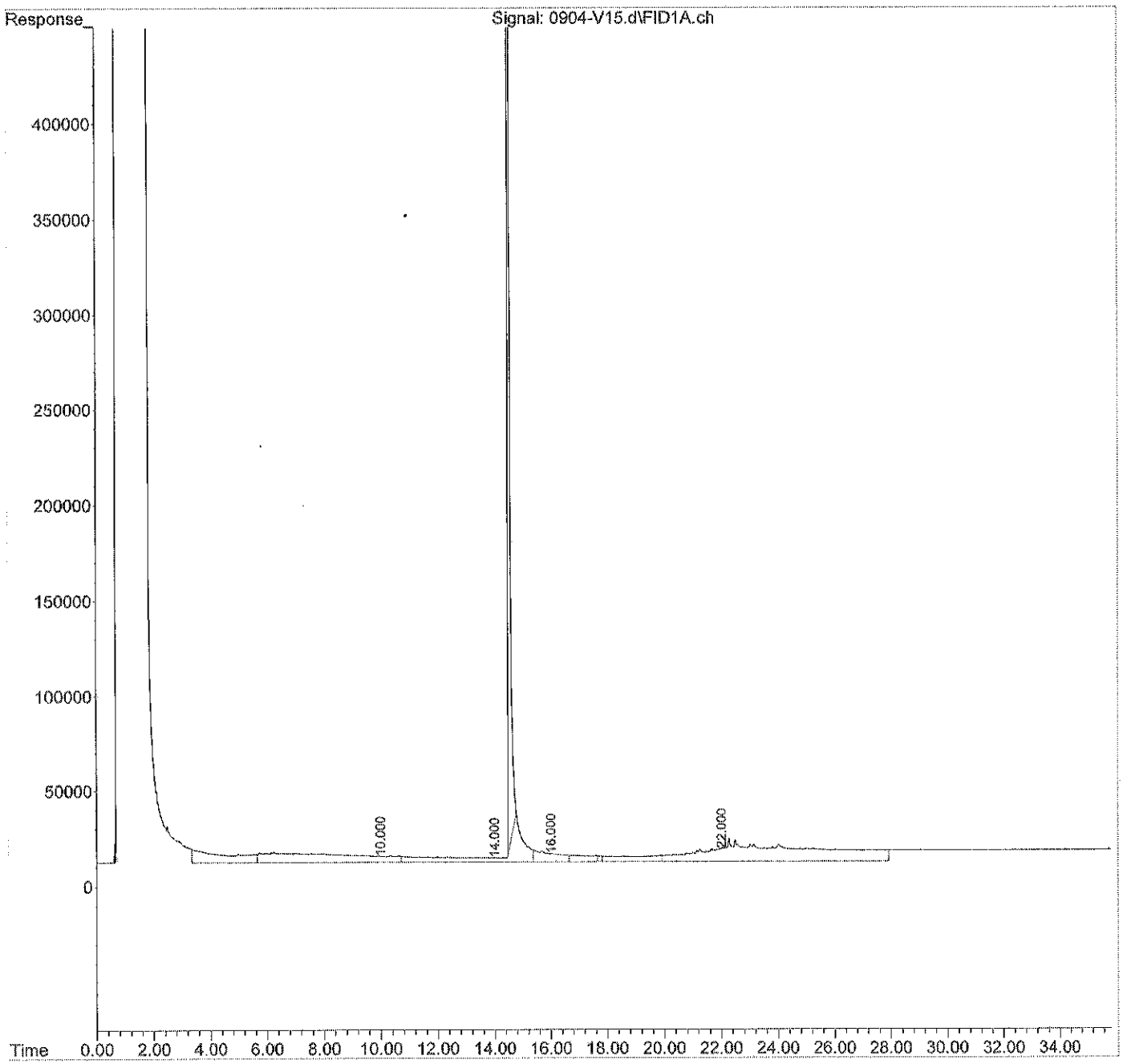
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V15.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 18:52
Operator : JT
Sample : 08-327-13
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 19:28:36 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V17.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 19:51
Operator : JT
Sample : 08-327-16 2X
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 20:27:54 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

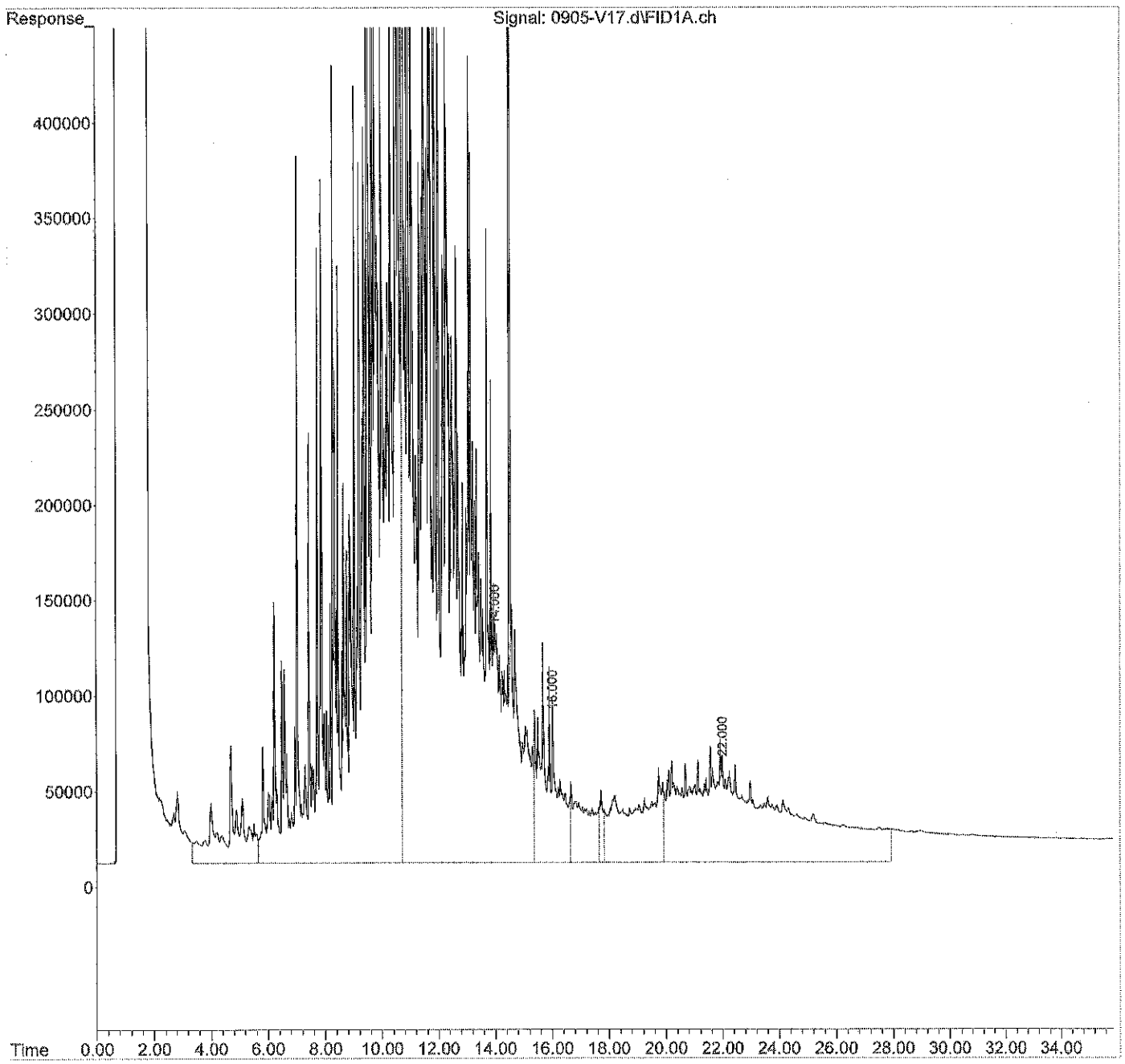
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.509	56257240	20.641	PPM
Spiked Amount	50.000		Recovery =	41.28%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	32594520	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	1208855038	471.681	PPM
5) H	Diesel Fuel #2 (06-...	14.000	1241957992	522.937	PPM
6) H	Oil (06-07-18)	22.000	229675554	116.153	PPM
7) H	Oil Acid Clean (06-12...	22.000	229675554	76.883	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	1222204467	525.536	PPM
9) H	Oil Combo (06-07-18)	22.000	194007489	97.952	PPM
10) H	Oil Acid Clean Combo ...	22.000	194007489	62.940	PPM
11) H	Alaska 102 DF2 ()	13.025	1247582975	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	117937835	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	702588161	275.899	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1422100832	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1422100832	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1440677215	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	663008193	272.007	PPM
18) H	Oil Acid Clean MO Com...	22.000	177276276	57.401	PPM
19) H	Oil MO Combo (06-07-18)	22.000	177276276	91.147	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V17.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 19:51
Operator : JT
Sample : 08-327-16 2X
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 20:27:54 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V26.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 2:13
Operator : JT
Sample : 08-327-17
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 02:49:39 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.516	109600889	39.706	PPM
Spiked Amount	50.000		Recovery =	79.41%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	16274611	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	299162213	115.081	PPM
5) H	Diesel Fuel #2 (06-...	14.000	308050778	128.622	PPM
6) H	Oil (06-07-18)	22.000	87617627	36.989	PPM
7) H	Oil Acid Clean (06-12...	22.000	87617627	16.906	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	301082044	128.598	PPM
9) H	Oil Combo (06-07-18)	22.000	75064559	30.631	PPM
10) H	Oil Acid Clean Combo ...	22.000	75064559	11.980	PPM
11) H	Alaska 102 DF2 ()	13.025	309870100	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	42721182	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	198249318	78.077	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	379304214	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	379304214	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	386925303	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	186215132	77.196	PPM
18) H	Oil Acid Clean MO Com...	22.000	68991043	9.756	PPM
19) H	Oil MO Combo (06-07-18)	22.000	68991043	28.116	PPM

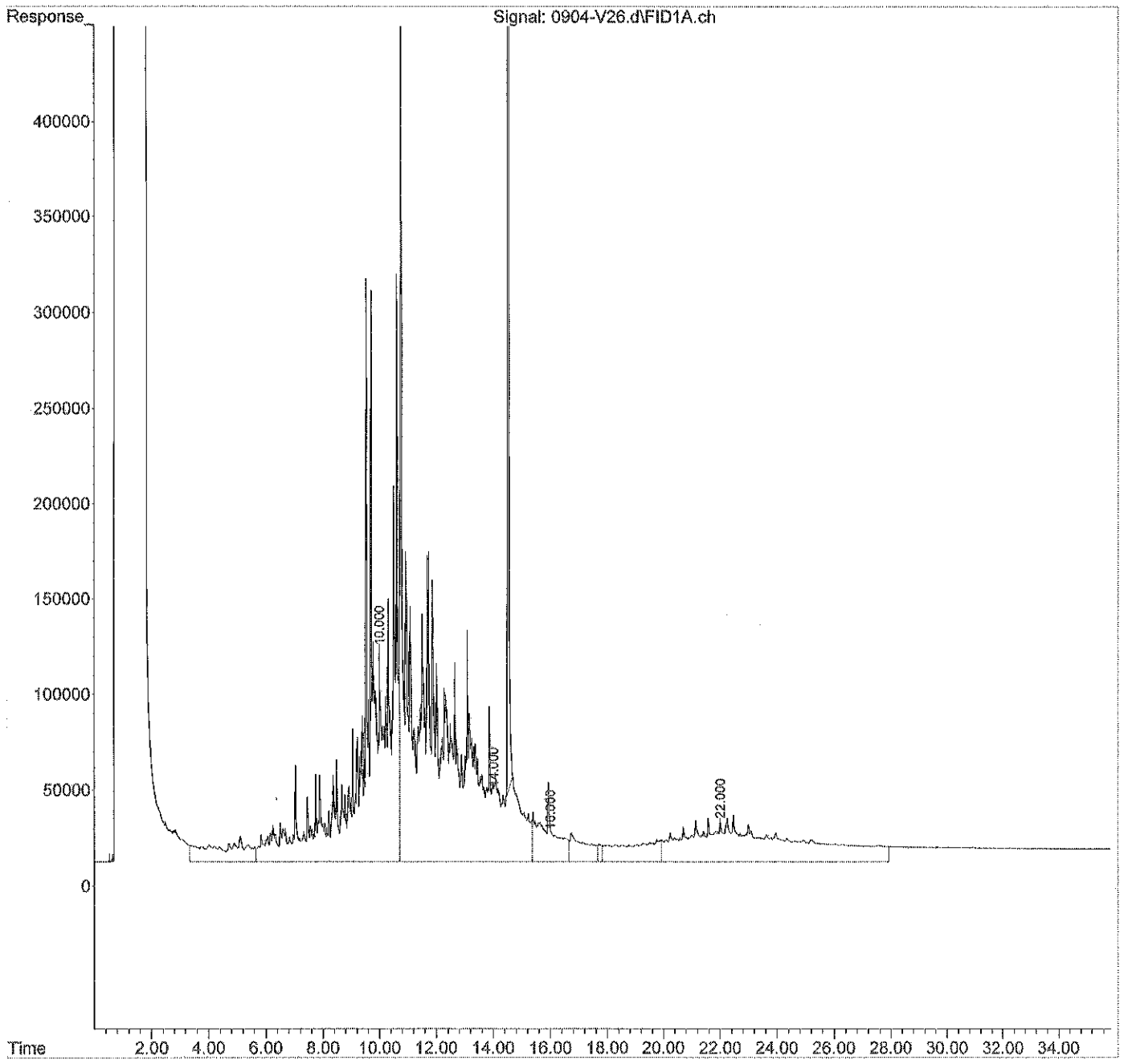
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V26.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 2:13
Operator : JT
Sample : 08-327-17
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 02:49:39 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V15.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 18:31
Operator : JT
Sample : 08-327-18 2X
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 19:07:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.510	54525522	20.022	PPM
Spiked Amount	50.000		Recovery =	40.04%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	22176952	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	426387319	164.953	PPM
5) H	Diesel Fuel #2 (06-...	14.000	437841422	183.422	PPM
6) H	Oil (06-07-18)	22.000	240752443	122.325	PPM
7) H	Oil Acid Clean (06-12...	22.000	240752443	81.559	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	426996645	182.858	PPM
9) H	Oil Combo (06-07-18)	22.000	225304344	115.666	PPM
10) H	Oil Acid Clean Combo ...	22.000	225304344	76.349	PPM
11) H	Alaska 102 DF2 ()	13.025	441209520	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	137659226	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	269101588	105.869	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	662727421	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	662727421	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	671673101	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	238680948	98.633	PPM
18) H	Oil Acid Clean MO Com...	22.000	216035896	74.455	PPM
19) H	Oil MO Combo (06-07-18)	22.000	216035896	113.708	PPM

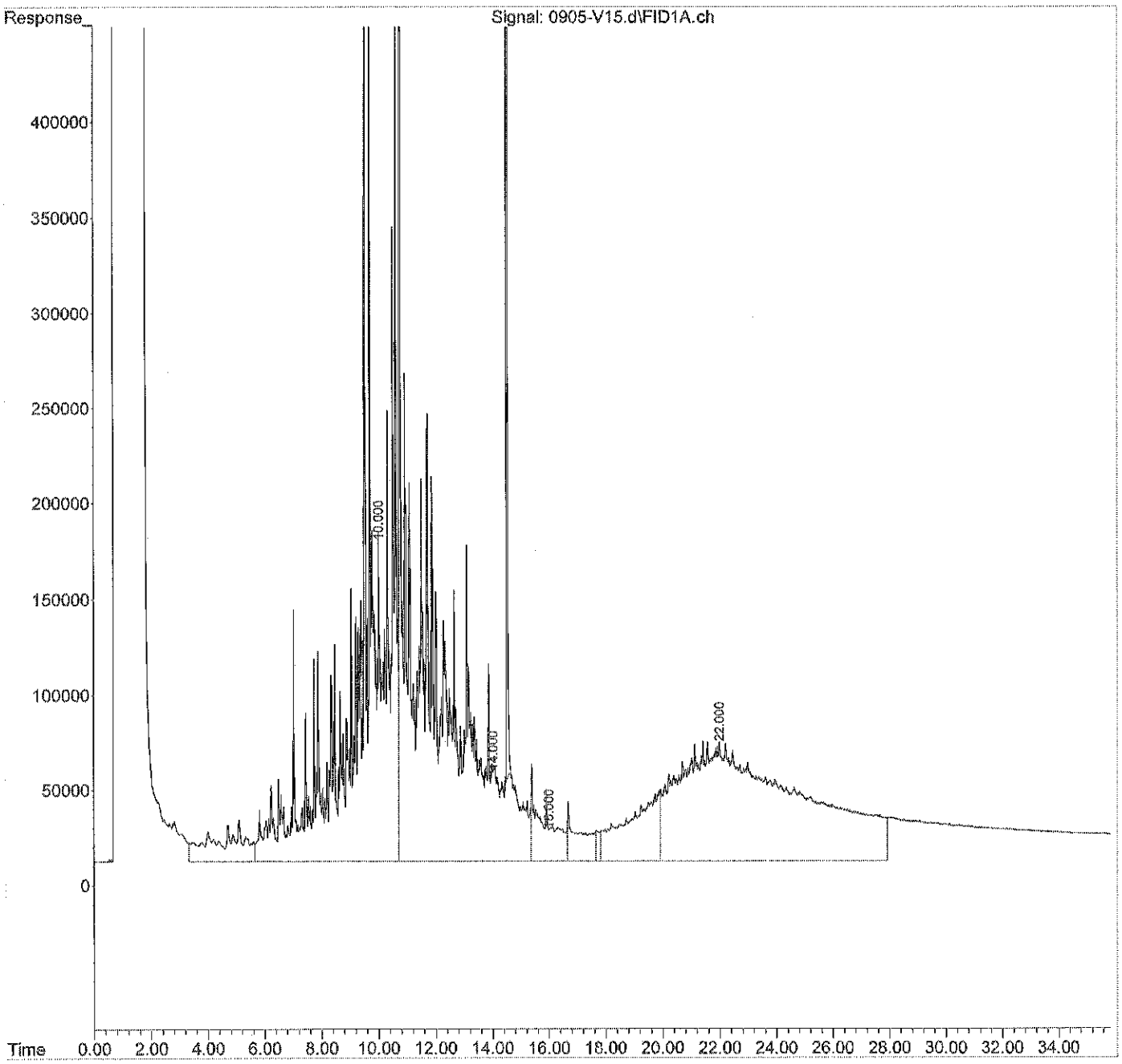
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V15.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 18:31
Operator : JT
Sample : 08-327-18 2X
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 19:07:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V13.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 17:32
Operator : JT
Sample : 08-327-19
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 18:08:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.515	107349772	38.901	PPM
Spiked Amount		50.000		Recovery =	77.80%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10182730	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	32882577	10.699	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	32013092	12.073	PPM
6)	H	Oil (06-07-18)	22.000	38766011	9.766	PPM
7)	H	Oil Acid Clean (06-12...	22.000	38766011	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	29872566	11.726	PPM
9)	H	Oil Combo (06-07-18)	22.000	35500963	8.238	PPM
10)	H	Oil Acid Clean Combo ...	22.000	35500963	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	32668120	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	17452515	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	22531181	9.154	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	68016842	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	68016842	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	71661782	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	18646162	8.730	PPM
18)	H	Oil Acid Clean MO Com...	22.000	33664690	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	33664690	7.554	PPM

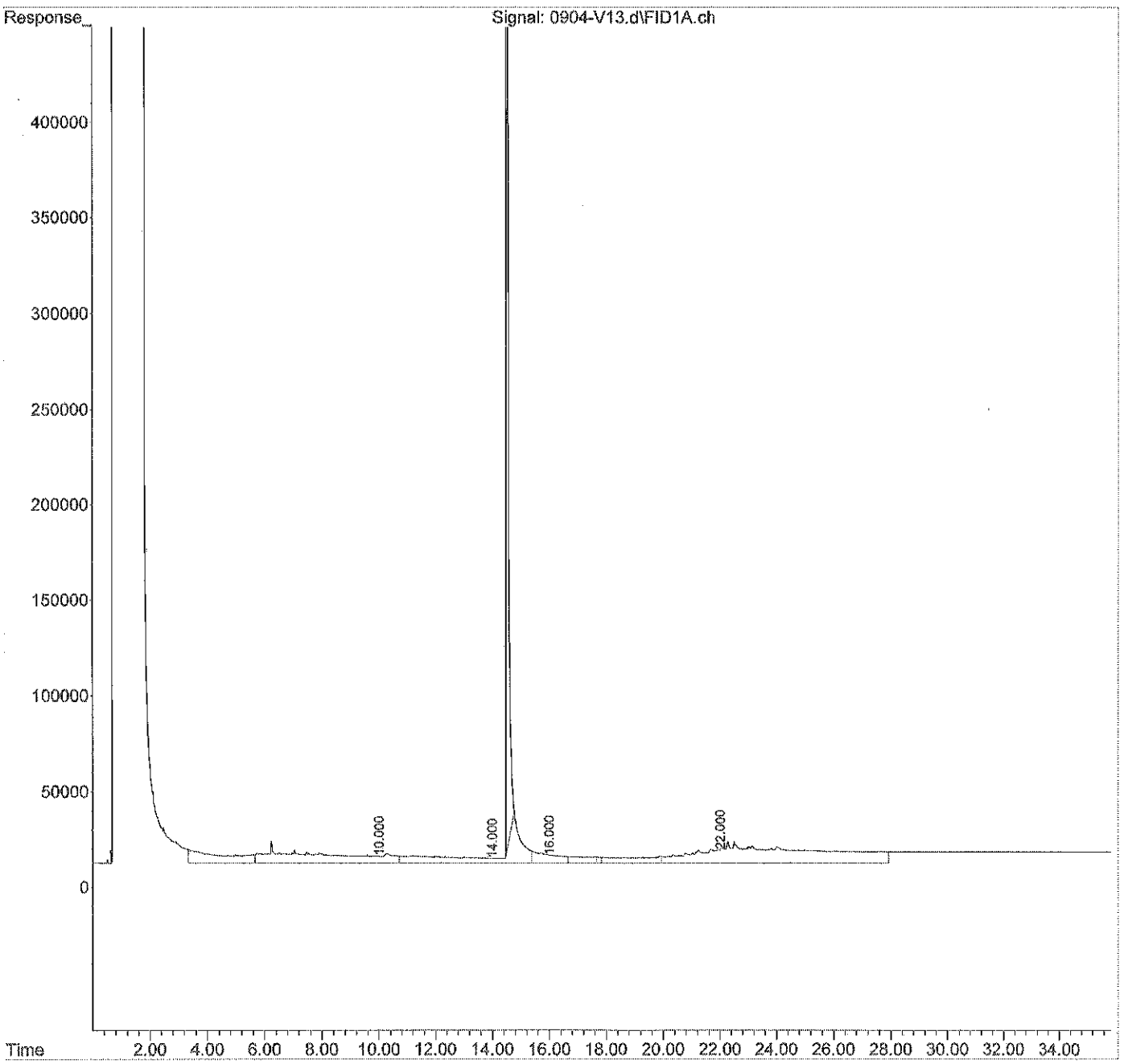
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V13.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 17:32
Operator : JT
Sample : 08-327-19
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 18:08:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V09.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 14:30
Operator : JT
Sample : 08-327-22 5X
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 15:06:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.507	30723770	11.516	PPM
Spiked Amount	50.000		Recovery =	23.03%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	87546418	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	3595198309	1407.130	PPM
5) H	Diesel Fuel #2 (06-...	14.000	3674291196	1549.918	PPM
6) H	Oil (06-07-18)	22.000	258286553	132.097	PPM
7) H	Oil Acid Clean (06-12...	22.000	258286553	88.962	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	3638833707	1566.931	PPM
9) H	Oil Combo (06-07-18)	22.000	151144349	73.692	PPM
10) H	Oil Acid Clean Combo ...	22.000	151144349	44.575	PPM
11) H	Alaska 102 DF2 ()	13.025	3681189406	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	77377676	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	1990676184	781.138	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	3786776251	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	3786776251	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	3850071508	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	1955833320	800.238	PPM
18) H	Oil Acid Clean MO Com...	22.000	119644427	32.043	PPM
19) H	Oil MO Combo (06-07-18)	22.000	119644427	57.601	PPM

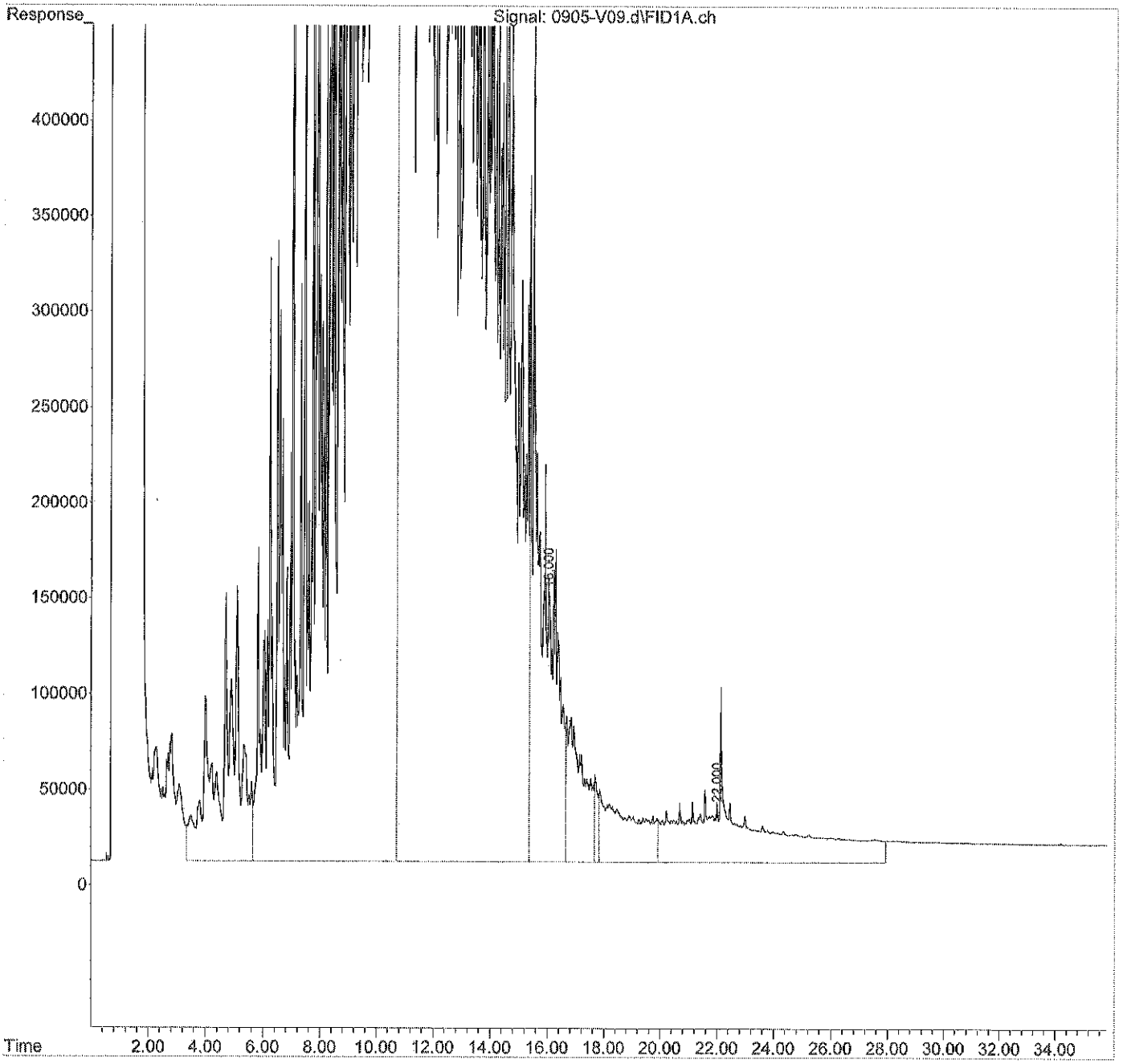
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V09.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 14:30
Operator : JT
Sample : 08-327-22 5X
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 15:06:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V24.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 00:53
Operator : JT
Sample : 08-327-23
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 01:29:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

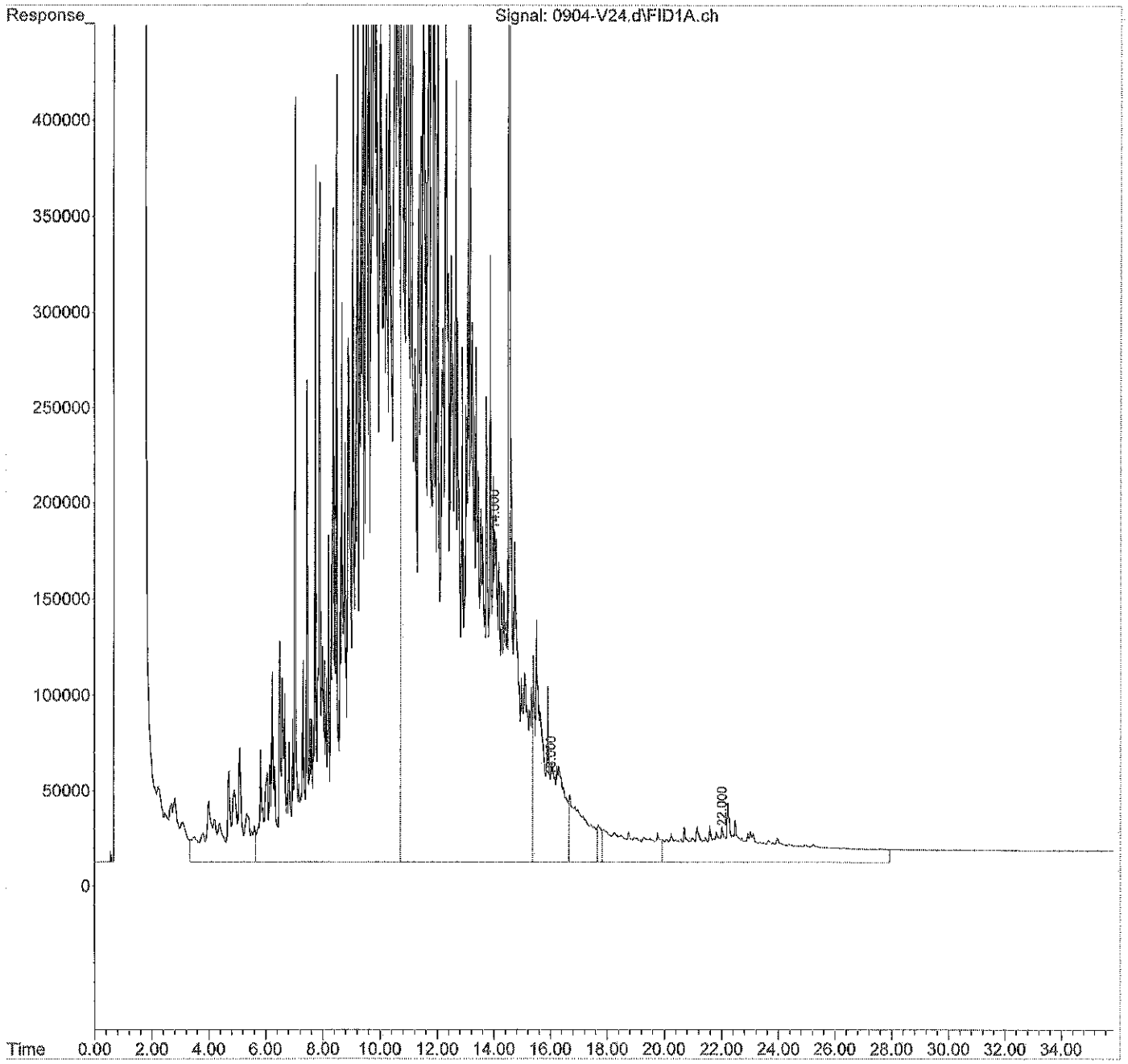
		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.518	124128633	44.898	PPM
Spiked Amount		50.000		Recovery =	89.80%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	39052230	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	1367917004	534.034	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	1399245834	589.347	PPM
6)	H	Oil (06-07-18)	22.000	124819391	57.721	PPM
7)	H	Oil Acid Clean (06-12...	22.000	124819391	32.613	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	1383206672	594.916	PPM
9)	H	Oil Combo (06-07-18)	22.000	81947673	34.527	PPM
10)	H	Oil Acid Clean Combo ...	22.000	81947673	14.929	PPM
11)	H	Alaska 102 DF2 ()	13.025	1402703220	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	43264697	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	770970465	302.721	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	1465136204	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	1465136204	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	1491000255	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	752633399	308.627	PPM
18)	H	Oil Acid Clean MO Com...	22.000	67751605	9.211	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	67751605	27.395	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V24.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 00:53
Operator : JT
Sample : 08-327-23
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 01:29:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V08.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 13:50
Operator : JT
Sample : 08-327-25 5X
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 14:26:47 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

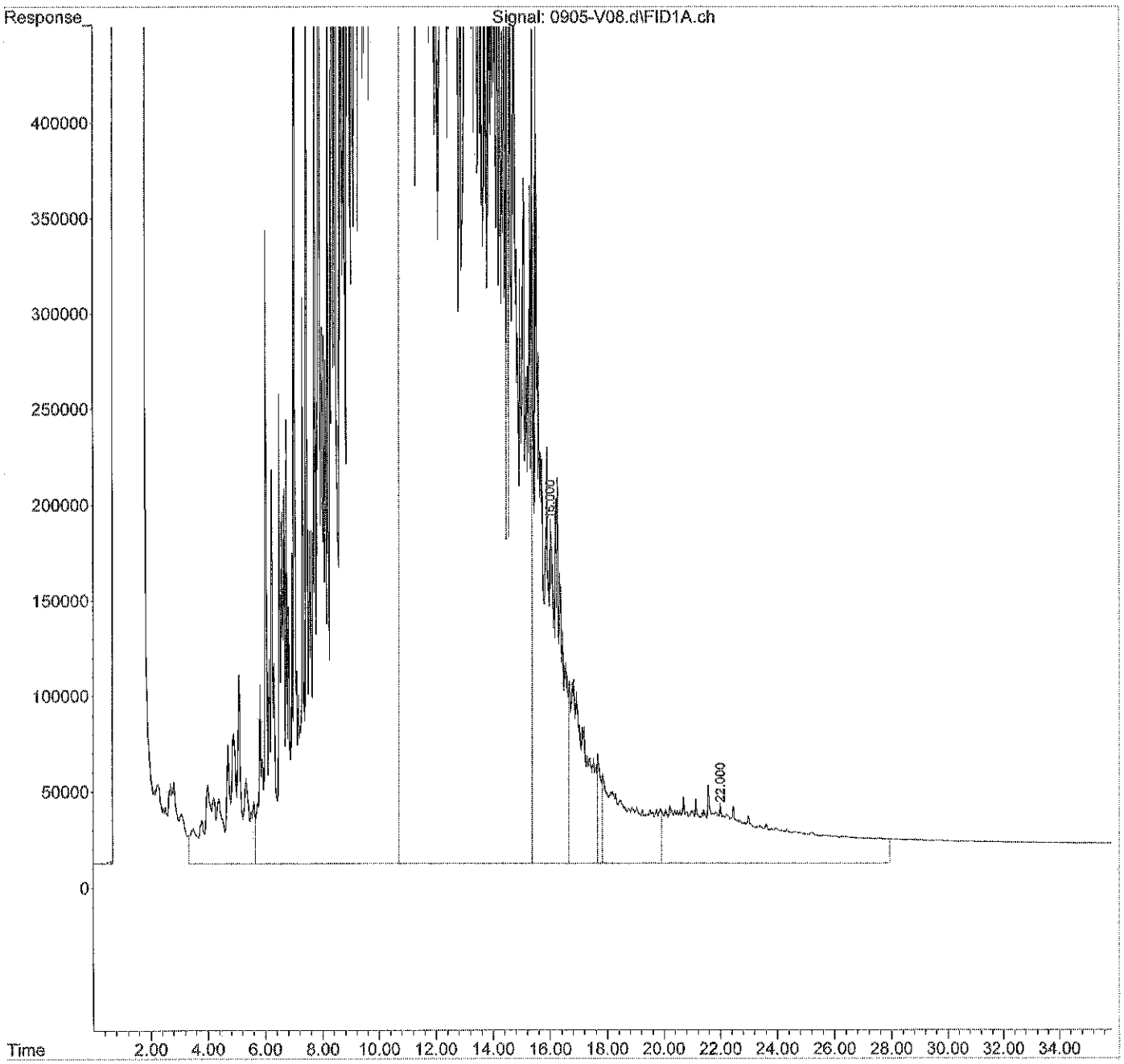
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.508	39017124	14.480	PPM
Spiked Amount	50.000		Recovery =	28.96%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	60735922	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	3573458737	1398.608	PPM
5) H	Diesel Fuel #2 (06-...	14.000	3706027743	1563.318	PPM
6) H	Oil (06-07-18)	22.000	304733138	157.979	PPM
7) H	Oil Acid Clean (06-12...	22.000	304733138	108.572	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	3661672582	1576.772	PPM
9) H	Oil Combo (06-07-18)	22.000	173382725	86.279	PPM
10) H	Oil Acid Clean Combo ...	22.000	173382725	54.103	PPM
11) H	Alaska 102 DF2 ()	13.025	3714126239	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	86097508	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	2092229484	820.971	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	3835560992	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	3835560992	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	3876956844	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2050076054	838.744	PPM
18) H	Oil Acid Clean MO Com...	22.000	133882536	38.308	PPM
19) H	Oil MO Combo (06-07-18)	22.000	133882536	65.888	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V08.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 13:50
Operator : JT
Sample : 08-327-25 5X
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 14:26:47 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V10.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 15:11
Operator : JT
Sample : 08-327-26 4X
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 15:47:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

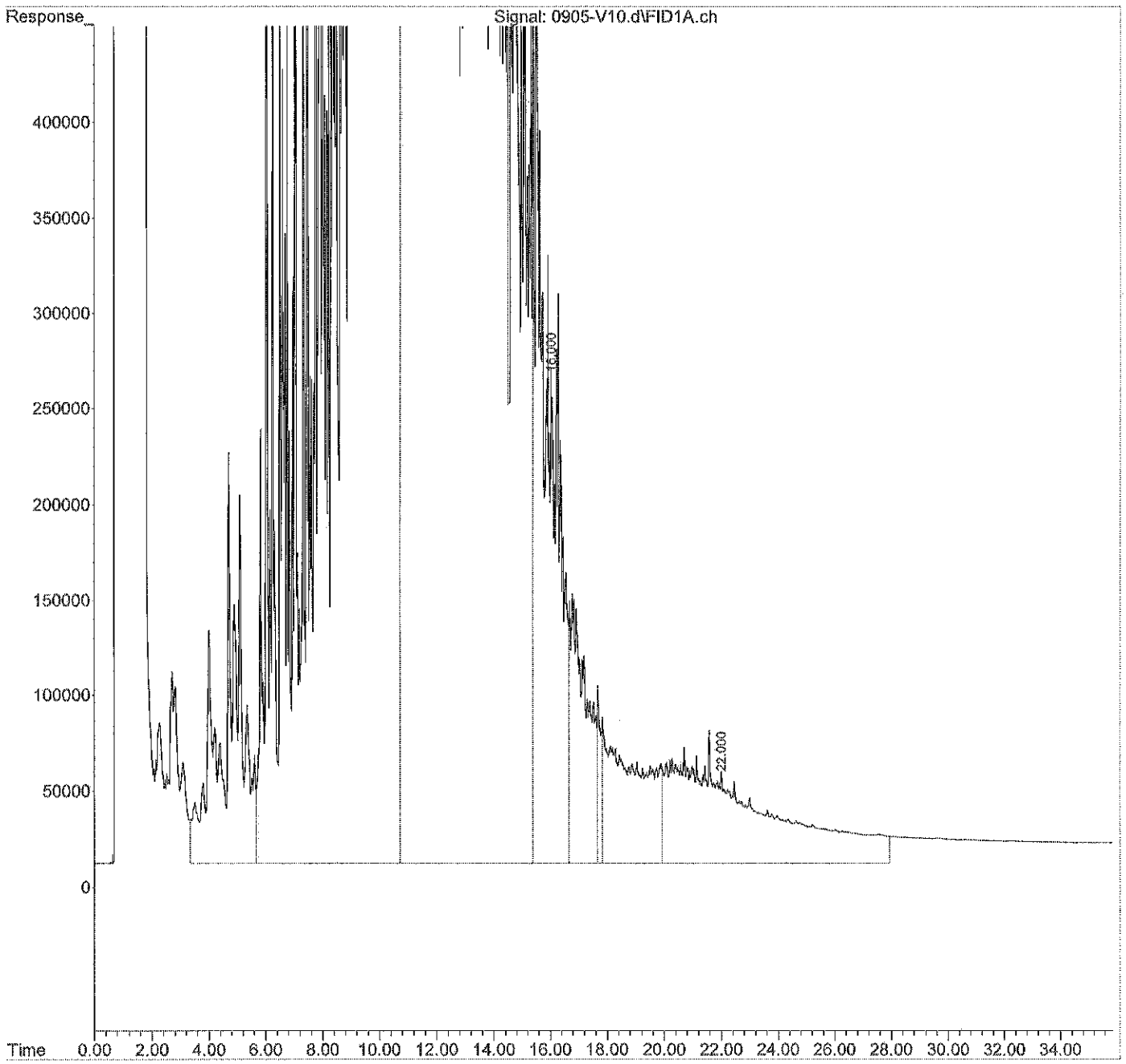
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.511	50437300	18.561	PPM
Spiked Amount	50.000		Recovery =	37.12%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.894	2647596	NoCal	PPM
3) H	Gasoline	3.500	120277413	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5305935795	2077.741	PPM
5) H	Diesel Fuel #2 (06-...	14.000	5470722526	2308.408	PPM
6) H	Oil (06-07-18)	22.000	450161771	239.021	PPM
7) H	Oil Acid Clean (06-12...	22.000	450161771	169.971	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5404640518	2327.867	PPM
9) H	Oil Combo (06-07-18)	22.000	264814961	138.029	PPM
10) H	Oil Acid Clean Combo ...	22.000	264814961	93.277	PPM
11) H	Alaska 102 DF2 ()	13.025	5483748168	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	143123408	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	3005852770	1179.330	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	5664123118	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	5664123118	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	5751485913	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2934167869	1199.972	PPM
18) H	Oil Acid Clean MO Com...	22.000	206311817	70.176	PPM
19) H	Oil MO Combo (06-07-18)	22.000	206311817	108.048	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V10.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 15:11
Operator : JT
Sample : 08-327-26 4X
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 15:47:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V31.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 5:33
Operator : JT
Sample : 08-327-28
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 06:09:12 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

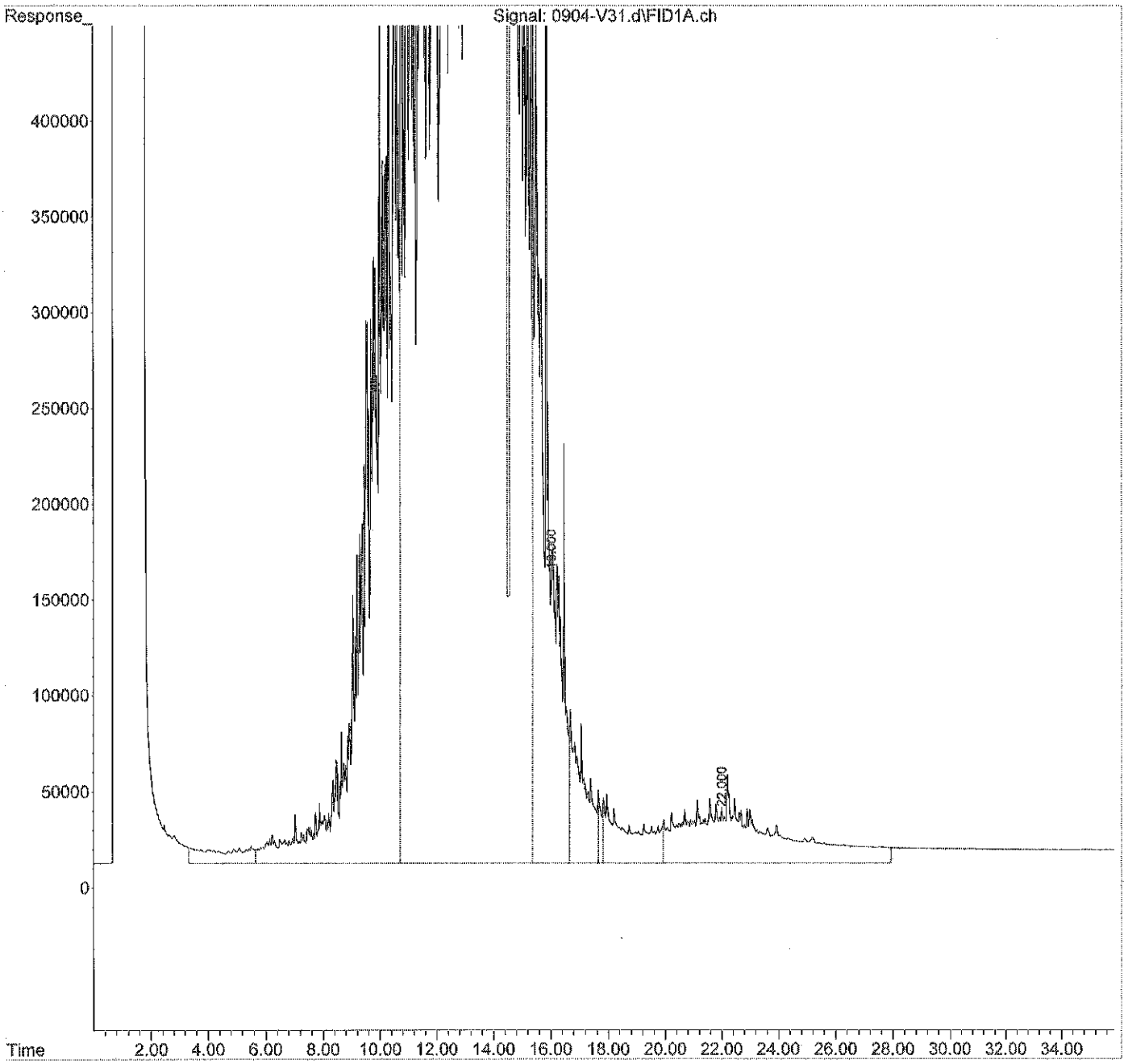
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.520	173367255	62.495	PPM
Spiked Amount	50.000		Recovery =	124.99%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.834	7619056	NoCal	PPM
3) H	Gasoline	3.500	14251834	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	2102529048	822.002	PPM
5) H	Diesel Fuel #2 (06-...	14.000	2273017571	958.272	PPM
6) H	Oil (06-07-18)	22.000	279102071	143.696	PPM
7) H	Oil Acid Clean (06-12...	22.000	279102071	97.750	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	2243198121	965.511	PPM
9) H	Oil Combo (06-07-18)	22.000	129346166	61.354	PPM
10) H	Oil Acid Clean Combo ...	22.000	129346166	35.236	PPM
11) H	Alaska 102 DF2 ()	13.025	2278211435	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	68864179	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	1990963444	781.250	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	2375991939	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	2375991939	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	2382136424	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	1964717910	803.868	PPM
18) H	Oil Acid Clean MO Com...	22.000	102443249	24.475	PPM
19) H	Oil MO Combo (06-07-18)	22.000	102443249	47.588	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V31.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 5:33
Operator : JT
Sample : 08-327-28
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 06:09:12 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V25.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 1:33
Operator : JT
Sample : 08-327-29
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 02:09:41 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.515	109564367	39.692	PPM
Spiked Amount		50.000		Recovery =	79.38%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	11804042	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	83676745	30.610	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	87069349	35.319	PPM
6)	H	Oil (06-07-18)	22.000	53808198	18.149	PPM
7)	H	Oil Acid Clean (06-12...	22.000	53808198	2.632	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	82822292	34.544	PPM
9)	H	Oil Combo (06-07-18)	22.000	47212889	14.867	PPM
10)	H	Oil Acid Clean Combo ...	22.000	47212889	0.047	PPM
11)	H	Alaska 102 DF2 ()	13.025	88240598	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	25380424	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	60373802	23.997	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	132618833	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	132618833	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	137458015	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	53266538	22.875	PPM
18)	H	Oil Acid Clean MO Com...	22.000	43546029	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	43546029	13.306	PPM

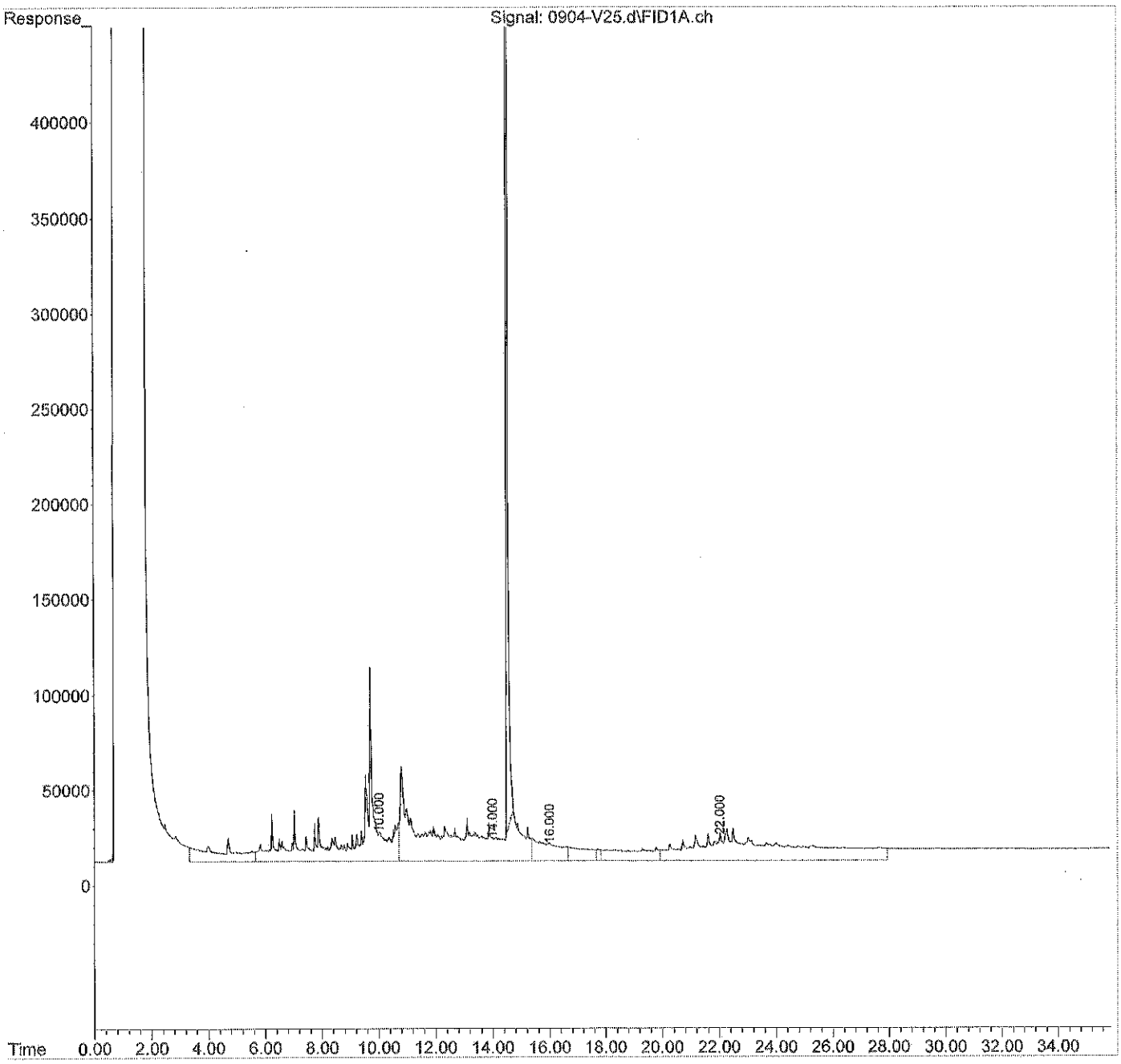
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V25.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 1:33
Operator : JT
Sample : 08-327-29
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 02:09:41 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V03.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 9:04
Operator : JT
Sample : 08-327-32 10X
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 09:40:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.507	17023404	6.620	PPM
Spiked Amount		50.000		Recovery =	13.24%	
Target Compounds						
2)		1-Chlorooctadecane (...	15.894	3349461	NoCal	PPM
3)	H	Gasoline	3.500	116045259	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	5129771670	2008.684	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	5278403121	2227.207	PPM
6)	H	Oil (06-07-18)	22.000	395574683	208.602	PPM
7)	H	Oil Acid Clean (06-12...	22.000	395574683	146.925	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	5219020656	2247.878	PPM
9)	H	Oil Combo (06-07-18)	22.000	223087151	114.411	PPM
10)	H	Oil Acid Clean Combo ...	22.000	223087151	75.399	PPM
11)	H	Alaska 102 DF2 ()	13.025	5290045456	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	117560039	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	2946079788	1155.884	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	5435902589	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	5435902589	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	5520167229	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	2883578211	1179.302	PPM
18)	H	Oil Acid Clean MO Com...	22.000	170480042	54.410	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	170480042	87.191	PPM

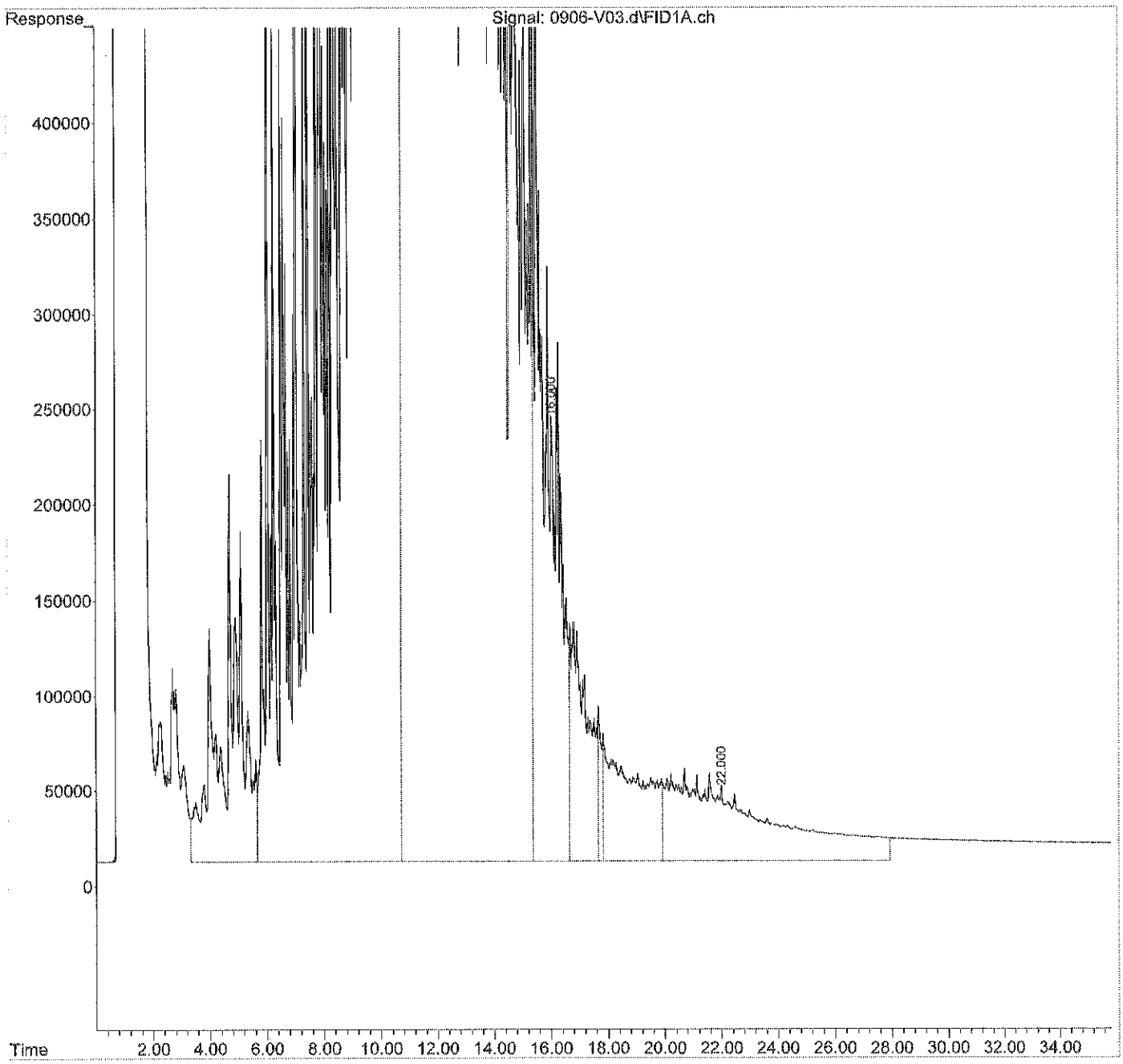
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V03.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 9:04
Operator : JT
Sample : 08-327-32 10X
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 09:40:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V07.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 13:09
Operator : JT
Sample : 08-327-33 5X
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 13:46:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.507	30468745	11.425	PPM
Spiked Amount	50.000		Recovery =	22.85%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	66011793	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	2656448337	1039.139	PPM
5) H	Diesel Fuel #2 (06-...	14.000	2731830262	1151.992	PPM
6) H	Oil (06-07-18)	22.000	243738853	123.990	PPM
7) H	Oil Acid Clean (06-12...	22.000	243738853	82.820	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	2700857248	1162.730	PPM
9) H	Oil Combo (06-07-18)	22.000	152250460	74.318	PPM
10) H	Oil Acid Clean Combo ...	22.000	152250460	45.049	PPM
11) H	Alaska 102 DF2 ()	13.025	2737804402	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	75934006	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	1507407782	591.581	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	2854433122	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	2854433122	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	2899405406	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	1475476403	603.971	PPM
18) H	Oil Acid Clean MO Com...	22.000	124711382	34.272	PPM
19) H	Oil MO Combo (06-07-18)	22.000	124711382	60.550	PPM

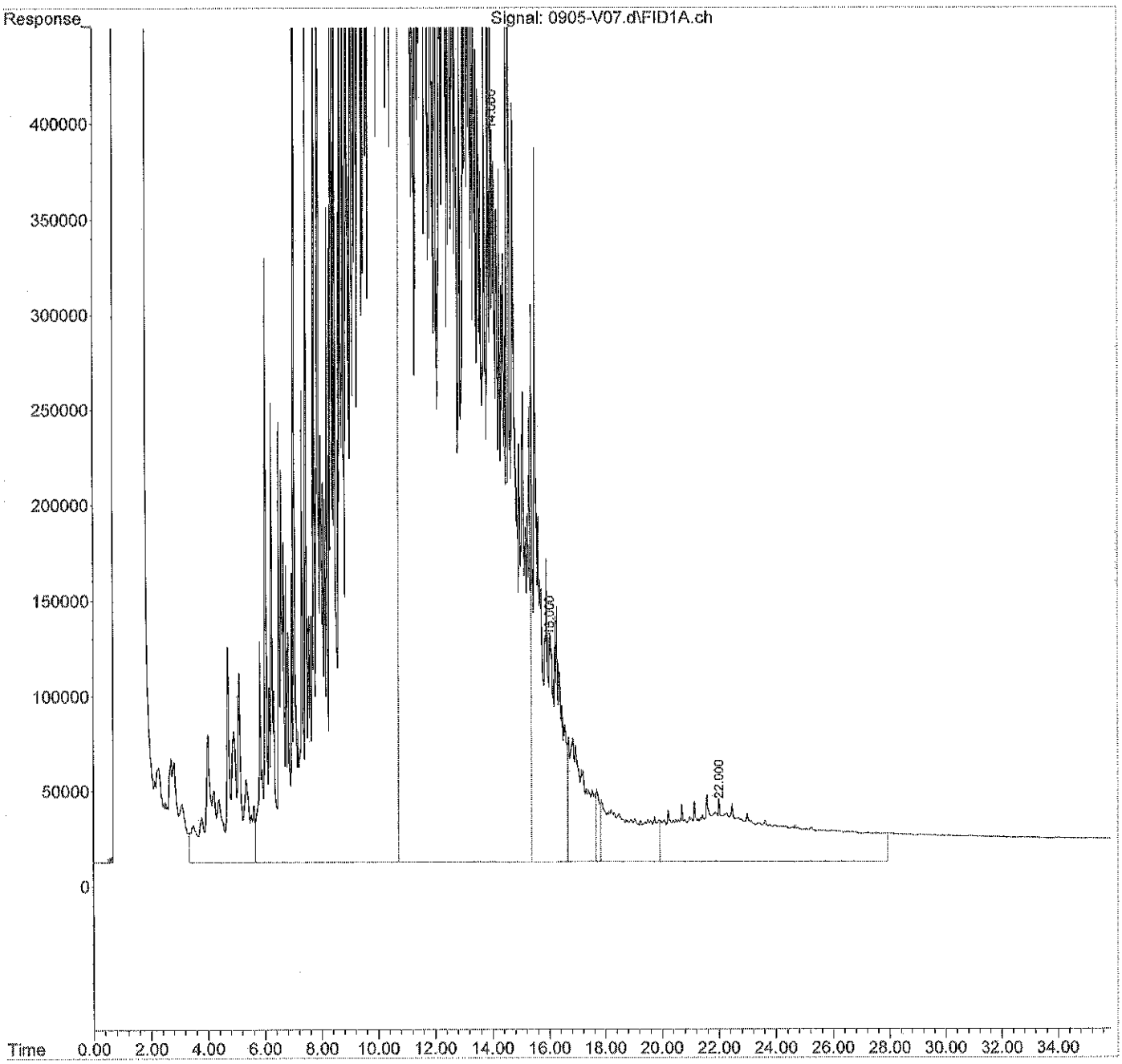
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V07.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 13:09
Operator : JT
Sample : 08-327-33 5X
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 13:46:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V19.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 21:33
Operator : JT
Sample : 08-327-34
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 22:09:26 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.518	127905781	46.247	PPM
Spiked Amount	50.000		Recovery =	92.49%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.910	3644052	NoCal	PPM
3) H	Gasoline	3.500	14366239	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	218298871	83.382	PPM
5) H	Diesel Fuel #2 (06-...	14.000	228949718	95.224	PPM
6) H	Oil (06-07-18)	22.000	58106560	20.544	PPM
7) H	Oil Acid Clean (06-12...	22.000	58106560	4.447	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	223591065	95.205	PPM
9) H	Oil Combo (06-07-18)	22.000	43461081	12.744	PPM
10) H	Oil Acid Clean Combo ...	22.000	43461081	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	230215090	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	21483480	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	135359220	53.410	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	269246766	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	269246766	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	276100549	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	128526444	53.625	PPM
18) H	Oil Acid Clean MO Com...	22.000	38724550	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	38724550	10.499	PPM

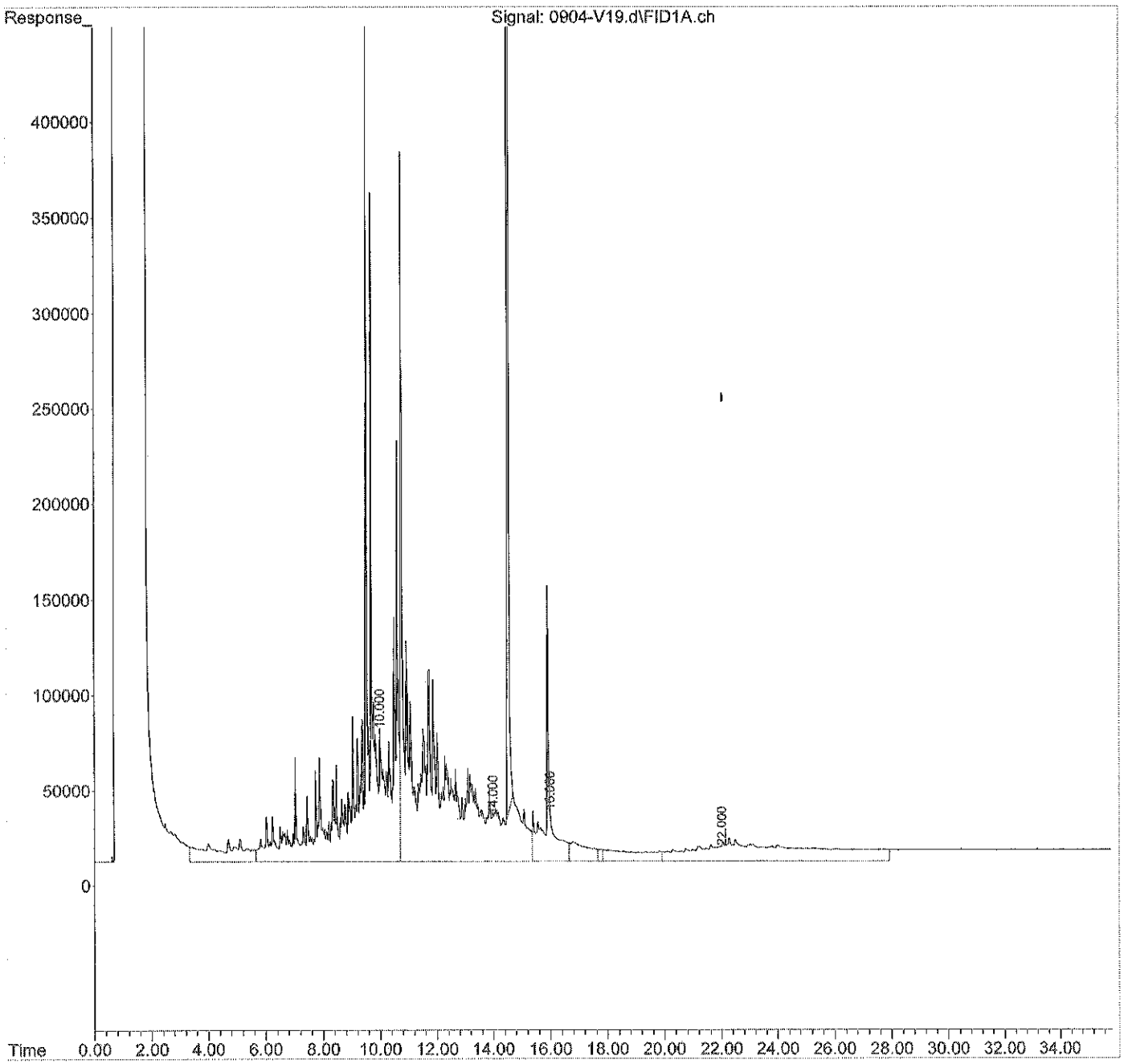
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V19.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 21:33
Operator : JT
Sample : 08-327-34
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 22:09:26 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V20.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 22:13
Operator : JT
Sample : 08-327-35
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 22:49:34 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	O-Terphenyl (06-07-18)	14.516	116254413	42.083	PPM
Spiked Amount	50.000		Recovery =	84.17%	
Target Compounds					
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	12504824	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	135733605	51.016	PPM
5) H	Diesel Fuel #2 (06-...	14.000	141668854	58.372	PPM
6) H	Oil (06-07-18)	22.000	50403293	16.251	PPM
7) H	Oil Acid Clean (06-12...	22.000	50403293	1.195	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	137385988	58.057	PPM
9) H	Oil Combo (06-07-18)	22.000	40782737	11.228	PPM
10) H	Oil Acid Clean Combo ...	22.000	40782737	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	142725841	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	20098376	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	87871684	34.783	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	180537552	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	180537552	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	185932565	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	82110131	34.660	PPM
18) H	Oil Acid Clean MO Com...	22.000	37012482	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	37012482	9.502	PPM

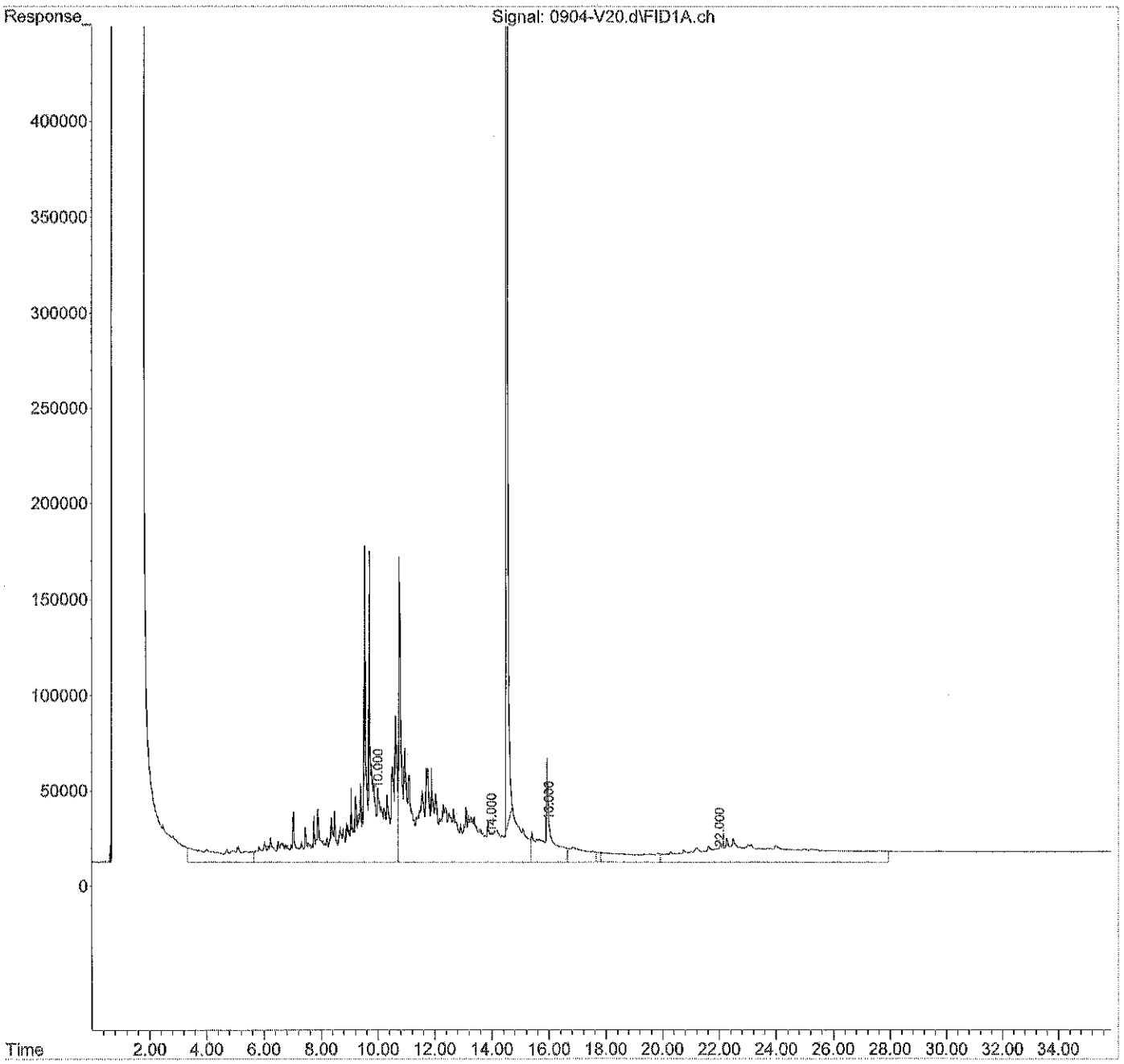
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V20.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 22:13
Operator : JT
Sample : 08-327-35
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 22:49:34 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V03.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 10:08
Operator : JT
Sample : 08-327-39
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 10:44:26 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

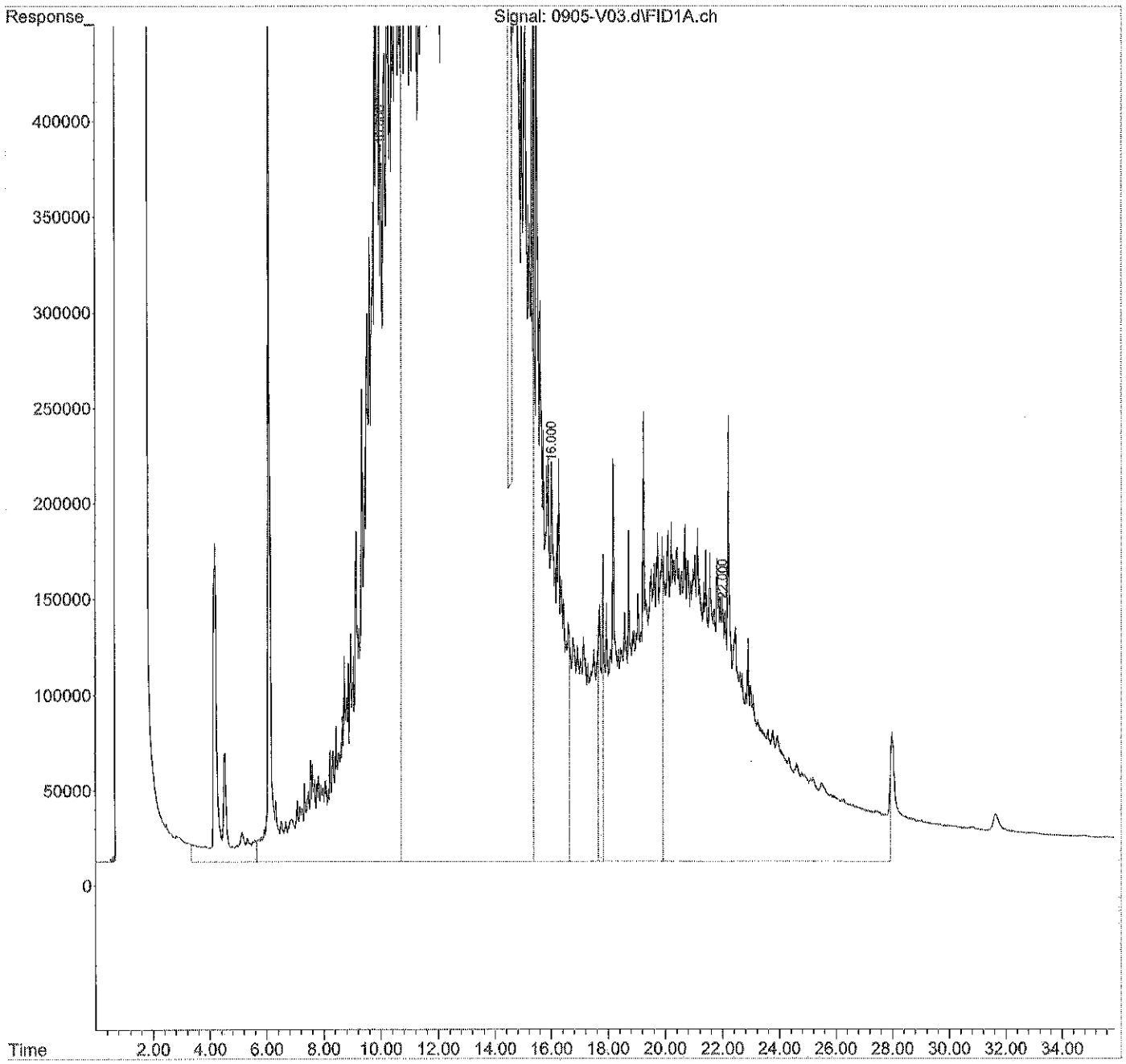
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.519	137685958	49.743	PPM
Spiked Amount	50.000		Recovery =	99.49%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	32936810	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	2110260142	825.033	PPM
5) H	Diesel Fuel #2 (06-...	14.000	2306579737	972.442	PPM
6) H	Oil (06-07-18)	22.000	755256318	409.038	PPM
7) H	Oil Acid Clean (06-12...	22.000	755256318	298.781	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	2232325625	960.826	PPM
9) H	Oil Combo (06-07-18)	22.000	606726047	331.549	PPM
10) H	Oil Acid Clean Combo ...	22.000	606726047	239.765	PPM
11) H	Alaska 102 DF2 ()	13.025	2328091520	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	418718657	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	2055871427	806.710	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	2854378265	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	2854378265	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	2874889482	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	1883541281	770.701	PPM
18) H	Oil Acid Clean MO Com...	22.000	544499334	218.977	PPM
19) H	Oil MO Combo (06-07-18)	22.000	544499334	304.899	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V03.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 10:08
Operator : JT
Sample : 08-327-39
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 10:44:26 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V24.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 00:33
Operator : JT
Sample : 08-327-41 5X
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 01:09:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.507	20316216	7.796	PPM
Spiked Amount	50.000		Recovery =	15.59%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	12068535	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	51095784	17.838	PPM
5) H	Diesel Fuel #2 (06-...	14.000	74829051	30.151	PPM
6) H	Oil (06-07-18)	22.000	284692616	146.812	PPM
7) H	Oil Acid Clean (06-12...	22.000	284692616	100.111	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	57519010	23.640	PPM
9) H	Oil Combo (06-07-18)	22.000	270716472	141.369	PPM
10) H	Oil Acid Clean Combo ...	22.000	270716472	95.805	PPM
11) H	Alaska 102 DF2 ()	13.025	80650801	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	185415423	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	104403588	41.268	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	337061065	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	337061065	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	339466821	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	52140365	22.415	PPM
18) H	Oil Acid Clean MO Com...	22.000	256243830	92.146	PPM
19) H	Oil MO Combo (06-07-18)	22.000	256243830	137.112	PPM

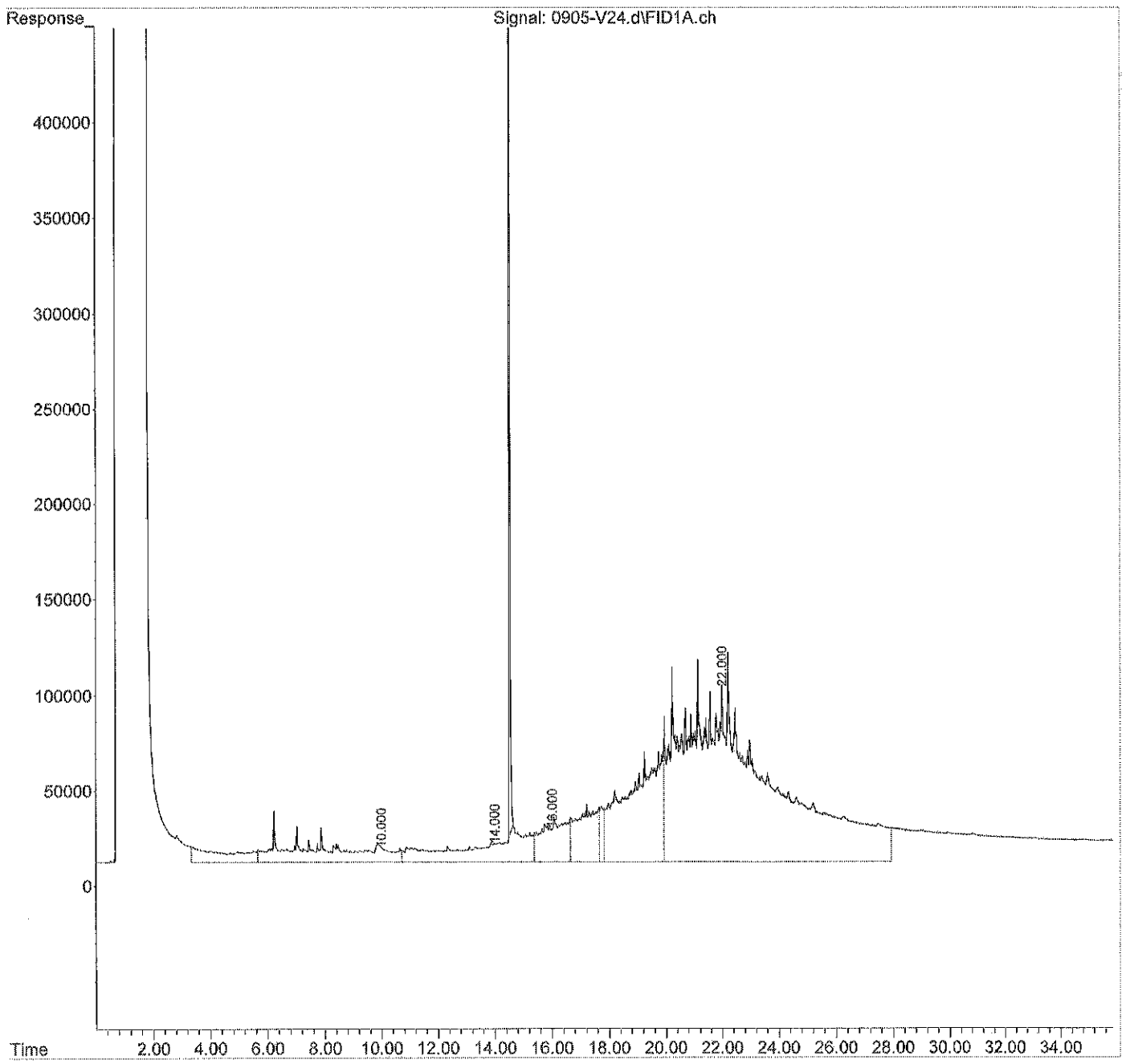
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V24.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 00:33
Operator : JT
Sample : 08-327-41 5X
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 01:09:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V19.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 21:12
Operator : JT
Sample : 08-327-42 5X
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 21:48:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

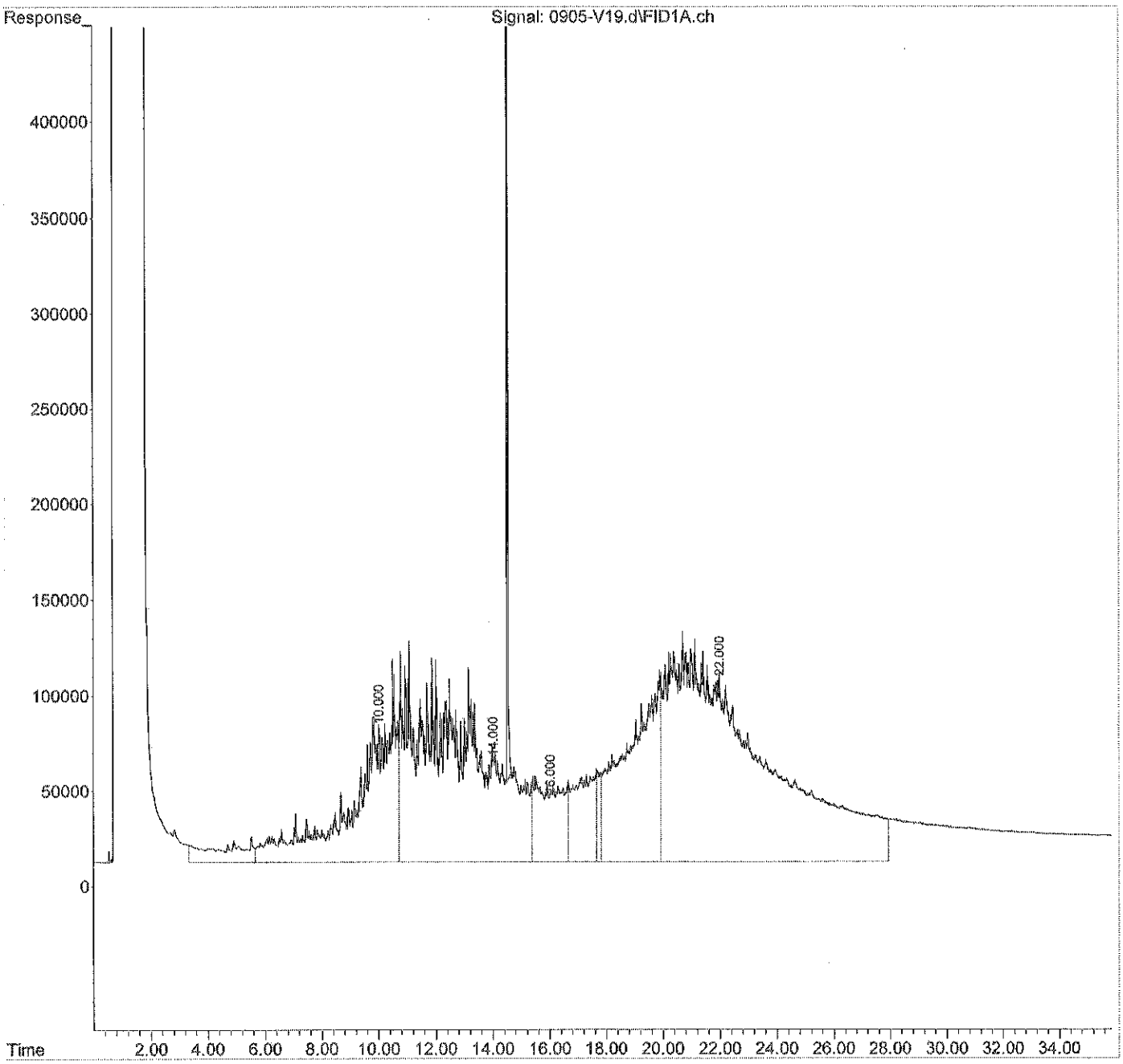
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.506	24653979	9.347	PPM
Spiked Amount	50.000		Recovery =	18.69%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H Gasoline	3.500	15531554	NoCal	PPM
4)	H Diesel Fuel #1 (06-12...	10.000	251981257	96.586	PPM
5)	H Diesel Fuel #2 (06-...	14.000	299713272	125.102	PPM
6)	H Oil (06-07-18)	22.000	405153253	213.940	PPM
7)	H Oil Acid Clean (06-12...	22.000	405153253	150.969	PPM
8)	H Diesel Fuel #2 Combo ...	14.000	270363501	115.361	PPM
9)	H Oil Combo (06-07-18)	22.000	376640283	201.321	PPM
10)	H Oil Acid Clean Combo ...	22.000	376640283	141.187	PPM
11)	H Alaska 102 DF2 ()	13.025	309251828	NoCal	PPM
12)	H Alaska 103 Oil ()	22.000	259470050	NoCal	PPM
13)	H Mineral Oil (06-08-18)	16.000	299105032	117.637	PPM
14)	H Bunker C ACU (Fuel Oi...	15.000	658008323	NoCal	PPM
15)	H Bunker C (Fuel Oil #6...	15.000	658008323	NoCal	PPM
16)	H ALKANE C9-C40 10-26-07	12.666	662092479	NoCal	PPM
17)	H Mineral Oil Combo (06...	16.000	214331921	88.684	PPM
18)	H Oil Acid Clean MO Com...	22.000	352019885	134.287	PPM
19)	H Oil MO Combo (06-07-18)	22.000	352019885	192.861	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V19.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 21:12
Operator : JT
Sample : 08-327-42 5X
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 21:48:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V27.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 2:53
Operator : JT
Sample : 08-327-43
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 03:29:35 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	O-Terphenyl (06-07-18)	14.519	129101992	46.675	PPM
Spiked Amount	50.000		Recovery =	93.35%	
Target Compounds					
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	28083970	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	173611512	65.865	PPM
5) H	Diesel Fuel #2 (06-...	14.000	270209784	112.645	PPM
6) H	Oil (06-07-18)	22.000	372658593	195.832	PPM
7) H	Oil Acid Clean (06-12...	22.000	372658593	137.250	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	206190690	87.707	PPM
9) H	Oil Combo (06-07-18)	22.000	317873459	168.060	PPM
10) H	Oil Acid Clean Combo ...	22.000	317873459	116.009	PPM
11) H	Alaska 102 DF2 ()	13.025	291154876	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	196990476	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	323293026	127.125	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	529043697	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	529043697	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	547838651	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	203116959	84.102	PPM
18) H	Oil Acid Clean MO Com...	22.000	269729577	98.080	PPM
19) H	Oil MO Combo (06-07-18)	22.000	269729577	144.962	PPM

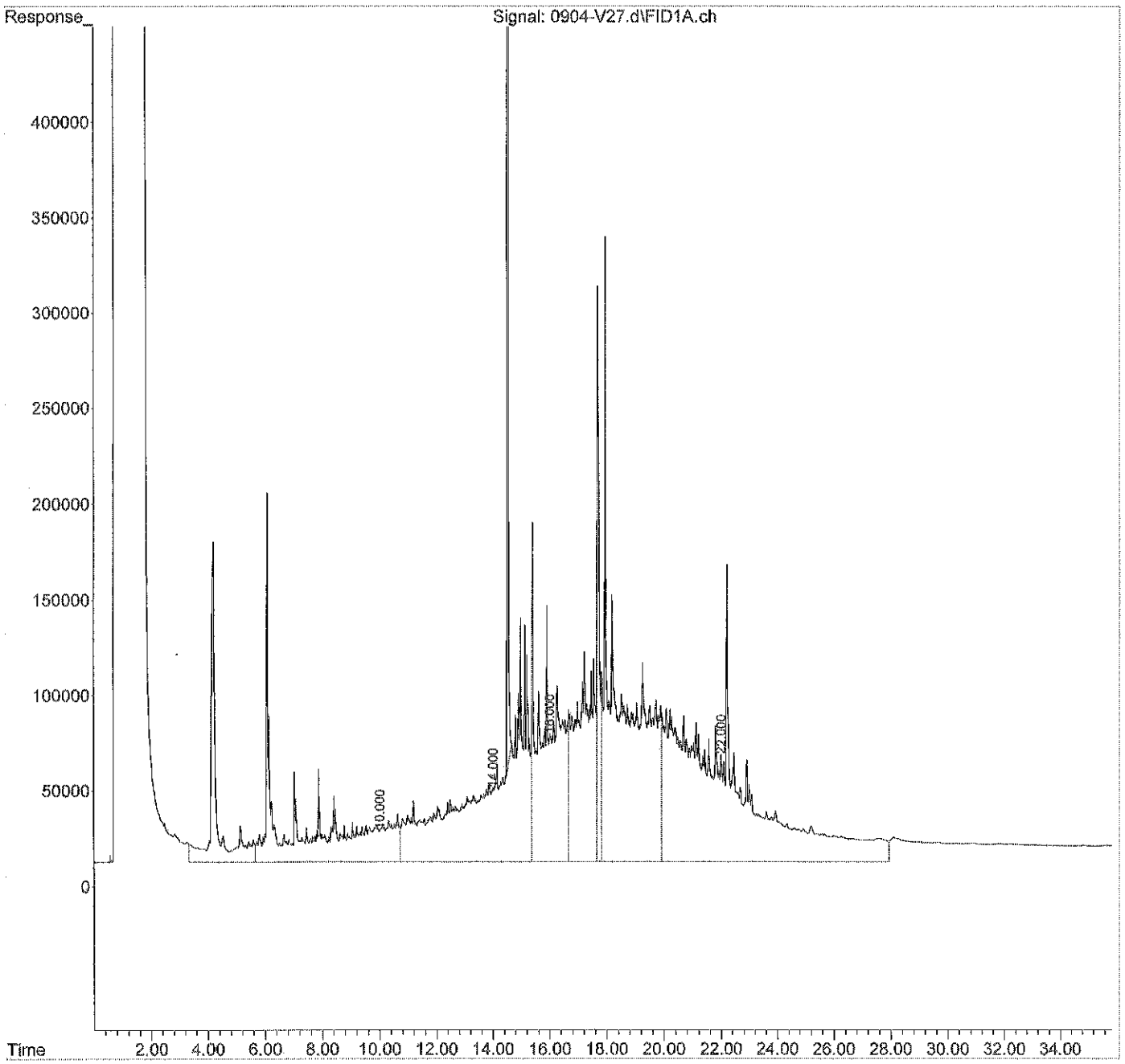
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V27.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 2:53
Operator : JT
Sample : 08-327-43
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 03:29:35 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V13.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 17:11
Operator : JT
Sample : 08-327-45 2X
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 17:47:25 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.513	79326484	28.886	PPM
Spiked Amount	50.000		Recovery =	57.77%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.894	2244235	NoCal	PPM
3) H	Gasoline	3.500	69898054	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	3701963859	1448.982	PPM
5) H	Diesel Fuel #2 (06-...	14.000	3831848678	1616.442	PPM
6) H	Oil (06-07-18)	22.000	346615972	181.319	PPM
7) H	Oil Acid Clean (06-12...	22.000	346615972	126.255	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	3784537881	1629.719	PPM
9) H	Oil Combo (06-07-18)	22.000	214217319	109.391	PPM
10) H	Oil Acid Clean Combo ...	22.000	214217319	71.598	PPM
11) H	Alaska 102 DF2 ()	13.025	3841339564	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	118738030	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	2238658975	878.406	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	3997648734	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	3997648734	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	4046716393	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2184460675	893.652	PPM
18) H	Oil Acid Clean MO Com...	22.000	172370896	55.242	PPM
19) H	Oil MO Combo (06-07-18)	22.000	172370896	88.292	PPM

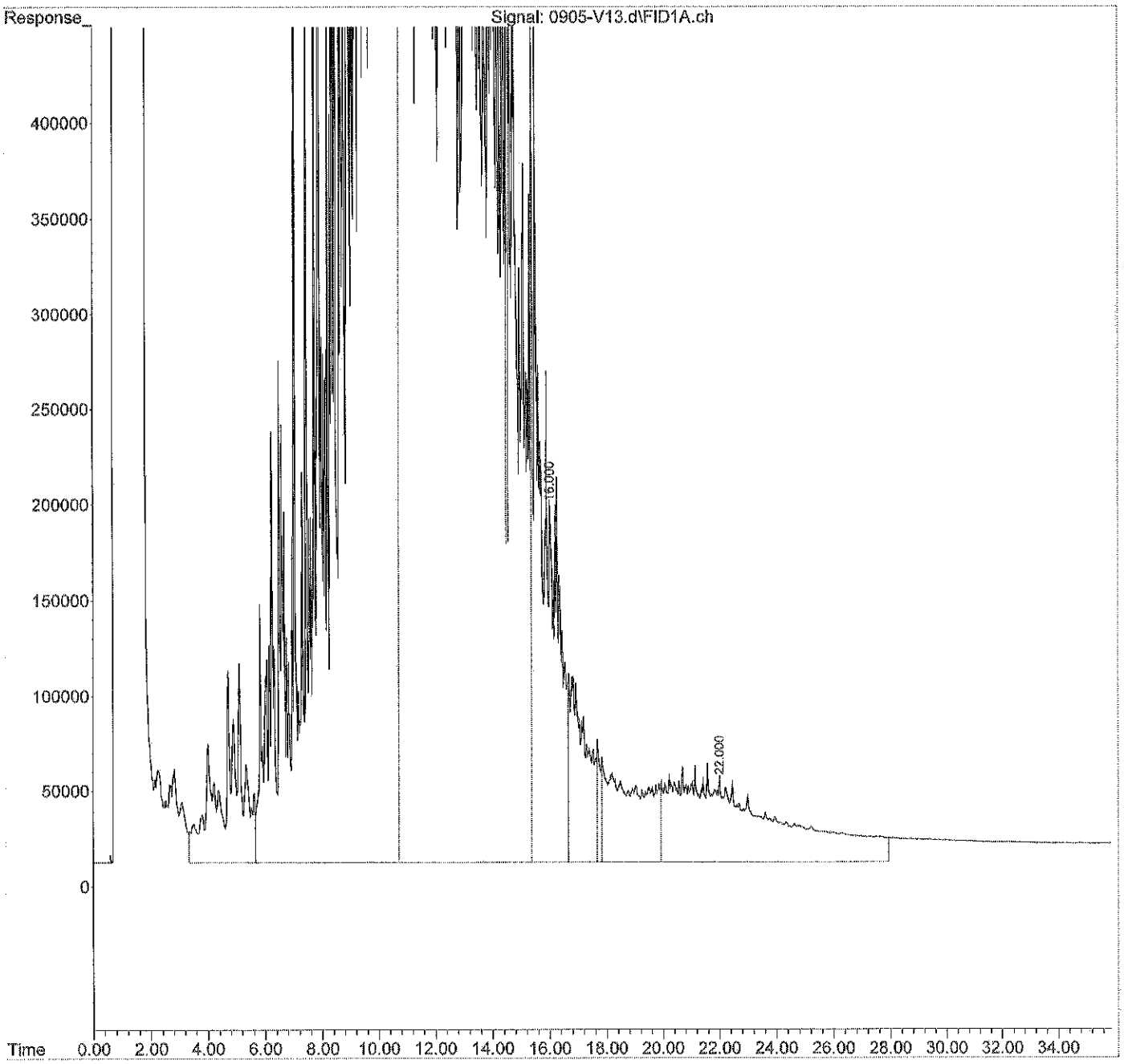
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V13.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 17:11
Operator : JT
Sample : 08-327-45 2X
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 17:47:25 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V17.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 20:13
Operator : JT
Sample : 08-327-46
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 20:49:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.516	119532210	43.255	PPM
Spiked Amount	50.000		Recovery =	86.51%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	9979880	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	31694918	10.233	PPM
5) H	Diesel Fuel #2 (06-...	14.000	30868977	11.590	PPM
6) H	Oil (06-07-18)	22.000	38126233	9.410	PPM
7) H	Oil Acid Clean (06-12...	22.000	38126233	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	28797785	11.263	PPM
9) H	Oil Combo (06-07-18)	22.000	34890972	7.893	PPM
10) H	Oil Acid Clean Combo ...	22.000	34890972	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	31500067	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	17486600	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	21943958	8.924	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	66217698	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	66217698	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	69805091	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	18192863	8.545	PPM
18) H	Oil Acid Clean MO Com...	22.000	33108665	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	33108665	7.230	PPM

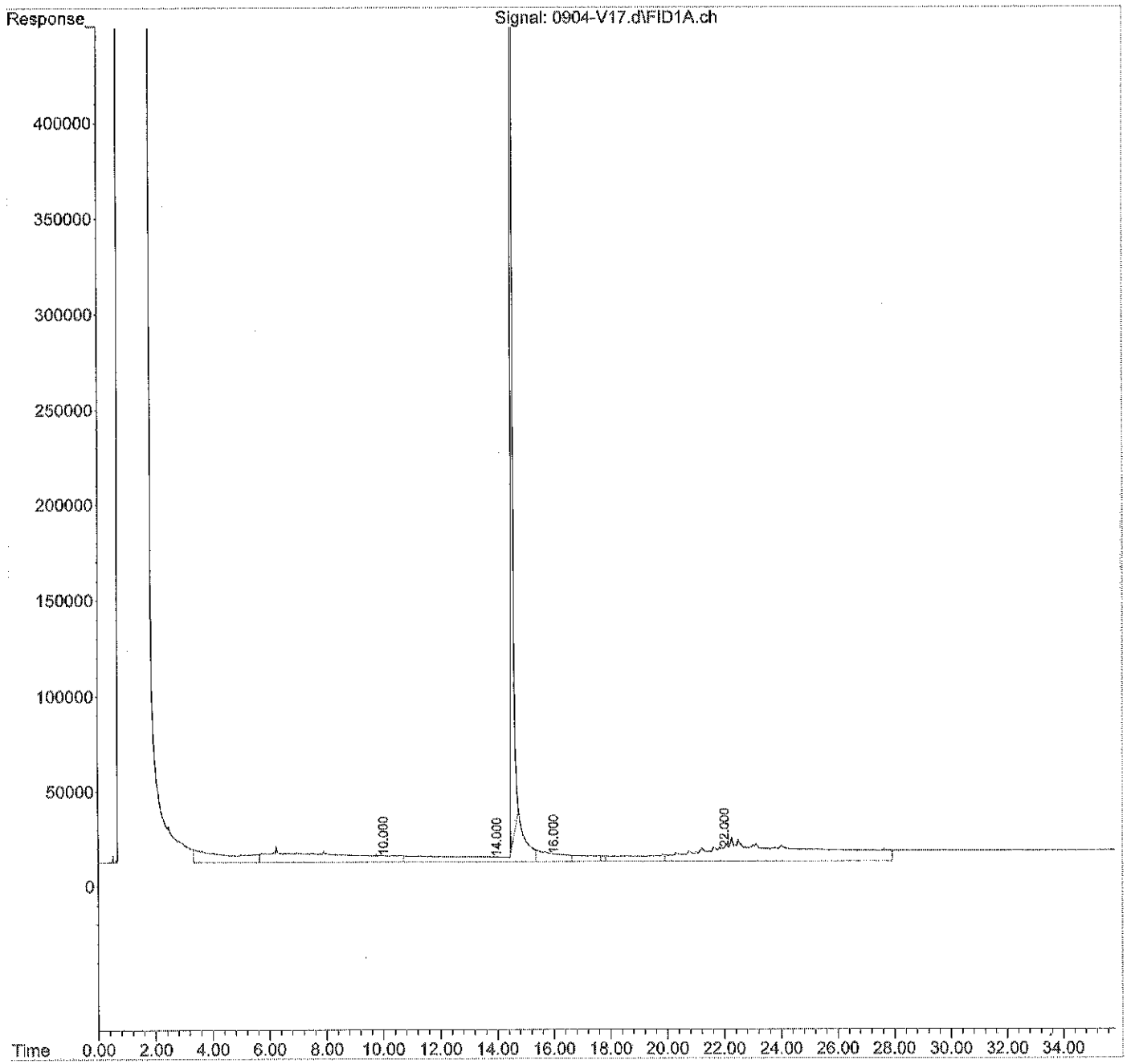
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V17.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 20:13
Operator : JT
Sample : 08-327-46
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 20:49:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V07.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 13:32
Operator : JT
Sample : MB0904S2
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 14:08:01 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	O-Terphenyl (06-07-18)	14.515	110041530	39.863	PPM
Spiked Amount	50.000		Recovery =	79.73%	
Target Compounds					
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	9665709	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	29197332	9.254	PPM
5) H	Diesel Fuel #2 (06-...	14.000	28336874	10.521	PPM
6) H	Oil (06-07-18)	22.000	39912253	10.405	PPM
7) H	Oil Acid Clean (06-12...	22.000	39912253	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	26406230	10.232	PPM
9) H	Oil Combo (06-07-18)	22.000	36811662	8.980	PPM
10) H	Oil Acid Clean Combo ...	22.000	36811662	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	28943265	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	18144474	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	20483094	8.351	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	65956783	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	65956783	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	69238137	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	16883982	8.010	PPM
18) H	Oil Acid Clean MO Com...	22.000	35171583	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	35171583	8.431	PPM

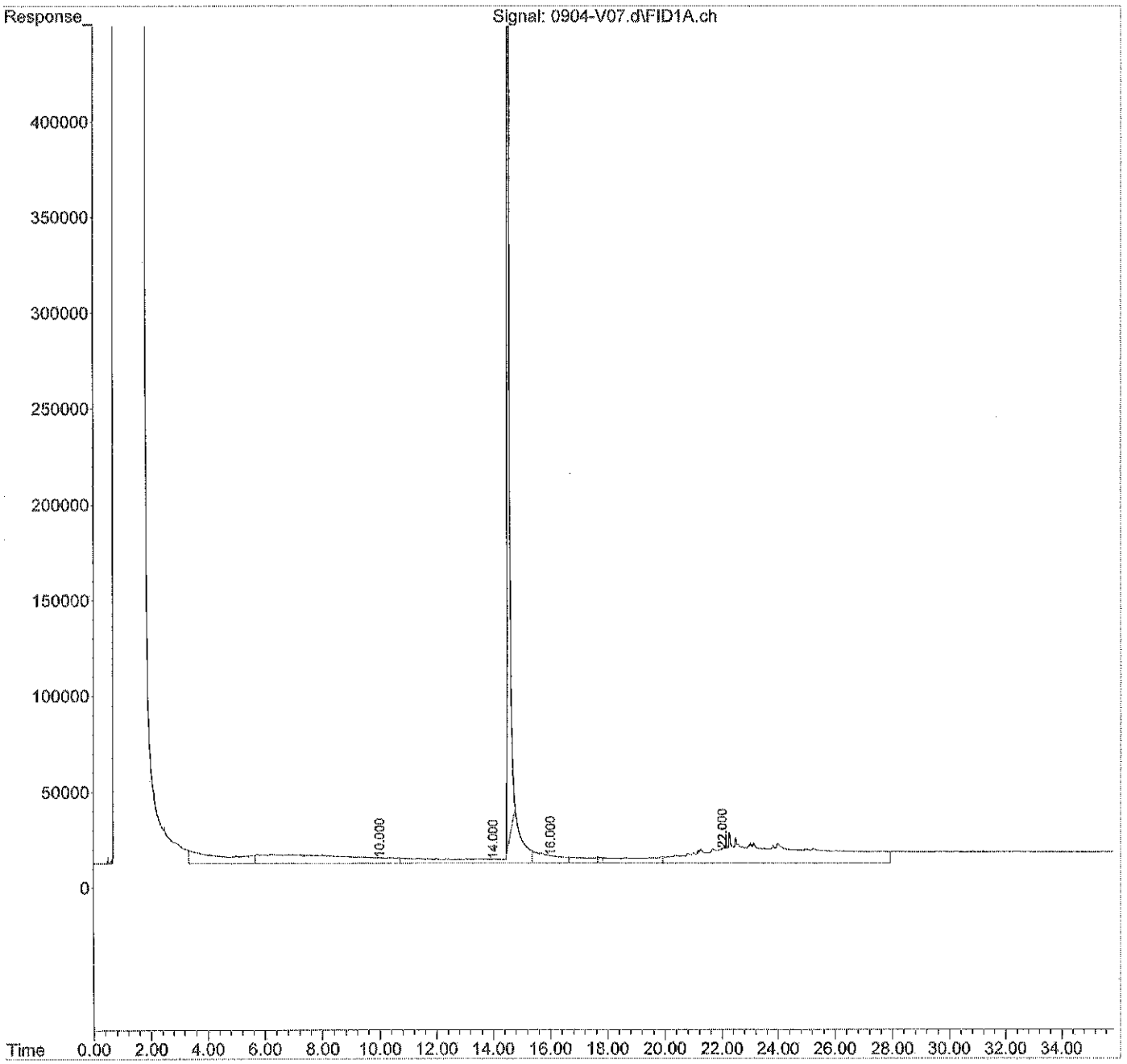
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V07.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 13:32
Operator : JT
Sample : MB0904S2
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 14:08:01 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V08.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 14:12
Operator : JT
Sample : MB0904S3
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 14:48:02 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.516	117248353	42.439	PPM
Spiked Amount	50.000		Recovery =	84.88%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	10205316	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	29874749	9.520	PPM
5) H	Diesel Fuel #2 (06-...	14.000	28892921	10.756	PPM
6) H	Oil (06-07-18)	22.000	37667485	9.154	PPM
7) H	Oil Acid Clean (06-12...	22.000	37667485	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	26859080	10.428	PPM
9) H	Oil Combo (06-07-18)	22.000	34419921	7.626	PPM
10) H	Oil Acid Clean Combo ...	22.000	34419921	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	29515440	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16453535	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	20497237	8.356	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	63966139	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	63966139	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	67560691	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	16907213	8.019	PPM
18) H	Oil Acid Clean MO Com...	22.000	32671580	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	32671580	6.976	PPM

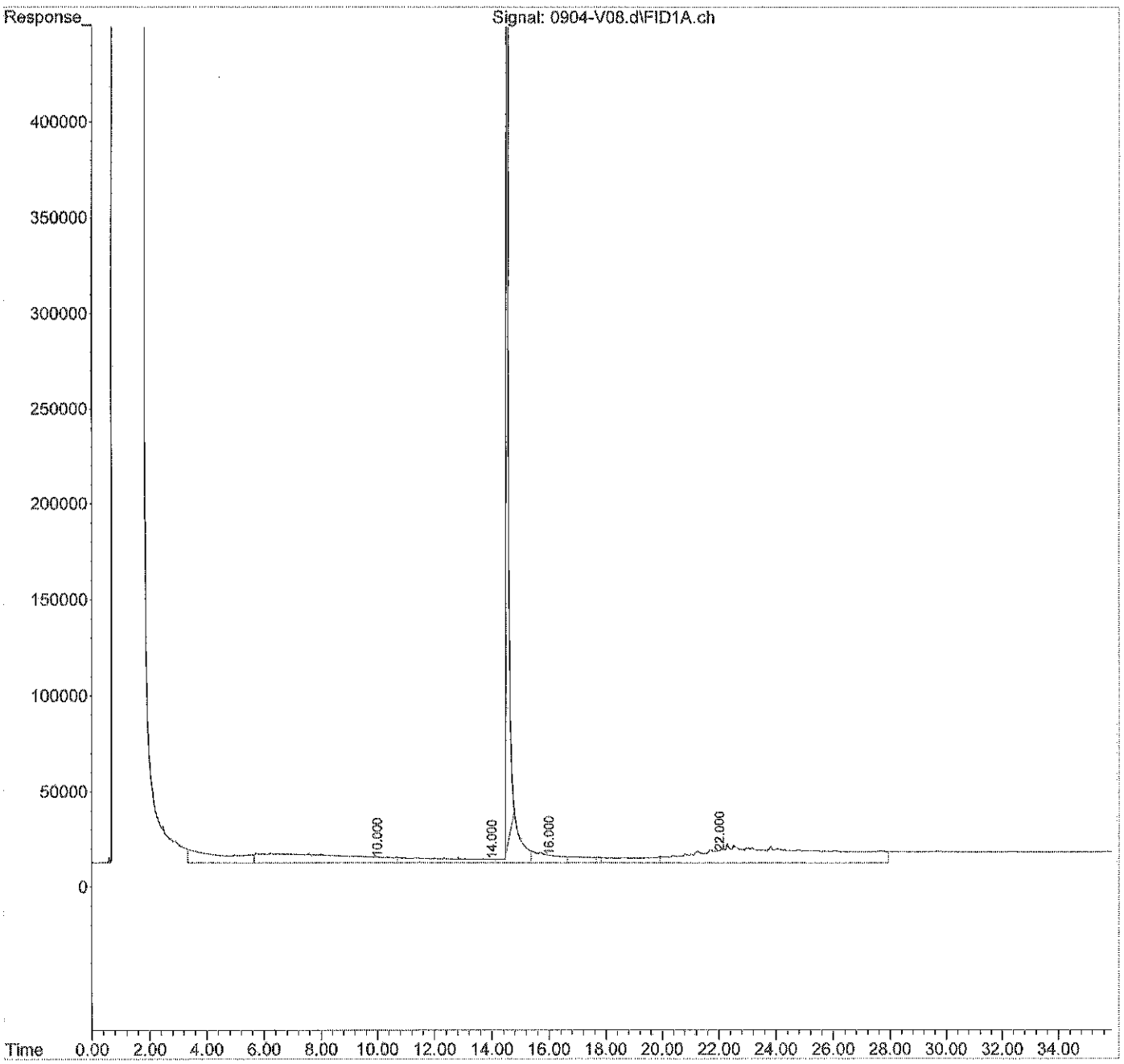
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V08.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 14:12
Operator : JT
Sample : MB0904S3
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 14:48:02 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V16.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 19:32
Operator : JT
Sample : 08-327-13 DUP
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 20:08:39 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.514	105767916	38.336	PPM
Spiked Amount	50.000		Recovery =	76.67%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	10231169	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	30269442	9.674	PPM
5) H	Diesel Fuel #2 (06-...	14.000	29183475	10.879	PPM
6) H	Oil (06-07-18)	22.000	36829549	8.687	PPM
7) H	Oil Acid Clean (06-12...	22.000	36829549	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	27142044	10.549	PPM
9) H	Oil Combo (06-07-18)	22.000	33660398	7.196	PPM
10) H	Oil Acid Clean Combo ...	22.000	33660398	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	29811938	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16229163	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	20367964	8.305	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	63385300	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	63385300	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	67063427	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	16815175	7.982	PPM
18) H	Oil Acid Clean MO Com...	22.000	31902643	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	31902643	6.528	PPM

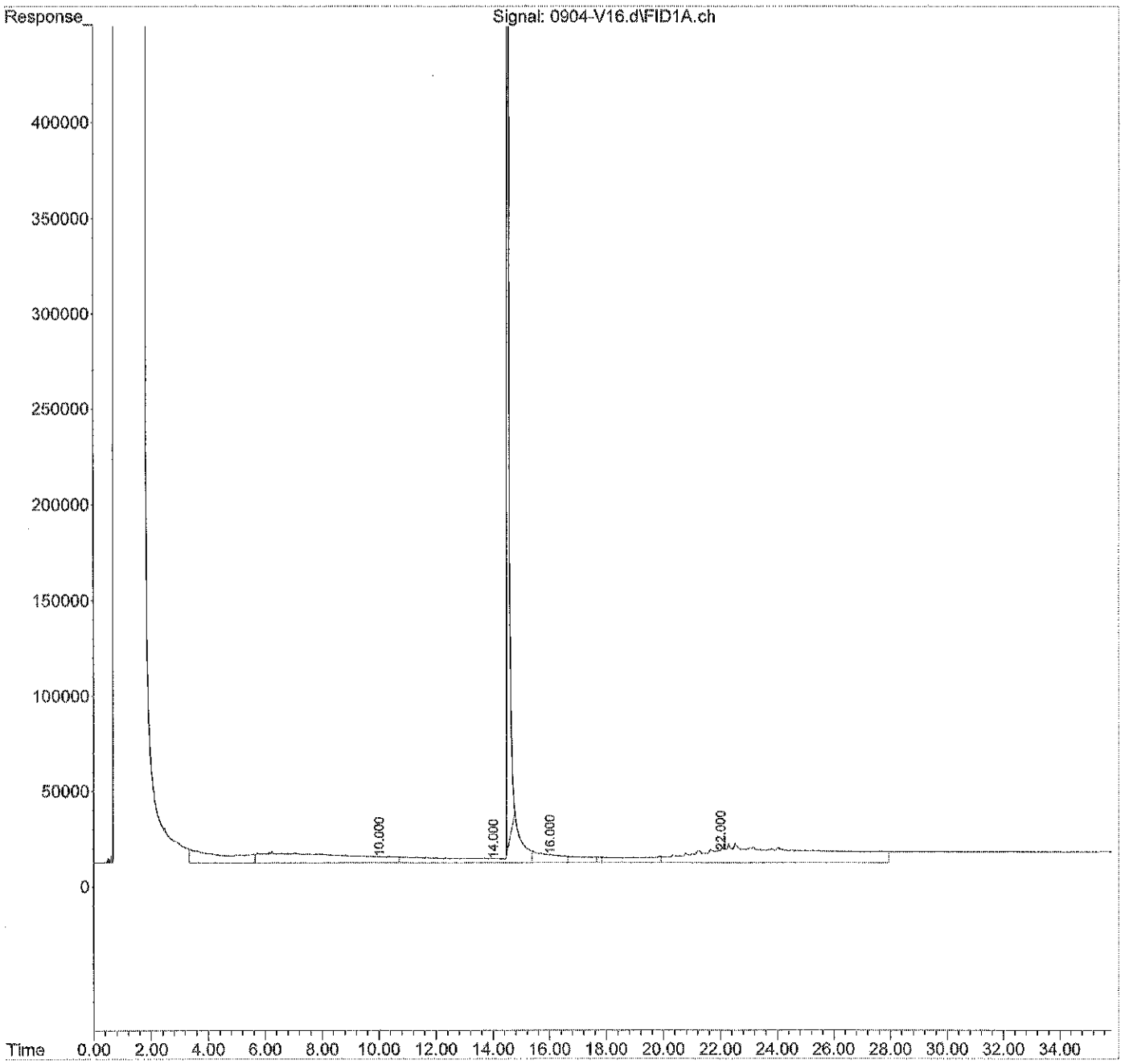
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V16.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 19:32
Operator : JT
Sample : 08-327-13 DUP
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 20:08:39 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V14.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 18:12
Operator : JT
Sample : 08-327-19 DUP
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 18:48:34 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

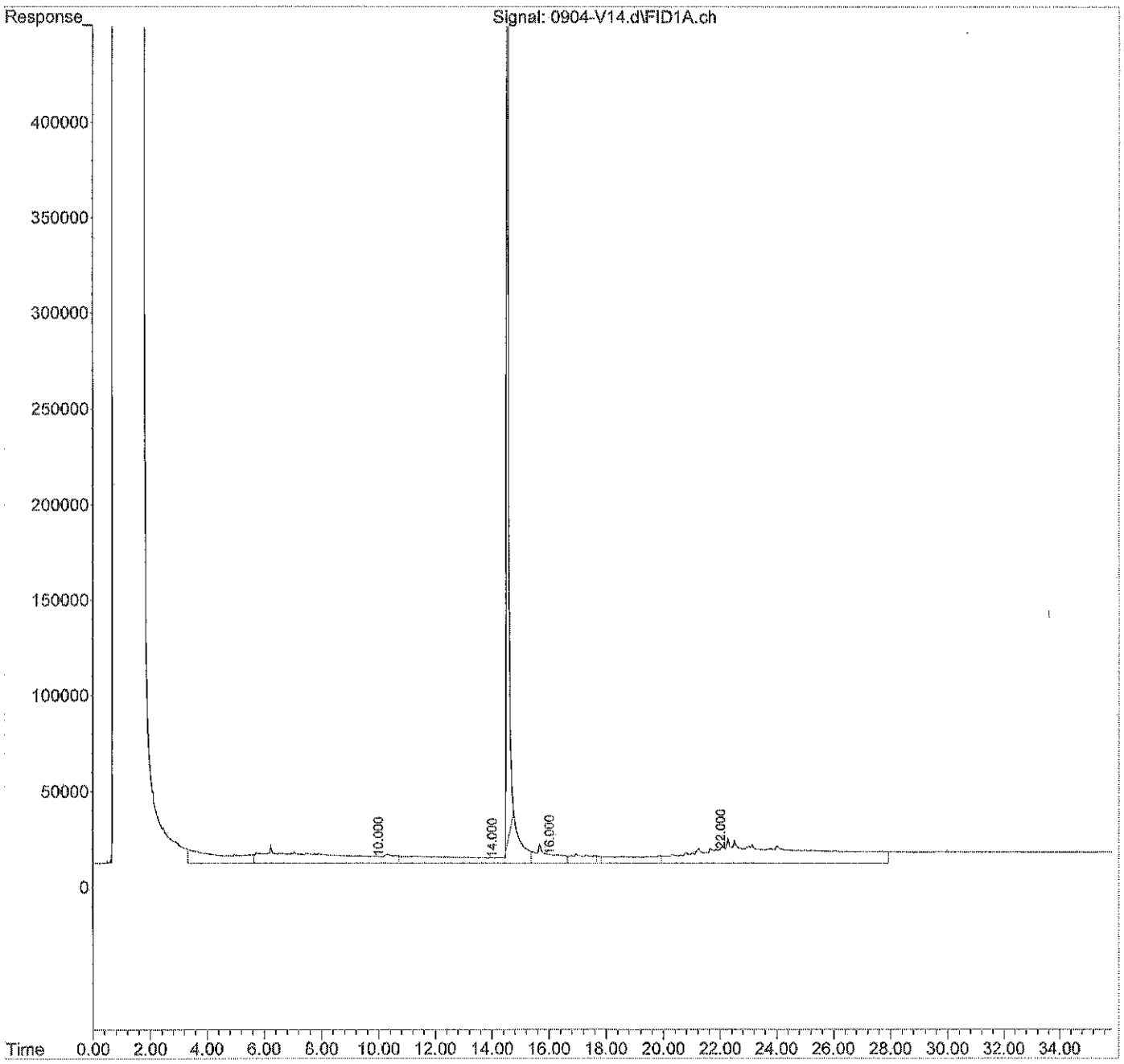
		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.513	90678298	32.943	PPM
Spiked Amount		50.000		Recovery =	65.89%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	10346552	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	32847889	10.685	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	32701608	12.364	PPM
6)	H	Oil (06-07-18)	22.000	41002511	11.013	PPM
7)	H	Oil Acid Clean (06-12...	22.000	41002511	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	30152495	11.847	PPM
9)	H	Oil Combo (06-07-18)	22.000	37319725	9.268	PPM
10)	H	Oil Acid Clean Combo ...	22.000	37319725	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	33422067	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	18494102	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	23818889	9.659	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	70150653	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	70150653	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	73857829	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	19517312	9.086	PPM
18)	H	Oil Acid Clean MO Com...	22.000	35118939	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	35118939	8.400	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V14.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 18:12
Operator : JT
Sample : 08-327-19 DUP
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 18:48:34 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V18.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 20:53
Operator : JT
Sample : 08-327-46 DUP
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 21:29:20 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

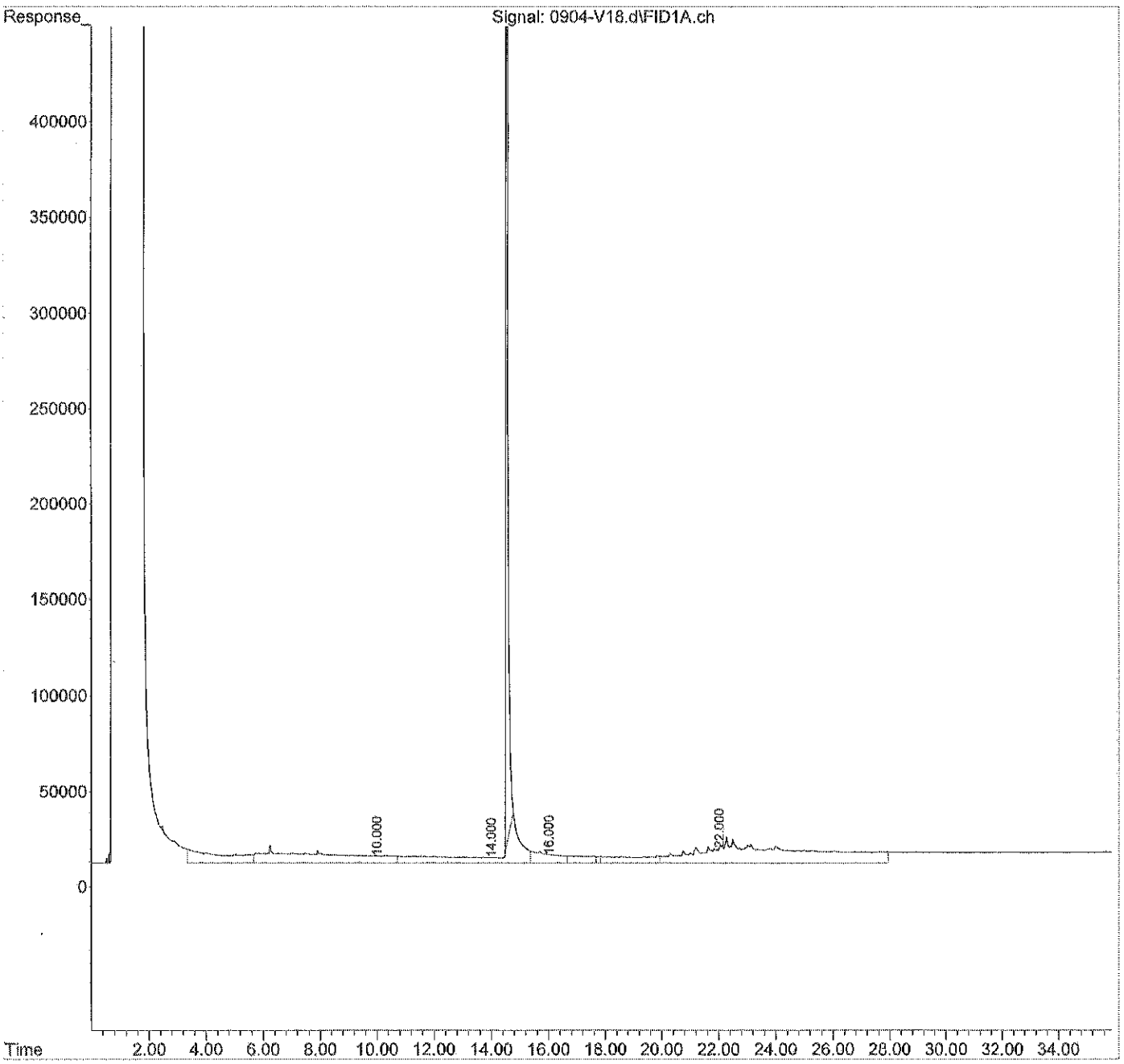
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.517	126156292	45.622	PPM
Spiked Amount	50.000		Recovery =	91.24%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	10497002	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	33728573	11.030	PPM
5) H	Diesel Fuel #2 (06-...	14.000	33255360	12.598	PPM
6) H	Oil (06-07-18)	22.000	40909435	10.961	PPM
7) H	Oil Acid Clean (06-12...	22.000	40909435	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	30802222	12.127	PPM
9) H	Oil Combo (06-07-18)	22.000	37347862	9.284	PPM
10) H	Oil Acid Clean Combo ...	22.000	37347862	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	33993290	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	18937113	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	23955385	9.713	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	70702347	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	70702347	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	74566749	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	19630846	9.132	PPM
18) H	Oil Acid Clean MO Com...	22.000	35236840	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	35236840	8.469	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V18.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 20:53
Operator : JT
Sample : 08-327-46 DUP
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 21:29:20 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V01.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 7:52
Operator : JT
Sample : CCV0904F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 08:28:02 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29618647	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	231999773	88.753	PPM
5) H	Diesel Fuel #2 (06-...	14.000	230482323	95.871	PPM
6) H	Oil (06-07-18)	22.000	57865112	20.410	PPM
7) H	Oil Acid Clean (06-12...	22.000	57865112	4.345	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	224548009	95.617	PPM
9) H	Oil Combo (06-07-18)	22.000	45246884	13.754	PPM
10) H	Oil Acid Clean Combo ...	22.000	45246884	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	232092142	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	19679490	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	147324338	58.103	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271154073	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271154073	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	288258105	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	141457373	58.909	PPM
18) H	Oil Acid Clean MO Com...	22.000	39950506	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	39950506	11.213	PPM

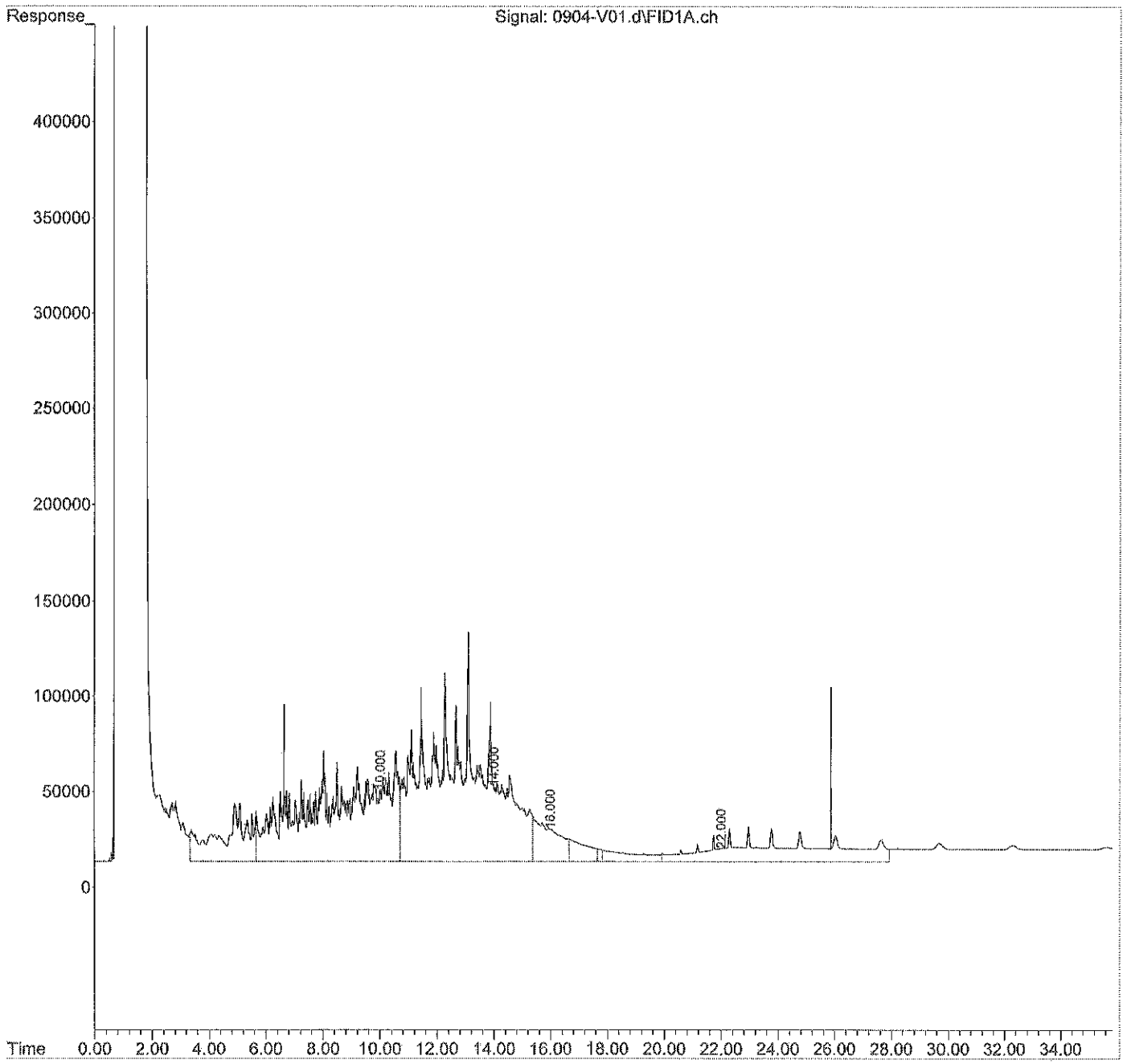
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V01.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 7:52
Operator : JT
Sample : CCV0904F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 08:28:02 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V11.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 16:12
Operator : JT
Sample : CCV0904F-V2
Misc : SV3-29-03
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 16:48:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
Target Compounds					
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	28990581	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	240710643	92.168	PPM
5) H	Diesel Fuel #2 (06-...	14.000	240422056	100.068	PPM
6) H	Oil (06-07-18)	22.000	49976132	16.013	PPM
7) H	Oil Acid Clean (06-12...	22.000	49976132	1.014	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	234165926	99.762	PPM
9) H	Oil Combo (06-07-18)	22.000	36393141	8.743	PPM
10) H	Oil Acid Clean Combo ...	22.000	36393141	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	242058132	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15072727	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	155315696	61.237	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271490465	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271490465	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	288731293	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	149805559	62.320	PPM
18) H	Oil Acid Clean MO Com...	22.000	30781257	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	30781257	5.875	PPM

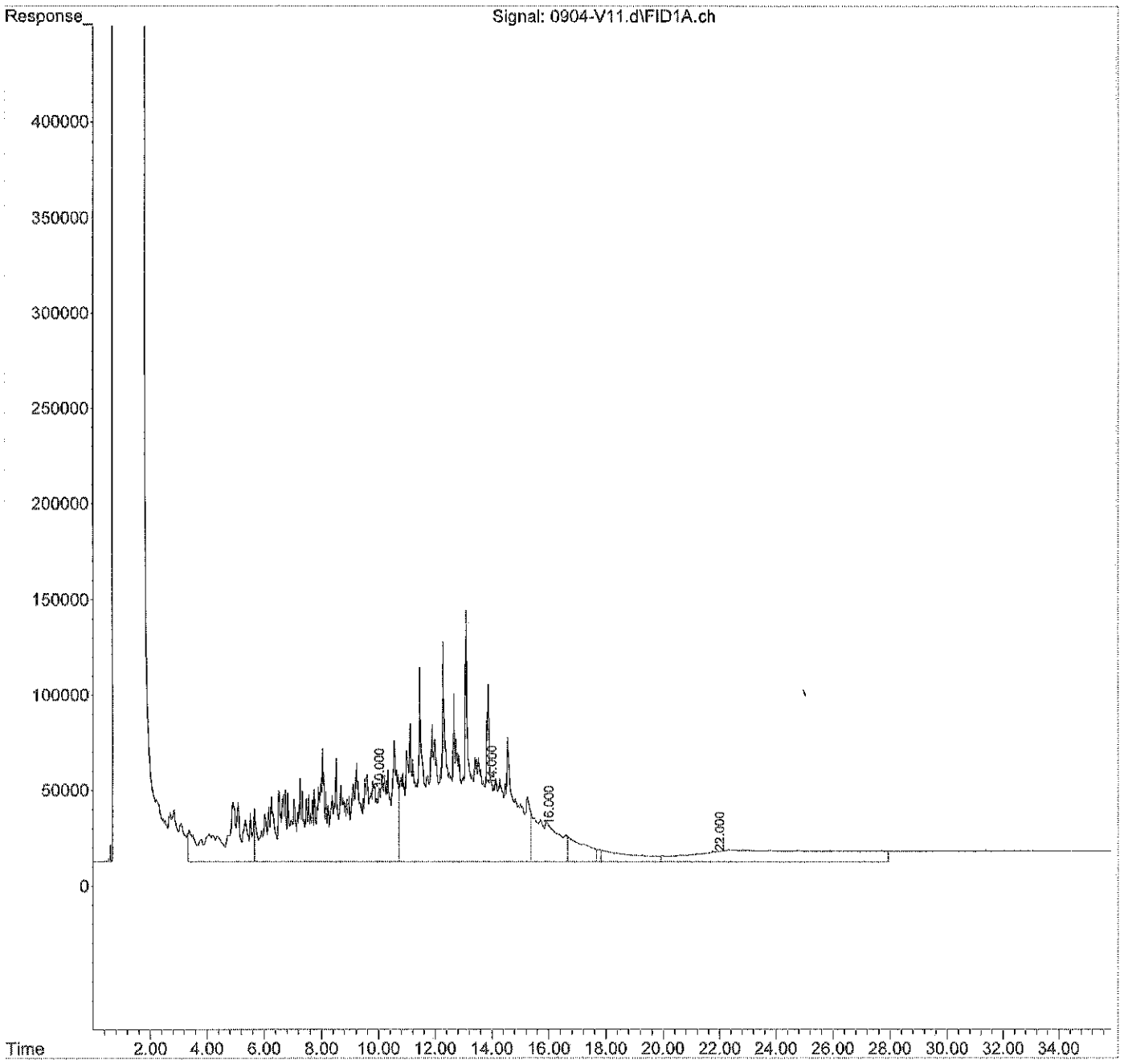
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V11.d
Signal(s) : FID1A.ch
Acq On : 4 Sep 2018 16:12
Operator : JT
Sample : CCV0904F-V2
Misc : SV3-29-03
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 04 16:48:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V23.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 00:13
Operator : JT
Sample : CCV0904F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 00:49:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

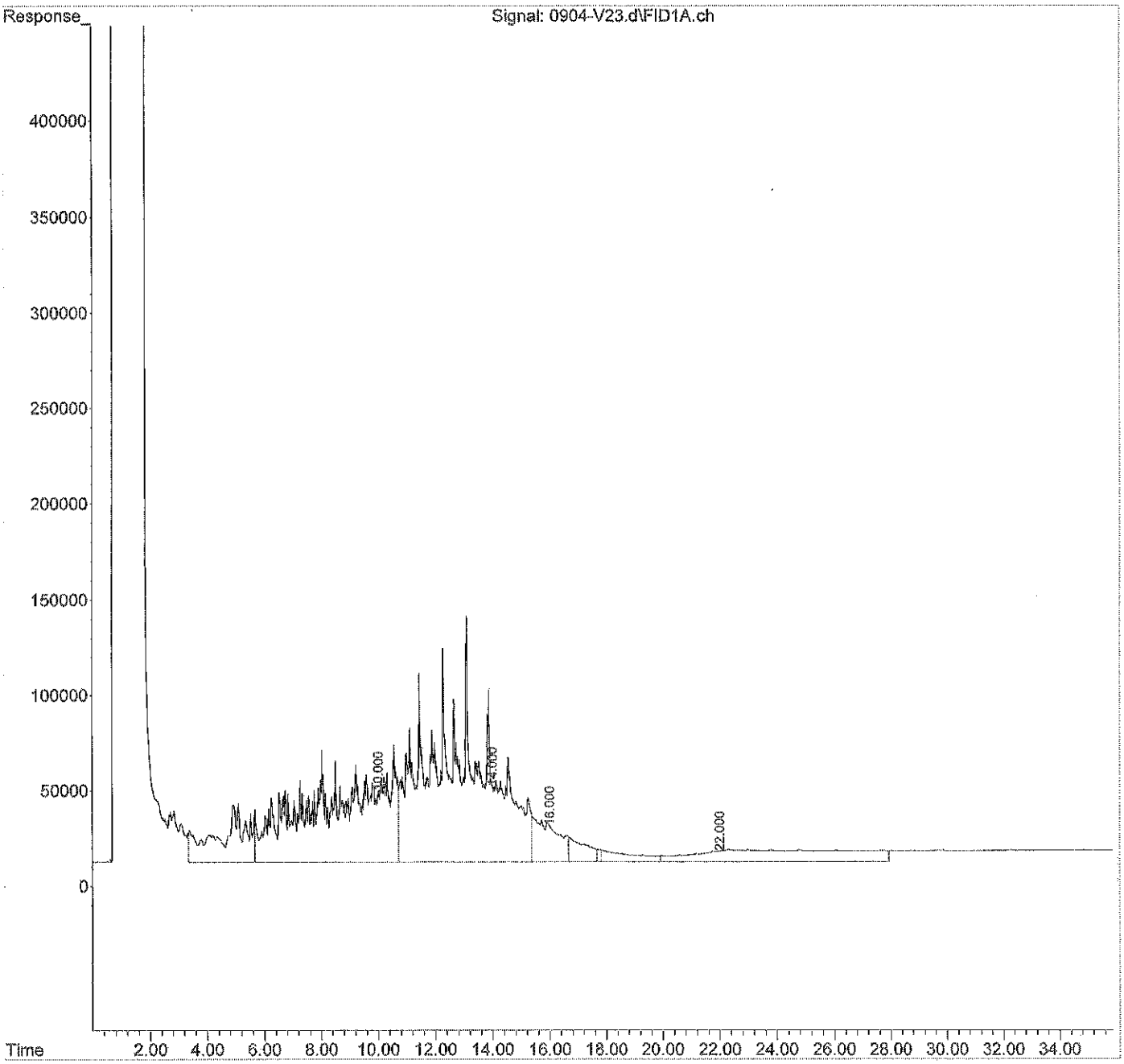
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H Gasoline	3.500	28962303	NoCal	PPM
4)	H Diesel Fuel #1 (06-12...	10.000	235422780	90.095	PPM
5)	H Diesel Fuel #2 (06-...	14.000	234706891	97.655	PPM
6)	H Oil (06-07-18)	22.000	49226981	15.596	PPM
7)	H Oil Acid Clean (06-12...	22.000	49226981	0.698	PPM
8)	H Diesel Fuel #2 Combo ...	14.000	228599665	97.363	PPM
9)	H Oil Combo (06-07-18)	22.000	35965462	8.501	PPM
10)	H Oil Acid Clean Combo ...	22.000	35965462	N.D.	PPM
11)	H Alaska 102 DF2 ()	13.025	236322842	NoCal	PPM
12)	H Alaska 103 Oil ()	22.000	14844169	NoCal	PPM
13)	H Mineral Oil (06-08-18)	16.000	151055591	59.566	PPM
14)	H Bunker C ACU (Fuel Oi...	15.000	265515307	NoCal	PPM
15)	H Bunker C (Fuel Oil #6...	15.000	265515307	NoCal	PPM
16)	H ALKANE C9-C40 10-26-07	12.666	282654749	NoCal	PPM
17)	H Mineral Oil Combo (06...	16.000	145702160	60.643	PPM
18)	H Oil Acid Clean MO Com...	22.000	30490289	N.D.	PPM
19)	H Oil MO Combo (06-07-18)	22.000	30490289	5.706	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V23.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 00:13
Operator : JT
Sample : CCV0904F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 00:49:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V34.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 8:06
Operator : JT
Sample : CCV0904F-V4
Misc : SV3-29-03
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 08:42:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29386372	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	245310223	93.971	PPM
5) H	Diesel Fuel #2 (06-...	14.000	245793960	102.336	PPM
6) H	Oil (06-07-18)	22.000	59309722	21.215	PPM
7) H	Oil Acid Clean (06-12...	22.000	59309722	4.955	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	239187175	101.926	PPM
9) H	Oil Combo (06-07-18)	22.000	45033563	13.634	PPM
10) H	Oil Acid Clean Combo ...	22.000	45033563	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	247503662	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	19420916	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	160209285	63.157	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	286063217	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	286063217	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	303090856	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153752480	63.932	PPM
18) H	Oil Acid Clean MO Com...	22.000	39216299	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	39216299	10.785	PPM

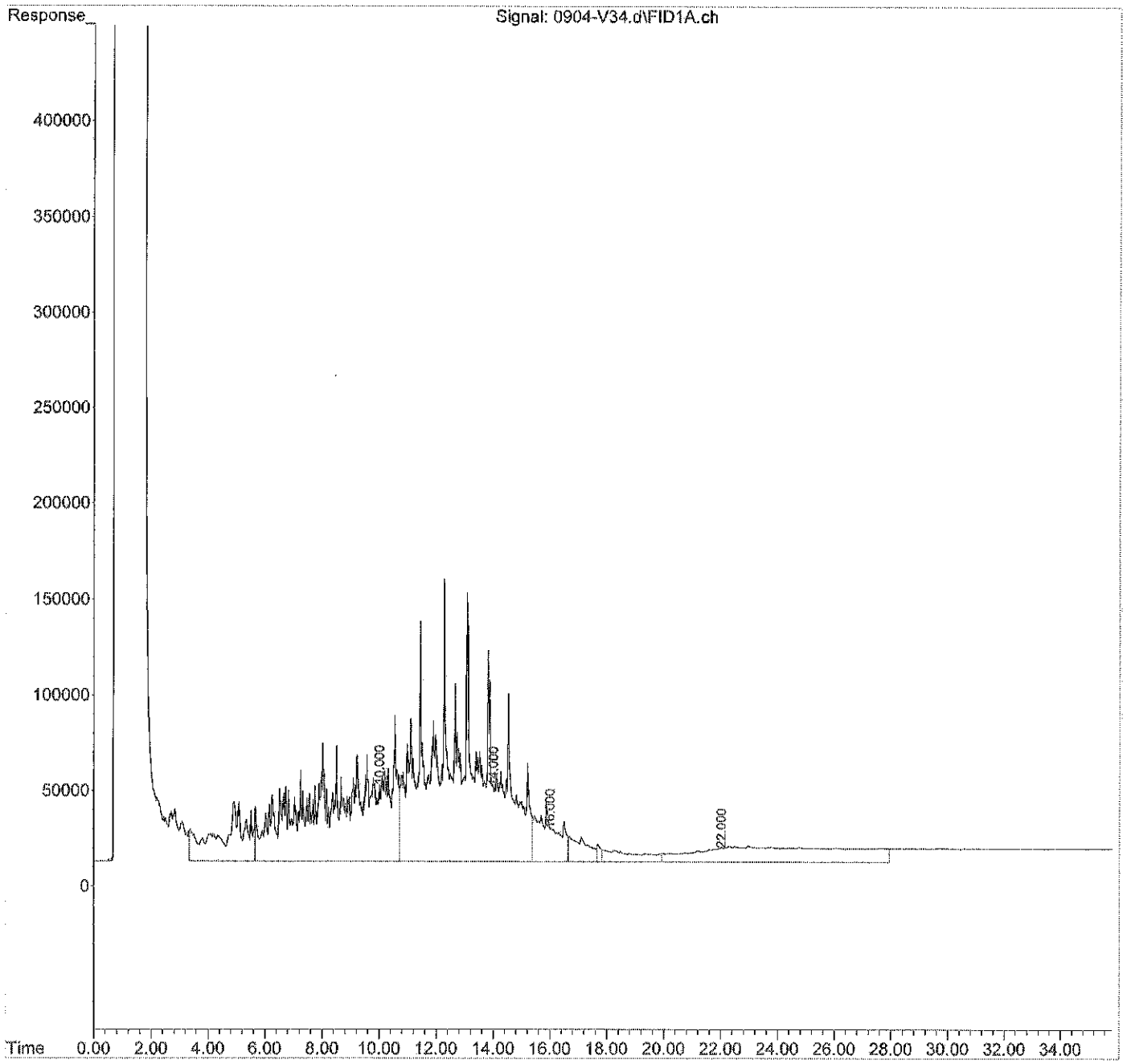
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180904\
Data File : 0904-V34.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 8:06
Operator : JT
Sample : CCV0904F-V4
Misc : SV3-29-03
ALS Vial : 34 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 08:42:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V01.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 8:48
Operator : JT
Sample : CCV0905F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 09:24:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29013875	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	239937462	91.864	PPM
5) H	Diesel Fuel #2 (06-...	14.000	239873232	99.836	PPM
6) H	Oil (06-07-18)	22.000	56654657	19.735	PPM
7) H	Oil Acid Clean (06-12...	22.000	56654657	3.834	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	233552277	99.498	PPM
9) H	Oil Combo (06-07-18)	22.000	42883230	12.417	PPM
10) H	Oil Acid Clean Combo ...	22.000	42883230	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	241531852	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	17888170	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	155483186	61.303	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	278300599	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	278300599	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	295109681	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	149716301	62.283	PPM
18) H	Oil Acid Clean MO Com...	22.000	37313428	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	37313428	9.678	PPM

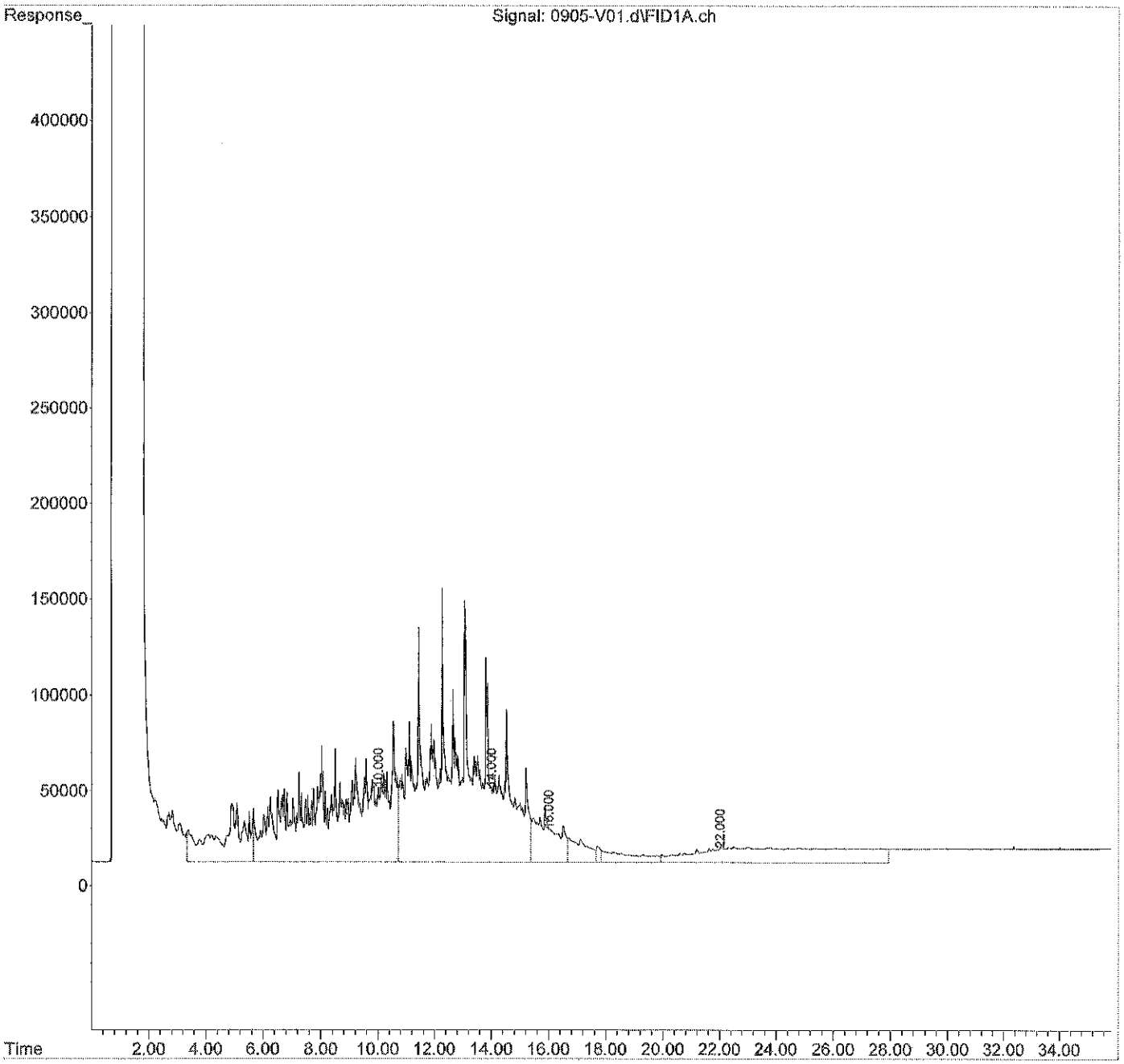
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V01.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 8:48
Operator : JT
Sample : CCV0905F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 09:24:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V12.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 16:31
Operator : JT
Sample : CCV0905F-V2
Misc : SV3-29-03
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 17:07:17 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	29977158	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	244984379	93.843	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	244228491	101.675	PPM
6)	H	Oil (06-07-18)	22.000	62616687	23.057	PPM
7)	H	Oil Acid Clean (06-12...	22.000	62616687	6.351	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	238033571	101.429	PPM
9)	H	Oil Combo (06-07-18)	22.000	48769998	15.748	PPM
10)	H	Oil Acid Clean Combo ...	22.000	48769998	0.714	PPM
11)	H	Alaska 102 DF2 ()	13.025	245857502	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	20741550	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	157551114	62.114	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	289263791	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	289263791	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	306381611	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	151939169	63.192	PPM
18)	H	Oil Acid Clean MO Com...	22.000	43272327	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	43272327	13.146	PPM

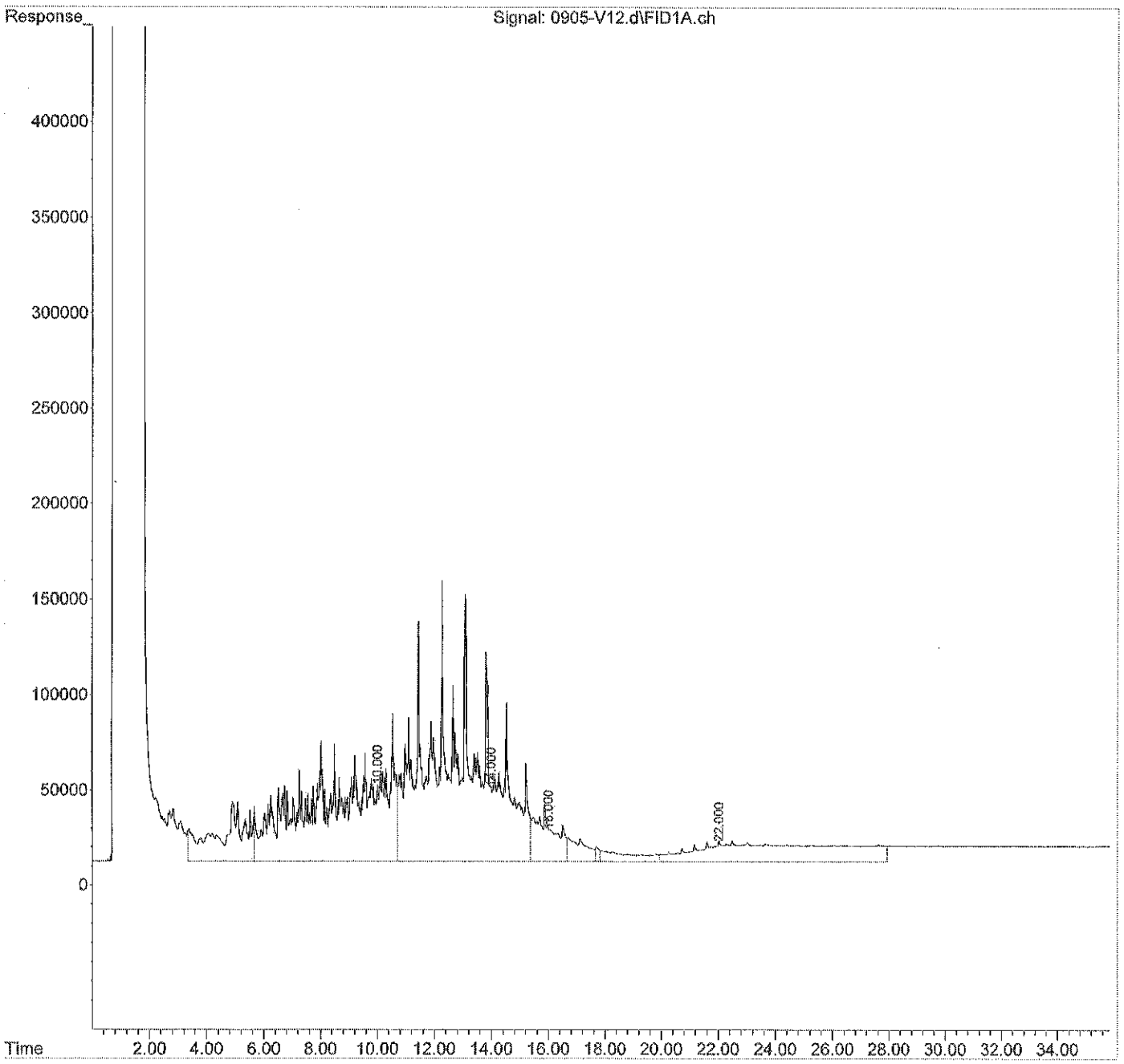
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V12.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 16:31
Operator : JT
Sample : CCV0905F-V2
Misc : SV3-29-03
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 05 17:07:17 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V23.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 23:53
Operator : JT
Sample : CCV0905F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 00:29:09 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

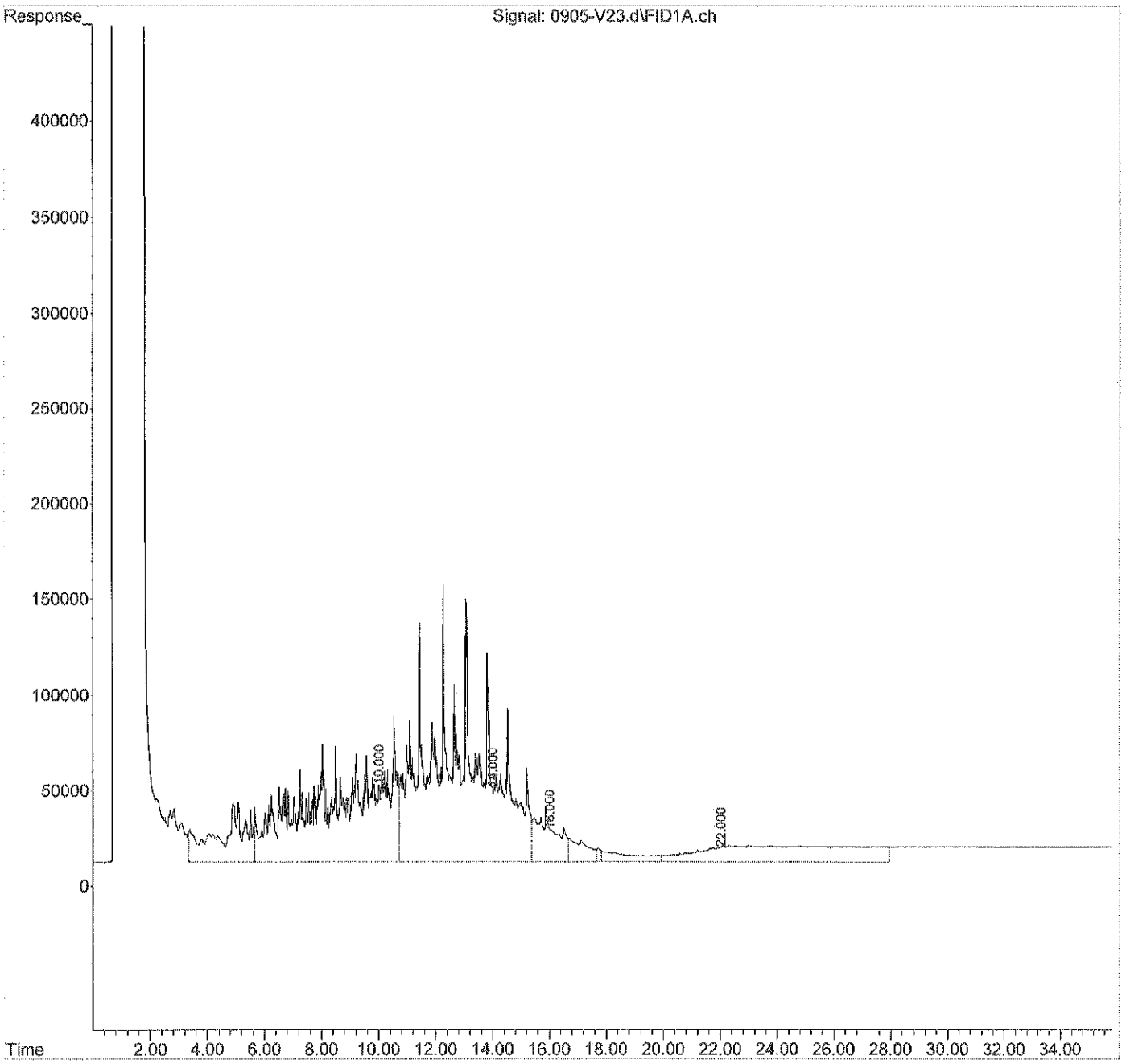
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29785764	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	244245156	93.553	PPM
5) H	Diesel Fuel #2 (06-...	14.000	243315555	101.290	PPM
6) H	Oil (06-07-18)	22.000	58816513	20.940	PPM
7) H	Oil Acid Clean (06-12...	22.000	58816513	4.747	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	237251972	101.092	PPM
9) H	Oil Combo (06-07-18)	22.000	45158162	13.704	PPM
10) H	Oil Acid Clean Combo ...	22.000	45158162	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	244929026	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	18697655	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	156402599	61.664	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	284605396	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	284605396	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	301717171	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	151045640	62.827	PPM
18) H	Oil Acid Clean MO Com...	22.000	39764076	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	39764076	11.104	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V23.d
Signal(s) : FID1A.ch
Acq On : 5 Sep 2018 23:53
Operator : JT
Sample : CCV0905F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 00:29:09 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V32.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 5:52
Operator : JT
Sample : CCV0905F-V4
Misc : SV3-29-03
ALS Vial : 32 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 06:28:45 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	30456607	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	250649779	96.064	PPM
5) H	Diesel Fuel #2 (06-...	14.000	249901958	104.071	PPM
6) H	Oil (06-07-18)	22.000	84080856	35.019	PPM
7) H	Oil Acid Clean (06-12...	22.000	84080856	15.413	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	243560079	103.810	PPM
9) H	Oil Combo (06-07-18)	22.000	70008553	27.769	PPM
10) H	Oil Acid Clean Combo ...	22.000	70008553	9.813	PPM
11) H	Alaska 102 DF2 ()	13.025	251574309	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	25079938	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	160981609	63.460	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	318472579	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	318472579	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	335059627	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	155058567	64.466	PPM
18) H	Oil Acid Clean MO Com...	22.000	64393621	7.733	PPM
19) H	Oil MO Combo (06-07-18)	22.000	64393621	25.440	PPM

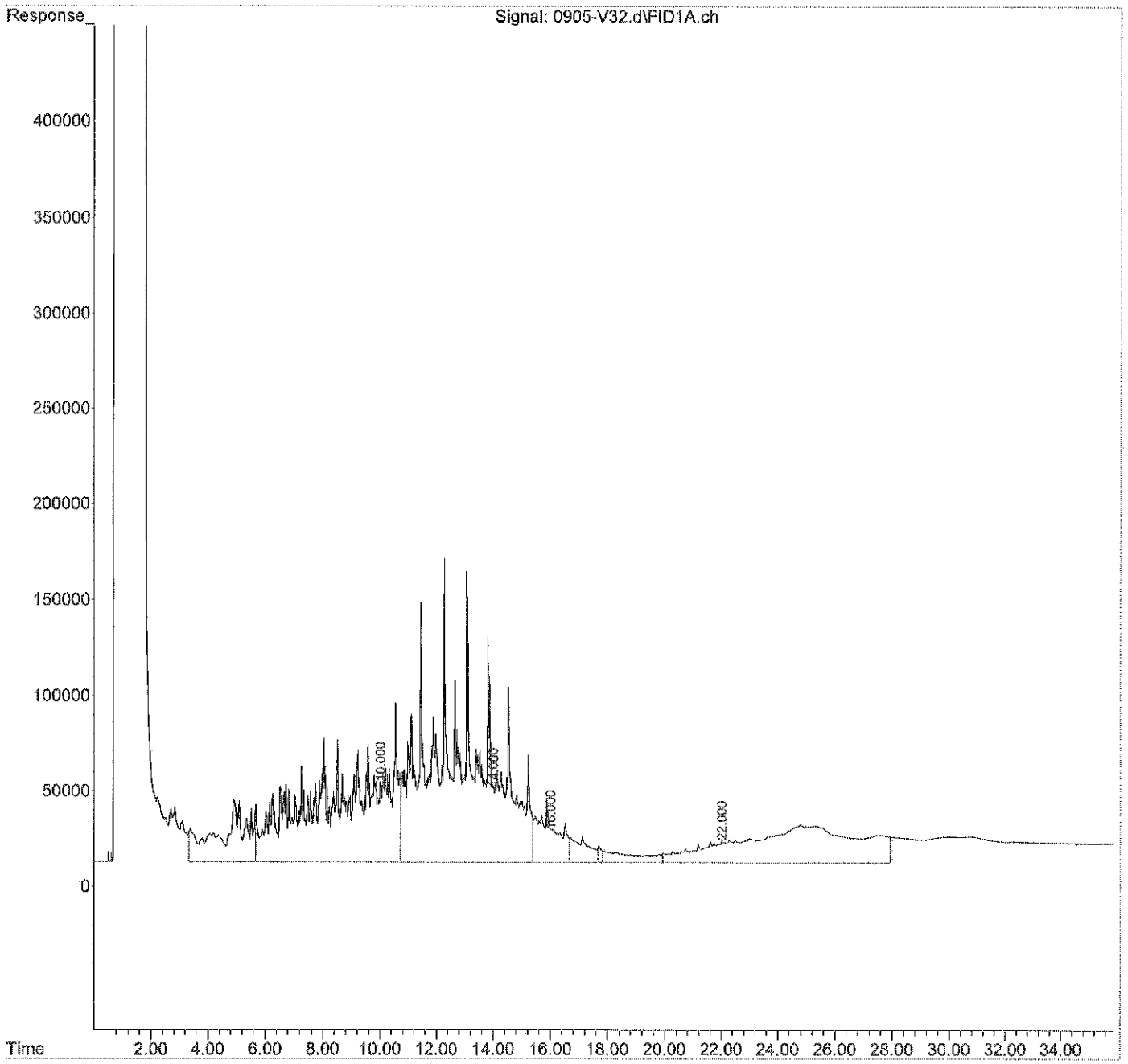
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180905\
Data File : 0905-V32.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 5:52
Operator : JT
Sample : CCV0905F-V4
Misc : SV3-29-03
ALS Vial : 32 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 06:28:45 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V01.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 7:44
Operator : JT
Sample : CCV0906F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 08:20:30 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

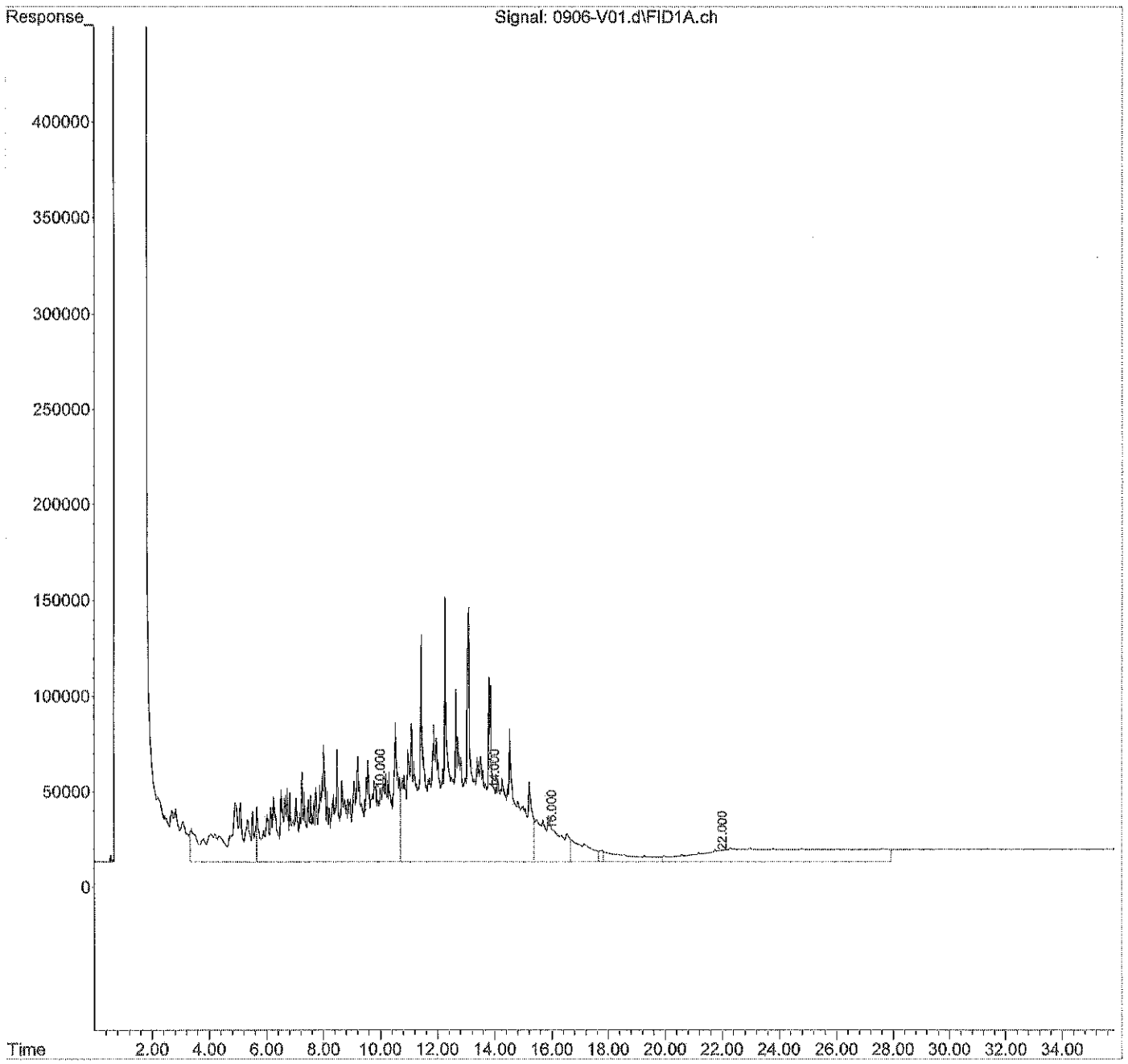
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29565936	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	239326848	91.625	PPM
5) H	Diesel Fuel #2 (06-...	14.000	237366512	98.778	PPM
6) H	Oil (06-07-18)	22.000	50462234	16.284	PPM
7) H	Oil Acid Clean (06-12...	22.000	50462234	1.220	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	231804513	98.744	PPM
9) H	Oil Combo (06-07-18)	22.000	37508630	9.375	PPM
10) H	Oil Acid Clean Combo ...	22.000	37508630	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	238855094	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15081917	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	151355129	59.684	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	270741930	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	270741930	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	287948872	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	146829468	61.104	PPM
18) H	Oil Acid Clean MO Com...	22.000	32523902	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	32523902	6.890	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V01.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 7:44
Operator : JT
Sample : CCV0906F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 08:20:30 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V08.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 12:43
Operator : JT
Sample : CCV0906F-V2
Misc : SV3-29-03
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 13:19:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

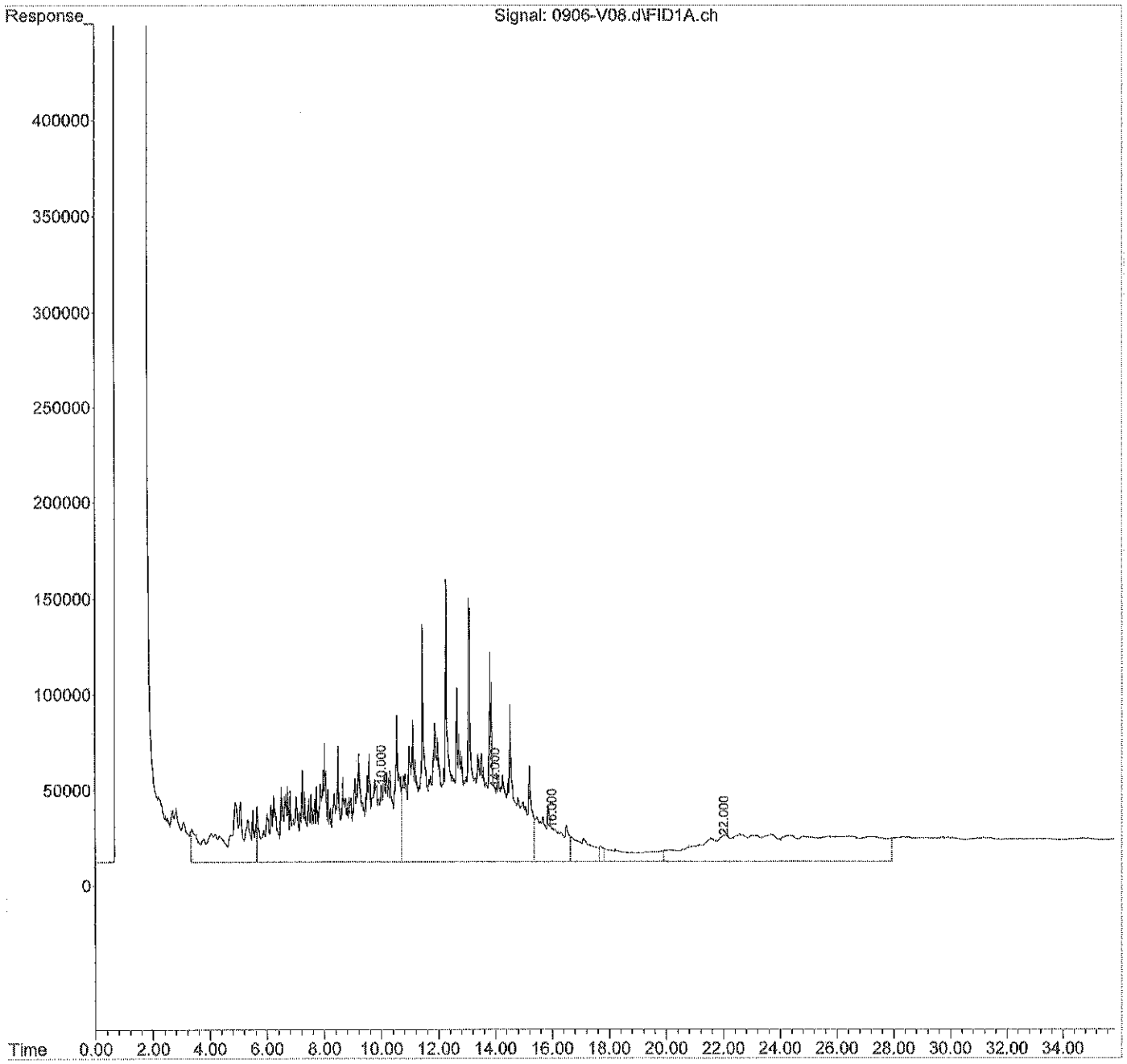
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H Gasoline	3.500	30204985	NoCal	PPM
4)	H Diesel Fuel #1 (06-12...	10.000	243898347	93.417	PPM
5)	H Diesel Fuel #2 (06-...	14.000	243559745	101.393	PPM
6)	H Oil (06-07-18)	22.000	83036522	34.437	PPM
7)	H Oil Acid Clean (06-12...	22.000	83036522	14.972	PPM
8)	H Diesel Fuel #2 Combo ...	14.000	236970355	100.970	PPM
9)	H Oil Combo (06-07-18)	22.000	69030493	27.216	PPM
10)	H Oil Acid Clean Combo ...	22.000	69030493	9.394	PPM
11)	H Alaska 102 DF2 ()	13.025	245362046	NoCal	PPM
12)	H Alaska 103 Oil ()	22.000	30245535	NoCal	PPM
13)	H Mineral Oil (06-08-18)	16.000	158400456	62.447	PPM
14)	H Bunker C ACU (Fuel Oi...	15.000	310833463	NoCal	PPM
15)	H Bunker C (Fuel Oil #6...	15.000	310833463	NoCal	PPM
16)	H ALKANE C9-C40 10-26-07	12.666	327129403	NoCal	PPM
17)	H Mineral Oil Combo (06...	16.000	151237691	62.905	PPM
18)	H Oil Acid Clean MO Com...	22.000	63205007	7.210	PPM
19)	H Oil MO Combo (06-07-18)	22.000	63205007	24.749	PPM

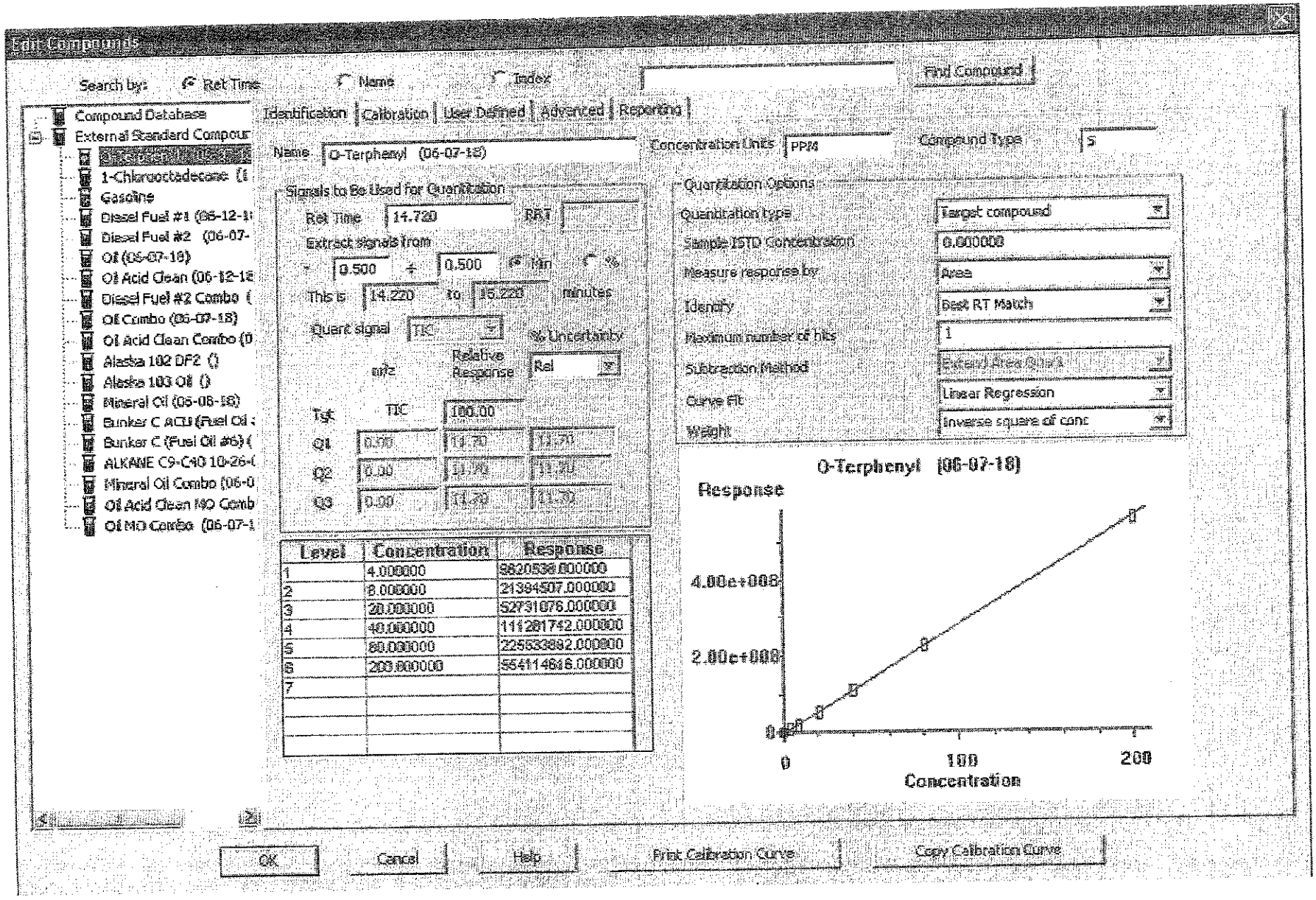
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180906\
Data File : 0906-V08.d
Signal(s) : FID1A.ch
Acq On : 6 Sep 2018 12:43
Operator : JT
Sample : CCV0906F-V2
Misc : SV3-29-03
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 06 13:19:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
1-Chlorooctadecane
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Diesel Fuel #1
Diesel Fuel #2
Oil
Oil Acid Clean
Diesel Fuel #2 Combo
Oil Combo
Oil Acid Clean Combo
Alaska 102 DF2
Alaska 103 Oil
Mineral Oil
Bunker C ACID
Bunker C (Fuel Oil #6)
ALKANE C9-C40 10-26-
Mineral Oil Combo
Oil Acid Clean NO Comb
Oil NO Combo
Identification
Calibration
User Defined
Advanced
Reporting
Name
O-Terphenyl (06-07-18)
Concentration Units
PPM
Compound Type
5
Signals to Be Used for Quantitation
Ret Time
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RRT
Extract Signals from
0.500
0.500
Min
%
This is
14.220
to
15.220
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
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Sample ISTD Concentration
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Measure response by
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Identify
Best RT Match
Maximum number of hits
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External Area Slope
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
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7
O-Terphenyl (06-07-18)
Response
4.00e+008
2.00e+008
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0
100
200
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.582	9620538	3.974 PPM
Spiked Amount	50.000		Recovery =	7.95%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2918914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7973112	0.934 PPM
5) H	Diesel Fuel #2 (06-...	14.000	8067167	1.963 PPM
6) H	Oil (06-07-18)	22.000	41478047	11.278 PPM
7) H	Oil Acid Clean (06-12...	22.000	41478047	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	7057774	1.895 PPM
9) H	Oil Combo (06-07-18)	22.000	40647380	11.151 PPM
10) H	Oil Acid Clean Combo ...	22.000	40647380	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	8402084	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20317087	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	7057262	3.084 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	51378922	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	51378922	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	51452820	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	4092445	2.783 PPM
18) H	Oil Acid Clean MO Com...	22.000	39796223	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	39796223	11.123 PPM

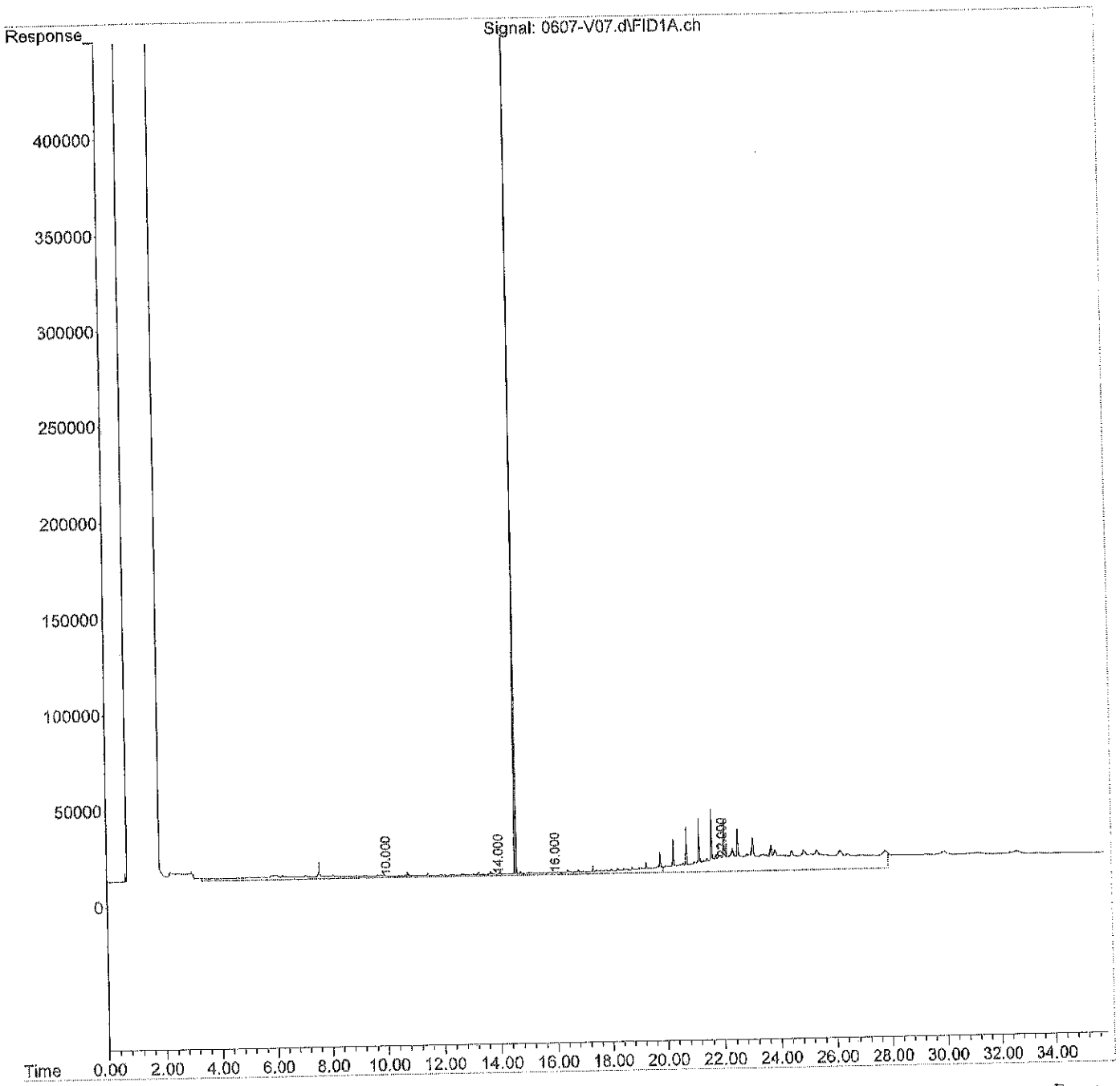
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.583	21394507	8.182 PPM
Spiked Amount	50.000		Recovery =	16.36%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2578709	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6568002	0.383 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6442554	1.277 PPM
6) H	Oil (06-07-18)	22.000	38834383	9.804 PPM
7) H	Oil Acid Clean (06-12...	22.000	38834383	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5650075	1.288 PPM
9) H	Oil Combo (06-07-18)	22.000	38215738	9.775 PPM
10) H	Oil Acid Clean Combo ...	22.000	38215738	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	6700816	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20412619	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5601139	2.513 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	47152459	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	47152459	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	47173180	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3086112	2.372 PPM
18) H	Oil Acid Clean MO Com...	22.000	37547444	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	37547444	9.814 PPM

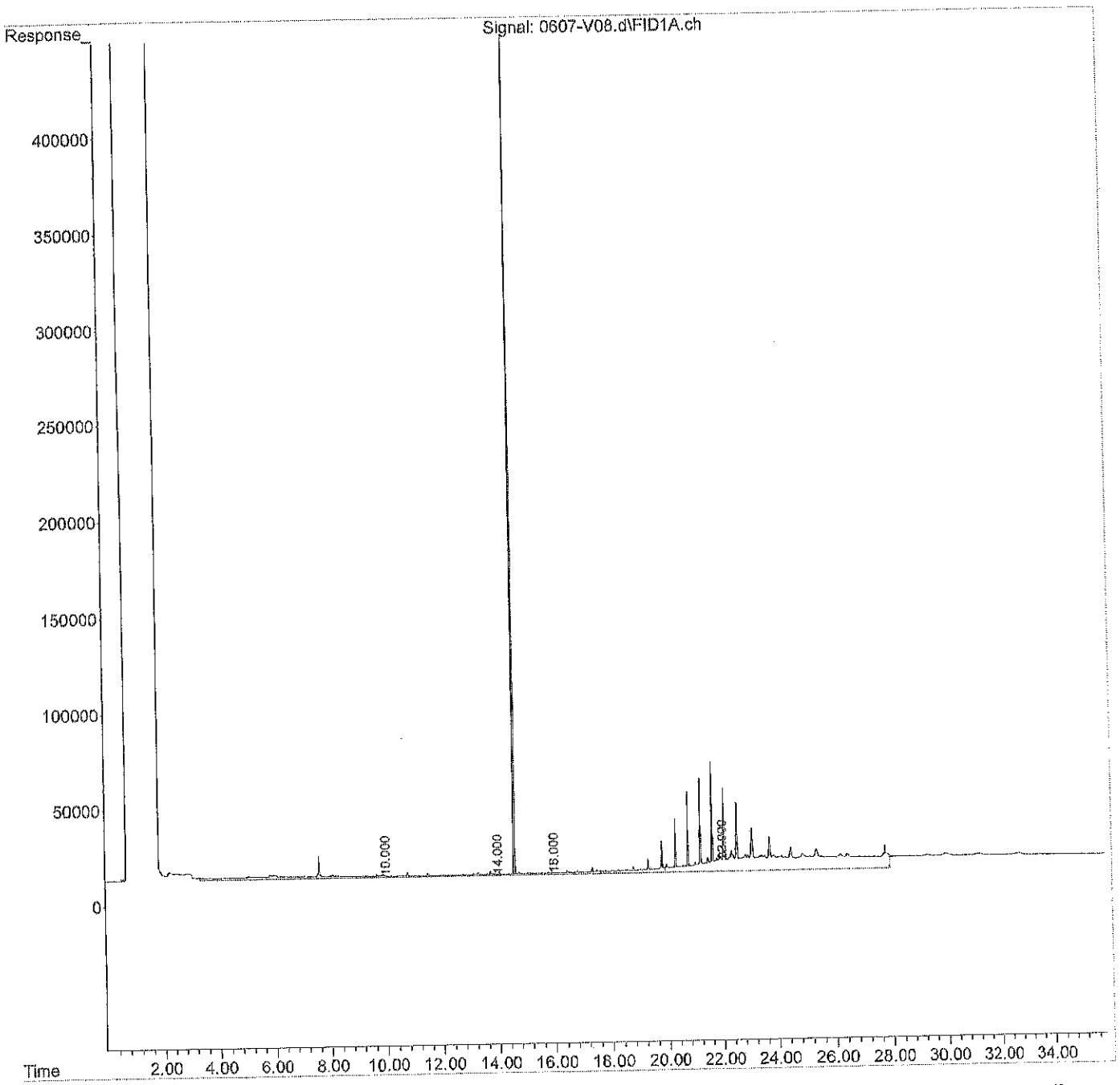
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.588	52731076	19.381 PPM
Spiked Amount	50.000		Recovery =	38.76%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2265067	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5081733	N.D. PPM
5) H	Diesel Fuel #2 (06-...	14.000	4905010	0.628 PPM
6) H	Oil (06-07-18)	22.000	32732210	6.404 PPM
7) H	Oil Acid Clean (06-12...	22.000	32732210	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4219849	0.672 PPM
9) H	Oil Combo (06-07-18)	22.000	32242464	6.394 PPM
10) H	Oil Acid Clean Combo ...	22.000	32242464	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	5118955	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	16586145	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	4326333	2.013 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	39478225	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	39478225	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	39423416	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	2320552	2.059 PPM
18) H	Oil Acid Clean MO Com...	22.000	31663541	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	31663541	6.389 PPM

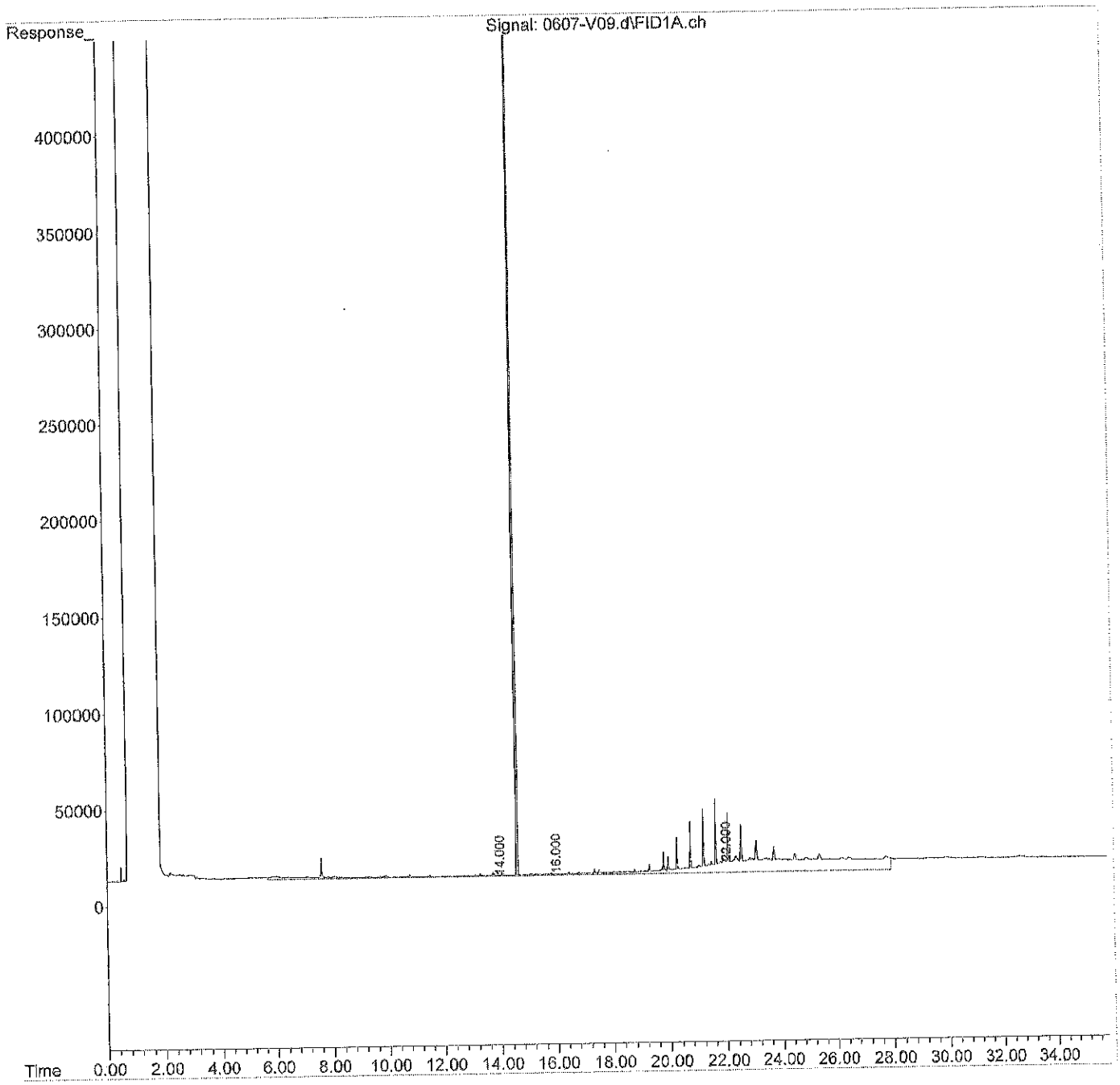
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.595	111281742	40.306 PPM
Spiked Amount	50.000		Recovery =	80.61%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2340566	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4714319	N.D. PPM
5) H	Diesel Fuel #2 (06-...	14.000	4271422	0.360 PPM
6) H	Oil (06-07-18)	22.000	31921729	5.952 PPM
7) H	Oil Acid Clean (06-12...	22.000	31921729	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	3720497	0.456 PPM
9) H	Oil Combo (06-07-18)	22.000	31518020	5.984 PPM
10) H	Oil Acid Clean Combo ...	22.000	31518020	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	4457580	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	16644658	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	3770307	1.795 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	38132311	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	38132311	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	38147075	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	1868960	1.875 PPM
18) H	Oil Acid Clean MO Com...	22.000	31056856	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	31056856	6.036 PPM

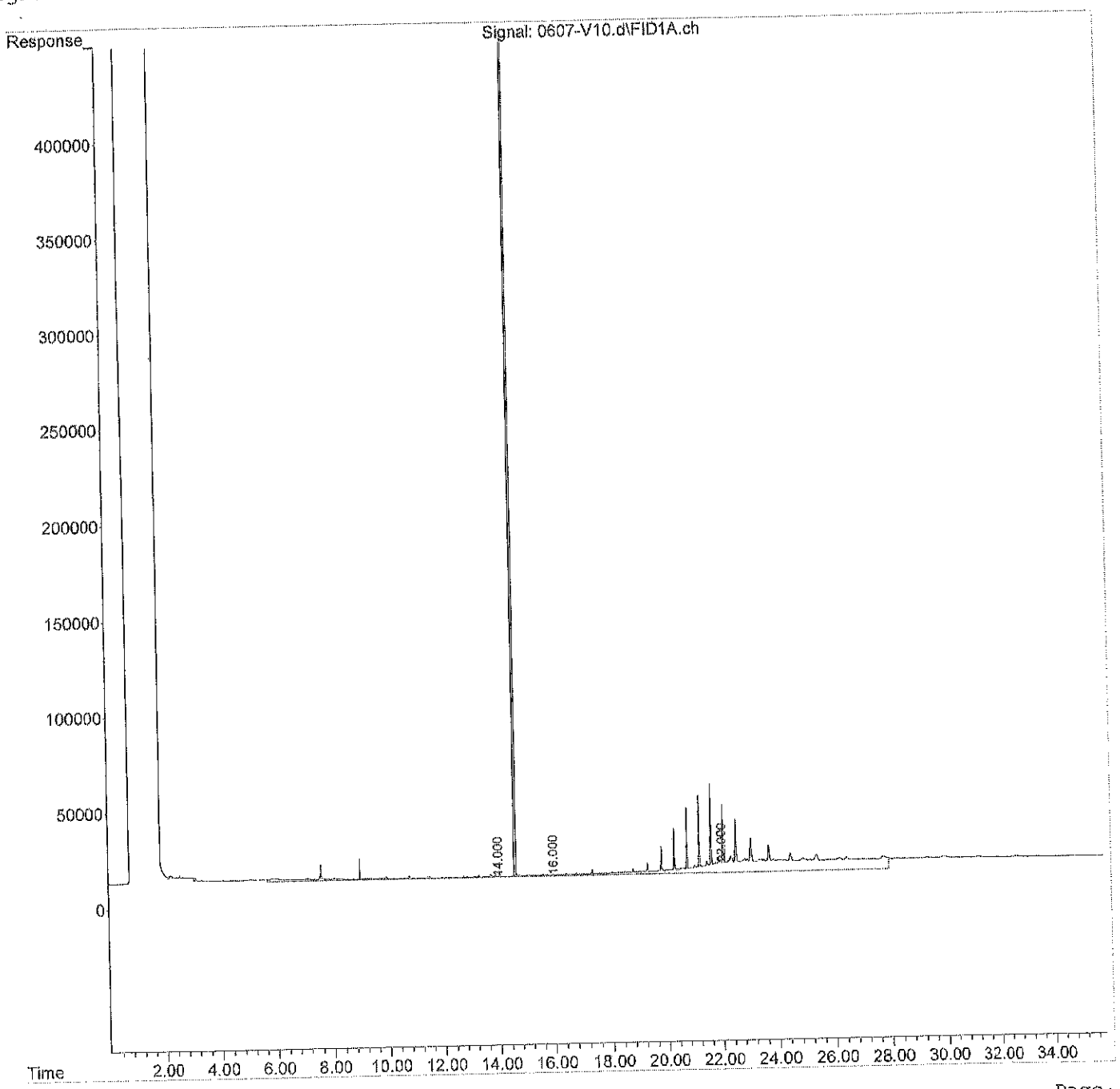
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.608	225533892	81.138 PPM
Spiked Amount	50.000		Recovery =	162.28%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2825914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7127070	0.603 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6794365	1.426 PPM
6) H	Oil (06-07-18)	22.000	35914188	8.177 PPM
7) H	Oil Acid Clean (06-12...	22.000	35914188	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6032453	1.453 PPM
9) H	Oil Combo (06-07-18)	22.000	35297875	8.123 PPM
10) H	Oil Acid Clean Combo ...	22.000	35297875	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	7031240	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	19426371	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5449526	2.454 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	44200935	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	44200935	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	44502128	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3154382	2.400 PPM
18) H	Oil Acid Clean MO Com...	22.000	34654159	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	34654159	8.130 PPM

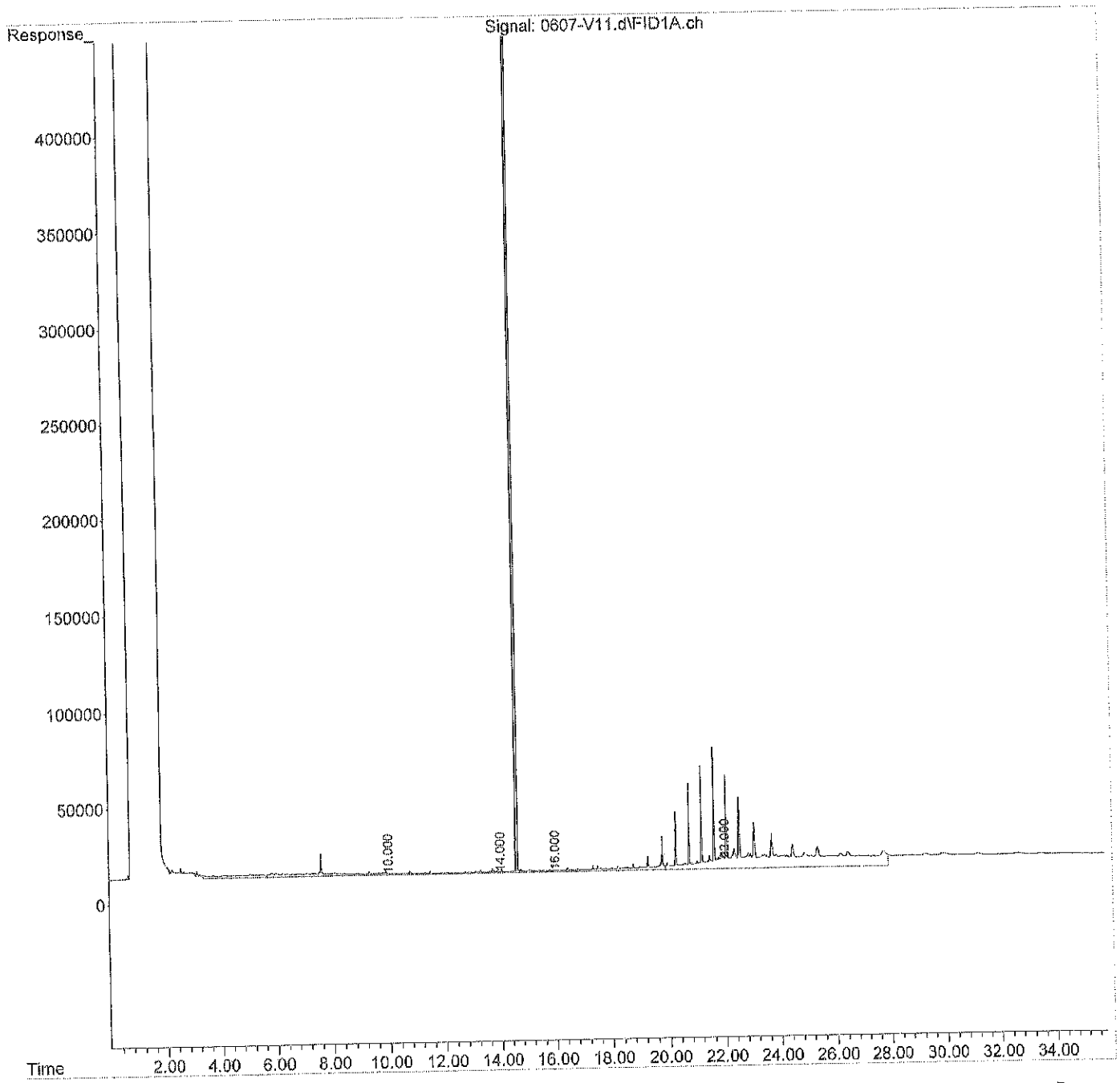
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.633	554114616	198.568 PPM
Spiked Amount	50.000		Recovery =	397.14%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2480847	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5332885	N.D. PPM
5) H	Diesel Fuel #2 (06-...	14.000	4955156	0.649 PPM
6) H	Oil (06-07-18)	22.000	29536918	4.623 PPM
7) H	Oil Acid Clean (06-12...	22.000	29536918	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4340875	0.724 PPM
9) H	Oil Combo (06-07-18)	22.000	29073821	4.600 PPM
10) H	Oil Acid Clean Combo ...	22.000	29073821	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	5149935	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	14577866	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	4166131	1.950 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	36280871	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	36280871	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	36345279	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	2350636	2.072 PPM
18) H	Oil Acid Clean MO Com...	22.000	28553677	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	28553677	4.579 PPM

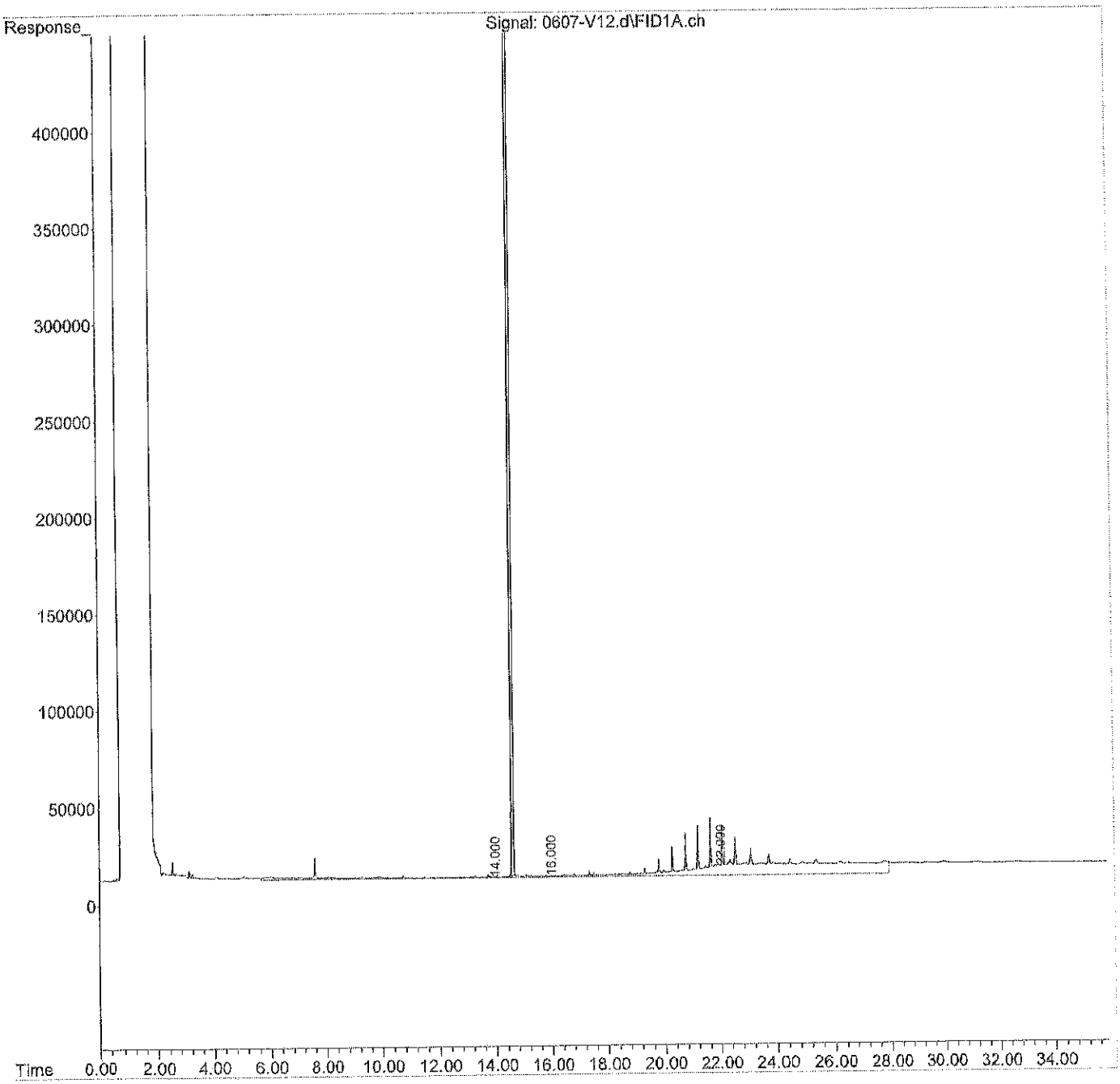
(f)=RT Delta > 1/2 Window (m)=manual int.

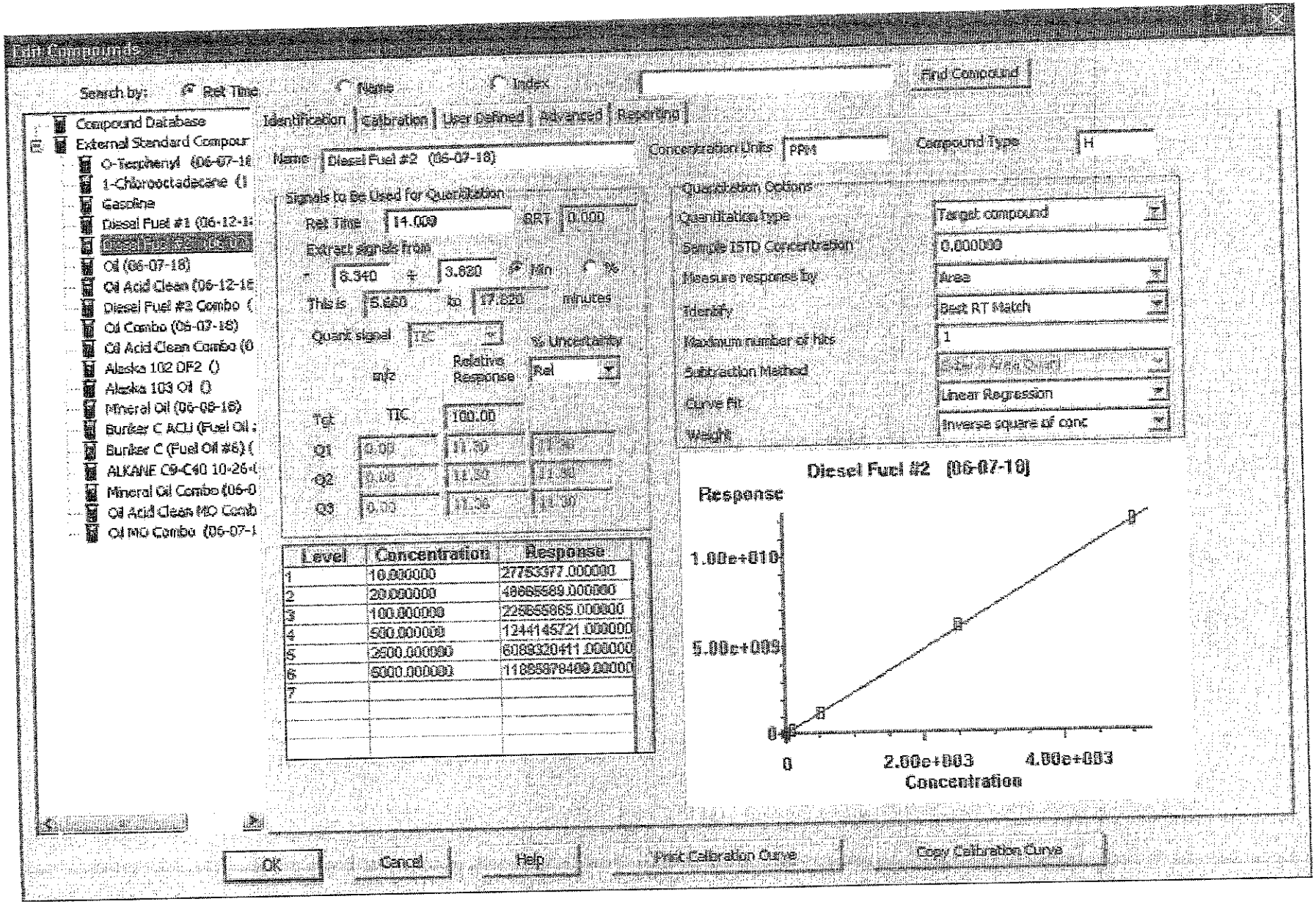
Quantitation Report (Not Reviewed)

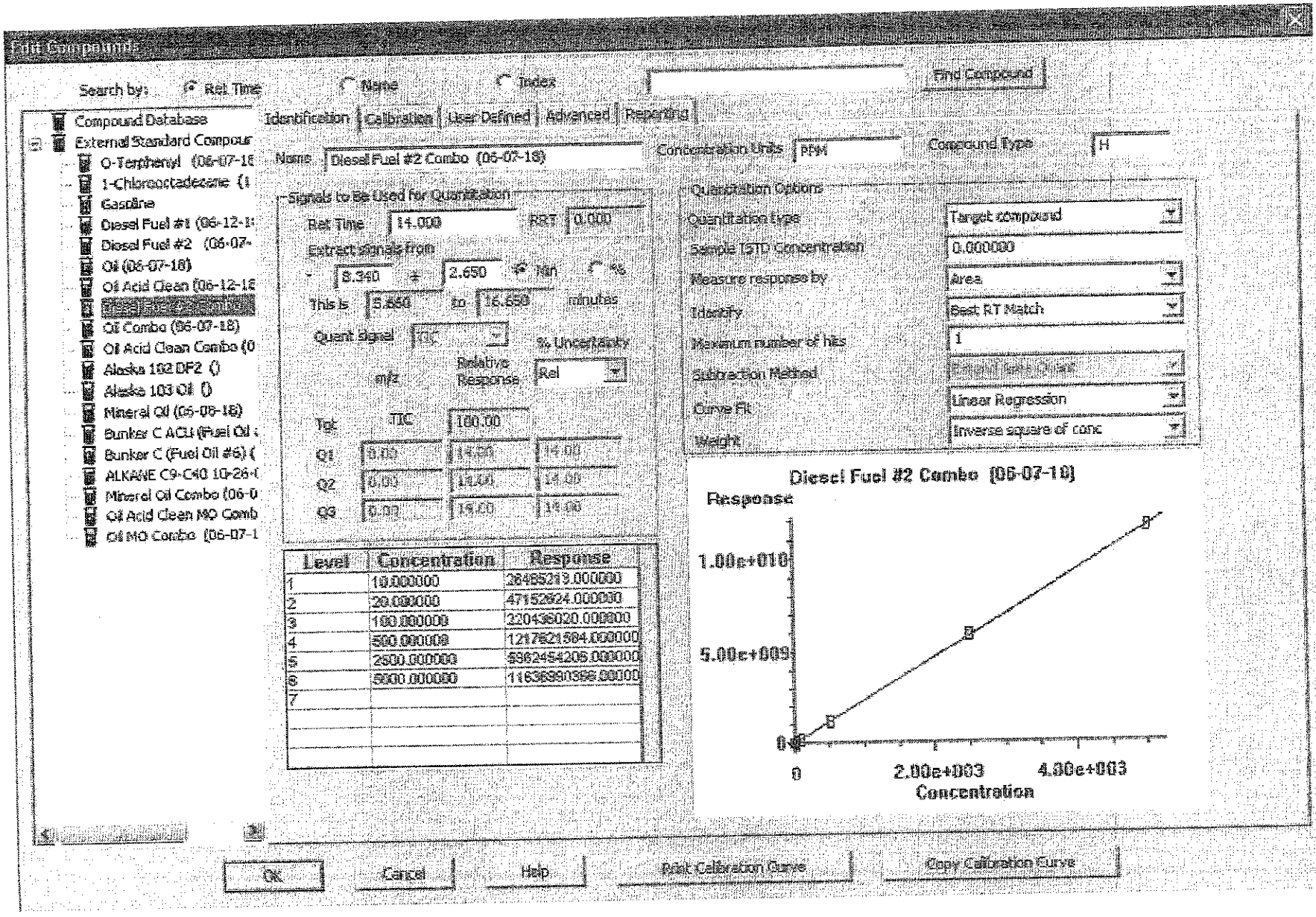
Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-18)
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACLI (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to be Used for Quantitation
Ret Time
14.009
RRT
0.000
Extract signals from
6.340
3.680
Min
%
This is
5.680
to
17.620
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
10.000000
27753377.000000
2
20.000000
48865589.000000
3
100.000000
228655865.000000
4
500.000000
1244145721.000000
5
2500.000000
6088320411.000000
6
5000.000000
11885378409.000000
7
Diesel Fuel #2 (06-07-18)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by: Rel Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 Combo (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to be Used for Quantitation
Ret Time
14.000
RRT
0.000
Extract signals from
8.340
2.650
Min
%
This is
5.650
to
16.650
minutes
Quant Signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation Type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Diesel Fuel #2 Combo (06-07-18)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
Level
Concentration
Response
1
10.000000
26485213.000000
2
20.000000
47152824.000000
3
100.000000
220436020.000000
4
500.000000
1217621584.000000
5
2500.000000
5982454205.000000
6
5000.000000
11636890356.000000
7
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.579	1768524	1.168 PPM
Spiked Amount	50.000		Recovery =	2.34%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	4133777	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	27269128	8.498 PPM
5) H	Diesel Fuel #2 (06-...	14.000	27753377	10.275 PPM
6) H	Oil (06-07-18)	22.000	31915458	5.949 PPM
7) H	Oil Acid Clean (06-12...	22.000	31915458	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	26465213	10.258 PPM
9) H	Oil Combo (06-07-18)	22.000	30005900	5.128 PPM
10) H	Oil Acid Clean Combo ...	22.000	30005900	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	28080594	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	14809319	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	19317557	7.893 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	59083420	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	59083420	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	60452306	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	17051878	8.078 PPM
18) H	Oil Acid Clean MO Com...	22.000	28888187	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	28888187	4.774 PPM

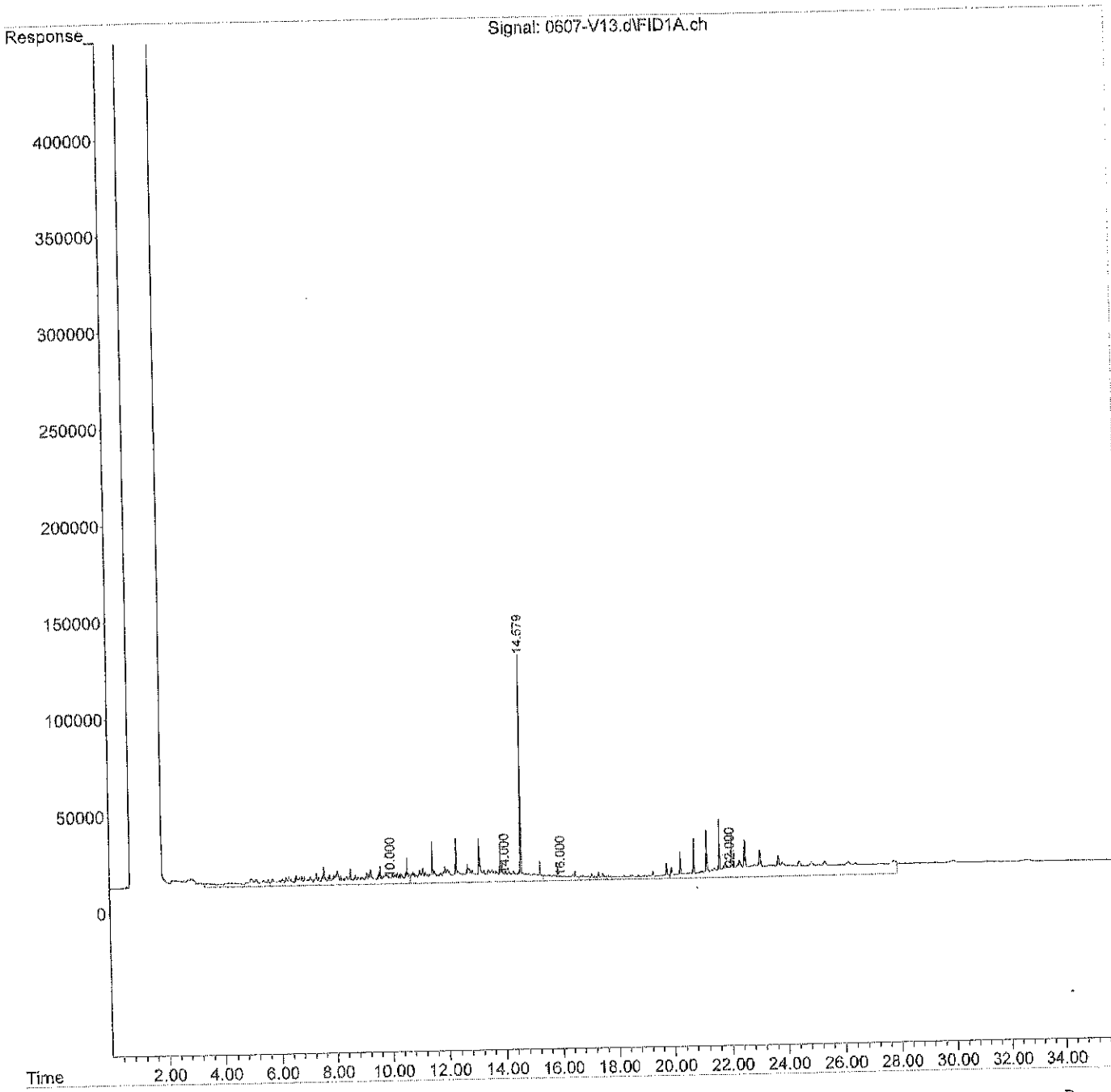
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5646580	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	48040088	16.641	PPM
5) H	Diesel Fuel #2 (06-...	14.000	48665589	19.104	PPM
6) H	Oil (06-07-18)	22.000	33762580	6.978	PPM
7) H	Oil Acid Clean (06-12...	22.000	33762580	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	47152624	19.173	PPM
9) H	Oil Combo (06-07-18)	22.000	30844064	5.602	PPM
10) H	Oil Acid Clean Combo ...	22.000	30844064	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	48992912	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15851618	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	32931233	13.233	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	80349703	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	80349703	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	82875651	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	30717015	13.662	PPM
18) H	Oil Acid Clean MO Com...	22.000	29519570	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	29519570	5.141	PPM

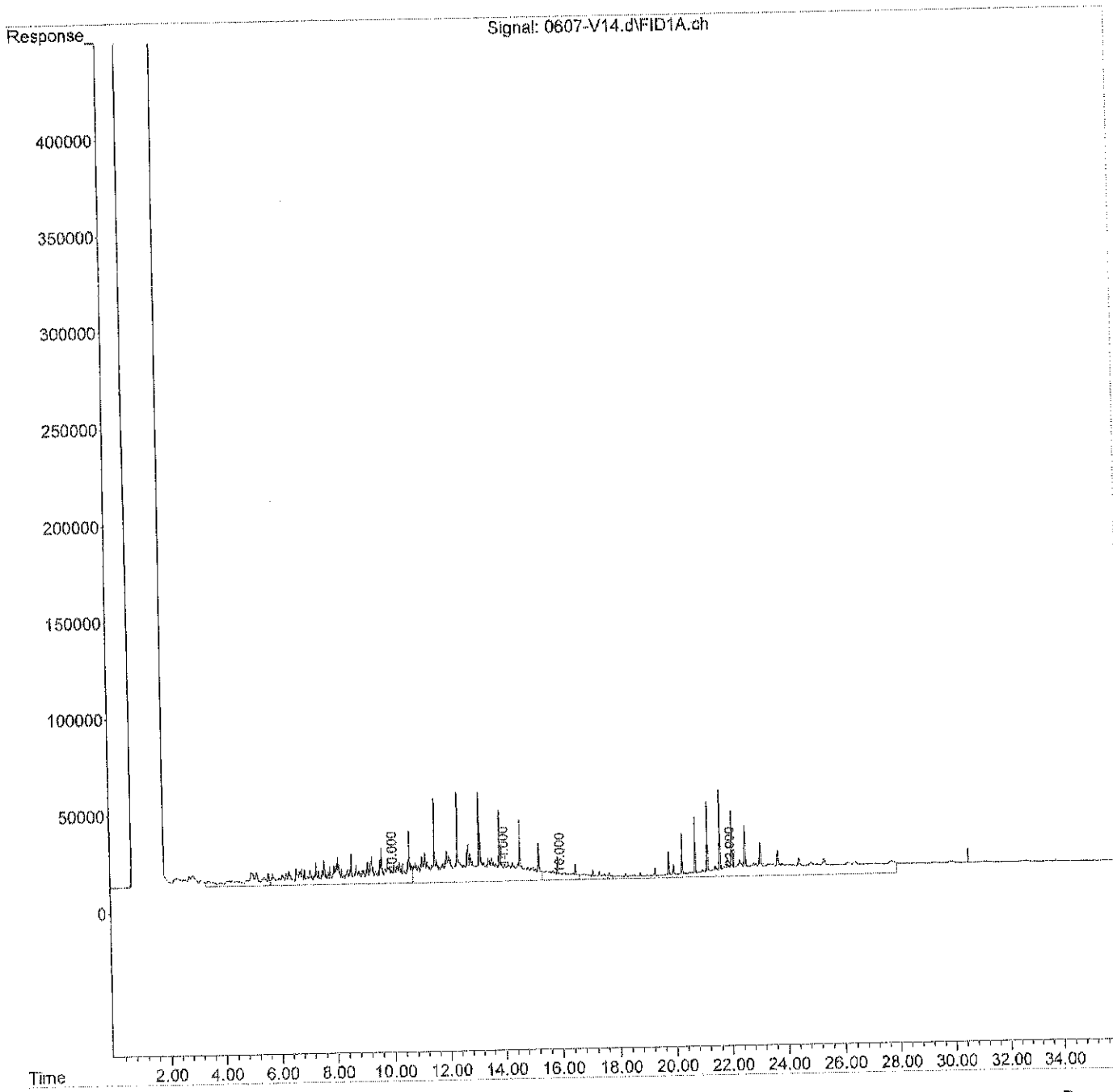
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.568	1827597	1.189	PPM
Spiked Amount		50.000		Recovery =	2.38%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	20974403	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	222453979	85.011	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	225655865	93.833	PPM
6)	H	Oil (06-07-18)	22.000	47759430	14.778	PPM
7)	H	Oil Acid Clean (06-12...	22.000	47759430	0.079	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	220436020	93.845	PPM
9)	H	Oil Combo (06-07-18)	22.000	34923076	7.911	PPM
10)	H	Oil Acid Clean Combo ...	22.000	34923076	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	226627792	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	16006487	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	147049004	57.995	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	256196607	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	256196607	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	269640605	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	143067779	59.567	PPM
18)	H	Oil Acid Clean MO Com...	22.000	30286616	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	30286616	5.588	PPM

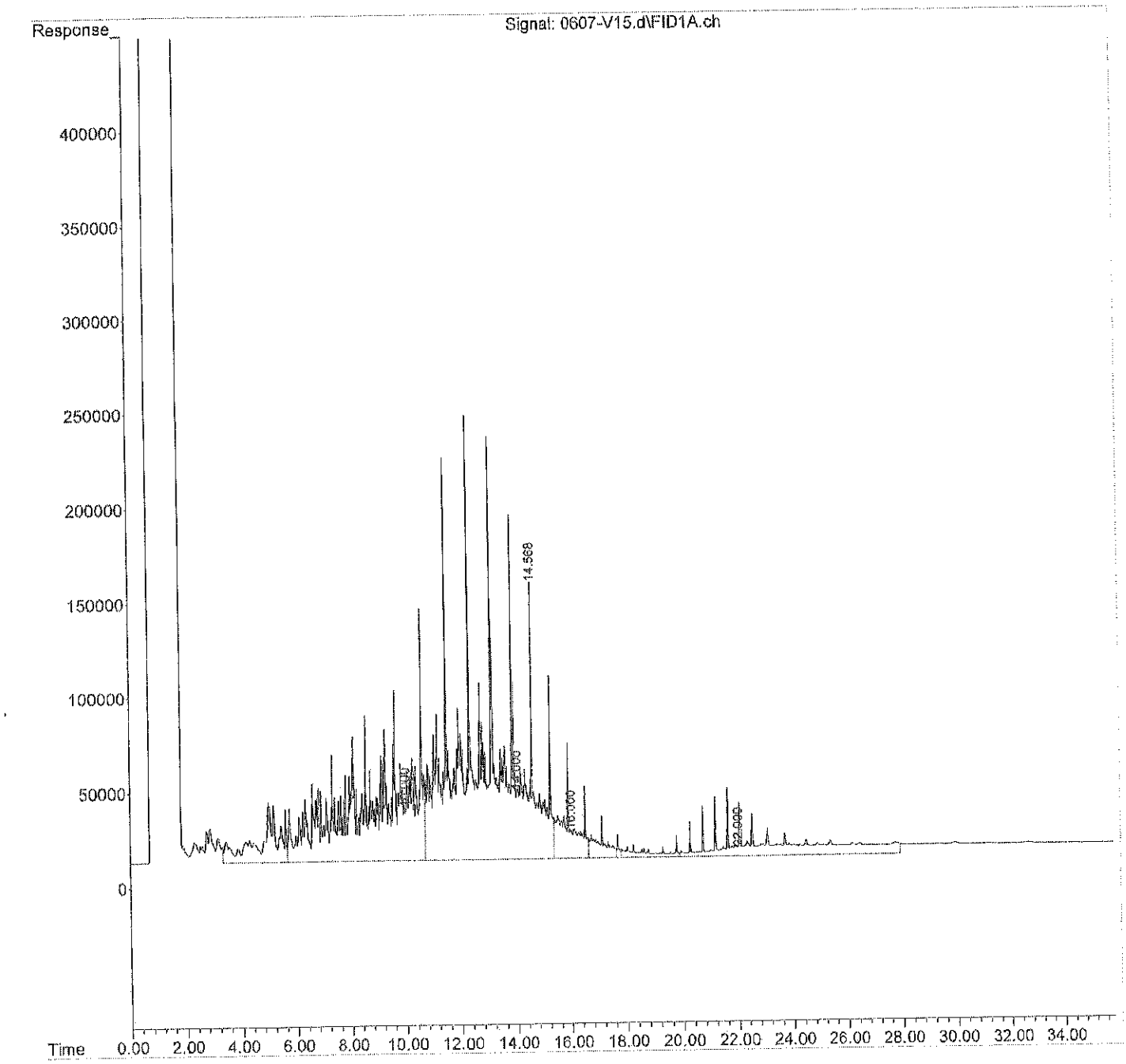
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.570	10094442	4.143	PPM
Spiked Amount	50.000		Recovery =	8.29%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.902	4101806	NoCal	PPM
3) H	Gasoline	3.500	107804991	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	1225065784	478.036	PPM
5) H	Diesel Fuel #2 (06-...	14.000	1244145721	523.861	PPM
6) H	Oil (06-07-18)	22.000	134868745	63.321	PPM
7) H	Oil Acid Clean (06-12...	22.000	134868745	36.856	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	1217621584	523.561	PPM
9) H	Oil Combo (06-07-18)	22.000	64913475	24.886	PPM
10) H	Oil Acid Clean Combo ...	22.000	64913475	7.630	PPM
11) H	Alaska 102 DF2 ()	13.025	1248540939	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	22045480	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	806013642	316.466	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1274842144	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1274842144	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1350137154	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	792702049	324.999	PPM
18) H	Oil Acid Clean MO Com...	22.000	41221857	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	41221857	11.953	PPM

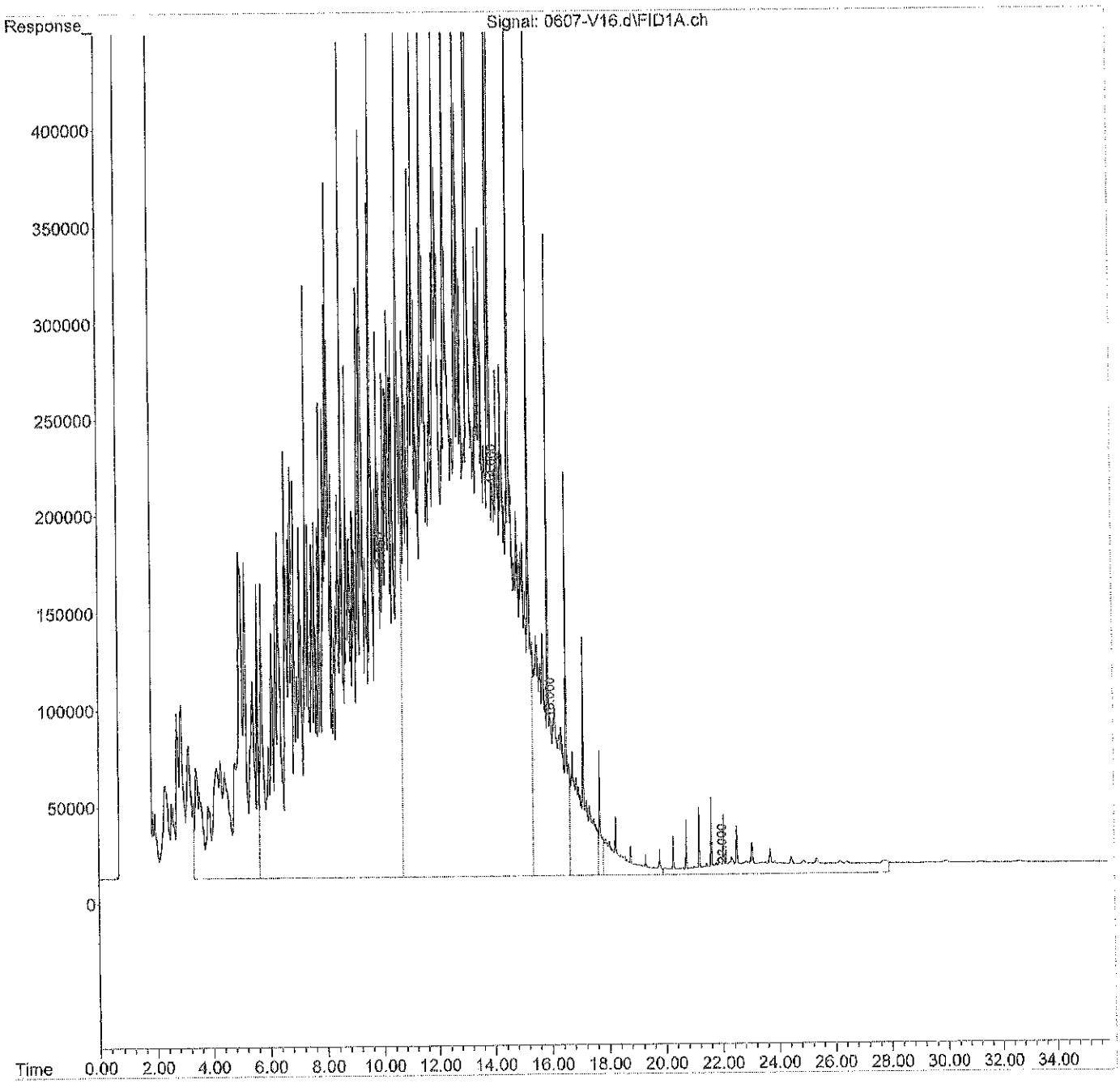
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.859	6943936	3.017	PPM
Spiked Amount	50.000		Recovery =	6.03%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.907	20022644	NoCal	PPM
3) H	Gasoline	3.500	514070408	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5991992203	2346.675	PPM
5) H	Diesel Fuel #2 (06-...	14.000	6089320411	2569.593	PPM
6) H	Oil (06-07-18)	22.000	546017303	292.438	PPM
7) H	Oil Acid Clean (06-12...	22.000	546017303	210.441	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5962454206	2568.245	PPM
9) H	Oil Combo (06-07-18)	22.000	205322242	104.356	PPM
10) H	Oil Acid Clean Combo ...	22.000	205322242	67.787	PPM
11) H	Alaska 102 DF2 ()	13.025	6110405818	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	49953834	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	3963830817	1555.086	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	6120193046	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	6120193046	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	6484678415	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	3906186074	1597.126	PPM
18) H	Oil Acid Clean MO Com...	22.000	91750432	19.770	PPM
19) H	Oil MO Combo (06-07-18)	22.000	91750432	41.364	PPM

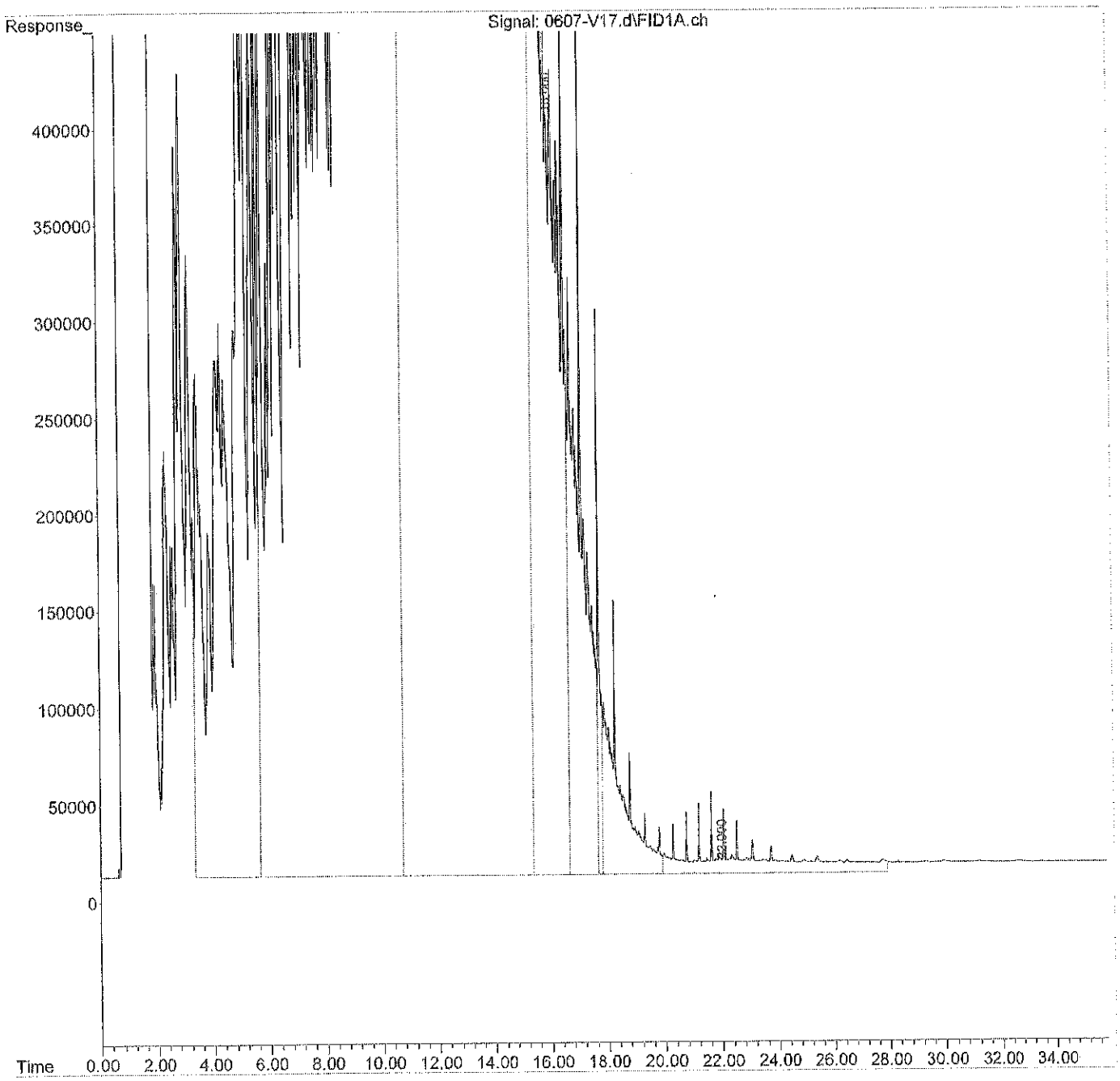
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

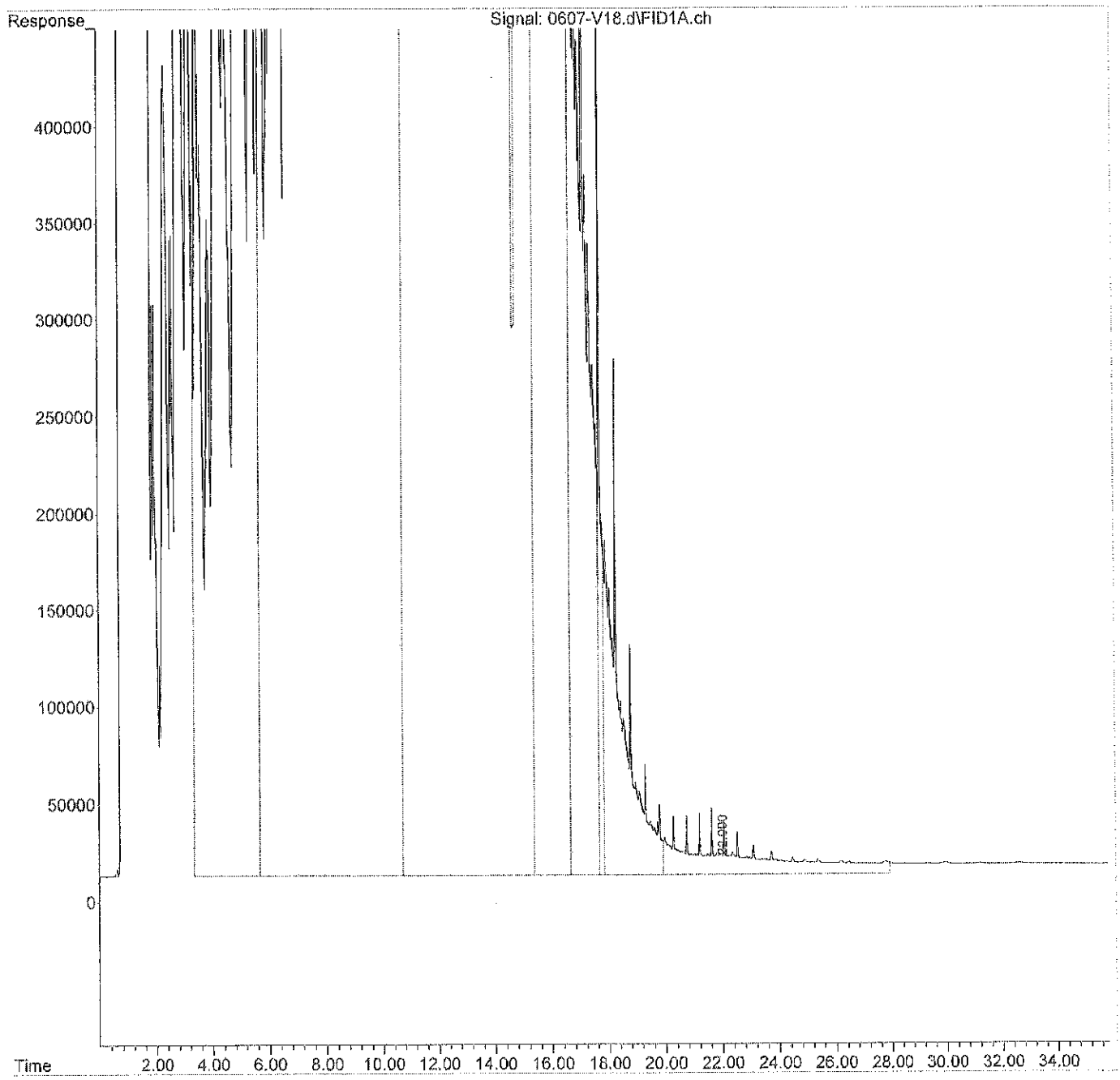
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.663	76998678	28.054	PPM
Spiked Amount	50.000		Recovery =	56.11%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.751	42430766	NoCal	PPM
3)	H Gasoline	3.500	998815431	NoCal	PPM
4)	H Diesel Fuel #1 (06-12...	10.000	11682128479	4577.214	PPM
5)	H Diesel Fuel #2 (06-...	14.000	11885878409	5017.019	PPM
6)	H Oil (06-07-18)	22.000	1050282128	573.445	PPM
7)	H Oil Acid Clean (06-12...	22.000	1050282128	423.340	PPM
8)	H Diesel Fuel #2 Combo ...	14.000	11636990366	5013.565	PPM
9)	H Oil Combo (06-07-18)	22.000	375558313	200.709	PPM
10)	H Oil Acid Clean Combo ...	22.000	375558313	140.724	PPM
11)	H Alaska 102 DF2 ()	13.025	11928301203	NoCal	PPM
12)	H Alaska 103 Oil ()	22.000	83451915	NoCal	PPM
13)	H Mineral Oil (06-08-18)	16.000	7745644585	3038.462	PPM
14)	H Bunker C ACU (Fuel Oi...	15.000	11917323247	NoCal	PPM
15)	H Bunker C (Fuel Oil #6...	15.000	11917323247	NoCal	PPM
16)	H ALKANE C9-C40 10-26-07	12.666	12626887751	NoCal	PPM
17)	H Mineral Oil Combo (06...	16.000	7634286594	3120.377	PPM
18)	H Oil Acid Clean MO Com...	22.000	152380955	46.447	PPM
19)	H Oil MO Combo (06-07-18)	22.000	152380955	76.656	PPM

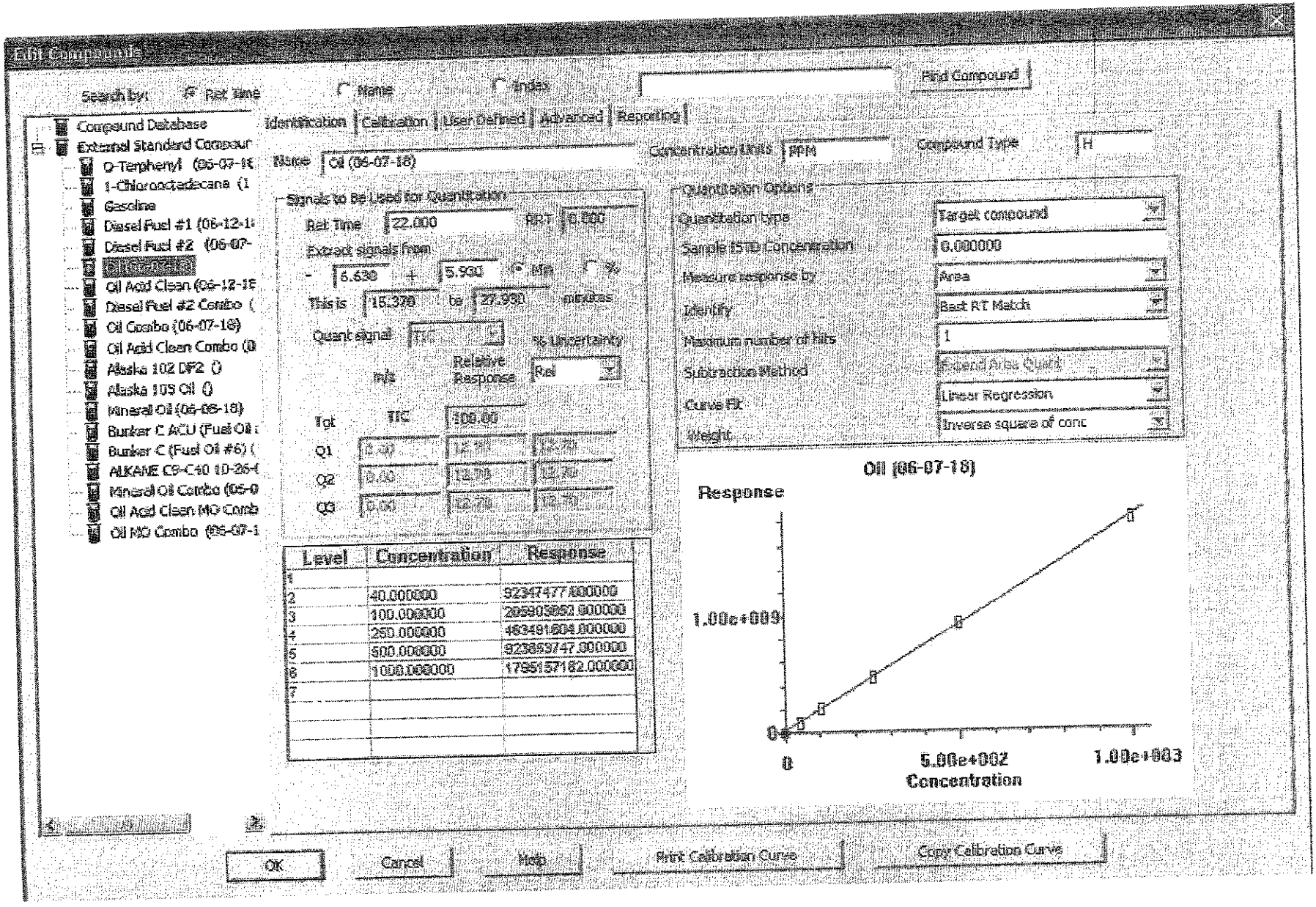
(f)=RT Delta > 1/2 Window (m)=manual int.

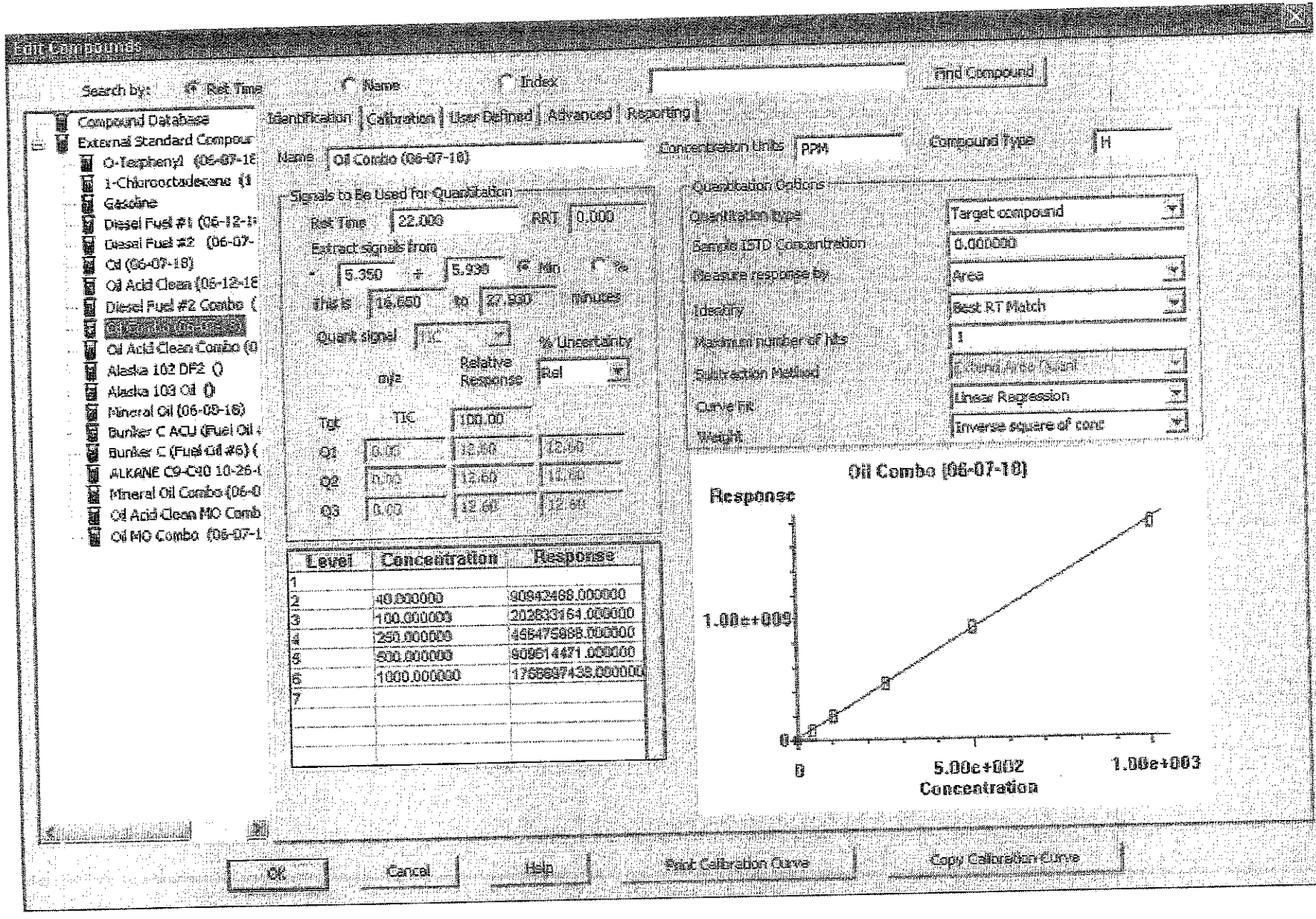
Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil (06-07-18)
Concentration Units
PPM
Compound Type
Signals to Be Used for Quantitation
Ret Time
22.000
RRT
Extract signals from
6.630
5.930
Min
%
This is
15.370
to
29.930
minutes
Quant signal
TIC
% Uncertainty
Ions
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Extend Area Quant
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
2
40.000000
52347477.000000
3
100.000000
205905892.000000
4
250.000000
463491604.000000
5
500.000000
923869747.000000
6
1000.000000
1795157162.000000
7
Oil (06-07-18)
Response
1.00e+009
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by: Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil Combo (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
22.000
ART
0.000
Extract signals from
5.350
5.930
Min
%
This is
16.650
to
27.930
minutes
Quant signal
TIC
% Uncertainty
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identity
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve fit
Linear Regression
Weight
Inverse square of conc
Oil Combo (06-07-18)
Response
1.00e+009
0.0
0
5.00e+002
1.00e+003
Concentration
Level
Concentration
Response
1
2
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909432468.000000
3
100.000000
2028339164.000000
4
250.000000
4854759868.000000
5
500.000000
9096144471.000000
6
1000.000000
17568974380.000000
7
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1674771	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4349802	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	7464800	1.709	PPM
6) H	Oil (06-07-18)	22.000	92347477	39.625	PPM
7) H	Oil Acid Clean (06-12...	22.000	92347477	18.903	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4780848	0.913	PPM
9) H	Oil Combo (06-07-18)	22.000	90942488	39.618	PPM
10) H	Oil Acid Clean Combo ...	22.000	90942488	18.782	PPM
11) H	Alaska 102 DF2 ()	13.025	8451878	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	53467548	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	14998011	6.199	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	101163084	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	101163084	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	99848035	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	5450356	3.338	PPM
18) H	Oil Acid Clean MO Com...	22.000	88735126	18.443	PPM
19) H	Oil MO Combo (06-07-18)	22.000	88735126	39.609	PPM

(f)=RT Delta > 1/2 Window

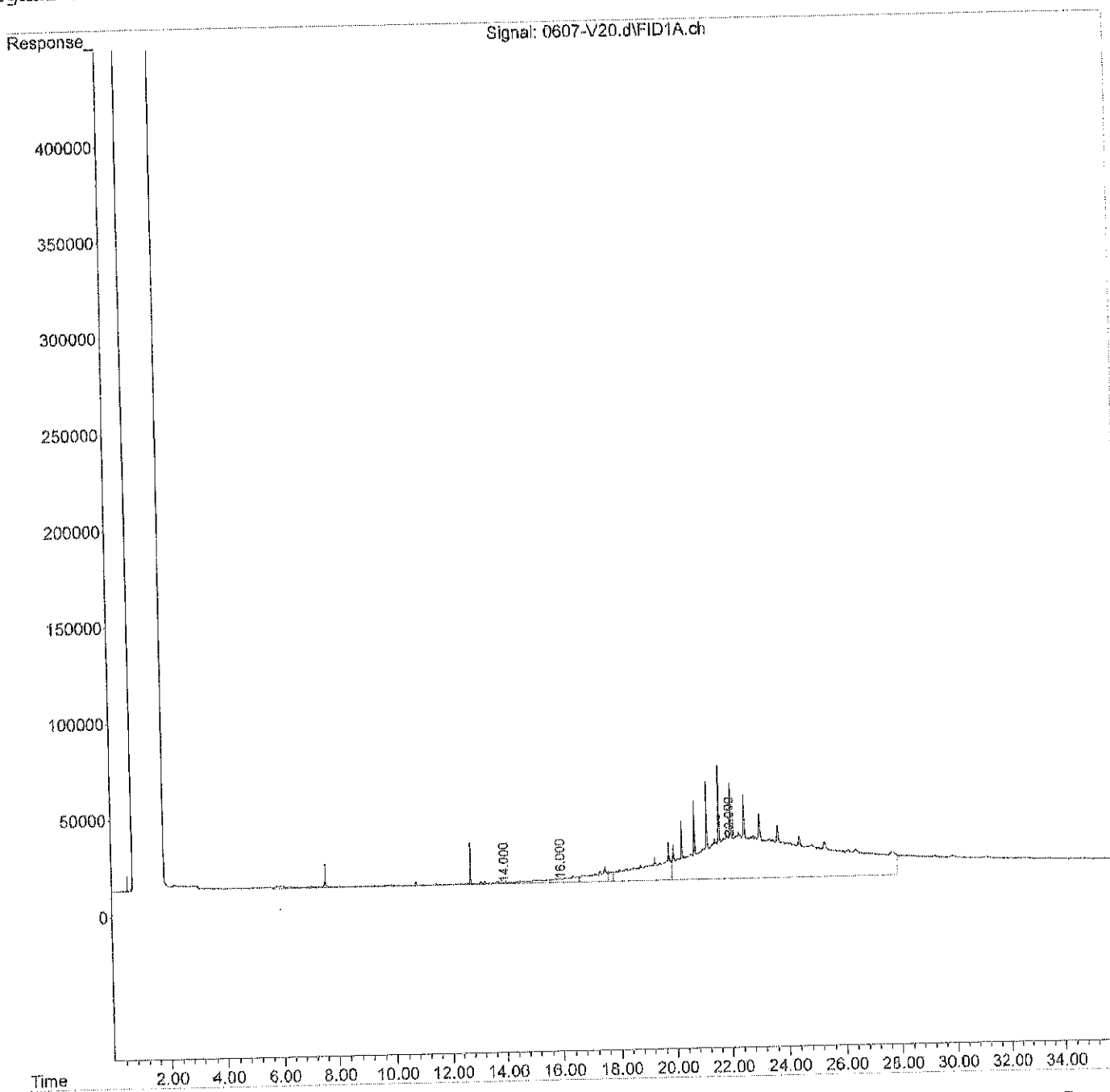
(m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount 50.000			Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1598184	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4418396	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	12922642	4.013	PPM
6) H	Oil (06-07-18)	22.000	205903852	102.906	PPM
7) H	Oil Acid Clean (06-12...	22.000	205903852	66.846	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6563765	1.682	PPM
9) H	Oil Combo (06-07-18)	22.000	202833164	102.947	PPM
10) H	Oil Acid Clean Combo ...	22.000	202833164	66.721	PPM
11) H	Alaska 102 DF2 ()	13.025	15328573	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	121718874	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	33706367	13.537	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	220233304	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	220233304	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	216825077	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	10255046	5.301	PPM
18) H	Oil Acid Clean MO Com...	22.000	197632815	66.358	PPM
19) H	Oil MO Combo (06-07-18)	22.000	197632815	102.996	PPM

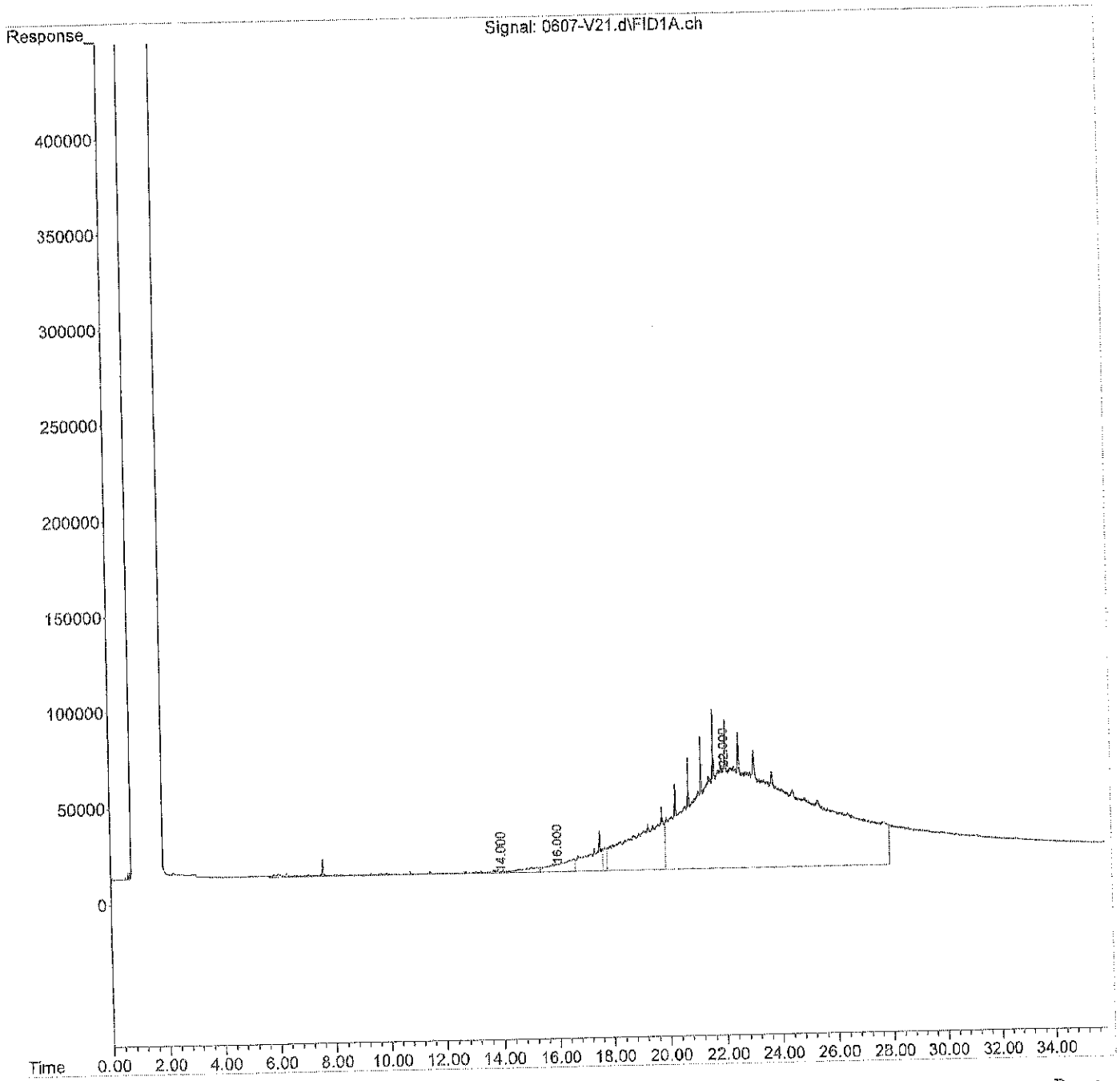
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1546027	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6218526	0.246	PPM
5) H	Diesel Fuel #2 (06-...	14.000	27255505	10.065	PPM
6) H	Oil (06-07-18)	22.000	463491604	246.449	PPM
7) H	Oil Acid Clean (06-12...	22.000	463491604	175.599	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	12350051	4.175	PPM
9) H	Oil Combo (06-07-18)	22.000	456475988	246.508	PPM
10) H	Oil Acid Clean Combo ...	22.000	456475988	175.392	PPM
11) H	Alaska 102 DF2 ()	13.025	32953847	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	276476057	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	77875662	30.862	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	491752125	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	491752125	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	483732259	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	22789674	10.423	PPM
18) H	Oil Acid Clean MO Com...	22.000	444309472	174.894	PPM
19) H	Oil MO Combo (06-07-18)	22.000	444309472	246.581	PPM

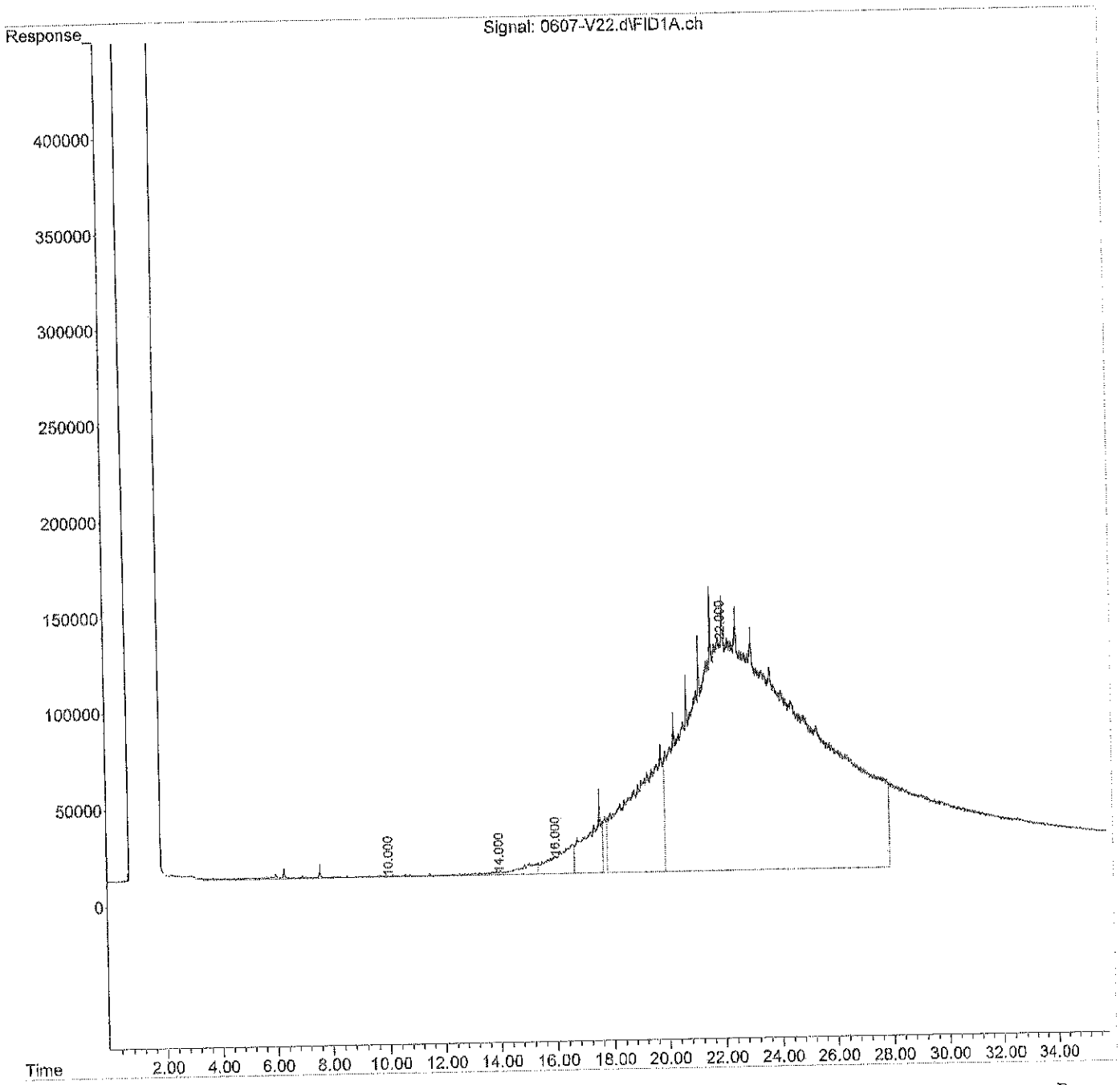
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount		50.000		Recovery =	0.00%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	1940705	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	10844457	2.060	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	54401051	21.526	PPM
6)	H	Oil (06-07-18)	22.000	923853747	502.991	PPM
7)	H	Oil Acid Clean (06-12...	22.000	923853747	369.962	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	23981577	9.188	PPM
9)	H	Oil Combo (06-07-18)	22.000	909614471	502.982	PPM
10)	H	Oil Acid Clean Combo ...	22.000	909614471	369.535	PPM
11)	H	Alaska 102 DF2 ()	13.025	66004621	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	552071448	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	157156060	61.959	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	978412766	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	978412766	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	962198704	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	45999762	19.906	PPM
18)	H	Oil Acid Clean MO Com...	22.000	884778027	368.698	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	884778027	502.968	PPM

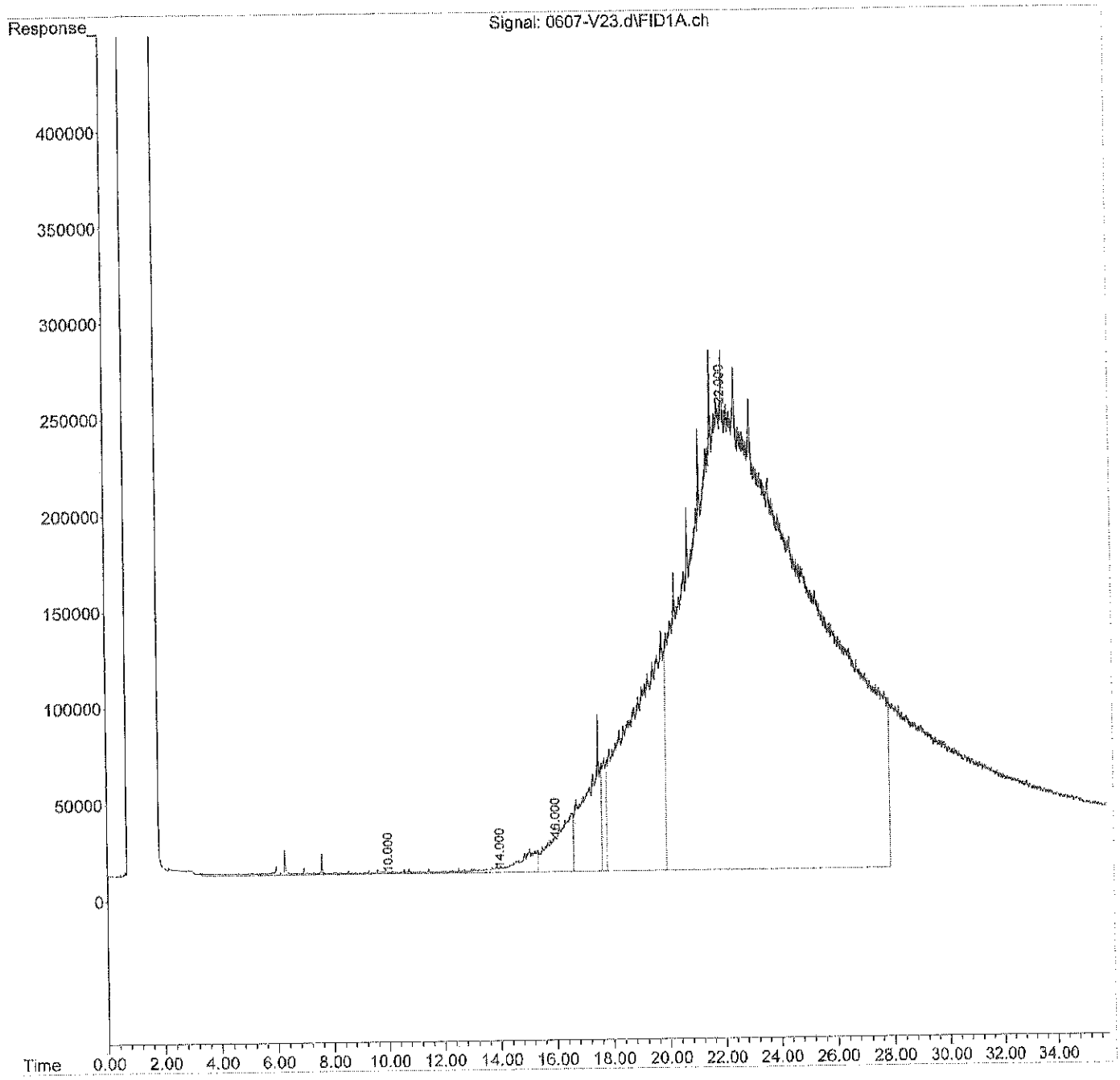
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1782145	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	17398055	4.629	PPM
5) H	Diesel Fuel #2 (06-...	14.000	105304585	43.019	PPM
6) H	Oil (06-07-18)	22.000	1795157182	988.534	PPM
7) H	Oil Acid Clean (06-12...	22.000	1795157182	737.823	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	44853790	18.182	PPM
9) H	Oil Combo (06-07-18)	22.000	1766697438	988.086	PPM
10) H	Oil Acid Clean Combo ...	22.000	1766697438	736.745	PPM
11) H	Alaska 102 DF2 ()	13.025	128211822	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	1072600956	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	308958277	121.502	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1897916566	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1897916566	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1865896028	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	90565974	38.115	PPM
18) H	Oil Acid Clean MO Com...	22.000	1717287209	734.997	PPM
19) H	Oil MO Combo (06-07-18)	22.000	1717287209	987.553	PPM

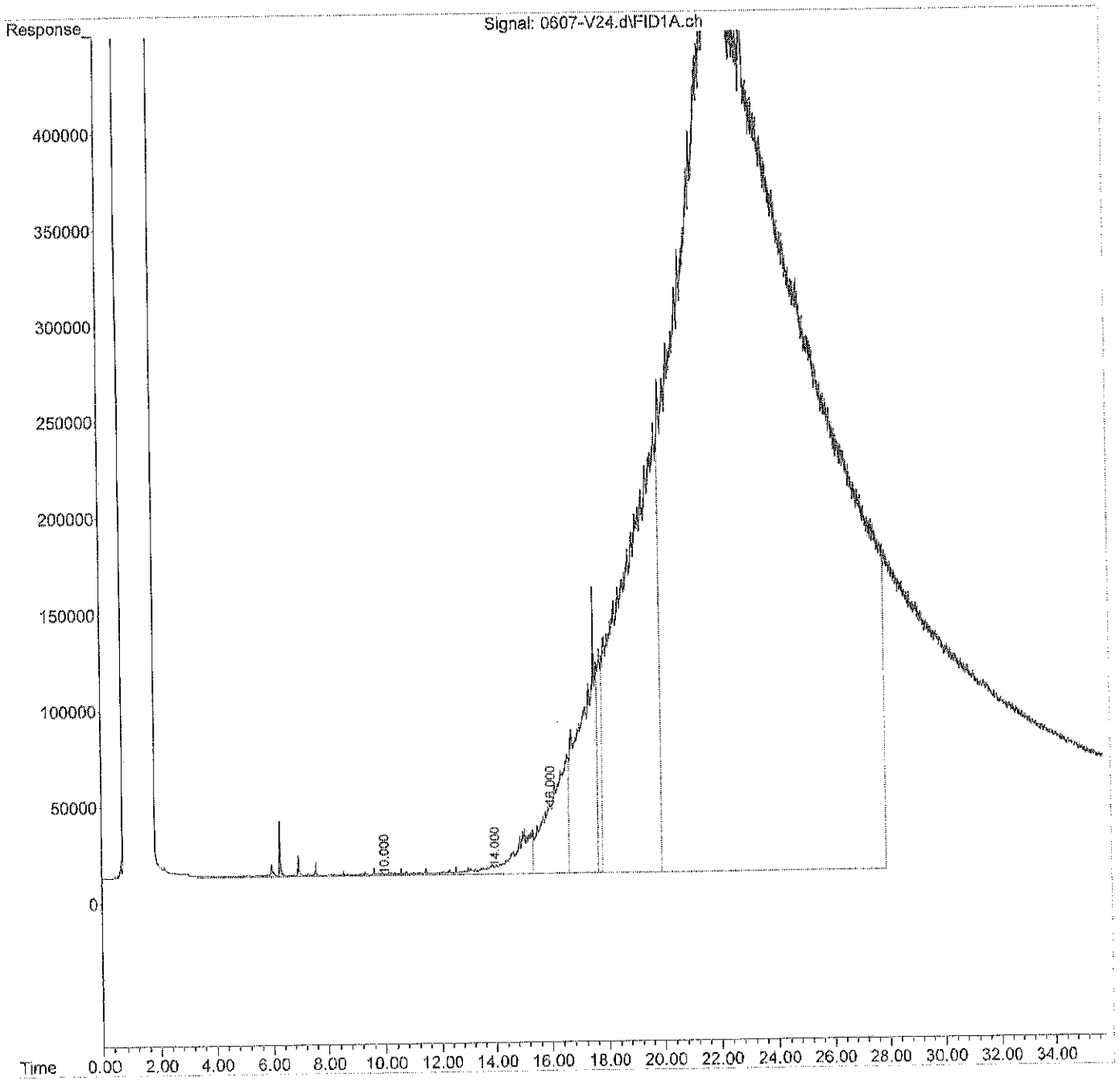
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.890	4592544	NoCal	PPM
3) H	Gasoline	3.500	23135296	NoCal	PPM
4) H	Diesel Fuel #1 (03-14...	10.000	228603455	NoCal	PPM
5) H	Diesel Fuel #2 (06-...	14.000	242935381	101.129	PPM
6) H	Oil (06-07-18)	22.000	57884255	20.420	PPM
7) H	Oil Acid Clean (03-13...	22.000	57884255	NoCal	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	236032700	100.566	PPM
9) H	Oil Combo (06-07-18)	22.000	34848739	7.869	PPM
10) H	Oil Acid Clean Combo ...	22.000	34848739	NoCal	PPM
11) H	Alaska 102 DF2 ()	13.025	244345227	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14426576	NoCal	PPM
13) H	Mineral Oil (06-01-18)	16.000	158574203	61.224	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271566231	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271566231	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	285842892	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153670430	61.811	PPM
18) H	Oil Acid Clean MO Com...	22.000	28691923	NoCal	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28691923	4.659	PPM

(f)=RT Delta > 1/2 Window

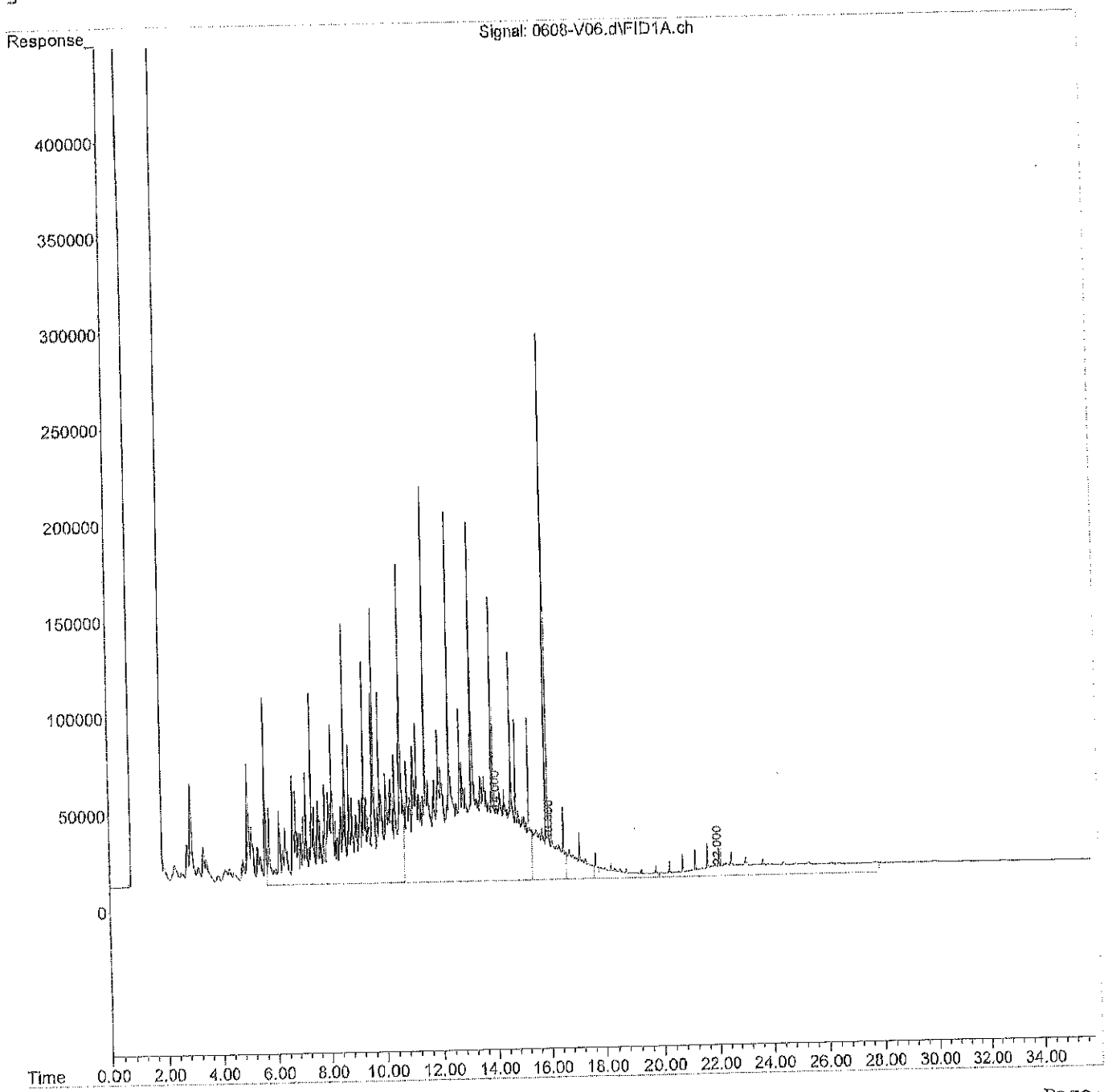
(m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Sequence Name: C:\msdchem\2\sequence\V180904.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180904\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info		
1)	Unlinked			
2)	RearSamp	51	0904-V51	V171204R CCV0904R-V1
3)	Sample	1	0904-V01	V180601F CCV0904F-V1
4)	RearSamp	52	0904-V52	V171204R LOCCV0904R-V1
5)	Sample	2	0904-V02	V180601F LOCCV0904F-V1
6)	RearSamp	53	0904-V53	V171204R SPCCV0904R-V1
7)	Sample	3	0904-V03	V180601F 08-326-04 RR
8)	RearSamp	54	0904-V54	V171204R MB0904W1
9)	Sample	4	0904-V04	V180601F SB0904W1
10)	RearSamp	55	0904-V55	V171204R 08-392-02
11)	Sample	5	0904-V05	V180601F 08-382-02
12)	RearSamp	56	0904-V56	V171204R 08-392-02 DUP
13)	Sample	6	0904-V06	V180601F 08-382-01
14)	RearSamp	57	0904-V57	V171204R 08-385-01
15)	Sample	7	0904-V07	V180601F MB0904S2
16)	RearSamp	58	0904-V58	V171204R 08-385-01 DUP
17)	Sample	8	0904-V08	V180601F MB0904S3
18)	RearSamp	59	0904-V59	V171204R 08-385-02
19)	Sample	9	0904-V09	V180601F SB0904S2
20)	RearSamp	60	0904-V60	V171204R 08-385-03
21)	Sample	10	0904-V10	V180601F SB0904S3
22)	RearSamp	61	0904-V61	V171204R CCV0904R-V2
23)	Sample	11	0904-V11	V180601F CCV0904F-V2
24)	RearSamp	62	0904-V62	V171204R 08-385-04
25)	Sample	12	0904-V12	V180601F 08-327-12
26)	RearSamp	63	0904-V63	V171204R 08-385-05
27)	Sample	13	0904-V13	V180601F 08-327-19
28)	RearSamp	64	0904-V64	V171204R 08-385-06
29)	Sample	14	0904-V14	V180601F 08-327-19 DUP
30)	RearSamp	65	0904-V65	V171204R 08-385-07
31)	Sample	15	0904-V15	V180601F 08-327-13
32)	RearSamp	66	0904-V66	V171204R 08-380-01
33)	Sample	16	0904-V16	V180601F 08-327-13 DUP
34)	RearSamp	67	0904-V67	V171204R 08-380-01 DUP
35)	Sample	17	0904-V17	V180601F 08-327-46
36)	RearSamp	68	0904-V68	V171204R 08-380-02
37)	Sample	18	0904-V18	V180601F 08-327-46 DUP
38)	RearSamp	69	0904-V69	V171204R 08-380-03
39)	Sample	19	0904-V19	V180601F 08-327-34
40)	RearSamp	70	0904-V70	V171204R 08-380-04
41)	Sample	20	0904-V20	V180601F 08-327-35
42)	RearSamp	71	0904-V71	V171204R 08-380-05
43)	Sample	21	0904-V21	V180601F M

Sequence Name: C:\msdchem\2\sequence\V180904.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	72	0904-V72	V171204R	M
45)		Sample	22	0904-V22	V180601F	M
46)		RearSamp	73	0904-V73	V171204R	CCV0904R-V3
47)		Sample	23	0904-V23	V180601F	CCV0904F-V3
48)		RearSamp	74	0904-V74	V171204R	MB0904S4
49)		Sample	24	0904-V24	V180601F	08-327-23
50)		RearSamp	75	0904-V75	V171204R	08-387-03
51)		Sample	25	0904-V25	V180601F	08-327-29
52)		RearSamp	76	0904-V76	V171204R	08-388-01
53)		Sample	26	0904-V26	V180601F	08-327-17
54)		RearSamp	77	0904-V77	V171204R	08-388-02
55)		Sample	27	0904-V27	V180601F	08-327-43
56)		RearSamp	78	0904-V78	V171204R	08-388-03
57)		Sample	28	0904-V28	V180601F	M
58)		RearSamp	79	0904-V79	V171204R	09-002-01
59)		Sample	29	0904-V29	V180601F	08-327-33
60)		RearSamp	80	0904-V80	V171204R	09-002-01 DUP
61)		Sample	30	0904-V30	V180601F	M
62)		RearSamp	81	0904-V81	V171204R	M
63)		Sample	31	0904-V31	V180601F	08-327-28
64)		RearSamp	82	0904-V82	V171204R	08-358-06
65)		Sample	32	0904-V32	V180601F	M
66)		RearSamp	83	0904-V83	V171204R	M
67)		Sample	33	0904-V33	V180601F	08-327-07
68)		RearSamp	84	0904-V84	V171204R	CCV0904R-V4
69)		Sample	34	0904-V34	V180601F	CCV0904F-V4
70)		RearSamp	85	0904-V85	V171204R	
71)		Sample	35	0904-V35	V180601F	
72)		RearSamp	86	0904-V86	V171204R	
73)		Sample	36	0904-V36	V180601F	
74)		RearSamp	87	0904-V87	V171204R	
75)		Sample	37	0904-V37	V180601F	
76)		RearSamp	88	0904-V88	V171204R	
77)		Sample	38	0904-V38	V180601F	
78)		RearSamp	89	0904-V89	V171204R	
79)		Sample	39	0904-V39	V180601F	
80)		RearSamp	90	0904-V90	V171204R	
81)		Sample	40	0904-V40	V180601F	
82)		RearSamp	91	0904-V91	V171204R	
83)		Sample	41	0904-V41	V180601F	
84)		RearSamp	92	0904-V92	V171204R	
85)		Sample	42	0904-V42	V180601F	
86)		RearSamp	93	0904-V93	V171204R	
87)		Sample	43	0904-V43	V180601F	
88)		RearSamp	94	0904-V94	V171204R	
89)		Sample	44	0904-V44	V180601F	
90)		RearSamp	95	0904-V95	V171204R	
91)		Sample	45	0904-V45	V180601F	
92)		RearSamp	96	0904-V96	V171204R	
93)		Sample	46	0904-V46	V180601F	
94)		RearSamp	97	0904-V97	V171204R	
95)		Sample	47	0904-V47	V180601F	
96)		RearSamp	98	0904-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180905.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180905\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info		
1)	Unlinked				
2)	RearSamp	51	0905-V51	V171204R	CCV0905R-V1
3)	Sample	1	0905-V01	V180601F	CCV0905F-V1
4)	RearSamp	52	0905-V52	V171204R	LOCCV0905R-V1
5)	Sample	2	0905-V02	V180601F	LOCCV0905F-V1
6)	RearSamp	53	0905-V53	V171204R	MB0905S1
7)	Sample	3	0905-V03	V180601F	08-327-39
8)	RearSamp	54	0905-V54	V171204R	SB0905S1
9)	Sample	4	0905-V04	V180601F	08-327-25
10)	RearSamp	55	0905-V55	V171204R	09-004-04
11)	Sample	5	0905-V05	V180601F	08-327-22
12)	RearSamp	56	0905-V56	V171204R	09-004-04 DUP
13)	Sample	6	0905-V06	V180601F	08-327-26
14)	RearSamp	57	0905-V57	V171204R	09-004-15
15)	Sample	7	0905-V07	V180601F	08-327-33 5X
16)	RearSamp	58	0905-V58	V171204R	09-004-15 DUP
17)	Sample	8	0905-V08	V180601F	08-327-25 5X
18)	RearSamp	59	0905-V59	V171204R	09-004-07
19)	Sample	9	0905-V09	V180601F	08-327-22 5X
20)	RearSamp	60	0905-V60	V171204R	09-004-09
21)	Sample	10	0905-V10	V180601F	08-327-26 4X
22)	RearSamp	61	0905-V61	V171204R	M
23)	Sample	11	0905-V11	V180601F	M
24)	RearSamp	62	0905-V62	V171204R	CCV0905R-V2
25)	Sample	12	0905-V12	V180601F	CCV0905F-V2
26)	RearSamp	63	0905-V63	V171204R	09-004-16
27)	Sample	13	0905-V13	V180601F	08-327-45 2X
28)	RearSamp	64	0905-V64	V171204R	09-004-05
29)	Sample	14	0905-V14	V180601F	08-327-06 2X
30)	RearSamp	65	0905-V65	V171204R	09-004-02
31)	Sample	15	0905-V15	V180601F	08-327-18 2X
32)	RearSamp	66	0905-V66	V171204R	09-004-13
33)	Sample	16	0905-V16	V180601F	08-327-32 2X
34)	RearSamp	67	0905-V67	V171204R	09-011-01
35)	Sample	17	0905-V17	V180601F	08-327-16 2X
36)	RearSamp	68	0905-V68	V171204R	09-004-11
37)	Sample	18	0905-V18	V180601F	M
38)	RearSamp	69	0905-V69	V171204R	09-004-18
39)	Sample	19	0905-V19	V180601F	08-327-42 5X
40)	RearSamp	70	0905-V70	V171204R	09-004-01
41)	Sample	20	0905-V20	V180601F	M
42)	RearSamp	71	0905-V71	V171204R	M
43)	Sample	21	0905-V21	V180601F	M

Sequence Name: C:\msdchem\2\sequence\V180905.s

	Line Type	Vial	DataFile	Method	Sample Name
44)	RearSamp	72	0905-V72	V171204R	M
45)	Sample	22	0905-V22	V180601F	M
46)	RearSamp	73	0905-V73	V171204R	CCV0905R-~~V4~~ V3 ST 9-6-18
47)	Sample	23	0905-V23	V180601F	CCV0905F-~~V4~~ V3
48)	RearSamp	74	0905-V74	V171204R	09-004-10
49)	Sample	24	0905-V24	V180601F	08-327-41 5X
50)	RearSamp	75	0905-V75	V171204R	M
51)	Sample	25	0905-V25	V180601F	M
52)	RearSamp	76	0905-V76	V171204R	09-004-12
53)	Sample	26	0905-V26	V180601F	08-327-04 10X
54)	RearSamp	77	0905-V77	V171204R	M
55)	Sample	27	0905-V27	V180601F	M
56)	RearSamp	78	0905-V78	V171204R	09-004-06
57)	Sample	28	0905-V28	V180601F	08-327-03
58)	RearSamp	79	0905-V79	V171204R	M
59)	Sample	29	0905-V29	V180601F	M
60)	RearSamp	80	0905-V80	V171204R	M
61)	Sample	30	0905-V30	V180601F	M
62)	RearSamp	81	0905-V81	V171204R	M
63)	Sample	31	0905-V31	V180601F	M
64)	RearSamp	82	0905-V82	V171204R	CCV0905R-~~V5~~ V4 ST 9-6-18
65)	Sample	32	0905-V32	V180601F	CCV0905F-~~V5~~ V4
66)	RearSamp	83	0905-V83	V171204R	
67)	Sample	33	0905-V33	V180601F	
68)	RearSamp	84	0905-V84	V171204R	
69)	Sample	34	0905-V34	V180601F	
70)	RearSamp	85	0905-V85	V171204R	
71)	Sample	35	0905-V35	V180601F	
72)	RearSamp	86	0905-V86	V171204R	
73)	Sample	36	0905-V36	V180601F	
74)	RearSamp	87	0905-V87	V171204R	
75)	Sample	37	0905-V37	V180601F	
76)	RearSamp	88	0905-V88	V171204R	
77)	Sample	38	0905-V38	V180601F	
78)	RearSamp	89	0905-V89	V171204R	
79)	Sample	39	0905-V39	V180601F	
80)	RearSamp	90	0905-V90	V171204R	
81)	Sample	40	0905-V40	V180601F	
82)	RearSamp	91	0905-V91	V171204R	
83)	Sample	41	0905-V41	V180601F	
84)	RearSamp	92	0905-V92	V171204R	
85)	Sample	42	0905-V42	V180601F	
86)	RearSamp	93	0905-V93	V171204R	
87)	Sample	43	0905-V43	V180601F	
88)	RearSamp	94	0905-V94	V171204R	
89)	Sample	44	0905-V44	V180601F	
90)	RearSamp	95	0905-V95	V171204R	
91)	Sample	45	0905-V45	V180601F	
92)	RearSamp	96	0905-V96	V171204R	
93)	Sample	46	0905-V46	V180601F	
94)	RearSamp	97	0905-V97	V171204R	
95)	Sample	47	0905-V47	V180601F	
96)	RearSamp	98	0905-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180906.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180906\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info	
1)	Unlinked			
2)	RearSamp	51	0906-V51	V171204R CCV0906R-V1
3)	Sample	1	0906-V01	V180601F CCV0906F-V1
4)	RearSamp	52	0906-V52	V171204R LOCCV0906R-V1
5)	Sample	2	0906-V02	V180601F LOCCV0906F-V1
6)	RearSamp	53	0906-V53	V171204R SB0906S1
7)	Sample	3	0906-V03	V180601F 08-327-32 10X
8)	RearSamp	54	0906-V54	V171204R MB0906S1
9)	Sample	4	0906-V04	V180601F 08-327-06
10)	RearSamp	55	0906-V55	V171204R 09-023-01
11)	Sample	5	0906-V05	V180601F M
12)	RearSamp	56	0906-V56	V171204R 09-023-02
13)	Sample	6	0906-V06	V180601F 08-327-04 2X
14)	RearSamp	57	0906-V57	V171204R 09-023-02 DUP
15)	Sample	7	0906-V07	V180601F M
16)	RearSamp	58	0906-V58	V171204R CCV0906R-V2
17)	Sample	8	0906-V08	V180601F CCV0906F-V2
18)	RearSamp	59	0906-V59	V171204R
19)	Sample	9	0906-V09	V180601F
20)	RearSamp	60	0906-V60	V171204R
21)	Sample	10	0906-V10	V180601F
22)	RearSamp	61	0906-V61	V171204R
23)	Sample	11	0906-V11	V180601F
24)	RearSamp	62	0906-V62	V171204R
25)	Sample	12	0906-V12	V180601F
26)	RearSamp	63	0906-V63	V171204R
27)	Sample	13	0906-V13	V180601F
28)	RearSamp	64	0906-V64	V171204R
29)	Sample	14	0906-V14	V180601F
30)	RearSamp	65	0906-V65	V171204R
31)	Sample	15	0906-V15	V180601F
32)	RearSamp	66	0906-V66	V171204R
33)	Sample	16	0906-V16	V180601F
34)	RearSamp	67	0906-V67	V171204R
35)	Sample	17	0906-V17	V180601F
36)	RearSamp	68	0906-V68	V171204R
37)	Sample	18	0906-V18	V180601F
38)	RearSamp	69	0906-V69	V171204R
39)	Sample	19	0906-V19	V180601F
40)	RearSamp	70	0906-V70	V171204R
41)	Sample	20	0906-V20	V180601F
42)	RearSamp	71	0906-V71	V171204R
43)	Sample	21	0906-V21	V180601F

Sequence Name: C:\msdchem\2\sequence\V180906.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	72	0906-V72	V171204R	
45)		Sample	22	0906-V22	V180601F	
46)		RearSamp	73	0906-V73	V171204R	
47)		Sample	23	0906-V23	V180601F	
48)		RearSamp	74	0906-V74	V171204R	
49)		Sample	24	0906-V24	V180601F	
50)		RearSamp	75	0906-V75	V171204R	
51)		Sample	25	0906-V25	V180601F	
52)		RearSamp	76	0906-V76	V171204R	
53)		Sample	26	0906-V26	V180601F	
54)		RearSamp	77	0906-V77	V171204R	
55)		Sample	27	0906-V27	V180601F	
56)		RearSamp	78	0906-V78	V171204R	
57)		Sample	28	0906-V28	V180601F	
58)		RearSamp	79	0906-V79	V171204R	
59)		Sample	29	0906-V29	V180601F	
60)		RearSamp	80	0906-V80	V171204R	
61)		Sample	30	0906-V30	V180601F	
62)		RearSamp	81	0906-V81	V171204R	
63)		Sample	31	0906-V31	V180601F	
64)		RearSamp	82	0906-V82	V171204R	
65)		Sample	32	0906-V32	V180601F	
66)		RearSamp	83	0906-V83	V171204R	
67)		Sample	33	0906-V33	V180601F	
68)		RearSamp	84	0906-V84	V171204R	
69)		Sample	34	0906-V34	V180601F	
70)		RearSamp	85	0906-V85	V171204R	
71)		Sample	35	0906-V35	V180601F	
72)		RearSamp	86	0906-V86	V171204R	
73)		Sample	36	0906-V36	V180601F	
74)		RearSamp	87	0906-V87	V171204R	
75)		Sample	37	0906-V37	V180601F	
76)		RearSamp	88	0906-V88	V171204R	
77)		Sample	38	0906-V38	V180601F	
78)		RearSamp	89	0906-V89	V171204R	
79)		Sample	39	0906-V39	V180601F	
80)		RearSamp	90	0906-V90	V171204R	
81)		Sample	40	0906-V40	V180601F	
82)		RearSamp	91	0906-V91	V171204R	
83)		Sample	41	0906-V41	V180601F	
84)		RearSamp	92	0906-V92	V171204R	
85)		Sample	42	0906-V42	V180601F	
86)		RearSamp	93	0906-V93	V171204R	
87)		Sample	43	0906-V43	V180601F	
88)		RearSamp	94	0906-V94	V171204R	
89)		Sample	44	0906-V44	V180601F	
90)		RearSamp	95	0906-V95	V171204R	
91)		Sample	45	0906-V45	V180601F	
92)		RearSamp	96	0906-V96	V171204R	
93)		Sample	46	0906-V46	V180601F	
94)		RearSamp	97	0906-V97	V171204R	
95)		Sample	47	0906-V47	V180601F	
96)		RearSamp	98	0906-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180906.s

	Line	Type	Vial	DataFile	Method	Sample Name
97)		Sample	48	0906-V48	V180601F	
98)		RearSamp	99	0906-V99	V171204R	
99)		Sample	49	0906-V49	V180601F	
100)		RearSamp	100			
		Datafile		0906-V100		
		Method		V171204R		
101)		Sample	50	0906-V50	V180601F	

Sequence Name: C:\msdchem\2\sequence\V180607.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180607\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Unlinked		
2)	RearSamp	51	0607-V51 V171204R LOCCV0607R-V1
3)	Sample	1	0607-V01 V180601F M
4)	RearSamp	52	0607-V52 V171204R LOCCV0607R-V1
5)	Sample	2	0607-V02 V180601F M
6)	RearSamp	53	0607-V53 V171204R CCV0607R-V1
7)	Sample	3	0607-V03 V180601F 100 PPM DF2 ICV
8)	RearSamp	54	0607-V54 V171204R M
9)	Sample	4	0607-V04 V180601F CCV0607F-V1
10)	RearSamp	55	0607-V55 V171204R
11)	Sample	5	0607-V05 V180601F LOCCV0607F-V1
12)	RearSamp	56	0607-V56 V171204R DF2
13)	Sample	6	0607-V06 V180601F M
14)	RearSamp	57	0607-V57 V171204R OIL
15)	Sample	7	0607-V07 V180601F 4 PPM SURR ICAL
16)	RearSamp	58	0607-V58 V171204R M
17)	Sample	8	0607-V08 V180601F 8 PPM SURR ICAL
18)	RearSamp	59	0607-V59 V171204R M
19)	Sample	9	0607-V09 V180601F 20 PPM SURR ICAL
20)	RearSamp	60	0607-V60 V171204R M
21)	Sample	10	0607-V10 V180601F 40 PPM SURR ICAL
22)	RearSamp	61	0607-V61 V171204R M
23)	Sample	11	0607-V11 V180601F 80 PPM SURR ICAL
24)	RearSamp	62	0607-V62 V171204R M
25)	Sample	12	0607-V12 V180601F 200 PPM SURR ICAL
26)	RearSamp	63	0607-V63 V171204R M
27)	Sample	13	0607-V13 V180601F 10 PPM DF2 ICAL
28)	RearSamp	64	0607-V64 V171204R M
29)	Sample	14	0607-V14 V180601F 20 PPM DF2 ICAL
30)	RearSamp	65	0607-V65 V171204R M
31)	Sample	15	0607-V15 V180601F 100 PPM DF2 ICAL
32)	RearSamp	66	0607-V66 V171204R M
33)	Sample	16	0607-V16 V180601F 500 PPM DF2 ICAL
34)	RearSamp	67	0607-V67 V171204R M
35)	Sample	17	0607-V17 V180601F 2500 PPM DF2 ICAL
36)	RearSamp	68	0607-V68 V171204R M
37)	Sample	18	0607-V18 V180601F 5000 PPM DF2 ICAL
38)	RearSamp	69	0607-V69 V171204R M
39)	Sample	19	0607-V19 V180601F M
40)	RearSamp	70	0607-V70 V171204R M
41)	Sample	20	0607-V20 V180601F 40 PPM LO ICAL
42)	RearSamp	71	0607-V71 V171204R M
43)	Sample	21	0607-V21 V180601F 100 PPM LO ICAL

Sequence Name: C:\msdchem\2\sequence\V180607.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)	RearSamp		72	0607-V72	V171204R	M
45)	Sample		22	0607-V22	V180601F	250 PPM LO ICAL
46)	RearSamp		73	0607-V73	V171204R	M
47)	Sample		23	0607-V23	V180601F	500 PPM LO ICAL
48)	RearSamp		74	0607-V74	V171204R	M
49)	Sample		24	0607-V24	V180601F	1000 PPM LO ICAL
50)	RearSamp		75	0607-V75	V171204R	M
51)	Sample		25	0607-V25	V180601F	M
52)	RearSamp		76	0607-V76	V171204R	M
53)	Sample		26	0607-V26	V180601F	M
54)	RearSamp		77	0607-V77	V171204R	
55)	Sample		27	0607-V27	V180601F	
56)	RearSamp		78	0607-V78	V171204R	
57)	Sample		28	0607-V28	V180601F	
58)	RearSamp		79	0607-V79	V171204R	
59)	Sample		29	0607-V29	V180601F	
60)	RearSamp		80	0607-V80	V171204R	
61)	Sample		30	0607-V30	V180601F	
62)	RearSamp		81	0607-V81	V171204R	
63)	Sample		31	0607-V31	V180601F	
64)	RearSamp		82	0607-V82	V171204R	
65)	Sample		32	0607-V32	V180601F	
66)	RearSamp		83	0607-V83	V171204R	
67)	Sample		33	0607-V33	V180601F	
68)	RearSamp		84	0607-V84	V171204R	
69)	Sample		34	0607-V34	V180601F	
70)	RearSamp		85	0607-V85	V171204R	
71)	Sample		35	0607-V35	V180601F	
72)	RearSamp		86	0607-V86	V171204R	
73)	Sample		36	0607-V36	V180601F	
74)	RearSamp		87	0607-V87	V171204R	
75)	Sample		37	0607-V37	V180601F	
76)	RearSamp		88	0607-V88	V171204R	
77)	Sample		38	0607-V38	V180601F	
78)	RearSamp		89	0607-V89	V171204R	
79)	Sample		39	0607-V39	V180601F	
80)	RearSamp		90	0607-V90	V171204R	
81)	Sample		40	0607-V40	V180601F	
82)	RearSamp		91	0607-V91	V171204R	
83)	Sample		41	0607-V41	V180601F	
84)	RearSamp		92	0607-V92	V171204R	
85)	Sample		42	0607-V42	V180601F	
86)	RearSamp		93	0607-V93	V171204R	
87)	Sample		43	0607-V43	V180601F	
88)	RearSamp		94	0607-V94	V171204R	
89)	Sample		44	0607-V44	V180601F	
90)	RearSamp		95	0607-V95	V171204R	
91)	Sample		45	0607-V45	V180601F	
92)	RearSamp		96	0607-V96	V171204R	
93)	Sample		46	0607-V46	V180601F	
94)	RearSamp		97	0607-V97	V171204R	
95)	Sample		47	0607-V47	V180601F	
96)	RearSamp		98	0607-V98	V171204R	

Pacific Environmental Inc. NWTPH-DIESEL/HCID EXTRACTION LOG

Date Extracted: 9/4/18 Time Ext. _____ am/pm

Surrogate Std. I.D. SV3-29-0.5

Analysis: DX Micro

Spike Std. I.D. SV3-28-11

Matrix: SOIL

OSE Traveler #	pH	SAMPLE W/V	PRE CONC VOLUME	SUB ALIQUOT TAKEN	SUB ALIQUOT FIN. VOL.	CONC SAMPLE FIN. VOL.	AMT SUR	AMT SPIKE	CLEAN UP	Analyst	Comments Batch QA/QC
MB090452		5.0g	15mL	—	—	5mL	100µL	—	No	AK	
SB090452								50µL			
08-327-03								—			wood
04											
06											
07											
12											
13											
13DUP											
16											smelly
17											↓
18											
19											
19DUP											
22											smelly
23											
25											smelly
26											↓
28											slightly smelly
29											
32											smelly
33											
34											
35											↓

Clean-up (A)Acid cleanup (S)Silica gel cleanup

Environmental Inc.

SW1311-DIESEL/HCID EXTRACTION LOG

Date Extracted: 8/4/13 Time Ext: _____ Analyst _____ Surrogate Std. I.D. SV3-24-05

Analysis: DX Micro Spike Std. I.D. SV3-23-11

Matrix: SOIL

OSE Traveler #	pH	SAMPLE W/V	PRE CONC VOLUME	SUB ALIQUOT TAKEN	SUB ALIQUOT FIN. VOL.	CONC SAMPLE FIN. VOL.	AMT SUR	AMT SPIKE	CLEAN UP	Analyst	Comments Batch QA/QC
MB090453		5.0g	15mL			5mL	100mL		N_2	AK	
SB090453								50µL			
08-327-39											
41											AK 8/4/13
42											~~Kind~~ slightly smelly
43											
45											Smelly
46											
46DUP											

Clean-up (A)Acid cleanup (S)Silica gel cleanup

Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Prep Date
AK 103 Ical								
40 ppm	SV2-93-01	SV2-93-23	10000 ppm	40 µl	10 ml	40 ppm	MeCl2	8-4-10
100 ppm	-02	↓	↓	100 µl	↓	100 ppm	↓	↓
500 ppm	-03			500 µl		500 ppm		
1000 ppm	-04			1 ml		1000 ppm		
2500 ppm	-05			2.5 ml		2500 ppm		
AK103 Mix #1	SV2-93-06	SV2-66-18 SV2-66-19	Neat	57/57 g	10 g	Neat	—	8/5/10
Lube Oil Stock (Non-Acid Cleaned)	SV2-93-07	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	MeCl2	↓
AK103 Spike	SV2-93-08	↓	↓	↓	↓	↓	↓	
AK 103 Ical								
40 ppm	SV2-93-09	SV2-93-07	10,000 ppm	40 µl	10 ml	40 ppm		
100 ppm	-10			100 µl		100 ppm		
500 ppm	-11			500 µl		500 ppm		
1000 ppm	-12			1 ml		1000 ppm		
2500 ppm	-13			2.5 ml		2500 ppm		
Lube Oil Stock Acid Cleaned	SV2-93-14	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	MeCl2	8-16-10
Lube Oil ICV	SV2-93-15	SV2-93-14	10,000 ppm	0.5 ml	50 ml	100 ppm	MeCl2	↓
LO Ical								
40 ppm	SV2-93-16	SV2-89-24	40 µl → 10,000 ppm		10 ml	40 ppm	MeCl2	8-18-10
100 ppm	-17	↓	100 µl →	↓	↓	100 ppm	↓	↓
500 ppm	-18		500 µl →			500 ppm		
1000 ppm	-19		1000 µl →			1000 ppm		
2500 ppm	-20		2500 µl →			2500 ppm		
DF2 CCV	SV2-93-21	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	MeCl2	8-18-10
ICV Surr.	SV2-93-22	04403 JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-2-10
DF2 Spike	SV2-93-23	SV2-86-01	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-7-10
TOIL CCV	SV2-93-24	SV2-90-18	10,000 ppm	1.0 ml	100 ml	100 ppm	MeCl2	9-9-10
DF2 CCV	SV2-93-25	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	MeCl2	9-22-10
DF2 Surr.	SV2-93-26	04403JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	10-01-10
1004 Spike	SV2-93-27	Lot #	163959	exp	9/21/2013		Acetone	
DF2 MDL 100ppm	SV2-93-28	SV2-93-23	10,000 ppm	1 ml	10 ml	1000 ppm	Acetone	10-14-10
LO MDL 100ppm	SV2-93-29	SV2-89-24	10,000 ppm	1 ml	10 ml	1,000 ppm	1	1

Continued on Page

Read and Understood By

Signed | Date | Signed | Da

Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Date	Int.
Surrogate Tcal									
4 ppm	SV3-03-01	SV3-02-06	10,000 ppm	10 µl	25 ml	4 ppm	$MeCl_2$	11-28-12	ZT
8 ppm	SV3-03-02			20 µl		8 ppm			
20 ppm	SV3-03-03			50 µl		20 ppm			
40 ppm	SV3-03-04			100 µl		40 ppm			
80 ppm	SV3-03-05			200 µl		80 ppm			
200 ppm	SV3-03-06			500 µl		200 ppm			
FTRPH Calibration	SV3-03-07							11-30-12	ZT
DF2 Neat	SV3-03-08	Union 76	Neat					Purchase	ZT
DF2 Neat	SV3-03-09	Chevron	Neat					11/30/12	ZT
DF2 Stock	SV3-03-10	SV3-03-08	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	11-30-12	ZT
DF2 Stock	SV3-03-11	SV3-03-09	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	11-30-12	ZT
DF2 Ical									
10 ppm	SV3-03-12	SV3-03-10	10 µl	10,000 ppm	10 ml	10 ppm	$MeCl_2$	11-30-12	ZT
20 ppm	SV3-03-13		20 µl			20 ppm			
100 ppm	SV3-03-14		100 µl			100 ppm			
500 ppm	SV3-03-15		500 µl			500 ppm			
1000 ppm	SV3-03-16		1.0 ml			1000 ppm			
2500 ppm	SV3-03-17		2.5 ml			2500 ppm			
5000 ppm	SV3-03-18		5.0 ml			5000 ppm			
DF2 ICV	SV3-03-19	SV3-03-09	10,000 ppm	0.5 ml	50 ml	100 ppm	$MeCl_2$	11-30-12	ZT
Dx Surf Micro	SV3-03-20	04403JH	Neat	0.25 g	100 ml	2500 ppm	Acetone	12-10-12	ZT
DF2 CCV	SV3-03-21	SV3-03-10	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	12-13-12	ZT
Lube oil Stock (Acid cleaned)	SV3-03-22	SV2-66-21	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	1-7-13	ZT
Gasoline Stock	SV3-03-23	V2-17-9	Neat	0.1 g	10 ml	10,000 ppm	$MeCl_2$	1-7-13	ZT
Bunker Pt. Cal.	SV3-03-24	SV3-03-22	10,000 ppm	500 µl	100 ml	50 ppm	$MeCl_2$		
		SV3-03-23	⊥	100 µl	⊥	10 ppm	⊥	⊥	⊥

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FOR LABORATORY USE ONLY

DRH-FTRPH 1 mL

FTRPH Calibration/ Window Defining Standard

500 µg/mL in Hexane

17 comps.

Lot: 211111267

Exp: Nov 22,2021

HIGHLY FLAMMABLE

STORAGE Ambient

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ANALYTE	LAB ID #	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT
2,000 ppm MO	SV3-25-01	SV3-24-27	10,000 ppm	2.5 ml	25 ml 1000 ppm	1000 ppm	MeCl2	10-5-17	KM
5000 ppm MO	SV3-25-02	↓	↓	12.5 ml	↓	5000 ppm	↓	↓	↓
MinOil Check	SV32503	SV3-17-02	NEAT	.50g	50 ml	10,000 ppm	MeCl2	10-7-17	KM
20 MO ICAL	SV3-25-04	SV3-25-3	10,000 ppm	.050 ml	25 ml	20 ppm			
100	05			.25 ml		100			
500	06			1.25 ml		500			
1000	07			2.5 ml		1000			
5000	08			12.5 ml		5000			
40 ppm LO ICAL	SV3-25-09	SV3-25-09	10,000 ppm	.100 ml	25 ml	40 ppm	MeCl2	10-9-17	KM
100 ppm LO ICAL	10			.250 ml		100			
250 ppm LO ICAL	11			.625 ml		250			
500 ppm LO ICAL	12			1.25 ml		500			
1000 ppm LO ICAL	13			2.50 ml		1000			
NOVANE STOCK	SV3-25-14	36-10A	NEAT	10 ml	10 ml	1000 ppm	MeCl2	10/18/17	KM
RT STD ~~PPM~~	~~PPM-PPM~~	500 ppm	.1 ml	1 ml	50 ppm	1			
	SV3-25-14	1000 ppm	.05 ml	↓	↓	ml	10-16-17		
RT STD	SV3-25-15	DRH-PPM 500 ppm	.1 ml	1 ml	50 ppm	10-16-17	MeCl2	KM	KM
		SV3-25-14 1000 ppm	.050 ml	↓	↓	↓	↓	↓	↓
DF2 STOCK	SV3-25-16	SV3-03-08	NEAT	.50 gram	50 ml	10,000 ppm	MeCl2	KM 10-18-17	KM
DF2 CCV	SV3-25-17	SV3-25-16	10,000 ppm	1 ml	100 ml	100 ppm	MeCl2	KM 10-18-17	KM
10 ppm DF2 ICAL	SV3-25-18	SV3-25-16		25 ml	25 ml	10			
20	19			50 ml		20			
100	20			250 ml		100			
250	21	KM 10-18-17		500 ml 625 ml		250			
500	22			1.0 ml 1.25 ml		500			
2500	23			2.5 ml 2.5 ml 6.25 ml		2500			
5000	24			12.5 ml		5000			
Dx Micro Surv	SV3-25-25	687V	NEAT	.250g	100 ml	2500 ppm	Acetone	10-19-17	KM
1664 Spike	SV3-25-26	Lot #	3155041				Acetone	10-26-17	RP
1664 Spike	SV3-25-27	Lot #	3258 12				Acetone	11/29/17	CS
Dx Micro Surv	SV3-25-28	687 V	NEAT				Acetone	12/04/17	JT
DF2 ICV	SV3-25-29	~~SV3-17-15~~ SV3-21-11	10000 ppm	500 mL	50 mL	1000 ppm	MeCl2	12-6-17	JT
DF2 Spike	SV3-25-30	SV3-03-08	NEAT	0.50 g	50 mL	10,000 ppm	Acetone	12-15-17	JT

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SIGNATURE DATE

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
1664 Spike	SV3-26-01	Lot #	041717				Acetone	12-15-17	JT
DX surr	SV3-26-02	687V	NEAT	1.09 g	100 mL	10,000 ppm	Acetone	12-20-17	JT
LO CCV	SV3-26-03	SV3-23-04	10,000 ppm	2.0 mL	100 mL	200 ppm	MeCl2	1-3-18	JT
TOL NEAT	SV3-26-04	NA	NEAT					1-4-18	JT
DF2 CCV	SV3-26-05	SV3-25-16	10,000 ppm	1 mL	100 mL	100 ppm	MeCl2	1-8-18	JT
4 ppm surr	SV3-26-06	SV3-26-02	10,000 ppm	10 mL	25 mL	4 ppm	MeCl2	1-9-18	JT
8 ppm surr		07		20 mL		8 ppm			
20 ppm surr		08		50 mL		20 ppm			
40 ppm surr		09		100 mL		40 ppm			
80 ppm surr		10		200 mL		80 ppm			
200 ppm surr		11		500 mL		200 ppm			
LO MDL Spike	SV3-26-12	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-10-18	JT
DF2 MDL Spike	SV3-26-13	SV3-25-16	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-16-18	JT
LO MDL Spike	SV3-26-14	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-17-18	JT
LO MDL Spike	SV3-26-15	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-23-18	JT
1664 Spike	SV3 26 28	STOCK ID 041717		10 mL			ACETONE	1-31-18	RD
Gasoline Stock	SV3-26-16	V2-17-21	Neat	.1 g	10mL	10,000 ppm	MeCl2	2-6-18	TL
Single Point Cal	SV3-26-17	SV3-25-16 SV3-23-04	10,000 ppm 10,000 ppm	100mL 500mL	100mL 100mL	10 ppm 50 ppm	MeCl2	2-6-18	TL
DX Micro Surr	SV3-26-18	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	2-9-18	JT
DF2 CCV	SV3-26-19	SV3-25-16	10,000 ppm	1mL	100 mL	100 ppm	MeCl2	2-20-18	JT
1664 Spike	SV3 26 20	STOCK 041717		10mL			ACETONE	3-2-18	RD
~~10 PPM DF2 CCV~~	SV3-26-21	~~SV3-24-26~~	~~2,000 PPM~~	~~25 mL~~	~~5 mL~~	~~10 PPM~~	MeCl2	~~3-13-18~~	~~JT~~
20		22	2,000 ppm	~~50~~ mL		20			
100		23	2160911022 20,000 ppm	~~100~~ 125 mL		100			
500		24	20000 ppm	~~50~~ 125 mL		500			
1000		25		~~250~~ 250 mL		1000			
2000		26		~~500~~ mL		2000			
5000		27	20,000 ppm	~~1000~~ 250 mL		5000			

JT 3-13-18

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
10 PPM DFZ ICal	SV3-27-01	SV3-27-03	100 PPM	100 uL	1 mL	10 PPM	$MeCl_2$	3-14-18	JT
50 PPM	02	SV3-27-04	500 PPM	100 uL		50 PPM			
100 PPM	03	SV3-27-06	2,000 PPM	50 uL		100 PPM			
500 PPM	04	216091622	20,000 PPM	25 uL		500 PPM			
1000 PPM	05			50 uL		1000 PPM			
2000 PPM	06			100 uL		2000 PPM			
5000 PPM	07	216091622		250 uL		5000 PPM			
DX Micro Surr	SV3-27-08	687V	NEAT	0.250 g	100 mL	2500 PPM	Acetone	3-27-18	JT
DFZ CCV	SV3-27-09	SV3-25-16	10,000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$	3-29-18	JT
DFZ CCV	SV3-27-10	SV3-25-16	10000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$	4-30-18	JT
LO CCV	SV3-27-11	SV3-23-04	10,000 PPM	2.0 mL	200 mL	200 PPM	$MeCl_2$	4-30-18	JT
DX Surr	SV3-27-12	687V	NEAT	1.0 mL	100 mL	10000PPM	Acetone	5-3-18	JT
DX Micro Surr	SV3-27-13	687V	NEAT	0.250g	100 mL	2500 PPM	Acetone	5-8-17	JT
LO Stock	SV3-27-14	SV2-93-06	NEAT	0.50 g	50 mL	10,000PPM	$MeCl_2$	5-31-18	JT
LO CCV	SV3-27-15	SV3-27-14	10000 PPM	2.0 mL	100 mL	200 PPM	$MeCl_2$	5-31-18	JT
10 PPM DFZ ICal	SV3-27-16	SV3-25-16	10,000 PPM	25 uL	25 mL	10 PPM	$MeCl_2$	6-1-18	JT
20	17			50 uL		20			
100	18			250		100			
500	19			1.25 mL		500			
2500	20			6.25 mL		2500			
5000	21			12.5 mL		5000			
DFZ CCV	SV3-27-22	SV3-25-16	10,000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$		JT
40 PPM LO ICal	SV3-27-23	SV3-27-14	10,000 PPM	40 uL	40 PPM	10 mL			
100	24			100 uL	100				
250	25			250 uL	250				
600	26			500 uL	500	JT			
1000	27			1.0 mL	1000	6-1-18			
20 PPM LO ICal	SV3-27-28	SV3-25-03	10,000 PPM	20 uL	10 mL	20 PPM	$MeCl_2$		
100 PPM	29			100 uL		100			
500 PPM	30			500 uL		500			
1000 PPM	31			1.0 mL	10 mL	1000			
5000 PPM	32			5.0 mL	2	5000			

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	Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
	DF2 Stock 2nd	SV3-28-01	SV3-03-09	NEAT	0.5 g	50 mL	10,000 PPM	MeCl2	6-4-18	JT
5	DF2 ICV	SV3-28-02	SV3-28-01	10,000 PPM	Solid	Stock	100 PPM	L	L	L
	DF1 5x Ind Vials	SV3-28-03							6-12-18	JT
10	DF1 ICal									
	5000 PPM	SV3-28-04	SV3-28-03	20,000 PPM	2.5 mL	10 mL	5000 PPM	MeCl2	6-12-18	JT
	2000	05			1.0 mL		2000			
15	1000	06			0.5 mL		1000			
	500	07			0.25 mL		500			
	100	08			0.05 mL		100			
	20	09	SV3-28-05	2000 PPM	0.1 mL		20			
	10	10	L	L	0.05 mL		10			
20	DF2 Spike	SV3-28-11	SV3-03-08	NEAT	0.50 g	50 mL	10,000 PPM	Acetone	6-18-18	JT
	2X Mid 2nd	SV3-28-12	SV3-03-07	NEAT	0.25 g	100 mL	2500 PPM	Acetone	6-12-18	JT
	DF2 Stock	SV3-28-13	SV3-03-06	NEAT	0.500 g	50 mL	10,000 PPM	MeCl2	L	L
	DF2 ICV	SV3-28-14	SV3-28-13	10,000 PPM	1 mL	100 mL	100 PPM	MeCl2		
	4 PPM 5th Ical	SV3-28-15	SV3-27-12	10,000 PPM	10 mL	25 mL	4 PPM	MeCl2	7-3-18	JT
25	8	16			20		8			
	20	17			50		20			
	40	18			100		40			
	80	19			200		80			
	200	20			500		200			
30	1664 Spike	SV3 3021	Stock 04:717		10mL			Acetone	8-1-18	RD
	Single PH Cal	SV3-28-22	SV3-27-14	10,000 PPM	500 mL	100 mL	500 PPM	MeCl2	8-7-18	JT
			SV3-26-16	L	100 mL		100 PPM			
	Mineral oil VIAL	SV3 2823	NA	NEAT					8-7-18	JT
35	Kerosene Blank									

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ANALYTE	LAB ID	STOCK ID	Stock Conc.	Stock Vol	Final Vol	Final ~~Solvent~~ Conc	~~Solvent~~ ~~Date~~	Date	Init
~~Mineral oil NEAT~~	~~JT Acqu~~								
Mineral Oil Neat Seattle City Light	SV3-029-01	Acquired From SCL	NEAT	—	—	—	~~8-8-18~~	8-8-18	JT
Transformer Oil / High Performance Dielectric Fluid	SV3029 -02	—	NEAT	Acquired From Sales	From Expanded Services Inc.			8-9-18	JT
D-2 CCV	SV3-029-03	SV3-256-13	10,000 PPM	1 mL	100 mL	100 PPM	MeCl2	8-9-18	JT
DX Surr	SV3-029-04	687V	NEAT	1.0 g	100 mL	10,000 PPM	Acetone	8-17-18	JT
DX Micro Surr	SV3-029-05	687V	NEAT	0.2500 g	100 mL	2500 PPM	Acetone	8-27-18	JT

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PAHs by EPA 8270D Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data File : F0914004.D
Sample : 08-327-03 RR

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 10:19:33
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:27:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.651	8.313	9223550	11189271	74.879m	78.696m	
	Spiked Amount 100.000			Recovery	=	74.88%	78.70%	
	Target Compounds							
1) A	Dalapon	0.000	3.435	0	14207322	N.D.	149.100	#
2) A	2,4,6-Tri...	7.022	0.000	1211754	0	1.263	N.D.	#
4) A	Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5) A	MCPP	9.066	0.000	1324746	0	6171.512	N.D.	#
6) A	MCPA	9.258	8.899	826571	1695994	2206.638	4211.203	#
7) A	Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.	
9) A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10) A	2,4,5-TP	0.000	10.603	0	4326128	N.D.	5.677	#
11) A	2,4,5-T	11.311f	0.000	891750	0	1.837	N.D.	#
12) A	2,4-DB	11.930f	11.617f	3772024	919762	55.385	10.824	#
13) a	Bentazon	0.000	0.000	0	0	N.D.	N.D.	
14) A	Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 9-17-18

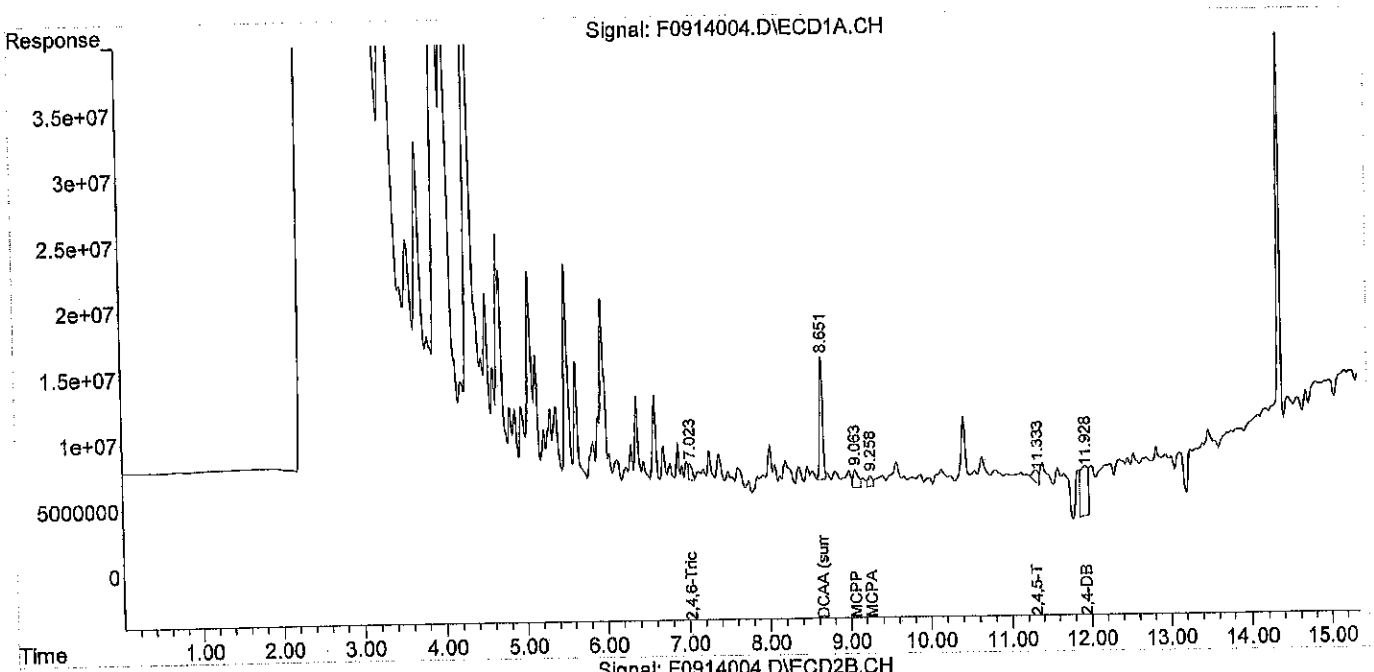
Quantitation Report (QT Reviewed)

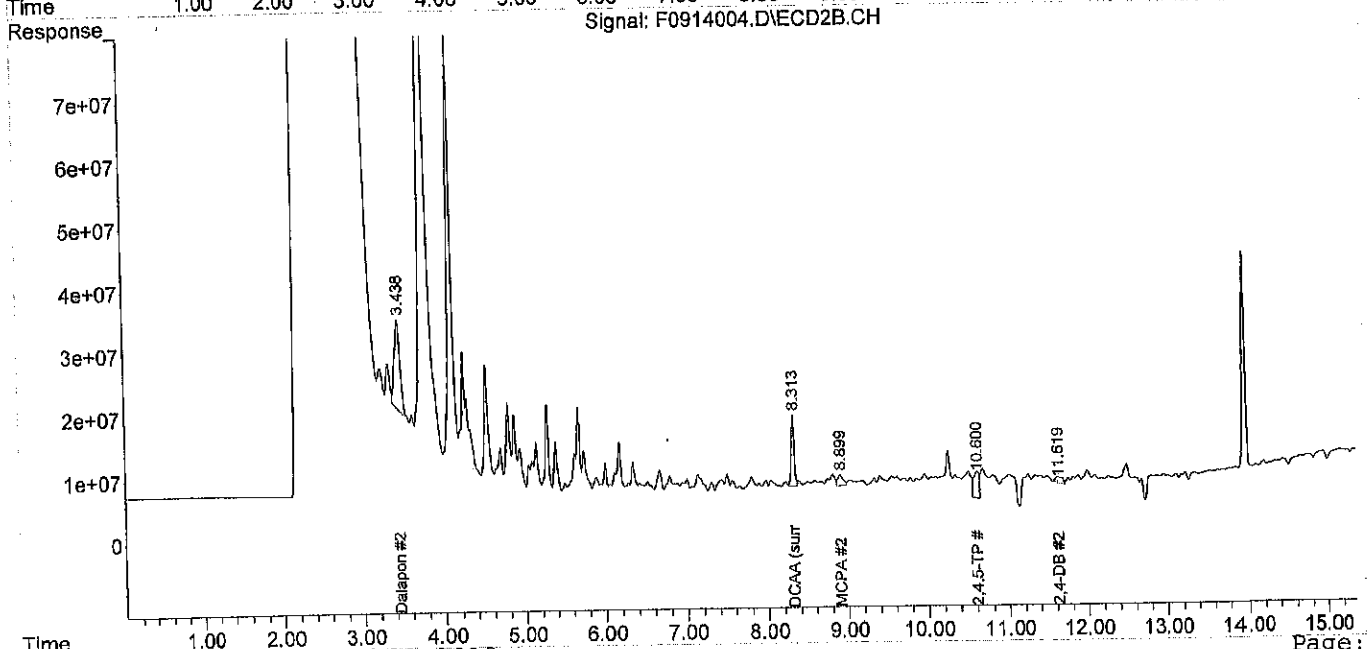
Data File : F0914004.D
Sample : 08-327-03 RR

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 10:19:33
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:27:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0914005.D
Sample : 08-327-23 RR

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 10:39:53
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:27:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.646	8.311	8698998	10560833	70.621m	74.276m	
	Spiked Amount 100.000			Recovery	=	70.62%	74.28%	
	Target Compounds							
1)	A Dalapon	0.000	3.440	0	22960274	N.D.	240.959	#
2)	A 2,4,6-Tri...	7.010	0.000	1518740	0	1.584	N.D.	#
4)	A Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A MCPP	9.066	8.635	1315517	2561010	6144.489	9029.500	#
6)	A MCPA	9.259f	8.900	766139	2016083	2069.826	4862.332	#
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A 2,4-D	9.964f	0.000	1146274	0	8.286	N.D.	#
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A 2,4,5-TP	10.985f	0.000	1902075	0	3.282	N.D.	#
11)	A 2,4,5-T	11.329	11.067f	2101151	2610709	4.328	4.044	
12)	A 2,4-DB	0.000	11.619f	0	624087	N.D.	7.345	#
13)	a Bentazon	12.931f	12.585f	2422508	2481387	50.167	34.288	#
14)	A Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 9/15/18

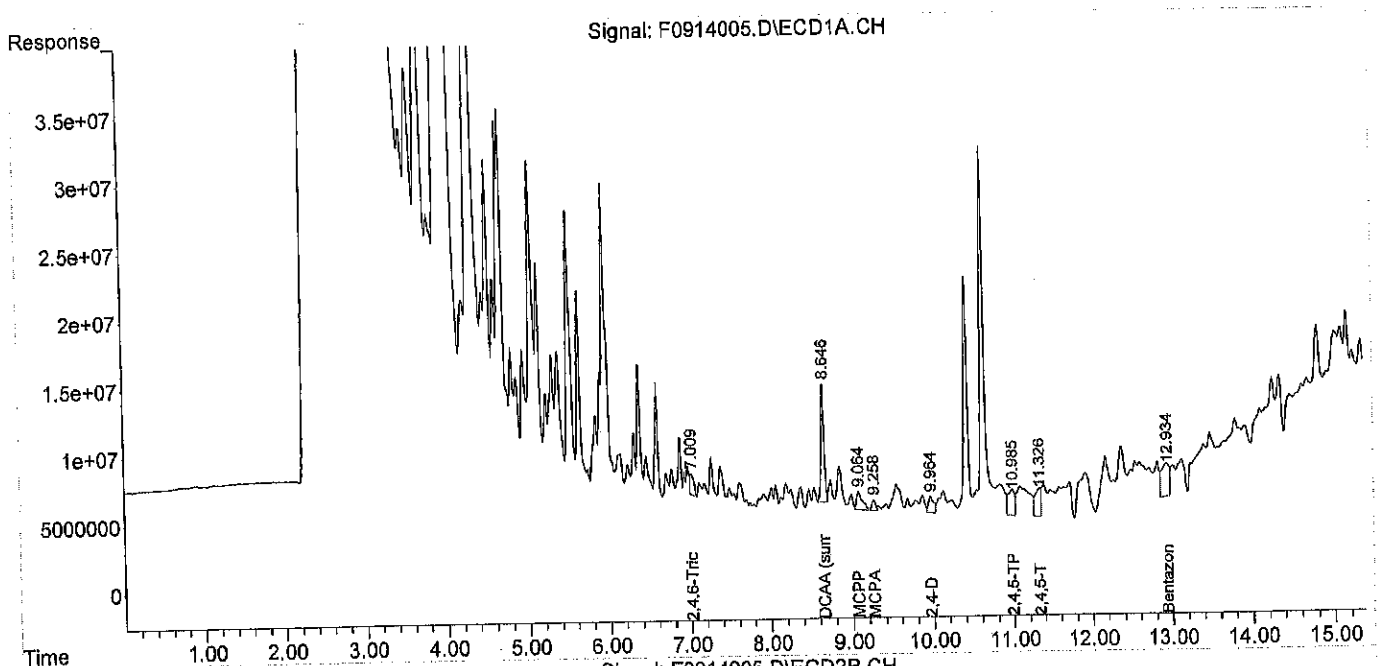
Quantitation Report (QT Reviewed)

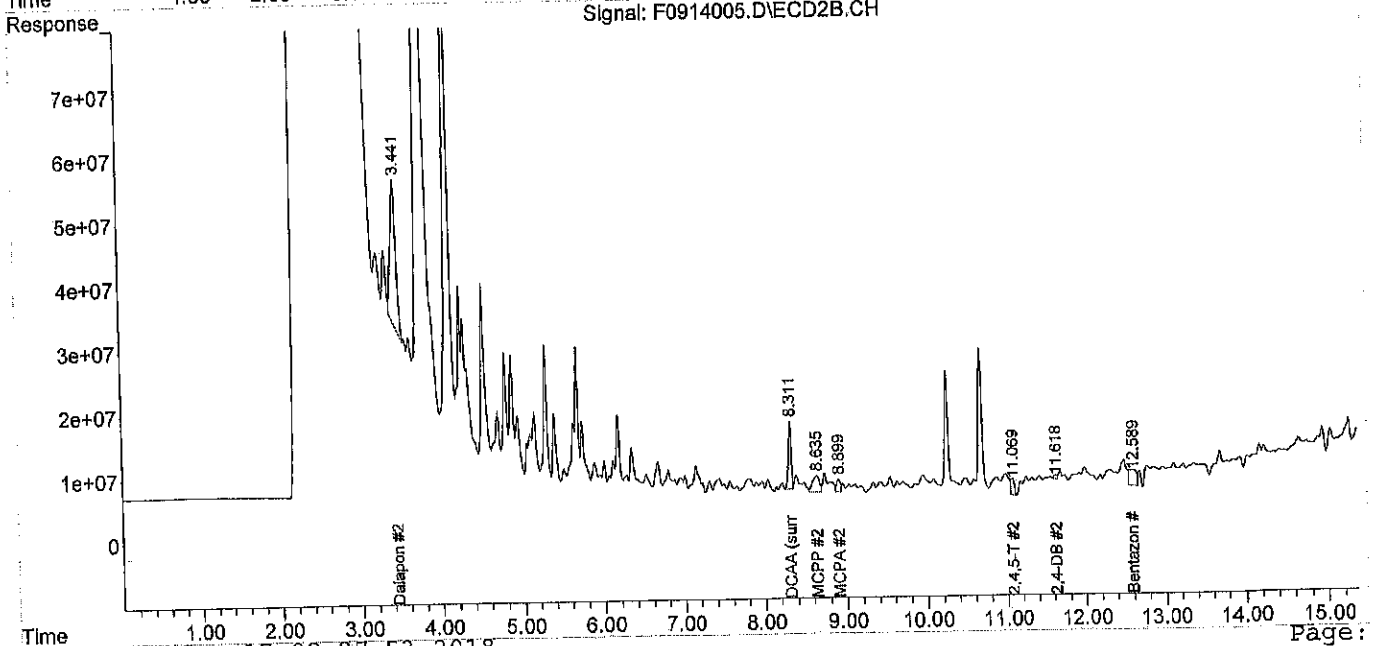
Data File : F0914005.D
Sample : 08-327-23 RR

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 10:39:53
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:27:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0912012.D
Sample : 08-327-32 +Hg

Data Path : X:\PEST\FRANK\DATA\F180912\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12-Sep-18, 18:42:35
Operator :
Misc :
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 16:57:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.711f	8.357f	35687645	9947090	289.723m	69.960m#
	Spiked Amount 100.000			Recovery	=	289.72%	69.96%
	Target Compounds						
1)	A Dalapon	0.000	3.438	0	18923303	N.D.	198.592 #
2)	A 2,4,6-Tri...	6.999f	0.000	3666329	0	3.823	N.D. #
4)	A Dicamba	8.890	0.000	63286150	0	146.747	N.D. #
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.
6)	A MCPA	0.000	8.878f	0	9707779	N.D.	20508.880 #
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.
8)	A 2,4-D	9.981	0.000	3621993	0	26.181	N.D. #
9)	A Pentachlo...	10.296f	0.000	2874282	0	0.918	N.D. #
10)	A 2,4,5-TP	11.019f	10.616	6443781	13410982	11.120	17.597 #
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.
12)	A 2,4-DB	0.000	11.627	0	4302311	N.D.	50.631 #
13)	a Bentazon	0.000	12.565	0	689645	N.D.	9.530 #
14)	A Dinoseb	13.041f	12.001	1432076	2122979	6.659	6.177

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

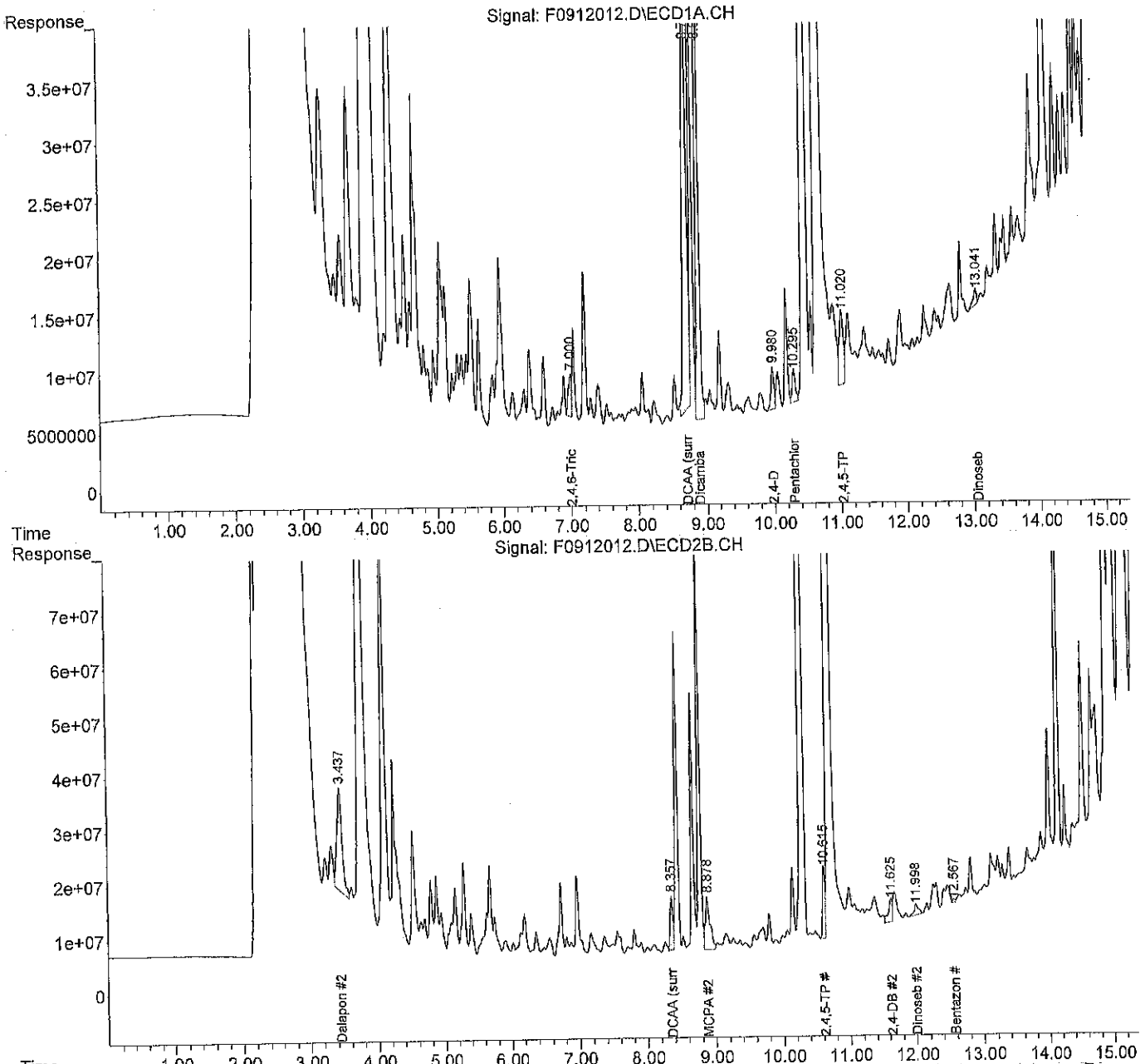
Quantitation Report (QT Reviewed)

Data File : F0912012.D
Sample : 08-327-32 +Hg

Data Path : X:\PEST\FRANK\DATA\F180912\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12-Sep-18, 18:42:35
Operator :
Misc :
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 16:57:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : F0914010.D
Sample : 08-327-34 +Hg

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 14:36:29
Operator :
Misc :
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:30:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.644	8.309f	8845079	11084216	71.807m	77.957m	
	Spiked Amount 100.000			Recovery	=	71.81%	77.96%	
	Target Compounds							
1)	A Dalapon	0.000	3.437	0	25258131	N.D.	265.074	#
2)	A 2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A MCPP	9.067	8.647f	2421617	1670067	9383.468	6737.248	#
6)	A MCPA	9.262f	8.896	1647892	2762376	4066.050	6380.451	#
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A 2,4-D	0.000	0.000	0	0	N.D.	N.D.	
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A 2,4,5-TP	10.985f	10.598	2963419	3677044	5.114	4.825	
11)	A 2,4,5-T	11.327	11.061f	2828134	3666294	5.826	5.679	
12)	A 2,4-DB	11.922f	0.000	3307982	0	48.571	N.D.	#
13)	a Bentazon	12.923	0.000	2626472	0	54.391	N.D.	#
14)	A Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

ICMS 9-17-18

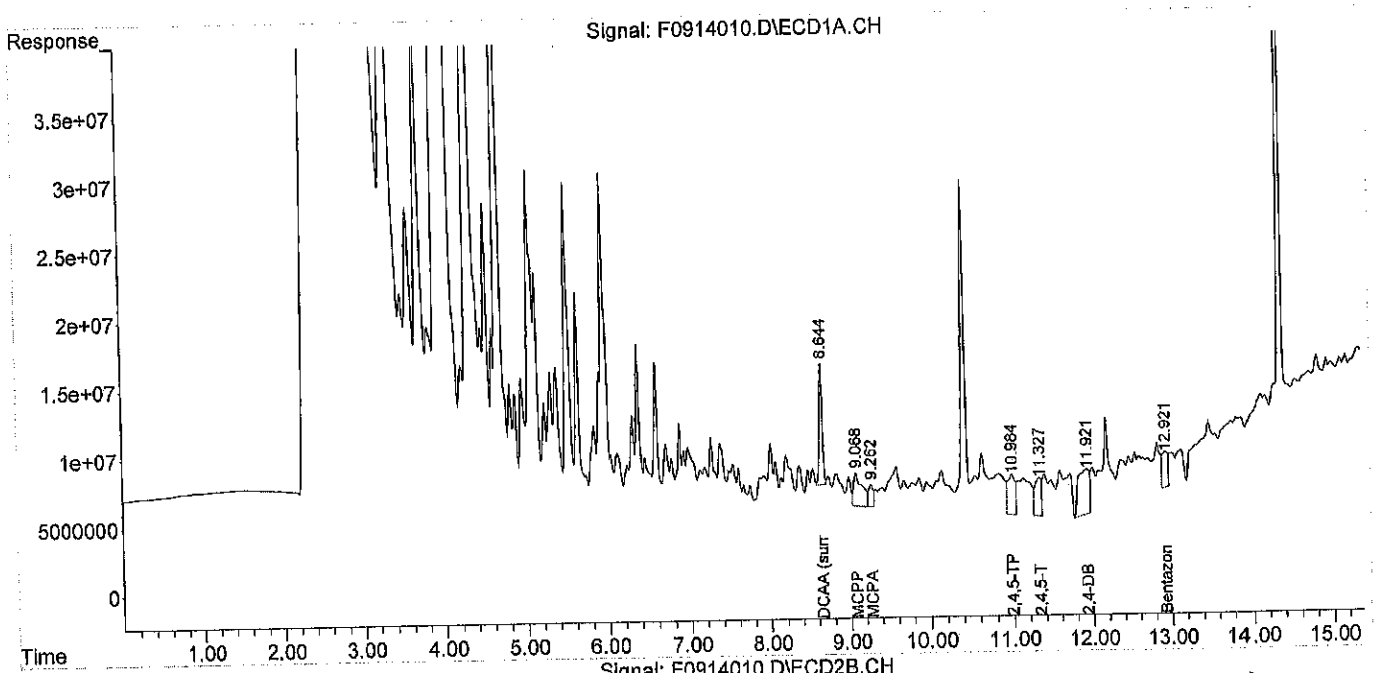
Quantitation Report (QT Reviewed)

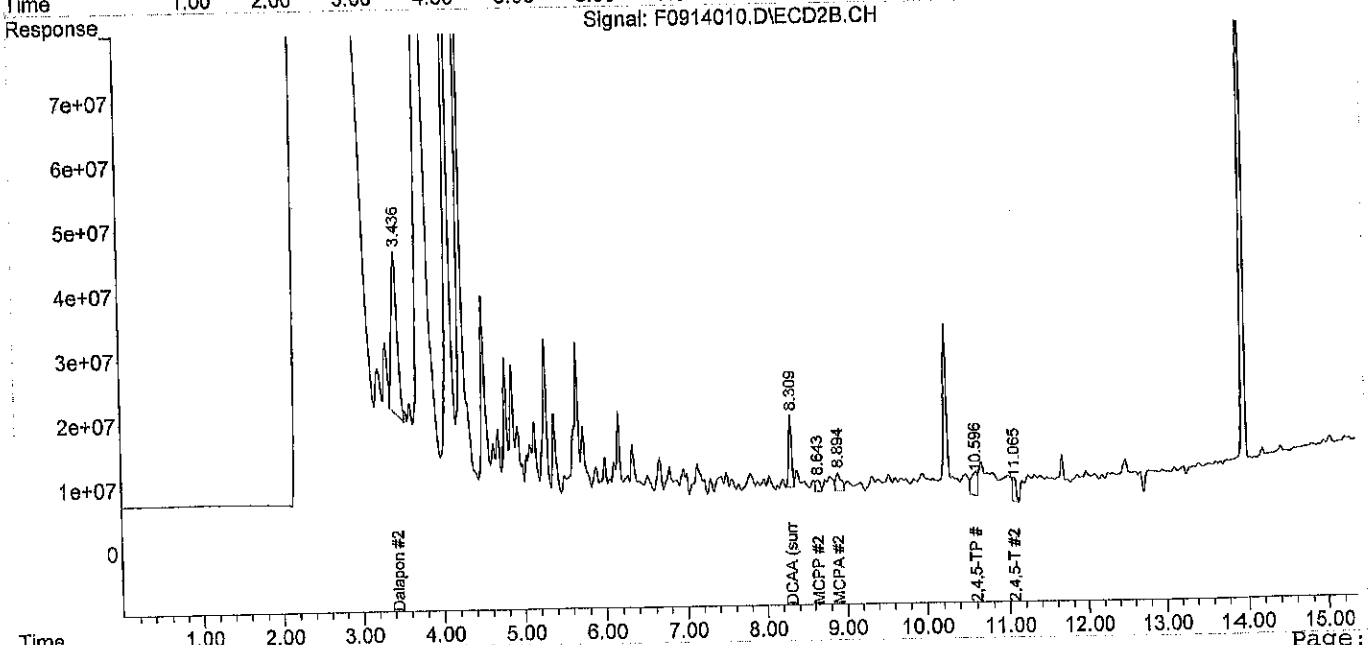
Data File : F0914010.D
Sample : 08-327-34 +Hg

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 14:36:29
Operator :
Misc :
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:30:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0910004.D
Sample : MB0910S2

Data Path : X:\PEST\FRANK\DATA\F180910\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10-Sep-18, 16:13:20
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 10 17:03:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

KCMS 9-10-18

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.732	8.388	10451599	10907430	84.849m	76.714m
	Spiked Amount 100.000			Recovery	=	84.85%	76.71%
	Target Compounds						
1) A	Dalapon	3.851f	3.474	1954814	13318124	26.566	139.768 #
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4) A	Dicamba	0.000	8.635f	0	662688	N.D.	1.254m#
5) A	MCPP	9.146	0.000	508806	0	3782.206m	N.D. #
6) A	MCPA	9.338	8.978	759624	709054	2055.075m	2203.558m
7) A	Dichlorprop	0.000	0.000	0	0	N.D.	N.D.
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.
9) A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.
10) A	2,4,5-TP	0.000	10.688	0	8176059	N.D.	10.728 #
11) A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.
12) A	2,4-DB	0.000	0.000	0	0	N.D.	N.D.
13) a	Bentazon	0.000	0.000	0	0	N.D.	N.D.
14) A	Dinoseb	0.000	12.067f	0	789766	N.D.	2.298m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

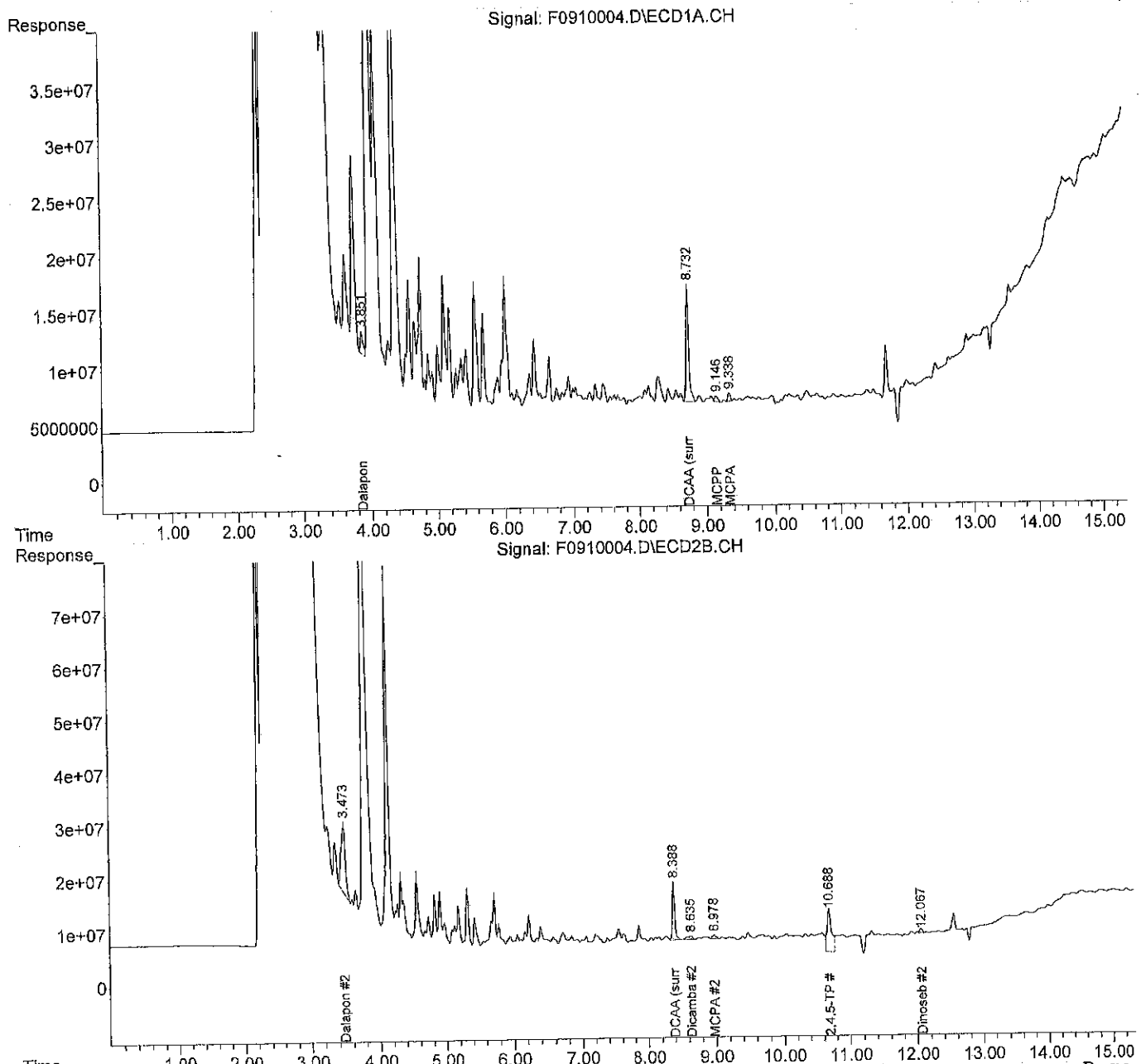
Quantitation Report (QT Reviewed)

Data File : F0910004.D
Sample : MB0910S2

Data Path : X:\PEST\FRANK\DATA\F180910\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10-Sep-18, 16:13:20
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 10 17:03:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : F0914009.D
Sample : MB0910S2 +Hg

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2:, ECD2B.CH
Acq On : 14-Sep-18, 14:16:11
Operator :
Misc :
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:29:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.656	8.312	10792641	12012577	87.618m	84.487m
	Spiked Amount 100.000			Recovery	=	87.62%	84.49%
	Target Compounds						
1) A	Dalapon	0.000	3.436	0	10584697	N.D.	111.082 #
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4) A	Dicamba	0.000	8.554	0	1244399	N.D.	2.356 #
5) A	MCPP	9.070	0.000	939844	0	5044.408	N.D. #
6) A	MCPA	9.265f	8.892	437434	1796881	1325.661	4416.429 #
7) A	Dichlorprop	9.699f	0.000	422233	0	3.582	N.D. #
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.
9) A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.
10) A	2,4,5-TP	0.000	10.607	0	4184346	N.D.	5.491 #
11) A	2,4,5-T	11.309f	0.000	958139	0	1.974	N.D. #
12) A	2,4-DB	11.923f	11.650f	4510575	2323302	66.229	27.342 #
13) a	Bentazon	12.908	0.000	3592960	0	74.405	N.D. #
14) A	Dinoseb	13.032f	0.000	3091501	0	14.375	N.D. #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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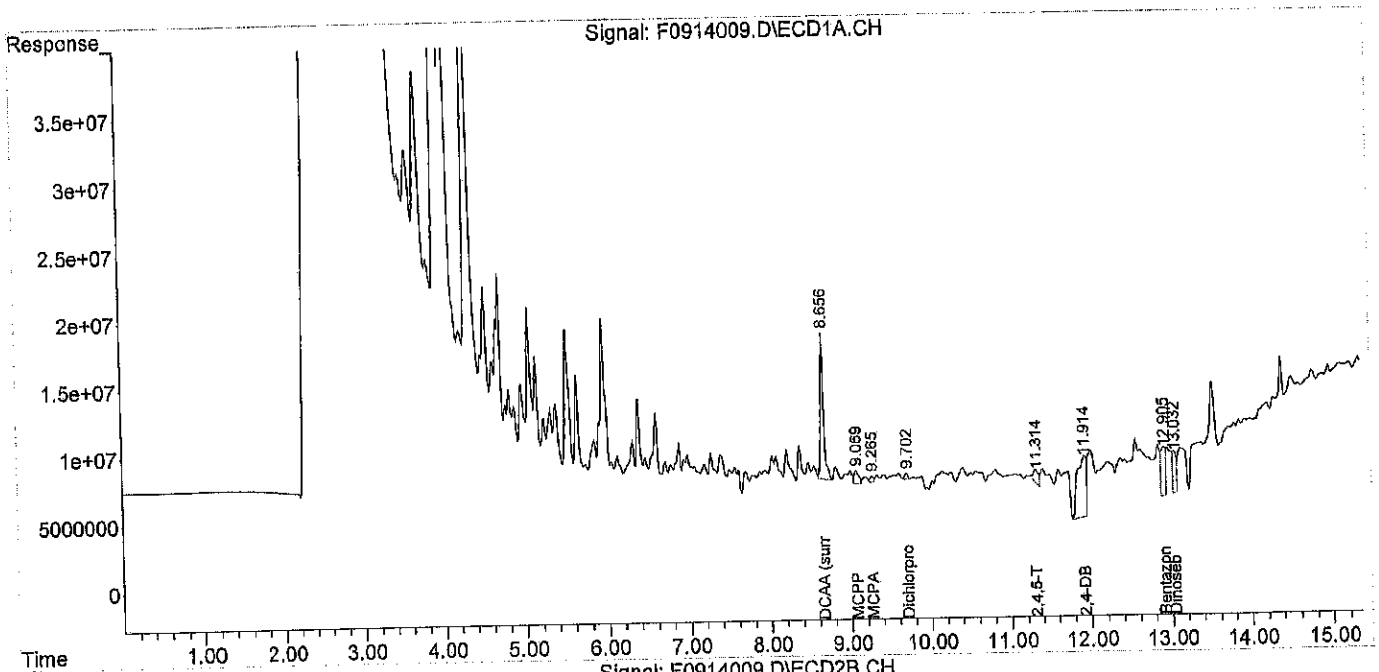
Quantitation Report (QT Reviewed)

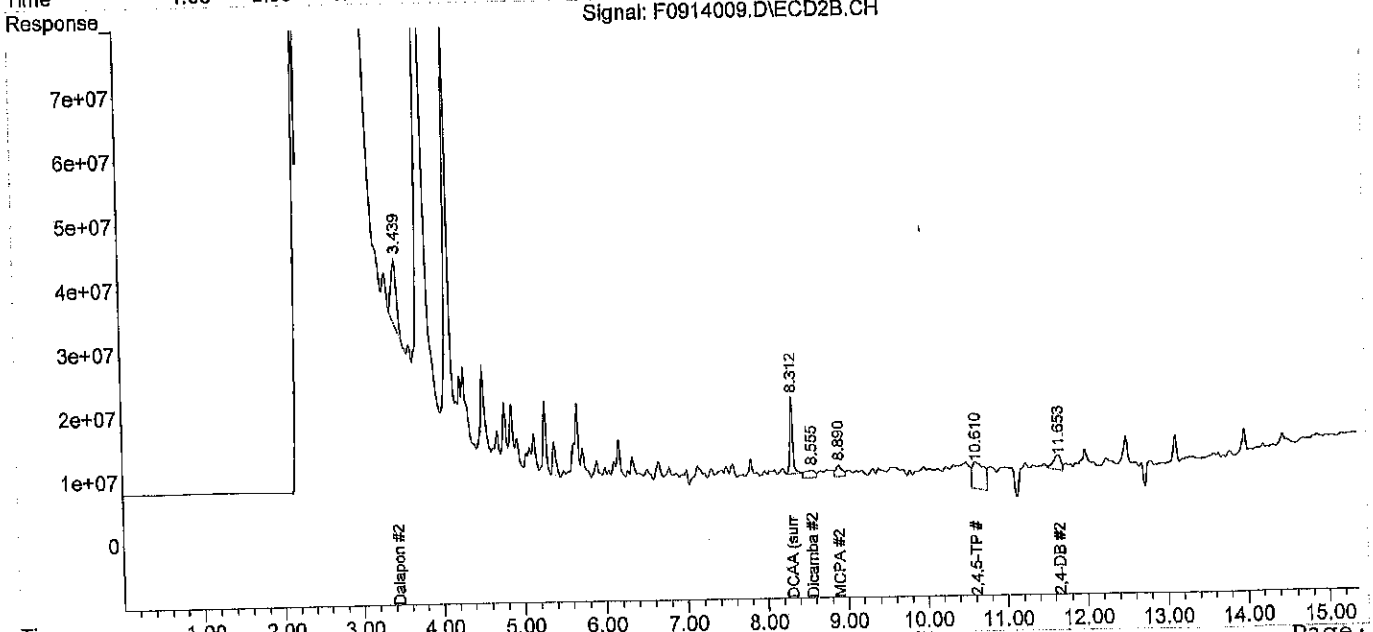
Data File : F0914009.D
Sample : MB0910S2 +Hg

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 14:16:11
Operator :
Misc :
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:29:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0914014.D
Sample : 08-327-32 MS +Hg

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 16:20:02
Operator :
Misc :
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:36:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.722f	8.357f	32597692	10482773	264.637m	73.727m#
	Spiked Amount 100.000			Recovery	=	264.64%	73.73%
	Target Compounds						
1)	A Dalapon	3.840f	3.435	11558179	26034536	157.078	273.222 #
2)	A 2,4,6-Tri...	7.054f	0.000	7924989	0	8.263m	N.D. #
4)	A Dicamba	8.907f	8.578f	110.9E6	76656772	257.228m	145.109m#
5)	A MCPP	9.110f	8.665f	7057960	86184854	22960.012m	224179.923m#
6)	A MCPA	9.286f	8.923f	10504623	15278005	24117.042m	31839.906m#
7)	A Dichlorprop	9.740f	9.318f	16628903	20878014	141.079m	149.139m
8)	A 2,4-D	10.010f	9.671f	21280091	25522522	153.822m	141.848
9)	A Pentachlo...	10.346f	9.937f	40332247	40454152	12.881m	10.354m
10)	A 2,4,5-TP	11.027f	10.619f	100.5E6	130.5E6	173.410m	171.241
11)	A 2,4,5-T	11.355f	11.066f	88263708	98752557	181.815m	152.968m
12)	A 2,4-DB	11.969f	11.642f	13226140	16728978	194.200m	196.874
13)	a Bentazon	12.892f	12.573	2065885	1151640	42.782	15.914 #
14)	A Dinoseb	13.084f	12.028f	53568850	62812949	249.084m	182.764 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

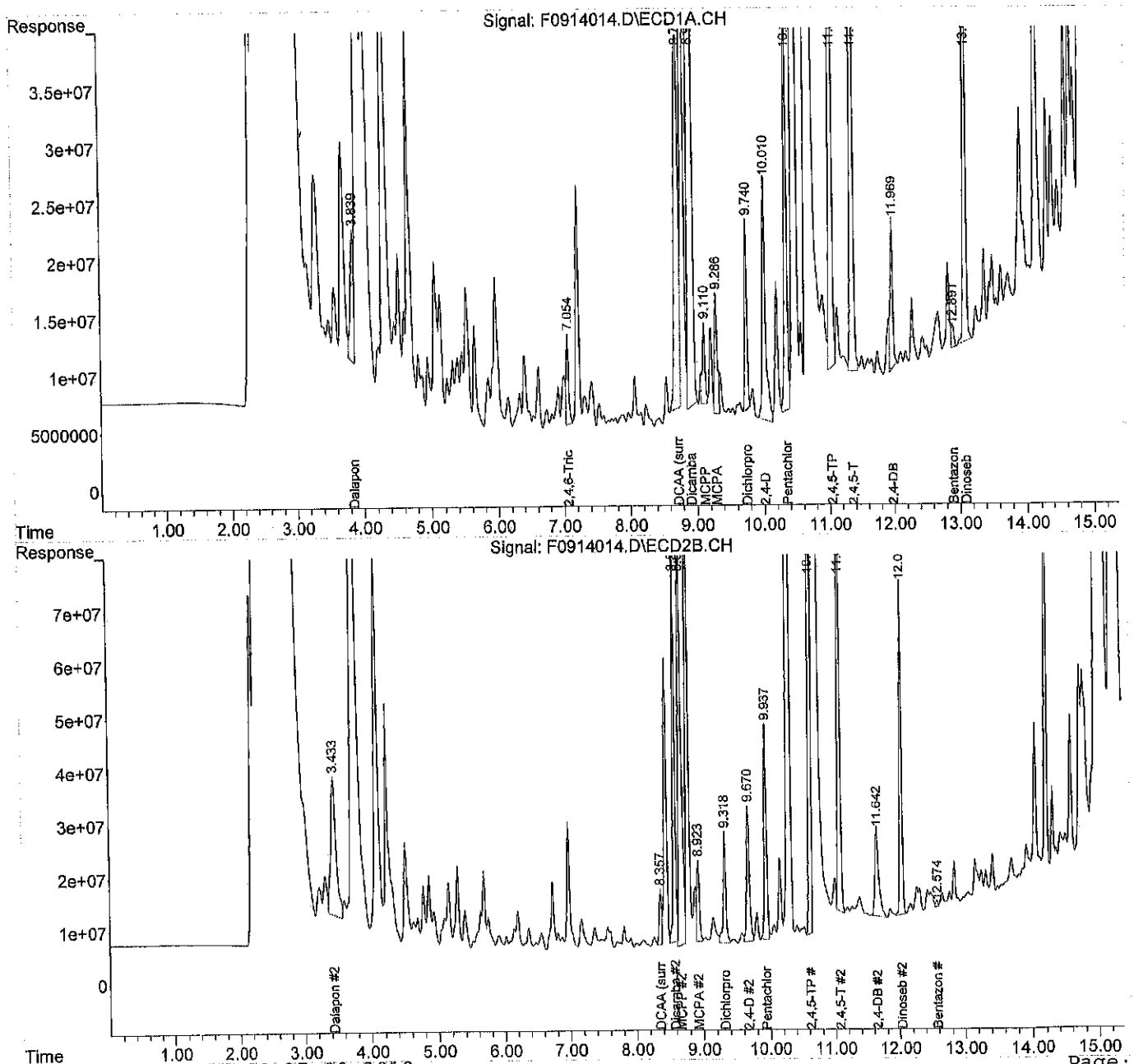
Quantitation Report (QT Reviewed)

Data File : F0914014.D
Sample : 08-327-32 MS +Hg

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 16:20:02
Operator :
Misc :
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:36:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : F0914016.D
Sample : 08-327-32 MSD +Hg

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 17:00:34
Operator :
Misc :
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:58:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

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	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.720f	8.364f	76482932	11988754	620.911m	84.319m#
	Spiked Amount 100.000			Recovery	=	620.91%	84.32%
	Target Compounds						
1) A	Dalapon	3.837	3.440	12119932	21751855	164.712	228.277 #
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4) A	Dicamba	8.909f	8.585f	138.7E6	96748348	321.719	183.142m#
5) A	MCPP	9.105f	8.672f	9965436	94143491	31473.938m	244656.190m#
6) A	MCPA	9.283f	8.884f	12300066	11822620	28181.794m	24810.917m
7) A	Dichlorprop	9.734f	9.321f	24875334	27878553	211.041m	199.146m
8) A	2,4-D	10.113f	9.673f	328.7E6	32087138	2375.930m	178.333 #
9) A	Pentachlo...	10.367f	9.941f	620.6E6	52546430	198.204m	13.449m#
10) A	2,4,5-TP	11.022f	10.621f	118.1E6	165.5E6	203.833m	217.219
11) A	2,4,5-T	11.347f	11.070f	209.0E6	138.9E6	430.489m	215.212m#
12) A	2,4-DB	11.963f	11.646f	20205743	24861288	296.681	292.578
13) a	Bentazon	12.906	12.570	2581211	3055927	53.453	42.228
14) A	Dinoseb	13.068f	12.030f	78845541	96970822	366.616	282.151m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

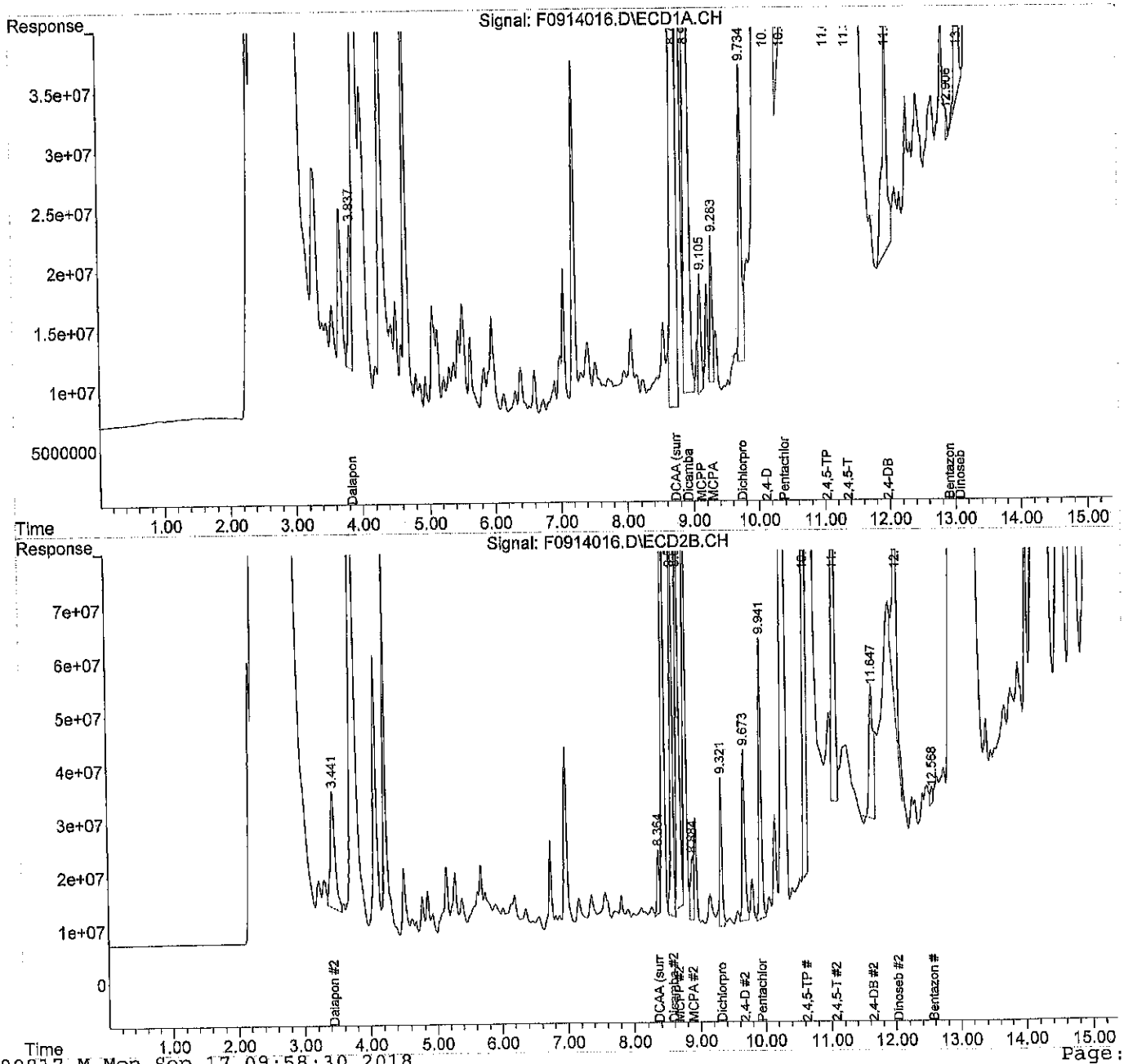
Quantitation Report (QT Reviewed)

Data File : F0914016.D
Sample : 08-327-32 MSD +Hg

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 17:00:34
Operator :
Misc :
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:58:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Response Factor Report Frank

Method Path : C:\msdchem\1\METHODS\
Method File : H180817.M
Title : Herbicides
Last Update : Mon Aug 27 09:31:20 2018
Response Via : Initial Calibration

Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

		Compound	1	2	3	4	5	6	Avg		%RSD
3)	S	DCAA (surr)	1.221	1.556	1.327	1.248	1.173	1.135	1.232	E5	12.57
9)	A	Pentachloroph...	3.353	3.873	3.189	3.051	2.906	2.848	3.131	E6	11.56

Signal #2 Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

		Compound	1	2	3	4	5	6	Avg		%RSD
3)	S	DCAA (surr)			1.811	1.471	1.363	1.345	1.422	E5	14.67
9)	A	Pentachloroph...	4.312	4.842	4.063	3.914	3.723	3.557	3.907	E6	12.88

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

H180817.M Wed Aug 29 11:44:27 2018

Quantitation Report (Not Reviewed)

Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.737	8.407	244148	510653	1.982	3.592 #
Spiked Amount	100.000			Recovery	=	1.98%	3.59%
	Target Compounds						
1) A	Dalapon	0.000	3.477	0	234822	N.D.	2.464 #
2) A	2,4,6-Tri...	7.081	6.758	1003548	1175072	1.046	1.053
4) A	Dicamba	8.982	8.631	928730	1429532	2.154	2.706 #
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.
6) A	MCPA	0.000	0.000	0	0	N.D.	N.D.
7) A	Dichlorprop	9.805	9.393	233714	269658	1.983	1.926
8) A	2,4-D	10.078	9.750	265427	374007	1.919	2.079
9) A	Pentachlo...	10.409	10.006	670577	862436	0.214	0.221
10) A	2,4,5-TP	11.100	10.699	1184588	1619682	2.044	2.125
11) A	2,4,5-T	11.431	11.145	899426	1294334	1.853	2.005
12) A	2,4-DB	12.040	0.000	95151	0	1.397	N.D. #
13) a	Bentazon	13.011	12.651	96634	189139	2.001	2.614 #
14) A	Dinoseb	13.149	12.093	312688	735842	1.454	2.141 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

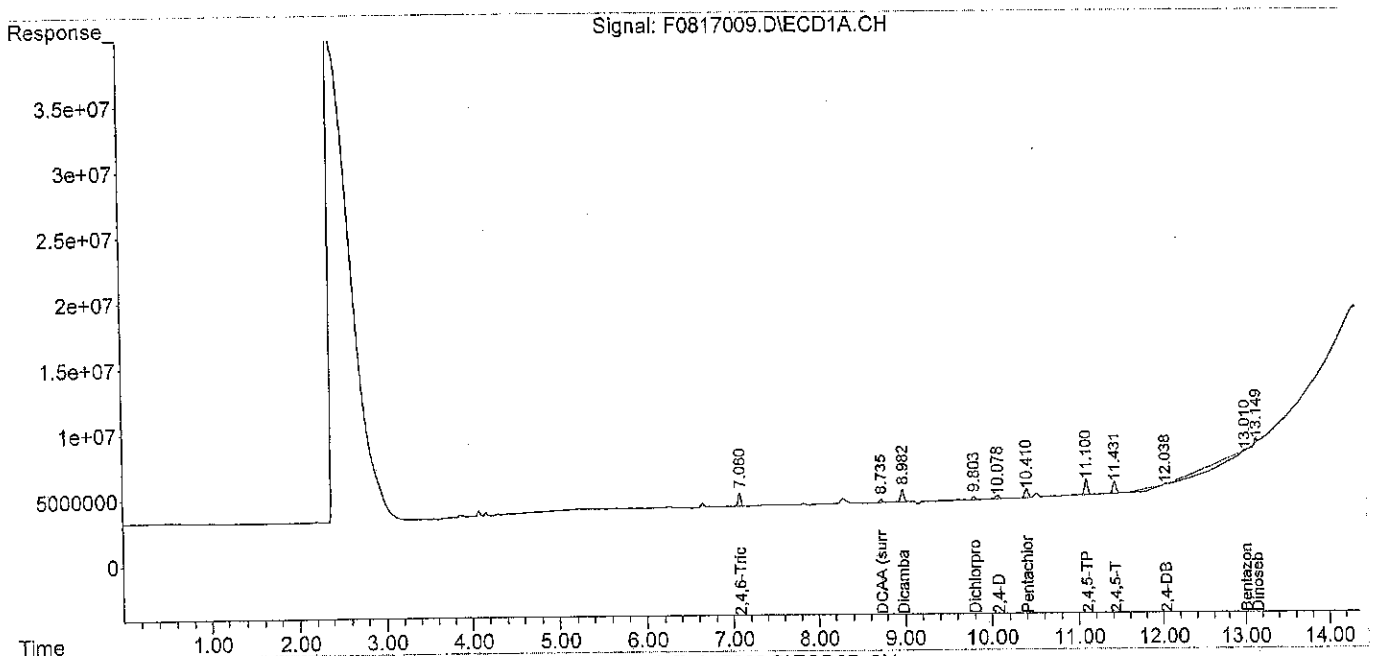
Quantitation Report (Not Reviewed)

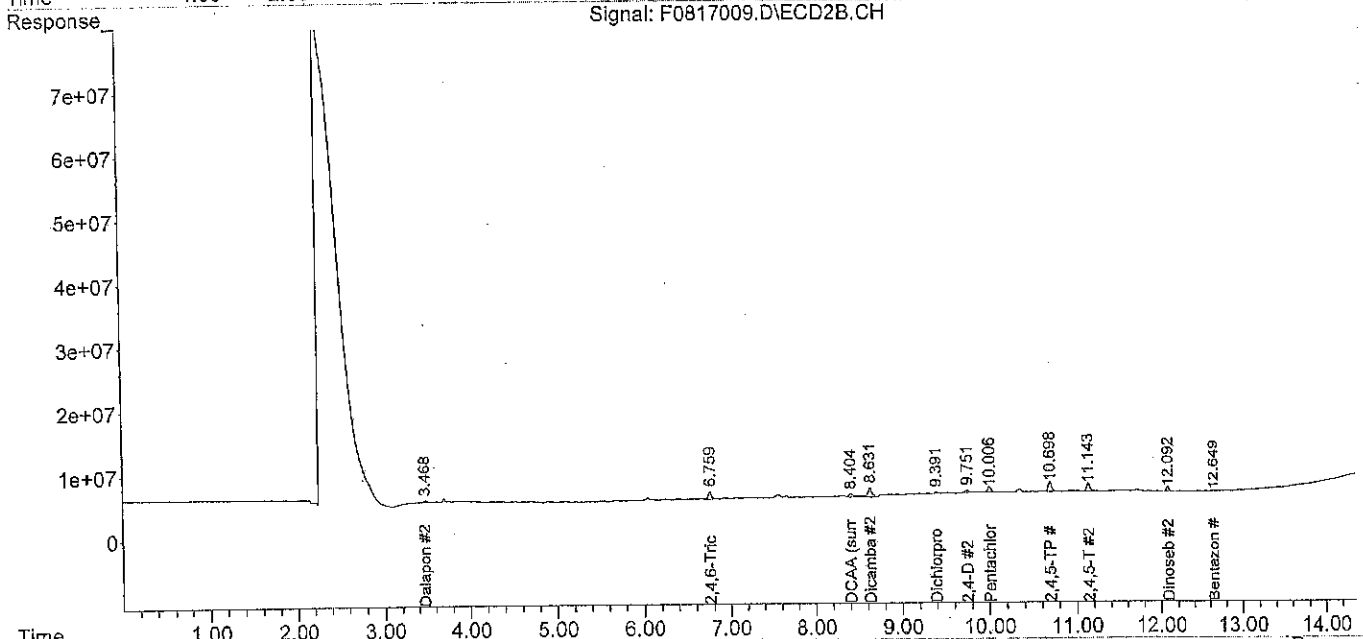
Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.735	8.403	777921	1240643	6.315	8.726	#
	Spiked Amount 100.000			Recovery	=	6.31%	8.73%	
	Target Compounds							
1)	A Dalapon	3.864	3.473	433588	563057	5.893	5.909	
2)	A 2,4,6-Tri...	7.081	6.758	2812928	3339271	2.933	2.993	
4)	A Dicamba	8.981	8.630	2737180	3628346	6.347	6.868	
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A MCPA	9.335	0.000	121656	0	610.762	N.D.	#
7)	A Dichlorprop	9.805	9.392	768391	819685	6.519	5.855	
8)	A 2,4-D	10.078	9.747	828605	1081324	5.990	6.010	
9)	A Pentachlo...	10.408	10.005	1936680	2420924	0.618	0.620	
10)	A 2,4,5-TP	11.099	10.698	3379558	4663673	5.832	6.120	
11)	A 2,4,5-T	11.430	11.144	2665633	3722944	5.491	5.767	
12)	A 2,4-DB	12.037	11.727	381563	513964	5.603	6.049	
13)	a Bentazon	13.009	12.653	238341	417110	4.936	5.764	
14)	A Dinoseb	13.144	12.092	1241096	2116004	5.771	6.157	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

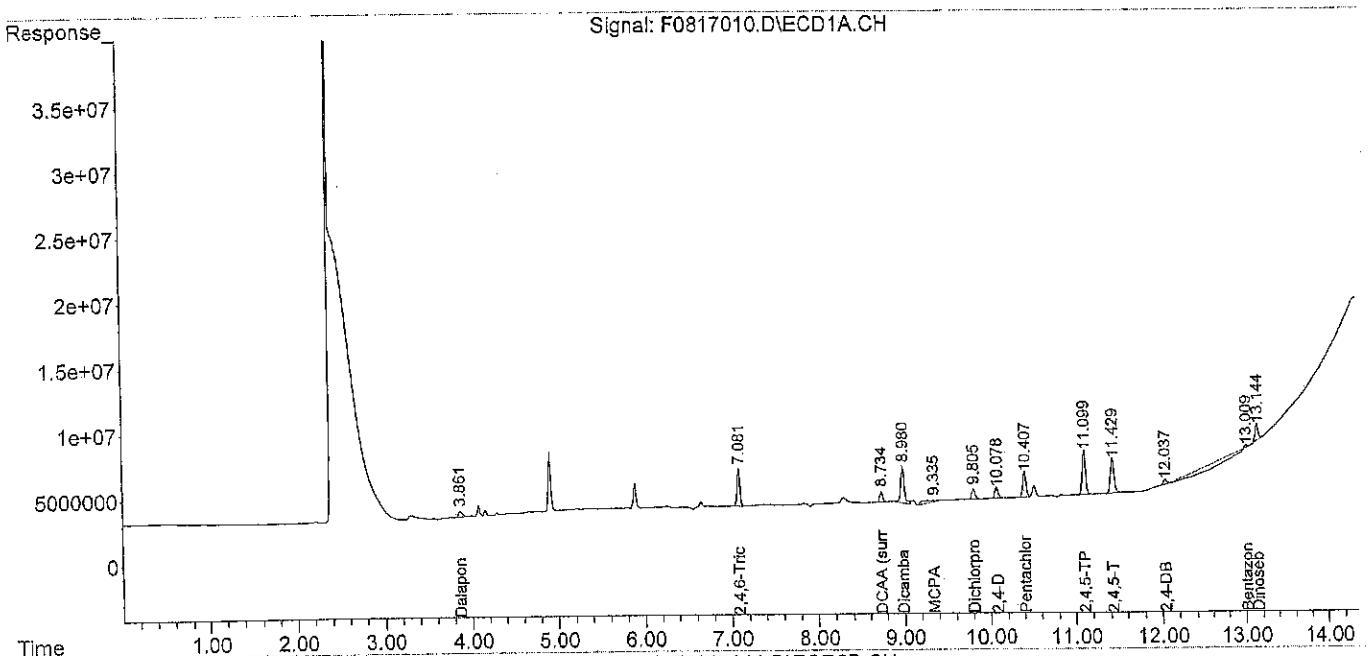
Quantitation Report (Not Reviewed)

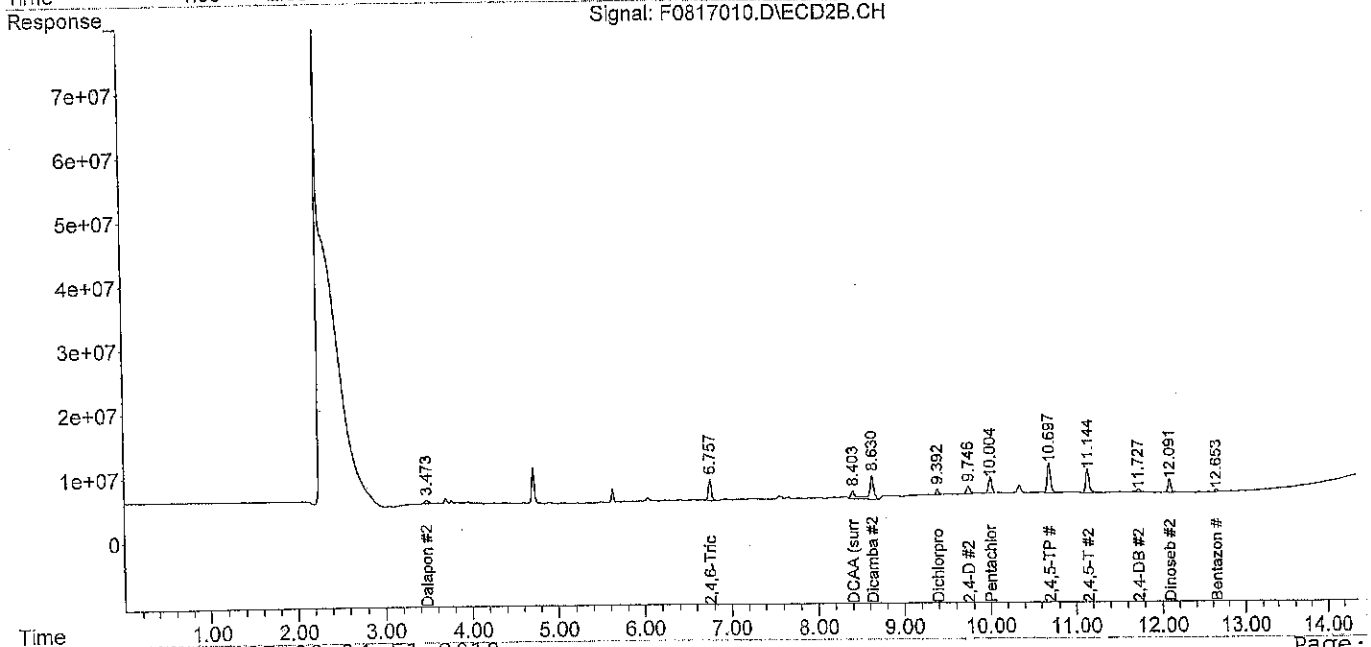
Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.734	8.403	1326771	1811094	10.771	12.738
	Spiked Amount 100.000			Recovery	=	10.77%	12.74%
	Target Compounds						
1) A	Dalapon	3.865	3.473	770736	929282	10.474	9.752
2) A	2,4,6-Tri...	7.082	6.759	4640576	5380756	4.839	4.823
4) A	Dicamba	8.980	8.629	4250607	5592040	9.856	10.586
5) A	MCPP	9.157	8.711	10189	334	2322.111m	2441.300m
6) A	MCPA	9.335	8.976	225902	100237	846.768m	965.094m
7) A	Dichlorprop	9.805	9.388	1247076	1498144	10.580	10.702
8) A	2,4-D	10.077	9.746	1412974	1817263	10.214	10.100
9) A	Pentachlo...	10.408	10.004	3189050	4062901	1.018	1.040
10) A	2,4,5-TP	11.099	10.698	5638516	7542591	9.730	9.897
11) A	2,4,5-T	11.428	11.142	4671215	6321650	9.622	9.792
12) A	2,4-DB	12.036	11.728	660054	840753	9.692	9.894
13) a	Bentazon	13.008	12.652	442679	674246	9.167	9.317
14) A	Dinoseb	13.141	12.091	2282616	3508038	10.614	10.207

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

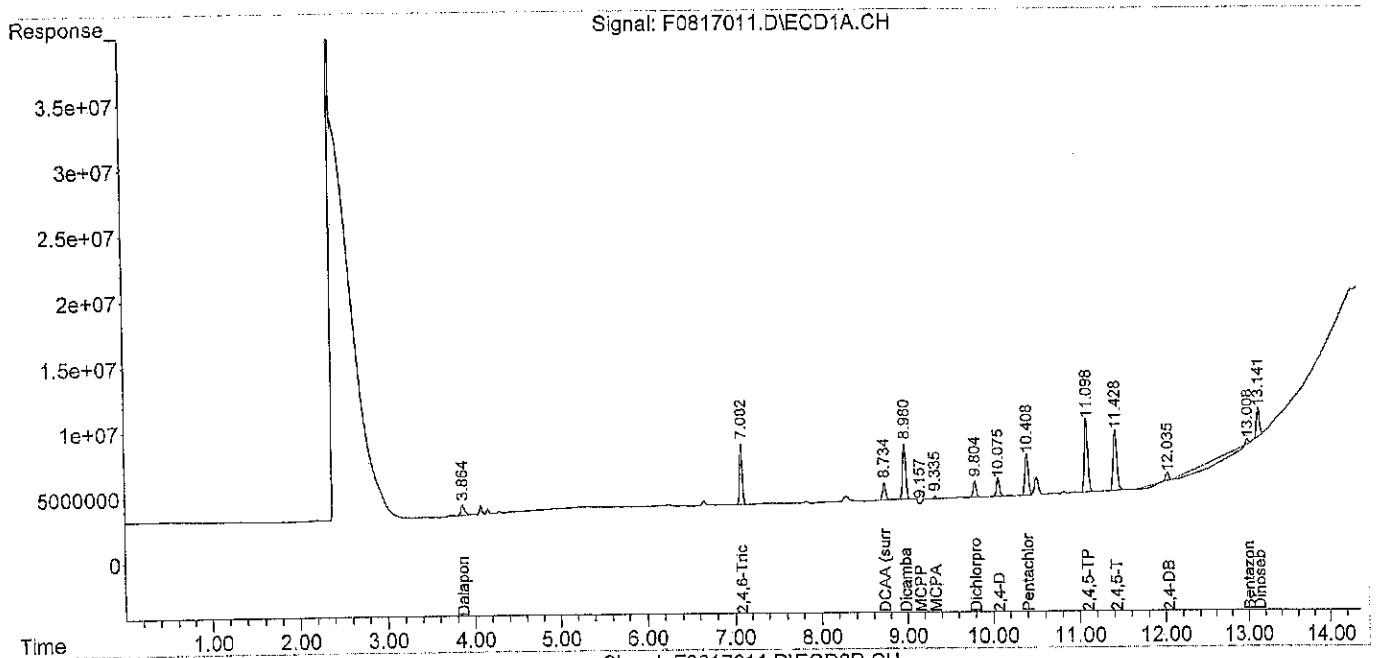
Quantitation Report (QT Reviewed)

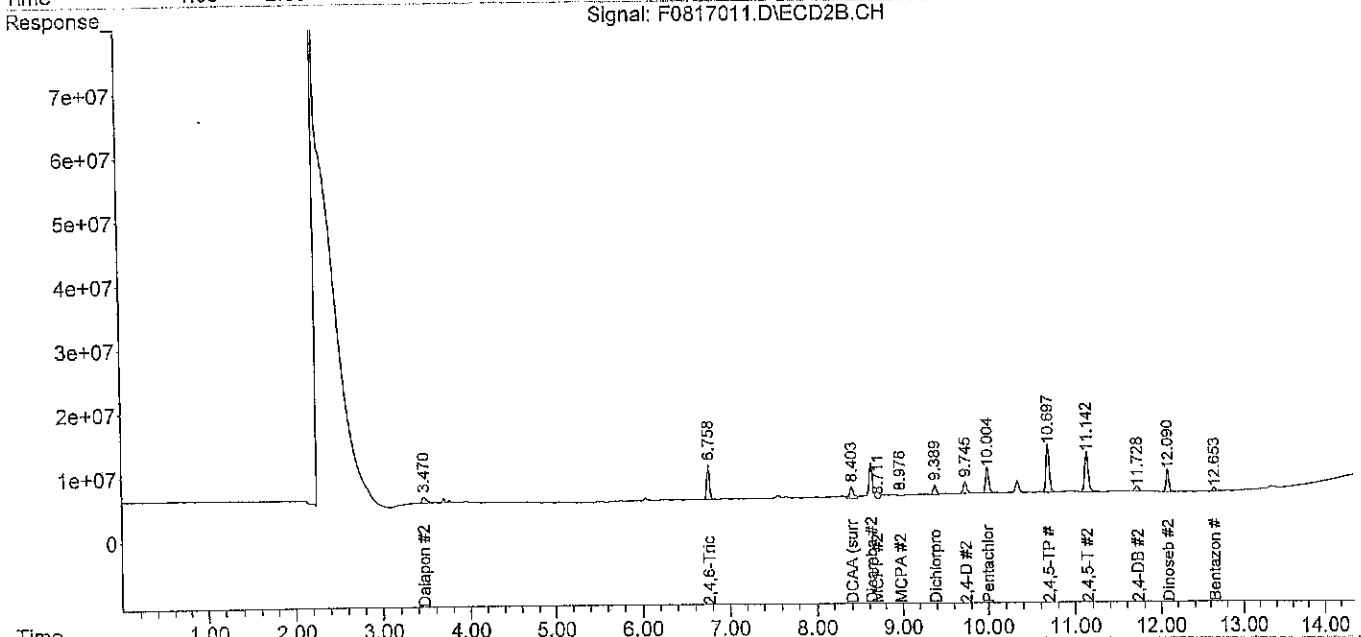
Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.735	8.403	3120475	3677033	25.333	25.861
		Spiked Amount 100.000			Recovery	=	25.33%	25.86%
		Target Compounds						
1)	A	Dalapon	3.865	3.473	1855417	2249731	25.216	23.610
2)	A	2,4,6-Tri...	7.083	6.759	11354167	13199763	11.839	11.831
4)	A	Dicamba	8.980	8.630	10068427	12558353	23.347	23.773
5)	A	MCPP	9.157	8.712	199811	265631	2877.380	3123.865
6)	A	MCPA	9.336	8.980	1048400	969997	2708.842	2734.370
7)	A	Dichlorprop	9.805	9.388	2966815	3776783	25.170	26.979
8)	A	2,4-D	10.076	9.745	3455529	4654121	24.978	25.867
9)	A	Pentachlo...	10.407	10.004	7628348	9784346	2.436	2.504
10)	A	2,4,5-TP	11.098	10.697	13752088	18343572	23.732	24.070
11)	A	2,4,5-T	11.427	11.142	11707613	15290891	24.117	23.686
12)	A	2,4-DB	12.035	11.726	1698799	2078253	24.944	24.458
13)	a	Bentazon	13.005	12.653	1192894	1651396	24.703	22.819
14)	A	Dinoseb	13.142	12.091	5347366	8238683	24.864	23.972

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

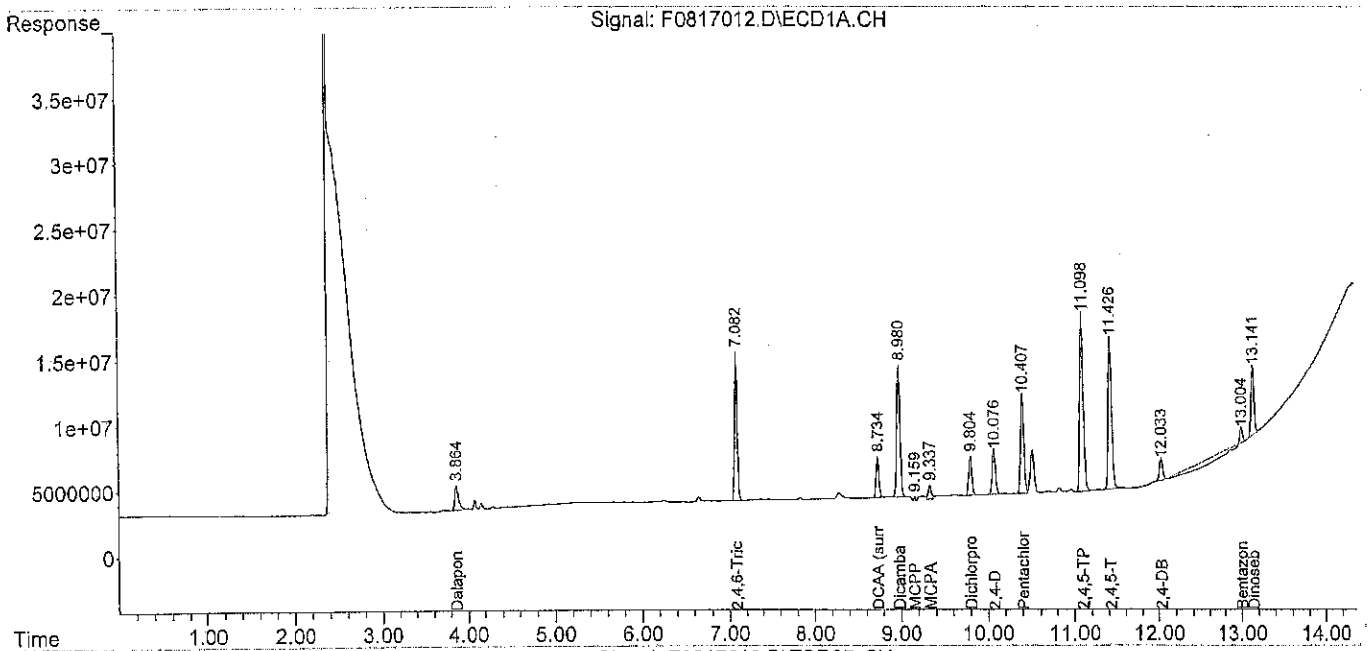
Quantitation Report (Not Reviewed)

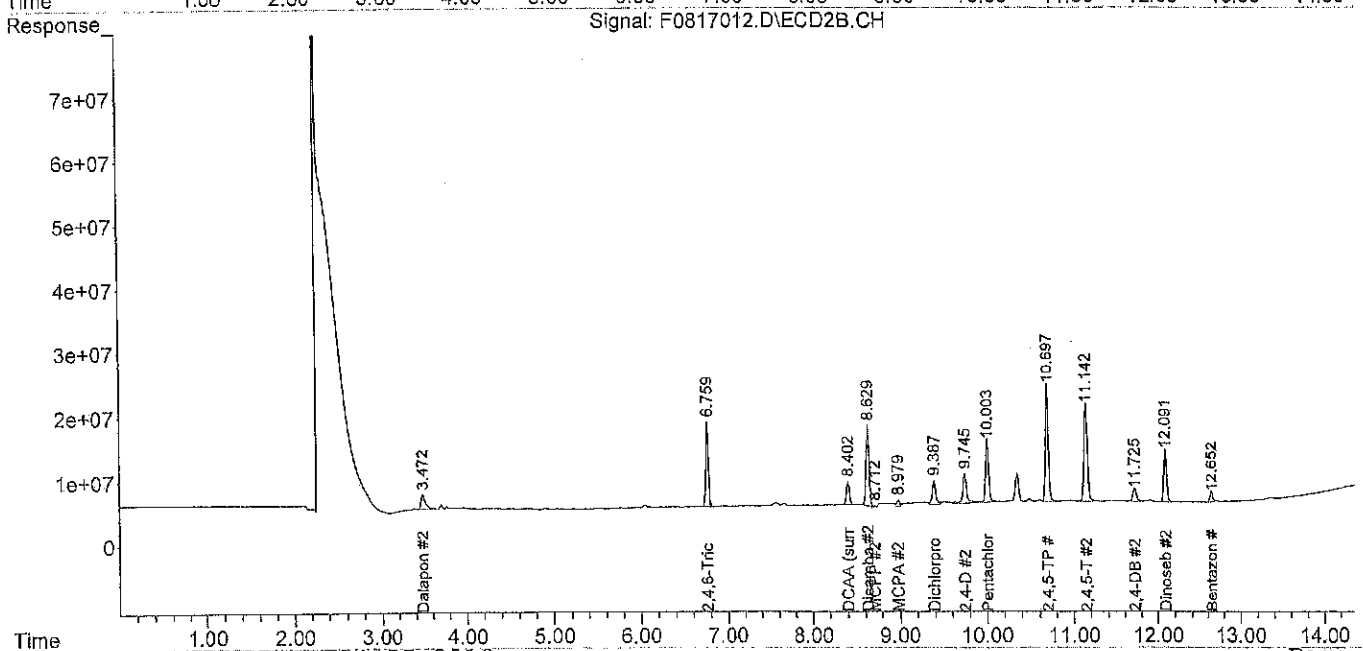
Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.733	8.401	5864299	6814069	47.608	47.925
		Spiked Amount 100.000			Recovery	=	47.61%	47.92%
		Target Compounds						
1)	A	Dalapon	3.864	3.472	3513619	4289384	47.751	45.015
2)	A	2,4,6-Tri...	7.082	6.758	22083231	25328645	23.026	22.701
4)	A	Dicamba	8.980	8.630	19506123	23646638	45.231	44.762
5)	A	MCPP	9.156	8.712	972672	1022364	5140.540	5070.816
6)	A	MCPA	9.335	8.978	2036145	2152226	4945.026	5139.277
7)	A	Dichlorprop	9.803	9.386	5516326	7047700	46.800	50.344
8)	A	2,4-D	10.074	9.744	6672898	8962952	48.235	49.814
9)	A	Pentachlo...	10.406	10.003	14530907	18616464	4.641	4.765
10)	A	2,4,5-TP	11.097	10.697	26647731	35111974	45.986	46.073
11)	A	2,4,5-T	11.426	11.141	22911810	30006336	47.196	46.480
12)	A	2,4-DB	12.034	11.725	3454487	3993012	50.722	46.991
13)	a	Bentazon	12.999f	12.648	2477630	3371122	51.308	46.583
14)	A	Dinoseb	13.135f	12.090	10836859	15985248	50.389	46.511

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

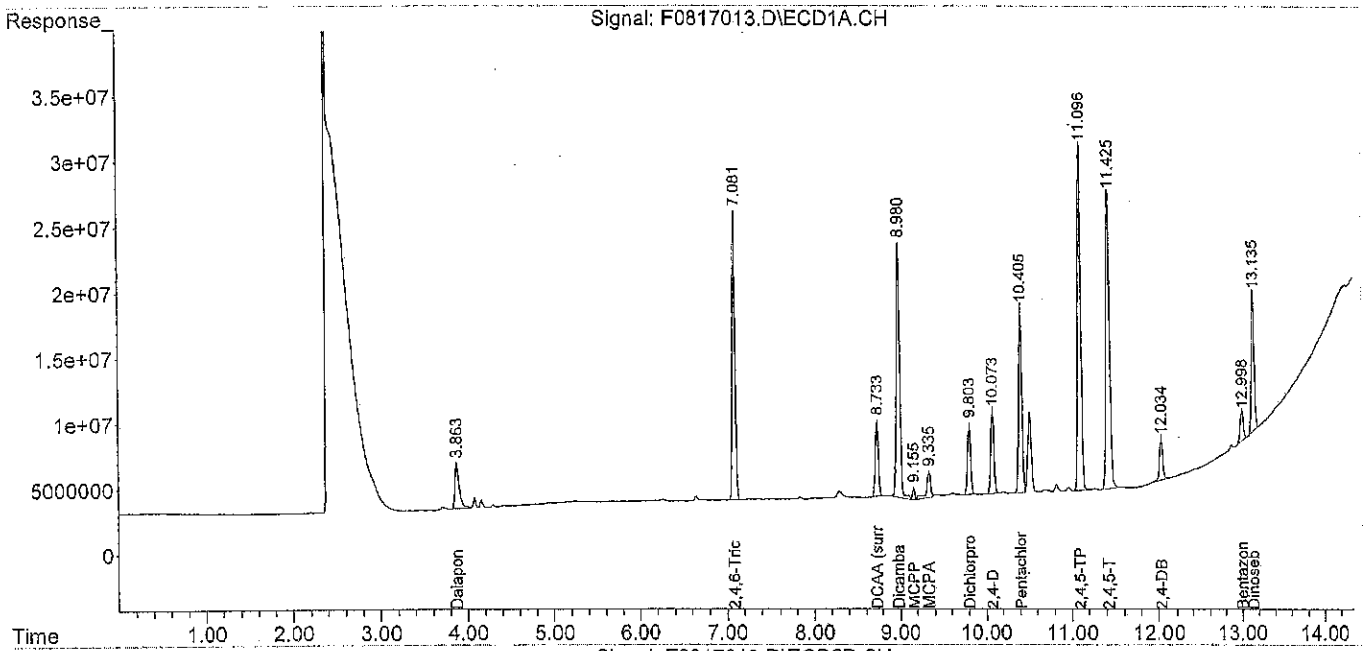
Quantitation Report (Not Reviewed)

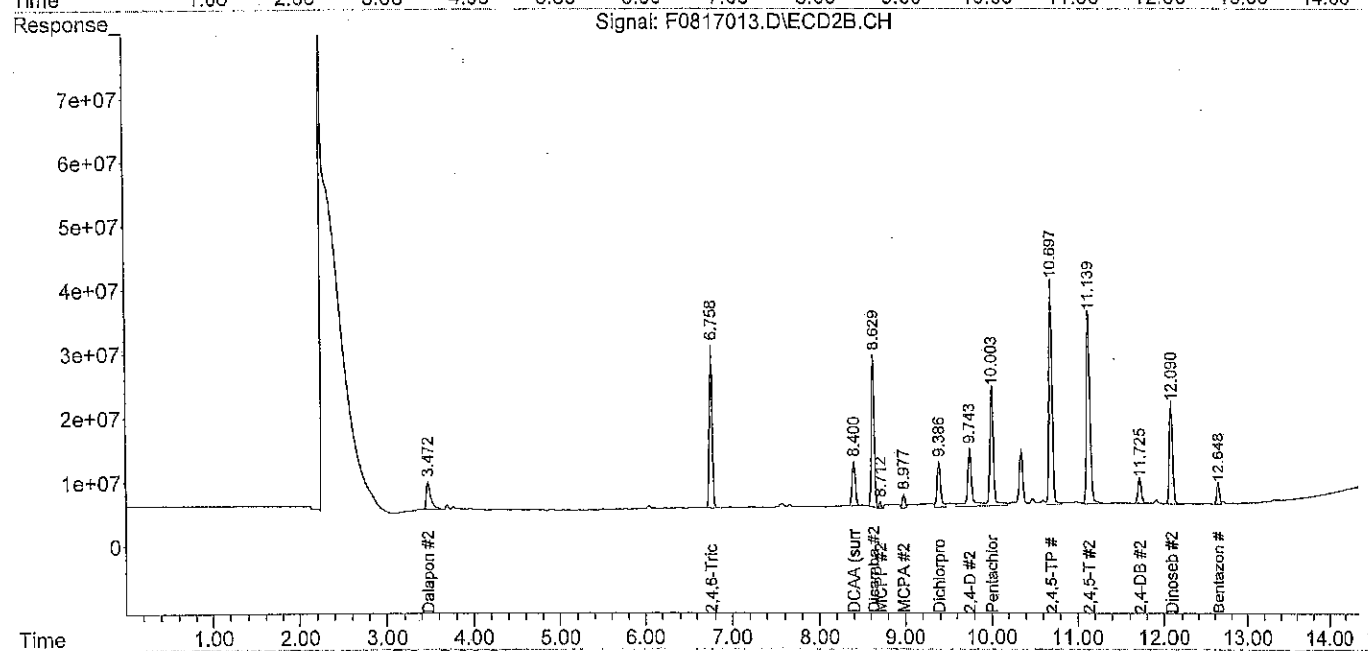
Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.731	8.400	11348388	13451287	92.129	94.605
		Spiked Amount 100.000			Recovery	=	92.13%	94.61%
		Target Compounds						
1)	A	Dalapon	3.865	3.473	6866529	8704228	93.318	91.347
2)	A	2,4,6-Tri...	7.081	6.758	44483672	50899710	46.383	45.620
4)	A	Dicamba	8.979	8.629	39334858	46144001	91.209	87.349
5)	A	MCPP	9.154	8.710	2488021	2706431	9577.916	9403.643
6)	A	MCPA	9.333	8.977	4187625	4322945	9815.820	9554.981
7)	A	Dichlorprop	9.801	9.385	10771858	12839484	91.388	91.717
8)	A	2,4-D	10.072	9.742	13053849	16533000	94.359	91.887
9)	A	Pentachlo...	10.404	10.001	28483043	35567736	9.096	9.103
10)	A	2,4,5-TP	11.096	10.695	54693437	69891107	94.384	91.709
11)	A	2,4,5-T	11.424	11.139	47347378	60940230	97.531	94.397
12)	A	2,4-DB	12.033	11.723	6898744	7999385	101.294	94.140
13)	a	Bentazon	13.003	12.650	4877862	6590466	101.014	91.069
14)	A	Dinoseb	13.139	12.089	21937455	32320424	102.005	94.041

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

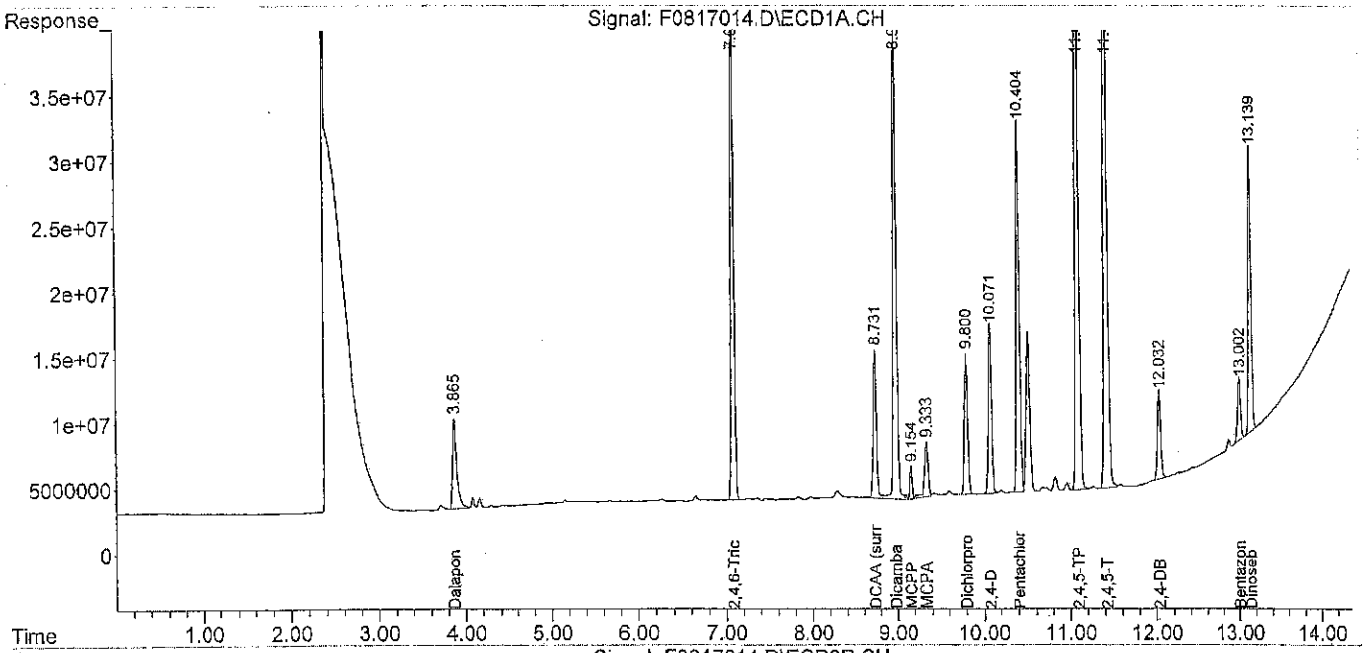
Quantitation Report (Not Reviewed)

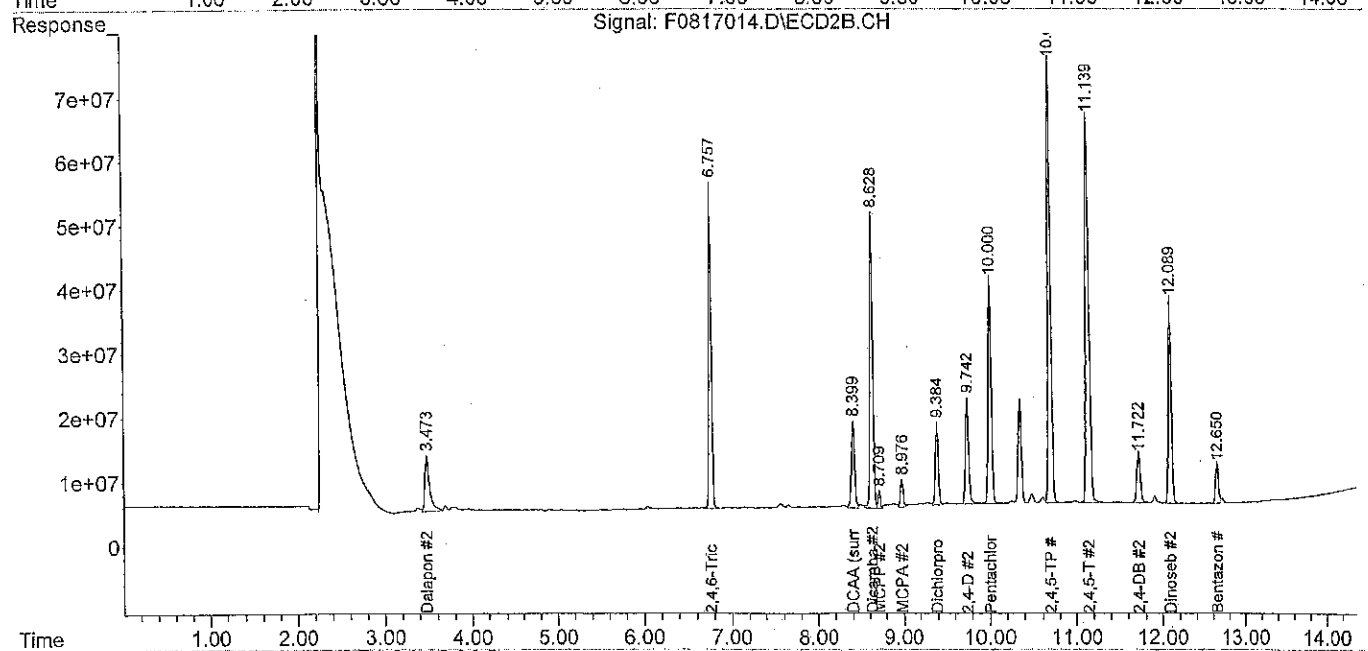
Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.732	8.400	26255998	30148769	213.154	212.042
		Spiked Amount 100.000			Recovery	=	213.15%	212.04%
		Target Compounds						
1)	A	Dalapon	3.867	3.475	16477193	21035245	223.929	220.756
2)	A	2,4,6-Tri...	7.082	6.759	110.5E6	127.8E6	115.239	114.526
4)	A	Dicamba	8.979	8.628	94350654	111.8E6	218.779	211.657
5)	A	MCPP	9.156	8.711	6752926	7530404	22066.787	21814.934
6)	A	MCPA	9.333	8.978	10206538	10786773	23442.201	22703.782
7)	A	Dichlorprop	9.800	9.383	24717008	29583680	209.698	211.326
8)	A	2,4-D	10.071	9.741	30823171	38043250	222.804	211.436
9)	A	Pentachlo...	10.404	10.001	67787156	80426329	21.649	20.584
10)	A	2,4,5-TP	11.096	10.696	134.4E6	169.3E6	231.873	222.207
11)	A	2,4,5-T	11.424	11.139	116.5E6	151.0E6	239.955	233.880
12)	A	2,4-DB	12.031	11.722	16678647	19089306	244.893	224.651
13)	a	Bentazon	13.002	12.651	11612604	15572024	240.481	215.178
14)	A	Dinoseb	13.139f	12.089	50893105	75489719	236.643	219.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

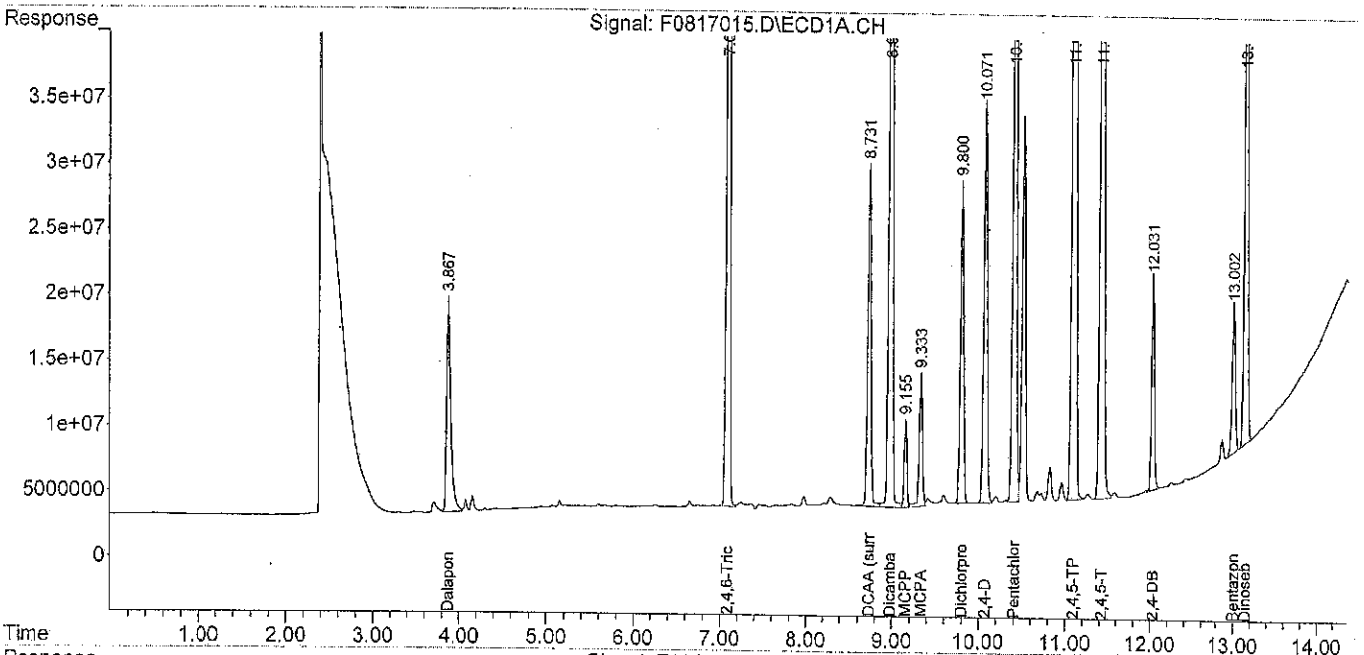
Quantitation Report (Not Reviewed)

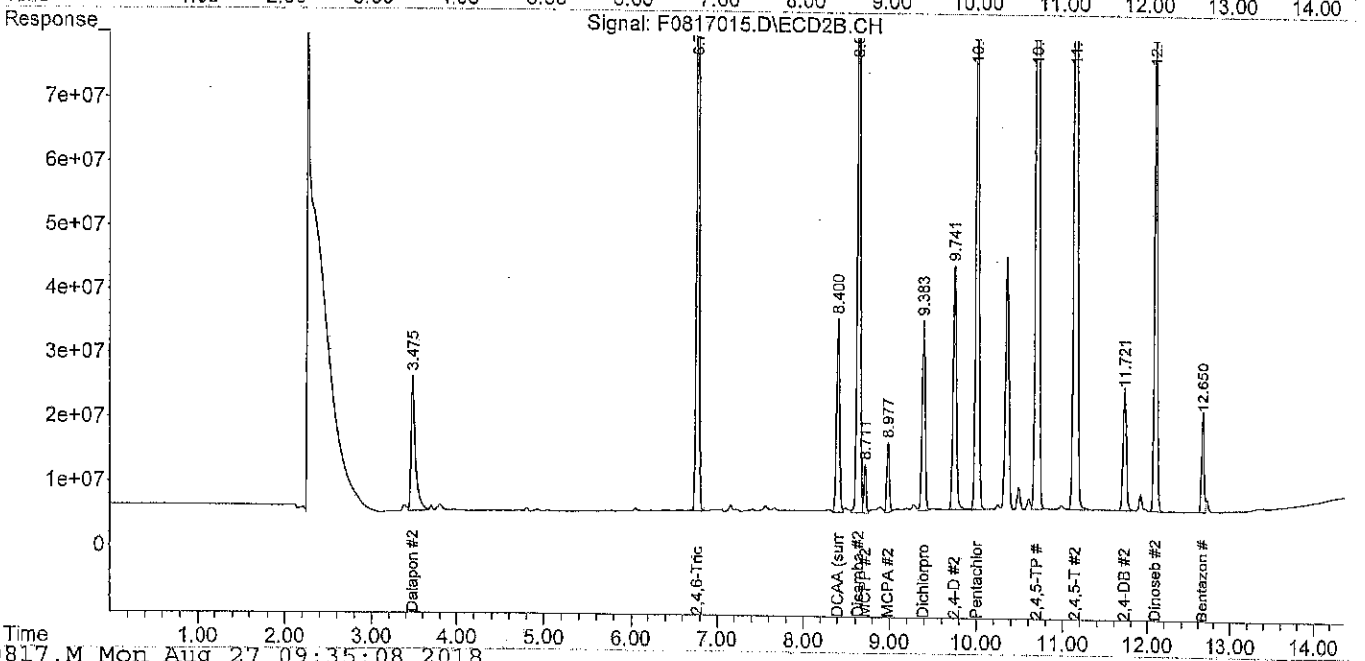
Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.732	8.401	57240466	66758932	464.695	469.528
		Spiked Amount 100.000			Recovery	=	464.70%	469.53%
		Target Compounds						
1)	A	Dalapon	3.873	3.481	36111007	46193314	490.756	484.780
2)	A	2,4,6-Tri...	7.084	6.760	262.5E6	307.4E6	273.730	275.508
4)	A	Dicamba	8.979	8.628	224.8E6	264.5E6	521.275	500.754
5)	A	MCPP	9.157	8.714	16801253	19124519	51491.177	51644.689
6)	A	MCPA	9.336	8.981	23691471	25451703	53971.106	52535.373
7)	A	Dichlorprop	9.799	9.382f	56064531	66294862	475.648	473.566
8)	A	2,4-D	10.070	9.740	70747424	85752556	511.395	476.593
9)	A	Pentachlo...	10.403	10.000	155.9E6	181.5E6	49.780	46.448
10)	A	2,4,5-TP	11.095	10.695	318.2E6	393.8E6	549.044	516.783
11)	A	2,4,5-T	11.422	11.138	283.9E6	357.8E6	584.755	554.208
12)	A	2,4-DB	12.030f	11.721	41104828	44301446	603.543	521.358
13)	a	Bentazon	12.999f	12.648	26780768	35928681	554.593	496.471
14)	A	Dinoseb	13.135f	12.088	117.1E6	166.6E6	544.262	484.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

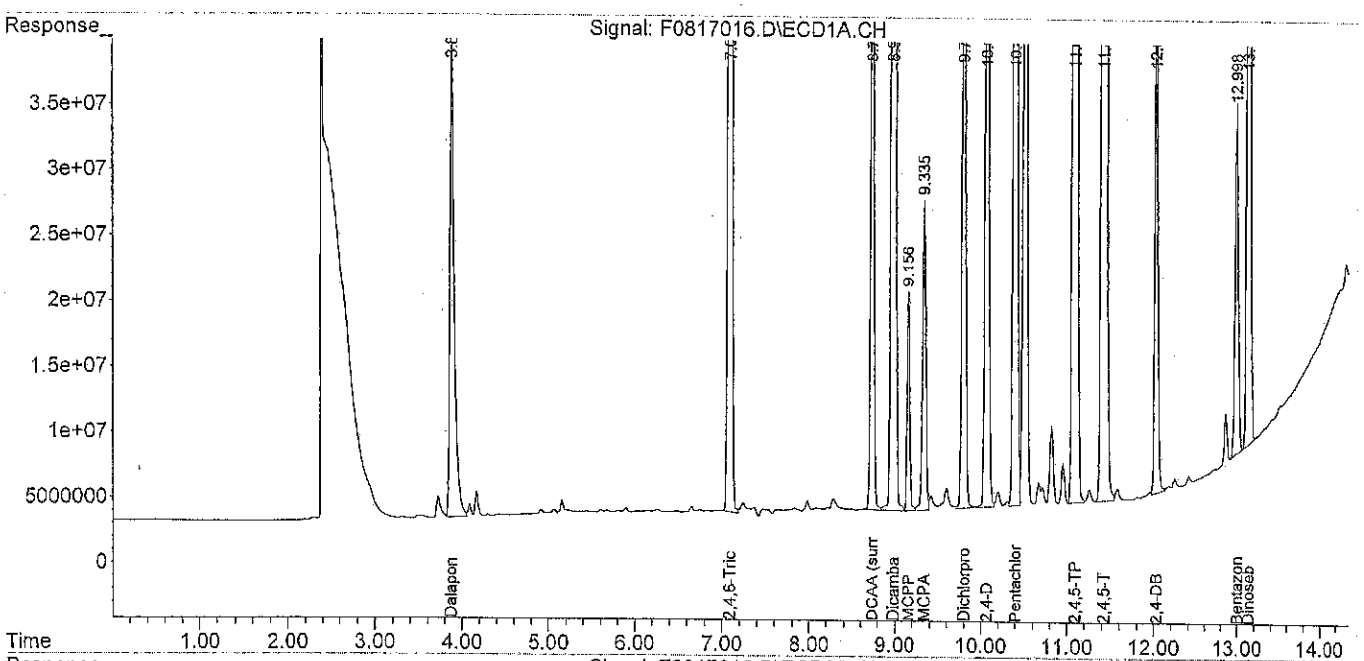
Quantitation Report (Not Reviewed)

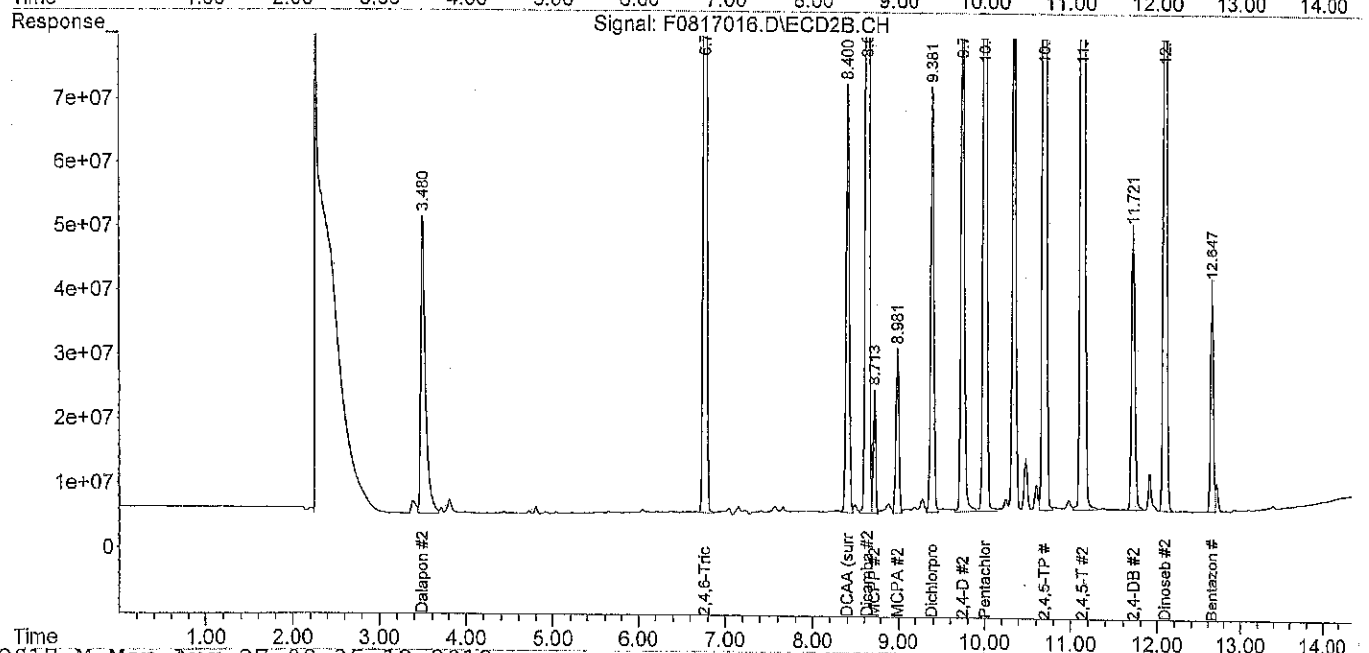
Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.753f	0.000	960161	0	7.795	N.D.	#
		Spiked Amount 100.000			Recovery	=	7.80%	0.00%	
		Target Compounds							
1)	A	Dalapon	3.866	3.474	6807754	8572406	92.519	89.964	
2)	A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A	Dicamba	8.980	8.629	39483953	47293331	91.555	89.525	
5)	A	MCPP	9.156	8.710	2639608	2834563	10021.806	9733.305	
6)	A	MCPA	9.334	8.978	4386424	4659850	10265.887	10240.318	
7)	A	Dichlorprop	9.802	9.385	10278317	12258239	87.201	87.565	
8)	A	2,4-D	10.074	9.744	12265306	15653918	88.659	87.001	
9)	A	Pentachlo...	0.000	9.994f	0	240126	N.D.	0.061	#
10)	A	2,4,5-TP	11.097	10.697	51725738	66892655	89.263	87.774	
11)	A	2,4,5-T	11.424	11.140	48874445	63677945	100.677	98.638	
12)	A	2,4-DB	12.030	11.724	8907892	8593975	130.795	101.137	
13)	a	Bentazon	13.001f	12.651	57292593	7187699	1186.451	99.321	#
14)	A	Dinoseb	13.139	12.090	23459537	34548327	109.082	100.523	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

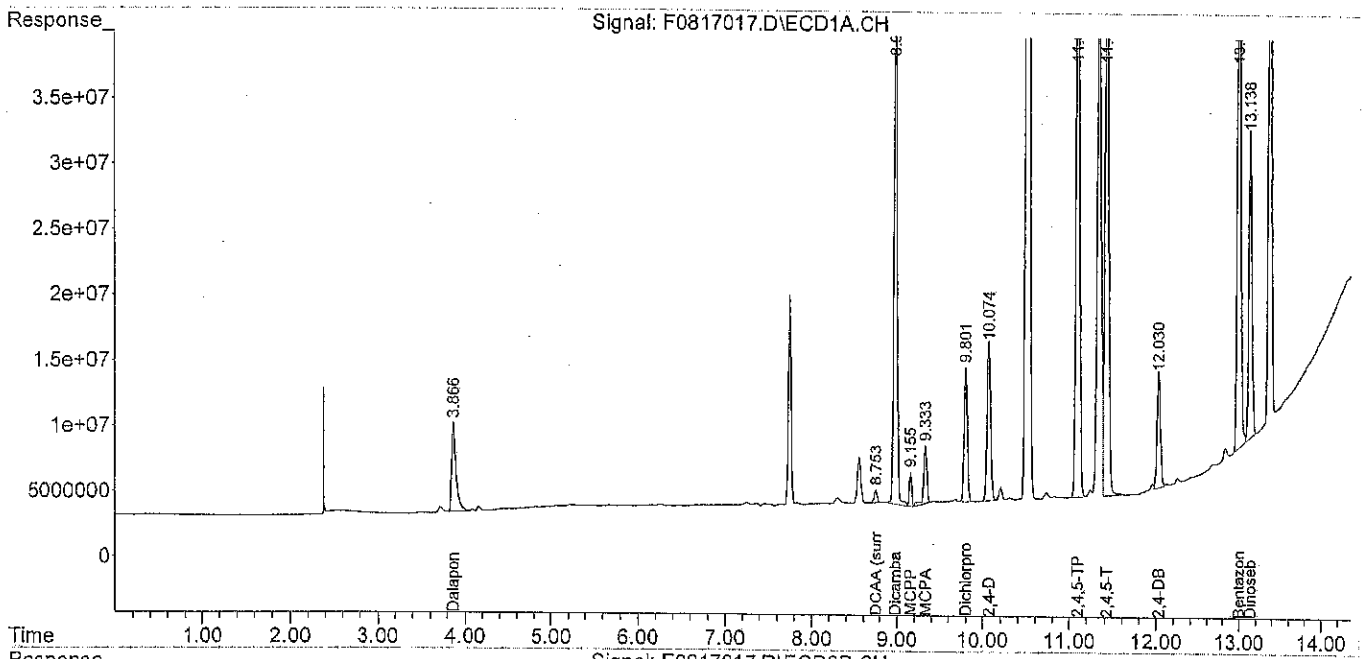
Quantitation Report (Not Reviewed)

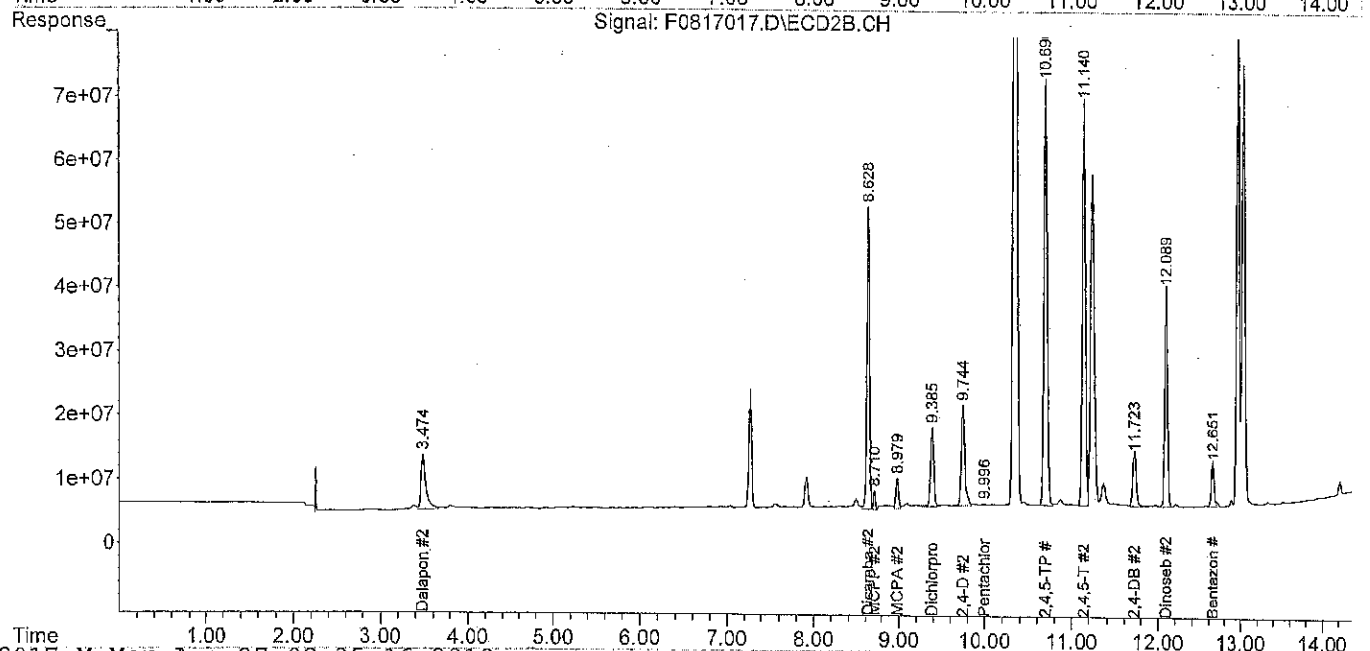
Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Data File : F0910003.D
Sample : HERBCCV 0910-1 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180910\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10-Sep-18, 14:07:03
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 10 17:18:05 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Sep 10 17:18:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	103.679	-3.7	113	0.07#
9 A	Pentachlorophenol	10.000	10.446	-4.5	115	0.08#

Signal #2

3 S	DCAA (surr)	100.000	91.541	8.5	97	0.07#
9 A	Pentachlorophenol	10.000	8.791	12.1	97	0.07#

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 18 09:28:29 2018

Evaluate Continuing Calibration Report

Data File : F0910009.D
Sample : HERBCCV 0910-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180910\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10-Sep-18, 18:15:05
Operator :
Misc :
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 10 18:30:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Sep 10 17:18:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	111.679	-11.7	121	0.07#
9 A	Pentachlorophenol	10.000	10.993	-9.9	121	0.08#
Signal #2						
3 S	DCAA (surr)	100.000	95.661	4.3	101	0.07#
9 A	Pentachlorophenol	10.000	9.168	8.3	101	0.07#

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 18 09:29:07 2018

Evaluate Continuing Calibration Report

Data File : F0912011.D
Sample : HERBCCV 0912-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180912\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12-Sep-18, 18:22:11
Operator :
Misc :
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 17:16:26 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	92.905	7.1	101	0.00
9 A	Pentachlorophenol	10.000	9.473	5.3	104	0.00

Signal #2

3 S	DCAA (surr)	100.000	92.196	7.8	97	0.00
9 A	Pentachlorophenol	10.000	8.692	13.1	95	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 18 09:30:03 2018

Evaluate Continuing Calibration Report

Data File : F0912015.D
Sample : HERBCCV 0912-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180912\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12-Sep-18, 19:44:15
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 16:54:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	92.271	7.7	100	0.00
9 A	Pentachlorophenol	10.000	9.160	8.4	101	0.00

Signal #2

3 S	DCAA (surr)	100.000	85.190	14.8	90	0.00
9 A	Pentachlorophenol	10.000	8.381	16.2	92	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 18 09:30:41 2018

Evaluate Continuing Calibration Report

Data File : F0914003.D
Sample : HERBCCV 0914-1 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 09:53:30
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 10:08:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	98.980	1.0	107	0.00
9 A	Pentachlorophenol	10.000	9.777	2.2	107	0.00

Signal #2

3 S	DCAA (surr)	100.000	91.685	8.3	97	0.00
9 A	Pentachlorophenol	10.000	8.679	13.2	95	-0.01

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 18 09:31:36 2018

Evaluate Continuing Calibration Report

Data File : F0914008.D
Sample : HERBCCV 0914-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 11:41:11 (#1); 14-Sep-18, 11:41:10 (#2)
Operator :
Misc :
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 11:56:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	109.194	-9.2	119	0.00
9 A	Pentachlorophenol	10.000	10.357	-3.6	114	0.00
Signal #2						
3 S	DCAA (surr)	100.000	95.192	4.8	101	0.00
9 A	Pentachlorophenol	10.000	9.008	9.9	99	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 18 09:32:09 2018

Evaluate Continuing Calibration Report

Data File : F0914013.D
Sample : HERBCCV 0914-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 15:37:46
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:31:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	106.403	-6.4	115	0.00
9 A	Pentachlorophenol	10.000	10.501	-5.0	115	0.00

Signal #2

3 S	DCAA (surr)	100.000	92.781	7.2	98	0.00
9 A	Pentachlorophenol	10.000	9.136	8.6	100	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 18 09:32:56 2018

Evaluate Continuing Calibration Report

Data File : F0914019.D
Sample : HERBCCV 0914-4 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 18:01:46
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 10:02:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	96.692	3.3	105	0.00
9 A	Pentachlorophenol	10.000	9.220	7.8	101	0.00

Signal #2

3 S	DCAA (surr)	100.000	89.106	10.9	94	0.00
9 A	Pentachlorophenol	10.000	8.533	14.7	94	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 18 09:34:35 2018

Quantitation Report (Not Reviewed)

Data File : F0910003.D
Sample : HERBCCV 0910-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180910\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10-Sep-18, 14:07:03
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 10 14:22:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

FMS 9-10-18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.721	8.387	12770989	13015643	103.679	91.541	
	Spiked Amount 100.000			Recovery	=	103.68%	91.54%	
	Target Compounds							
1)	A Dalapon	3.868	3.469	7605685	8785549	103.363	92.201	
2)	A 2,4,6-Tri...	7.077	6.747	53596036	48231411	55.884	43.228	
4)	A Dicamba	8.967	8.612	45266268	44974635	104.963	85.136	
5)	A MCPP	9.143	8.696	2780314	2771757	10433.834	9571.717	
6)	A MCPA	9.320	8.962	4464768	4397507	10443.250	9706.655	
7)	A Dichlorprop	9.788	9.370	12479369	12114809	105.874	86.540	
8)	A 2,4-D	10.057f	9.726	15118233	16180818	109.281	89.929	
9)	A Pentachlo...	10.389f	9.985	32709562	34346212	10.446	8.791	
10)	A 2,4,5-TP	11.079f	10.679	64383632	66445611	111.107	87.188	
11)	A 2,4,5-T	11.406f	11.122	54059136	57630016	111.357	89.269	
12)	A 2,4-DB	12.015f	11.705	7946981	7297019	116.686	85.874	#
13)	a Bentazon	12.986f	12.636	4883148	5921170	101.123	81.820	
14)	A Dinoseb	13.125f	12.074	20672880	27036791	96.125	78.668	12

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

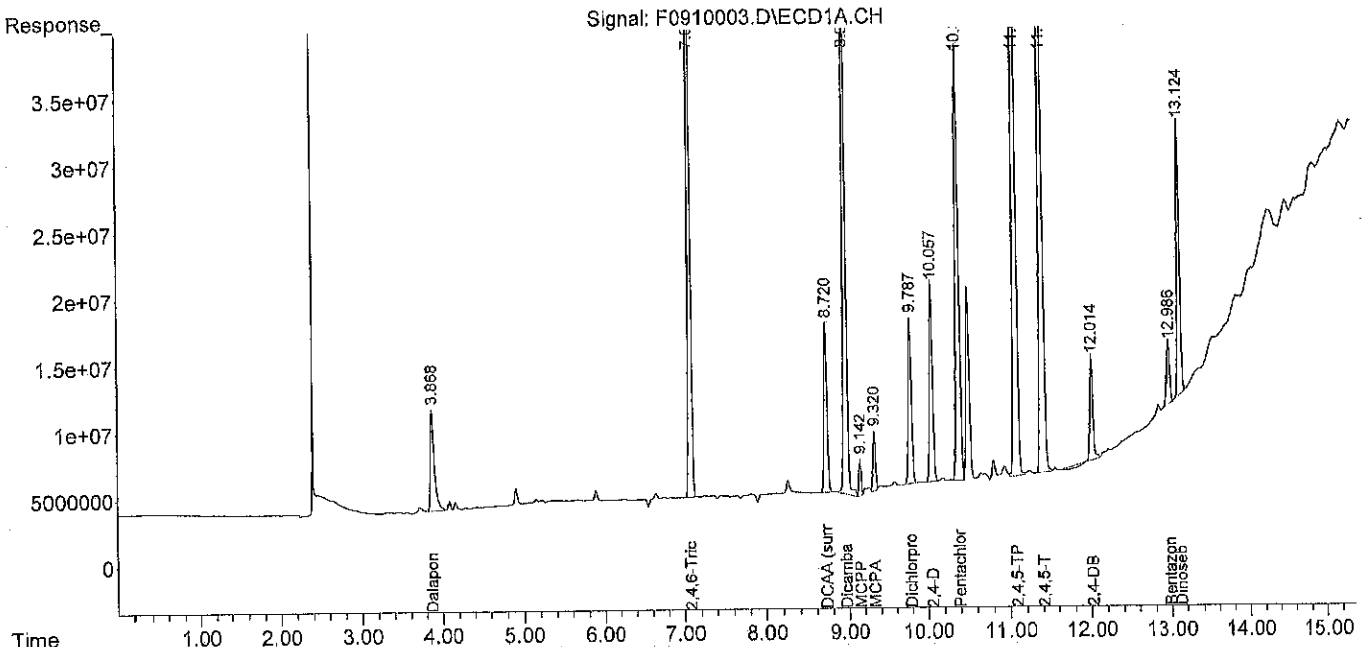
Quantitation Report (Not Reviewed)

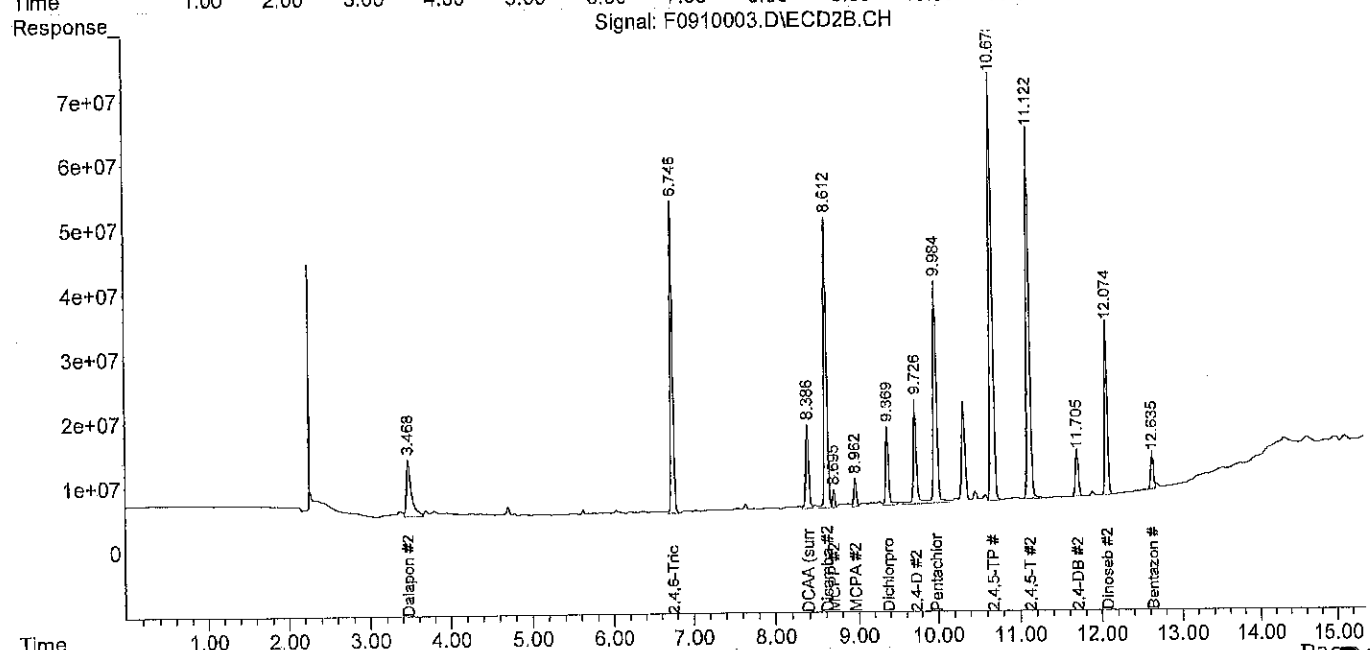
Data File : F0910003.D
Sample : HERBCCV 0910-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180910\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10-Sep-18, 14:07:03
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 10 14:22:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0910009.D
Sample : HERBCCV 0910-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180910\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10-Sep-18, 18:15:05
Operator :
Misc :
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 10 18:30:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Sep 10 17:18:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KCMS 9-10-18

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.722	8.387	13756474	13601397	111.679	95.661
	Spiked Amount 100.000			Recovery	=	111.68%	95.66%
	Target Compounds						
1)	A Dalapon	3.869	3.469	7748581	9145035	105.305	95.973
2)	A 2,4,6-Tri...	7.078	6.748	54664308	50032917	56.998	44.843
4)	A Dicamba	8.968	8.614	47307615	46440902	109.696	87.911
5)	A MCPP	9.144	8.697	2713972	2783510	10239.567	9601.956
6)	A MCPA	9.321	8.964	4551514	4465405	10639.638	9844.774
7)	A Dichlorprop	9.788	9.372	13235547	12683614	112.290	90.603
8)	A 2,4-D	10.058	9.728	16201696	17407702	117.113	96.748
9)	A Pentachlo...	10.390	9.987	34420587	35822759	10.993	9.168
10)	A 2,4,5-TP	11.081	10.681	67759610	70961405	116.933	93.113
11)	A 2,4,5-T	11.409	11.125	59555351	61693046	122.678	95.563
12)	A 2,4-DB	12.017	11.708	8860890	7981519	130.105	93.930 #
13)	a Bentazon	12.983	12.634	5383521	6312118	111.485	87.222
14)	A Dinoseb	13.120	12.076	23654775	30586335	109.990	88.995

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

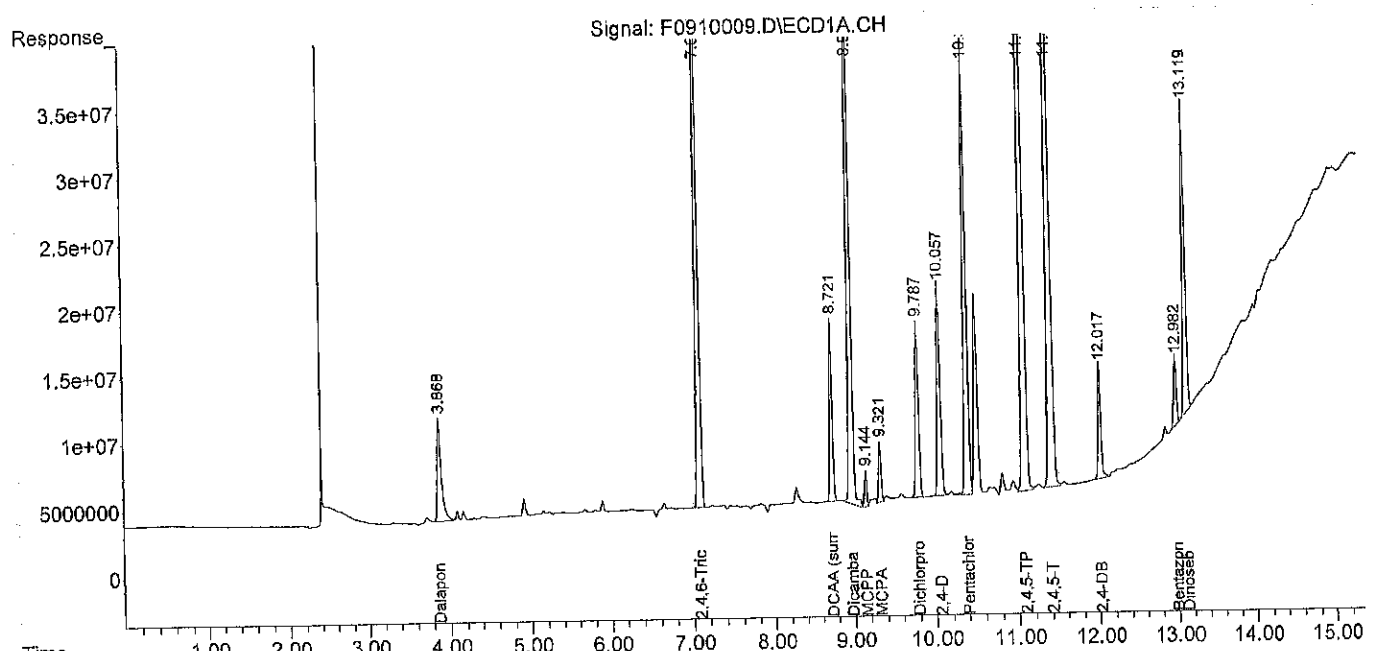
Quantitation Report (Not Reviewed)

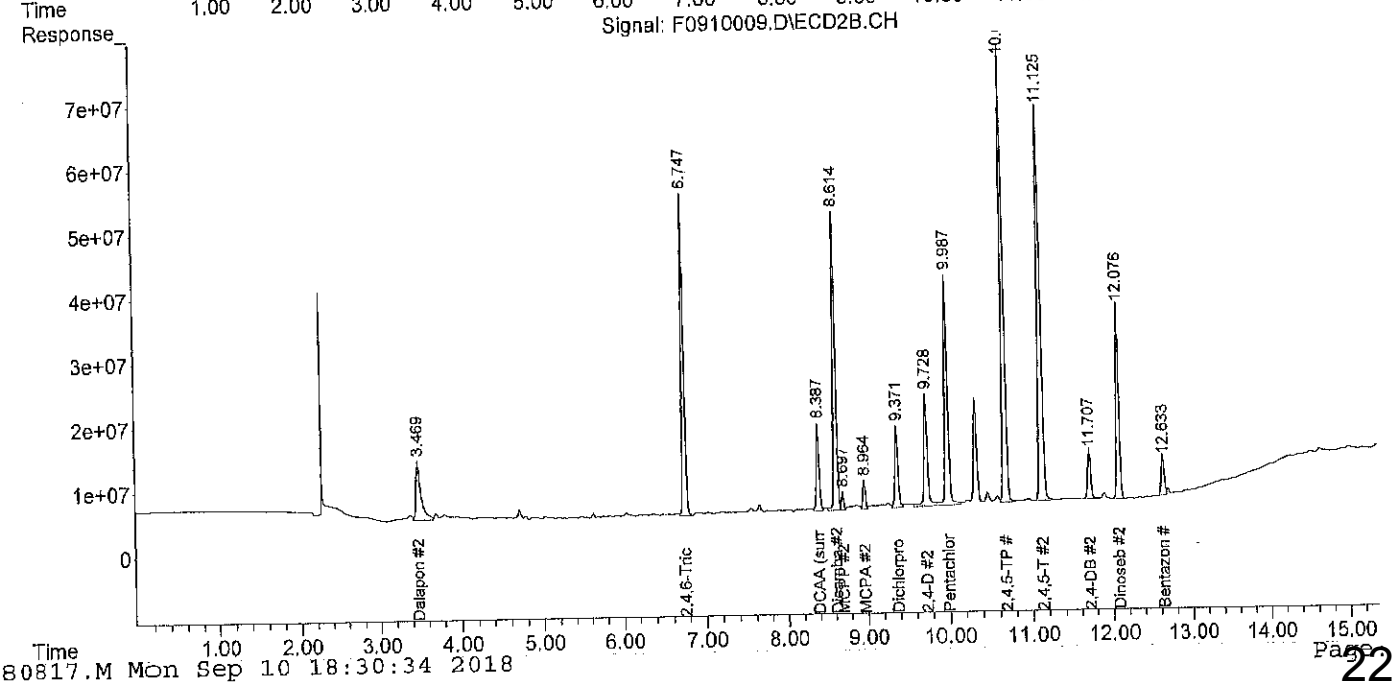
Data File : F0910009.D
Sample : HERBCCV 0910-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180910\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10-Sep-18, 18:15:05
Operator :
Misc :
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 10 18:30:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Sep 10 17:18:00 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0912011.D
Sample : HERBCCV 0912-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180912\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12-Sep-18, 18:22:11
Operator :
Misc :
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 17:16:26 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KMS 9.14.18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.649	8.317	11443915	13108746	92.905	92.196	
	Spiked Amount 100.000			Recovery	=	92.91%	92.20%	
	Target Compounds							
1)	A Dalapon	3.833	3.441	5202907	6086967	70.709	63.880	
2)	A 2,4,6-Tri...	7.016	6.689	46397399	45515143	48.378	40.794	
4)	A Dicamba	8.894	8.543	39833740	44663896	92.366	84.547	
5)	A MCPP	9.069	8.627	2127852	2423537	8523.238	8675.803	
6)	A MCPA	9.246	8.892	3714657	3883765	8745.054	8661.596	
7)	A Dichlorprop	9.710	9.296	11030677	11184175	93.584	79.892	
8)	A 2,4-D	9.979	9.652	13589832	16151260	98.233	89.765	
9)	A Pentachlo...	10.309	9.910	29662016	33959647	9.473	8.692	
10)	A 2,4,5-TP	10.998	10.603	57949184	66502467	100.003	87.262	
11)	A 2,4,5-T	11.324	11.044	51754815	60619447	106.610	93.900	
12)	A 2,4-DB	11.942	11.626	7875737	8123473	115.640	95.600	
13)	a Bentazon	12.908	12.565	5910063	6289295	122.389	86.907	#
14)	A Dinoseb	13.048	12.006	27324833	36448699	127.055	106.053	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

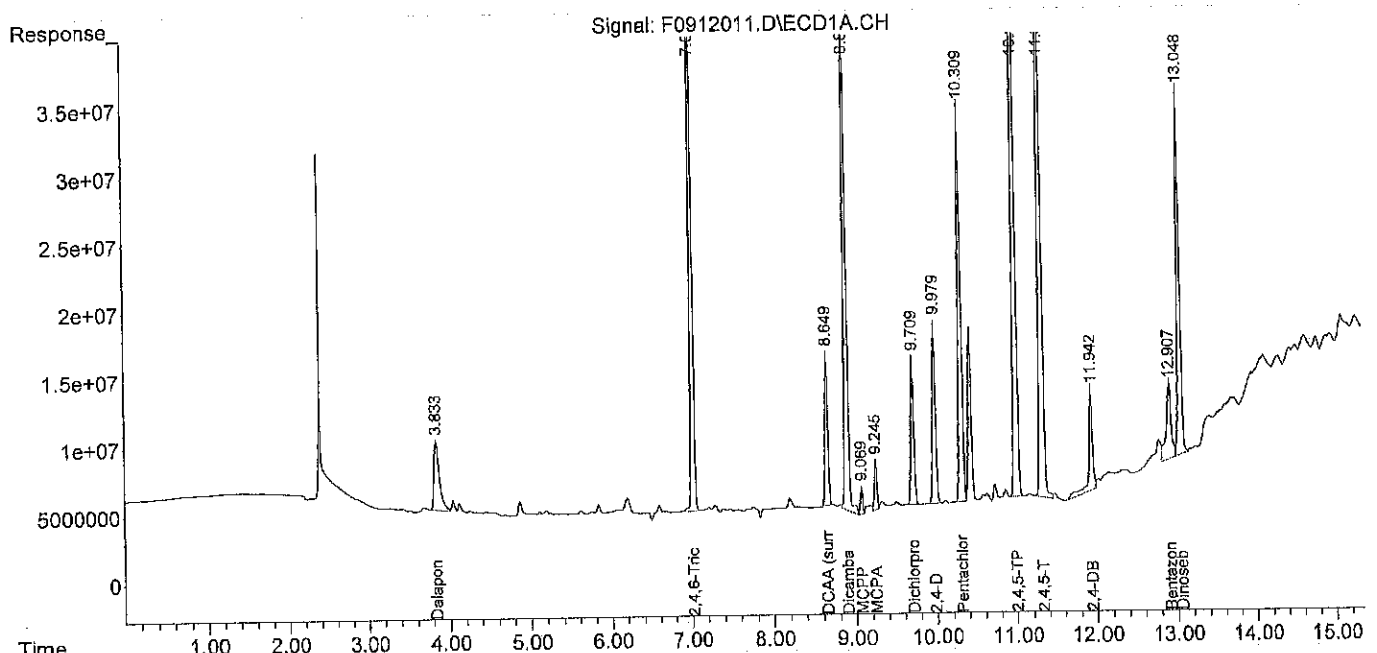
Quantitation Report (Not Reviewed)

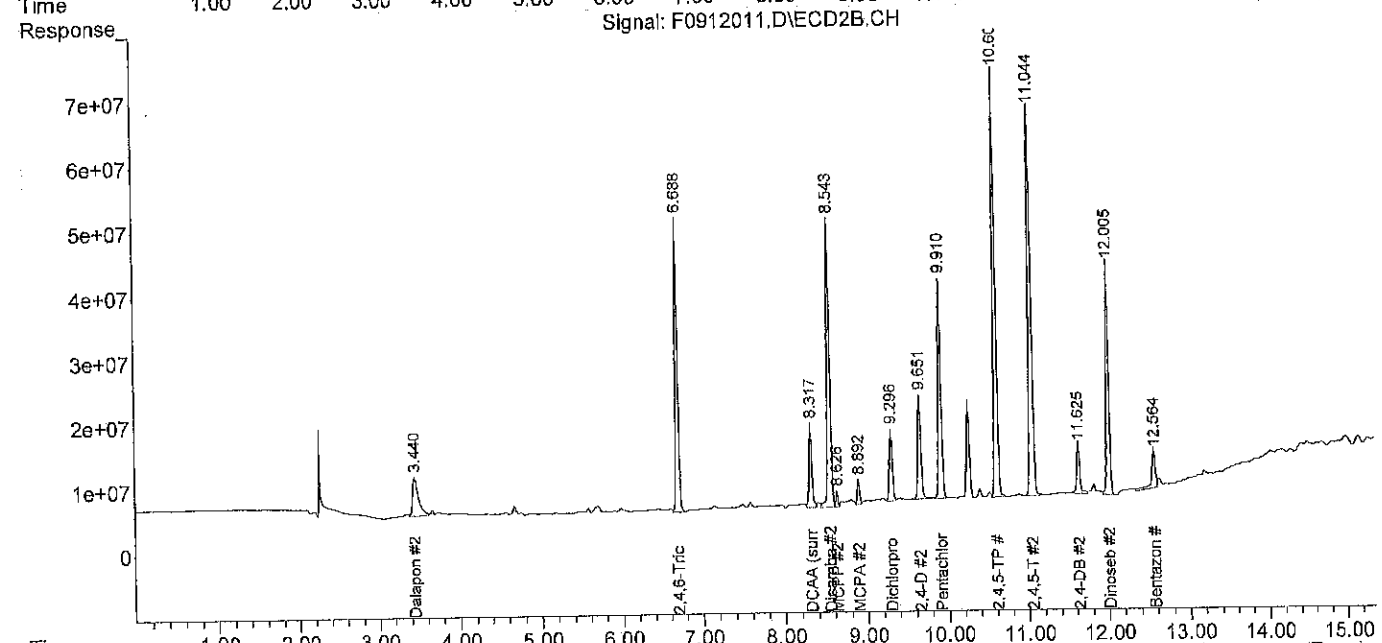
Data File : F0912011.D
Sample : HERBCCV 0912-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180912\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12-Sep-18, 18:22:11
Operator :
Misc :
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 17:16:26 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0912015.D
Sample : HERBCCV 0912-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180912\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12-Sep-18, 19:44:15
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 16:54:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.651	8.320	11365810	12112577	92.271m	85.190m
	Spiked Amount 100.000			Recovery	=	92.27%	85.19%
	Target Compounds						
1) A	Dalapon	3.831	3.438	5335539	6100438	72.511	64.022
2) A	2,4,6-Tri...	7.018	6.690	45962782	46153865	47.925	41.366
4) A	Dicamba	8.896	8.546	40503662	43688849	93.919	82.702
5) A	MCPP	9.072	8.630	1927313	2294571	7936.004	8343.996
6) A	MCPA	9.248	8.895	3423895	3664730	8086.791	8216.031
7) A	Dichlorprop	9.712	9.300	10920116	11397093	92.646	81.413
8) A	2,4-D	9.981	9.655	13597968	16788507	98.292	93.307
9) A	Pentachlo...	10.312	9.912	28683813	32747255	9.160m	8.381m
10) A	2,4,5-TP	11.001	10.606	57142460	64304057	98.611	84.378
11) A	2,4,5-T	11.327	11.047	50804274	60001983	104.652	92.944
12) A	2,4-DB	11.944	11.629	8827782	7686791	129.619	90.461 #
13) a	Bentazon	12.913	12.570	11403951	5832692	236.160	80.598 #
14) A	Dinoseb	13.053	12.009	27706620	35374893	128.830	102.928

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 9-14-18

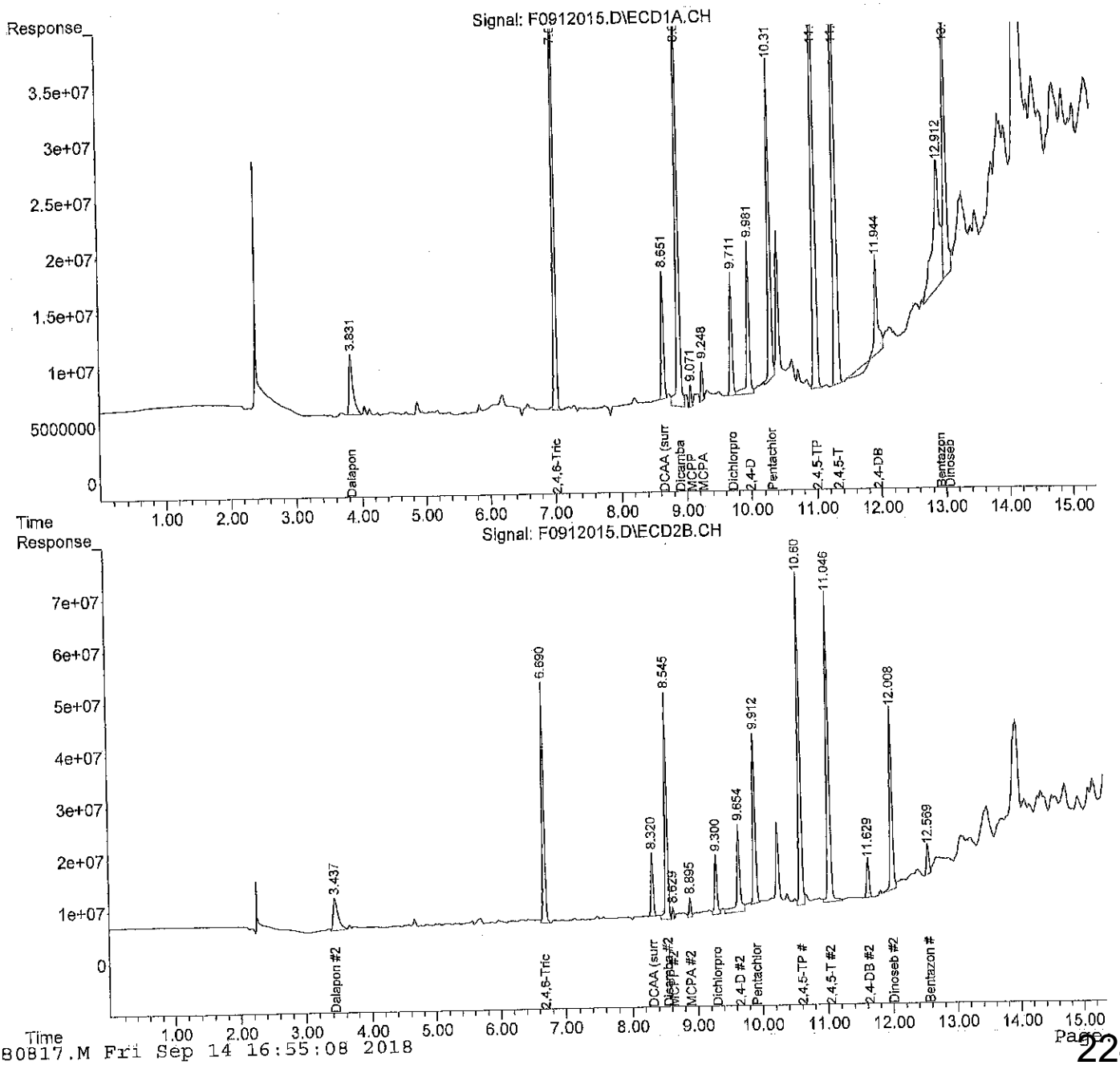
Quantitation Report (QT Reviewed)

Data File : F0912015.D
Sample : HERBCCV 0912-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180912\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 12-Sep-18, 19:44:15
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 16:54:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : F0914003.D
Sample : HERBCCV 0914-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 09:53:30
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 10:08:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.645	8.311	12192189	13036065	98.980	91.685
Spiked Amount	100.000			Recovery	=	98.98%	91.69%
	Target Compounds						
1) A	Dalapon	3.828	3.436	5372495	6086020	73.013	63.870
2) A	2,4,6-Tri...	7.012	6.683	47385461	46690967	49.409	41.848
4) A	Dicamba	8.889	8.536	42356033	44577101	98.215	84.383
5) A	MCPP	9.064	8.620	2233313	2369062	8832.058	8535.649
6) A	MCPA	9.241	8.885f	3782984	3832916	8899.742	8558.158
7) A	Dichlorprop	9.704	9.290	11709074	11376009	99.339	81.263
8) A	2,4-D	9.974	9.646	14258494	15890037	103.067	88.313
9) A	Pentachlo...	10.304	9.903f	30613442	33910432	9.777	8.679
10) A	2,4,5-TP	10.993	10.596f	62557146	67573034	107.955	88.667
11) A	2,4,5-T	11.319	11.038	54673774	59258755	112.623	91.792
12) A	2,4-DB	11.938	11.620	8448598	7963385	124.051	93.716
13) a	Bentazon	12.913	12.565	5524256	6685050	114.400	92.376
14) A	Dinoseb	13.054	12.000	22749388	27456163	105.780	79.888

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 9-17-18

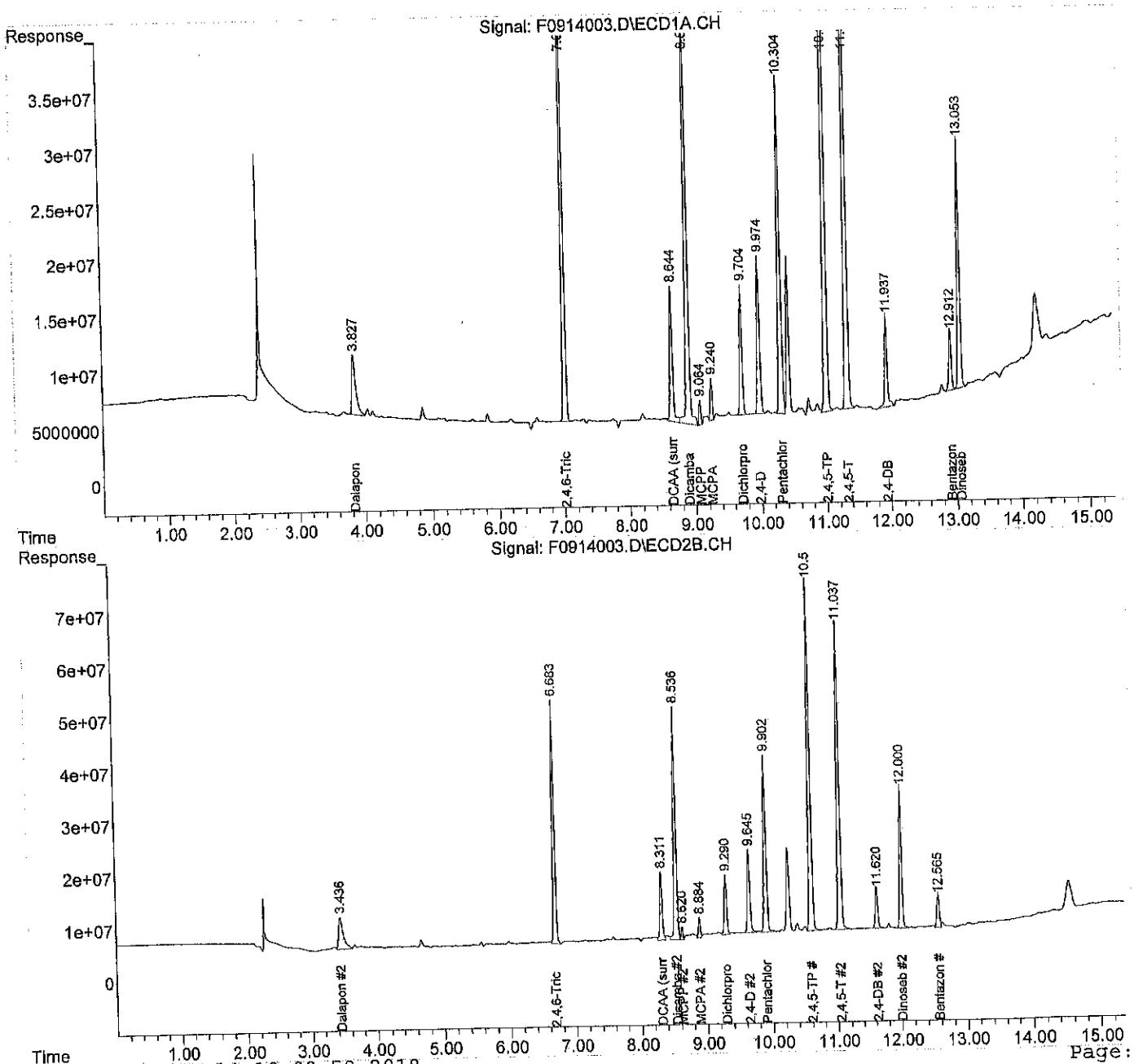
Quantitation Report (Not Reviewed)

Data File : F0914003.D
Sample : HERBCCV 0914-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 09:53:30
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 10:08:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : F0914008.D
Sample : HERBCCV 0914-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 11:41:11 (#1); 14-Sep-18, 11:41:10 (#2)
Operator :
Misc :
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

KMS 9-14-18

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 11:56:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.646	8.312	13450363	13534723	109.194	95.192
	Spiked Amount 100.000			Recovery	=	109.19%	95.19%
	Target Compounds						
1)	A Dalapon	3.833	3.441	5696248	6522631	77.413	68.452
2)	A 2,4,6-Tri...	7.013	6.684	50685069	49276868	52.849	44.165
4)	A Dicamba	8.890	8.538	45151502	46209901	104.697	87.474
5)	A MCPP	9.066	8.622	2355068	2445777	9188.594	8733.024
6)	A MCPA	9.243	8.887	4009753	3898485	9413.129	8691.538
7)	A Dichlorprop	9.707	9.292	12446372	11672521	105.594	83.381
8)	A 2,4-D	9.976	9.647	15115230	16707857	109.260	92.858
9)	A Pentachlo...	10.307	9.905	32429674	35197226	10.357	9.008
10)	A 2,4,5-TP	10.995	10.598	66698812	70003791	115.102	91.857
11)	A 2,4,5-T	11.321	11.040	58949871	63427951	121.431	98.250
12)	A 2,4-DB	11.940	11.623	8901733	8585627	130.704	101.039
13)	a Bentazon	12.915	12.569	6086182	6923488	126.037	95.670
14)	A Dinoseb	13.057	12.004	25505927	30856894	118.597	89.783

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

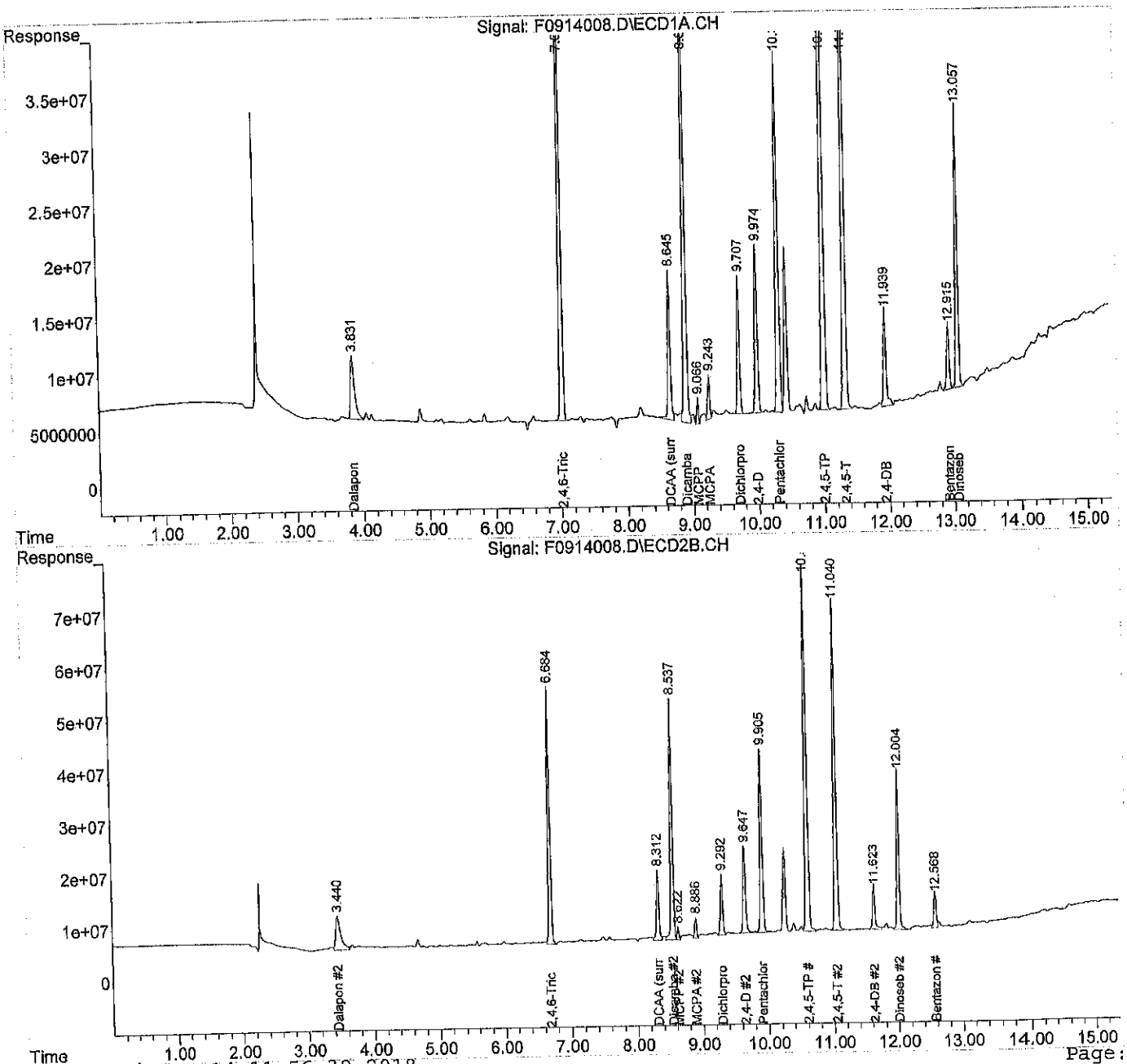
Quantitation Report (Not Reviewed)

Data File : F0914008.D
Sample : HERBCCV 0914-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 11:41:11 (#1); 14-Sep-18, 11:41:10 (#2)
Operator :
Misc :
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 14 11:56:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : F0914013.D
Sample : HERBCCV 0914-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 15:37:46
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:31:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.646	8.313	13106622	13191844	106.403m ✓	92.781m ✓
	Spiked Amount 100.000			Recovery	=	106.40%	92.78%
	Target Compounds						
1) A	Dalapon	3.831	3.439	5516461	6369174	74.970	66.842
2) A	2,4,6-Tri...	7.015	6.686	51224486	49365675	53.412	44.245
4) A	Dicamba	8.890	8.539	45475611	46890795	105.448	88.763
5) A	MCPP	9.066	8.623	2425461	2484390	9394.722	8832.367
6) A	MCPA	9.243	8.887	3967430	4084710	9317.315	9070.360
7) A	Dichlorprop	9.707	9.293	12529748	11855230	106.302	84.686
8) A	2,4-D	9.976	9.648	15463067	16639235	111.774	92.477 ✓
9) A	Pentachlo...	10.306	9.905	32881915	35695680	10.501 ✓	9.136
10) A	2,4,5-TP	10.994	10.598	66390603	70402302	114.570	92.380
11) A	2,4,5-T	11.321	11.040	57416839	63421434	118.273	98.240
12) A	2,4-DB	11.940	11.623	8589358	8489375	126.118	99.907
13) a	Bentazon	12.915	12.568	6015854	6914692	124.580	95.549
14) A	Dinoseb	13.055	12.003	25427170	29798496	118.231	86.703 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 9.17.18

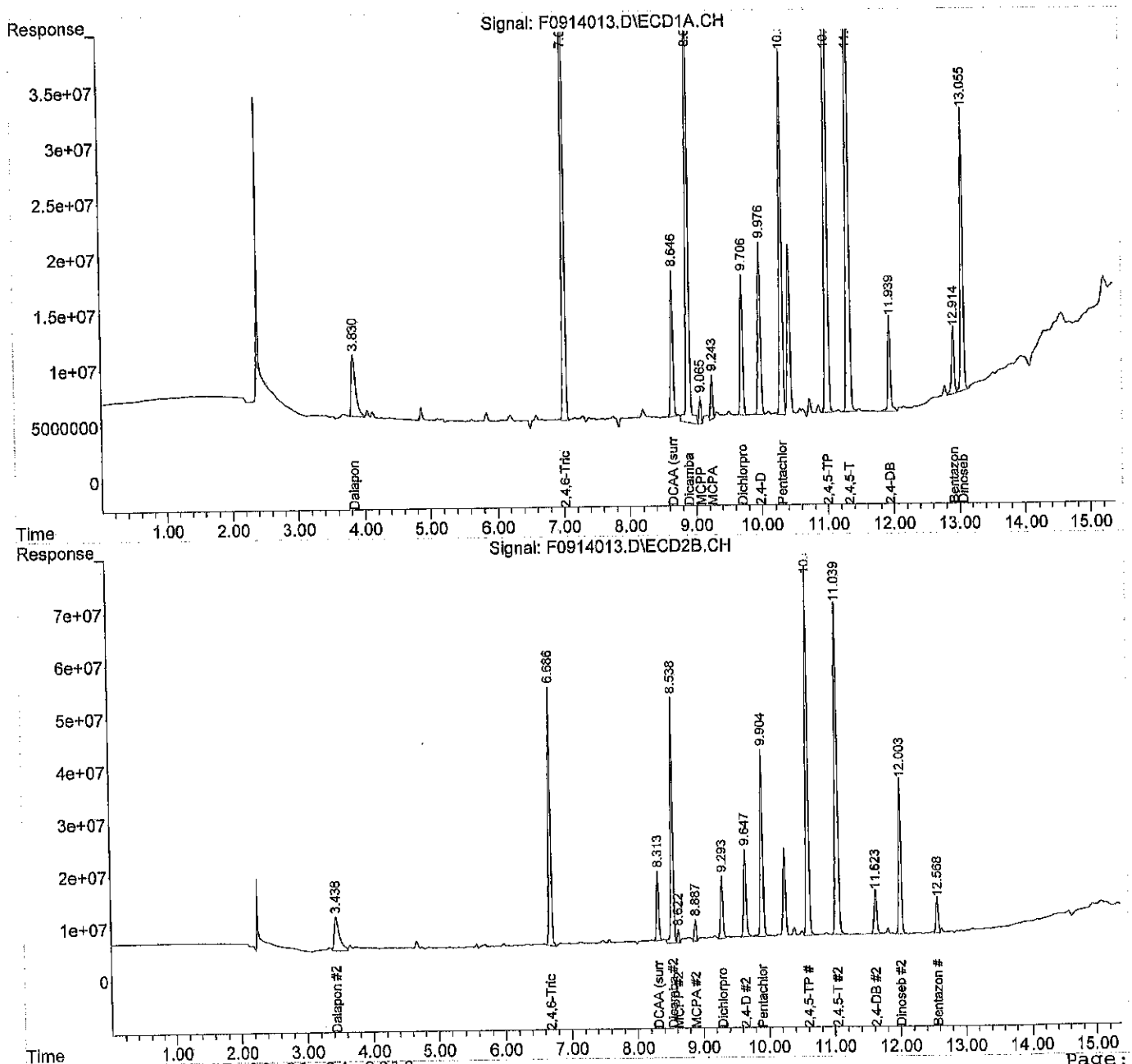
Quantitation Report (QT Reviewed)

Data File : F0914013.D
Sample : HERBCCV 0914-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 15:37:46
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 09:31:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : F0914019.D
Sample : HERBCCV 0914-4 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 18:01:46
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 10:02:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.647	8.314	11910421	12669326	96.692m	89.106m
	Spiked Amount 100.000			Recovery	=	96.69%	89.11%
	Target Compounds						
1)	A Dalapon	3.831	3.438	5579181	6080778	75.822	63.815
2)	A 2,4,6-Tri...	7.016	6.686	49785992	49682919	51.912	44.529
4)	A Dicamba	8.892	8.540	42369767	46251424	98.246	87.552
5)	A MCPP	9.067	8.624	1924059	2350201	7926.475	8487.122
6)	A MCPA	9.244	8.888	3390910	3371554	8012.116	7619.649
7)	A Dichlorprop	9.709	9.293	11408032	11026872	96.785	78.769
8)	A 2,4-D	9.977	9.649	13971227	16212899	100.990	90.108
9)	A Pentachlo...	10.307	9.906	28869836	33339336	9.220m	8.533m
10)	A 2,4,5-TP	10.995	10.600	58861834	66302905	101.578	87.001
11)	A 2,4,5-T	11.322	11.040	52496280	59622283	108.137	92.355
12)	A 2,4-DB	11.941	11.623	8244143	7418703	121.049	87.306 #
13)	a Bentazon	12.908	12.565	9128293	7557676	189.034	104.434 #
14)	A Dinoseb	13.049	12.003	20039524	27930977	93.180	81.269

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 9-17-18

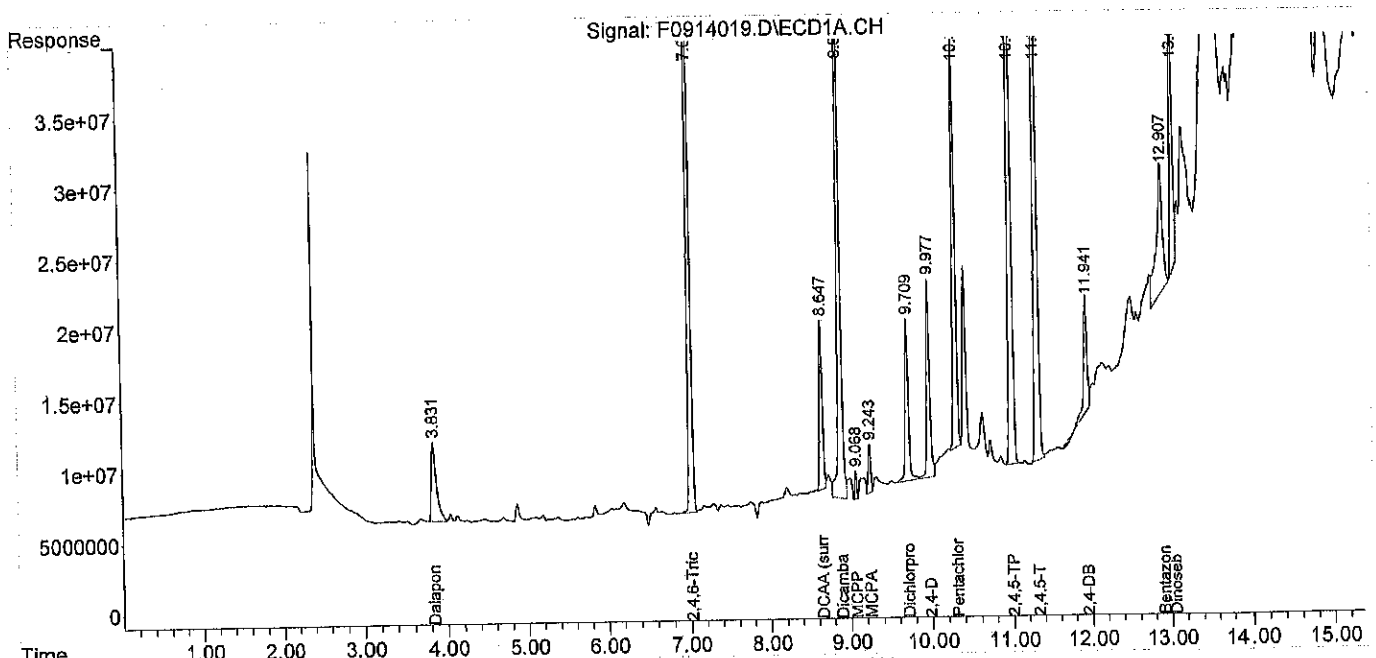
Quantitation Report (QT Reviewed)

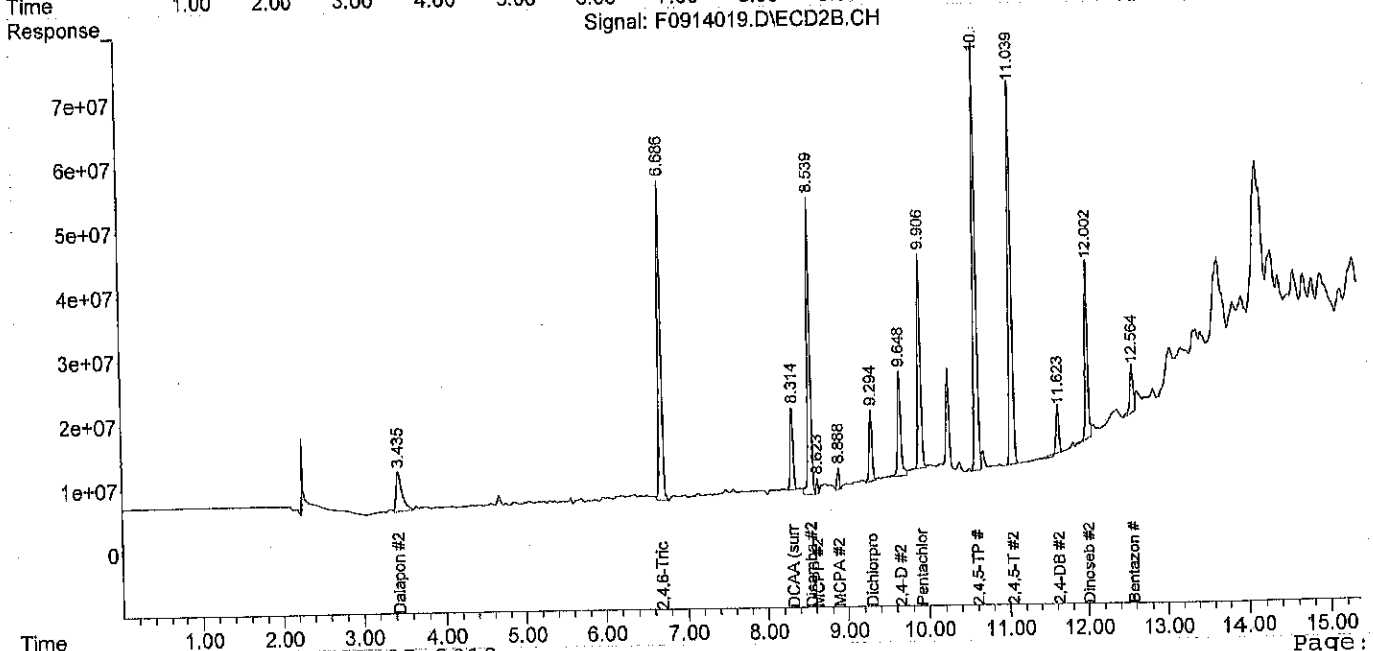
Data File : F0914019.D
Sample : HERBCCV 0914-4 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180914\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14-Sep-18, 18:01:46
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 17 10:02:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Wed Sep 12 15:03:06 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Sequence Name: C:\msdchem\1\sequence\F180817.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180817\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info
1)	Sample	1	F0817001 PC180813 HEX
2)	Sample	2	F0817002 PC180813 HEX
3)	Sample	3	F0817003 PC180813 HEX
4)	Sample	4	F0817004 PC180813 PCBCCV 0817-1 (PS4-53-07)
5)	Sample	5	F0817005 H180817 hex
6)	Sample	6	F0817006 H180817 hex
7)	Sample	7	F0817007 H180817 hex
8)	Sample	8	F0817008 H180817 hex
9)	Calibration	9	F0817009 H180817 HERB IC 2.0 ppm PS4-51-08
10)	Calibration	10	F0817010 H180817 HERB IC 5.0 ppm PS4-51-09
11)	Calibration	11	F0817011 H180817 HERB IC 10 ppm PS4-51-10
12)	Calibration	12	F0817012 H180817 HERB IC 25 ppm PS4-51-11
13)	Calibration	13	F0817013 H180817 HERB IC 50 ppm PS4-51-12
14)	Calibration	14	F0817014 H180817 HERB IC 100 ppm PS4-51-13
15)	Calibration	15	F0817015 H180817 HERB IC 250 ppm PS4-51-14
16)	Calibration	16	F0817016 H180817 HERB IC 500 ppm PS4-51-15
17)	Sample	17	F0817017 H180817 HERB ICV PS4-055-09
18)	Sample	18	F0817018 PC180817 HEX
19)	Sample	19	F0817019 PC180817 HEX
20)	Calibration	20	F0817020 PC180817 PCB IC 0.020 ppm PS4-054-08
21)	Calibration	21	F0817021 PC180817 PCB IC 0.050 ppm PS4-054-09
22)	Calibration	22	F0817022 PC180817 PCB IC 0.10 ppm PS4-054-10
23)	Calibration	23	F0817023 PC180817 PCB IC 0.25 ppm PS4-054-11
24)	Calibration	24	F0817024 PC180817 PCB IC 0.50 ppm PS4-054-12
25)	Calibration	25	F0817025 PC180817 PCB IC 0.75 ppm PS4-054-13
26)	Calibration	26	F0817026 PC180817 PCB IC 1.0 ppm PS4-054-14
27)	Calibration	27	F0817027 PC180817 PCB IC 2.0 ppm PS4-054-15
28)	Calibration	28	F0817028 PC180817 AR1221 SPQ PS4-055-01
29)	Calibration	29	F0817029 PC180817 AR1232 SPQ PS4-055-02
30)	Calibration	30	F0817030 PC180817 AR1242 SPQ PS4-055-03
31)	Calibration	31	F0817031 PC180817 AR1248 SPQ PS4-055-04
32)	Calibration	32	F0817032 PC180817 AR1254 SPQ PS4-055-05
33)	Calibration	33	F0817033 PC180817 AR1262 SPQ PS4-055-06
34)	Calibration	34	F0817034 PC180817 AR1268 SPQ PS4-055-07
35)	Sample	35	F0817035 PC180817 PCB ICV PS4-055-08

Sequence Name: C:\msdchem\1\sequence\F180910.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180910\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info	
1)	Sample 1	F0910001 H180817	HEX
2)	Sample 2	F0910002 H180817	HEX
3)	Sample 3	F0910003 H180817	HERBCCV 0910-1 (PS4-51-06)
4)	Sample 4	F0910004 H180817	MB0910S2
5)	Sample 5	F0910005 H180817	SB0910S3
6)	Sample 6	F0910006 H180817	SB0910S3 DUP
7)	Sample 7	F0910007 H180817	HEX
8)	Sample 8	F0910008 H180817	HEX
9)	Sample 9	F0910009 H180817	HERBCCV 0910-2 (PS4-51-06)

Sequence Name: C:\msdchem\1\sequence\F180912.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180912\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info		
1)	Sample	1	F0912001 H180817	HEX
2)	Sample	2	F0912002 H180817	HEX
3)	Sample	3	F0912003 H180817	HERBCCV 0912-1 (PS4-51-06)
4)	Sample	4	F0912004 H180817	08-395-22 RR
5)	Sample	5	F0912005 H180817	08-395-32 RR
6)	Sample	6	F0912006 H180817	08-395-41 RR
7)	Sample	7	F0912007 H180817	08-395-42 RR
8)	Sample	8	F0912008 H180817	08-395-47 RR
9)	Sample	9	F0912009 H180817	HEX
10)	Sample	10	F0912010 H180817	HEX
11)	Sample	11	F0912011 H180817	HERBCCV 0912-2 (PS4-51-06)
12)	Sample	12	F0912012 H180817	08-327-32 +Hg
13)	Sample	13	F0912013 H180817	HEX
14)	Sample	14	F0912014 H180817	HEX
15)	Sample	15	F0912015 H180817	HERBCCV 0912-3 (PS4-51-06)

Sequence Name: C:\msdchem\1\sequence\F180914.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180914\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info		
1)	Sample	1	F0914001 H180817	HEX
2)	Sample	2	F0914002 H180817	HEX
3)	Sample	3	F0914003 H180817	HERBCCV 0914-1 (PS4-51-06)
4)	Sample	4	F0914004 H180817	08-327-03 RR
5)	Sample	5	F0914005 H180817	08-327-23 RR
6)	Sample	6	F0914006 H180817	HEX
7)	Sample	7	F0914007 H180817	HEX
8)	Sample	8	F0914008 H180817	HERBCCV 0914-2 (PS4-51-06)
9)	Sample	9	F0914009 H180817	MB0910S2 +Hg
10)	Sample	10	F0914010 H180817	08-327-34 +Hg
11)	Sample	11	F0914011 H180817	HEX
12)	Sample	12	F0914012 H180817	HEX
13)	Sample	13	F0914013 H180817	HERBCCV 0914-3 (PS4-51-06)
14)	Sample	14	F0914014 H180817	08-327-32 MS +Hg
15)	Sample	15	F0914015 H180817	HEX
16)	Sample	16	F0914016 H180817	08-327-32 MSD +Hg
17)	Sample	17	F0914017 H180817	HEX
18)	Sample	18	F0914018 H180817	HEX
19)	Sample	19	F0914019 H180817	HERBCCV 0914-4 (PS4-51-06)

Environmental Inc. PCB'S EXTRACTION LOG

Date: 9/10/18 Time Ext. 3:30 am/pm

Surrogate Std. I.D: PS4-54-04/PS4-050-27

Analysis: Herb

Spike Std. I.D: PS4-53-03

Matrix: Soil

LAB ID	pH	SAMPLE W/V	INTER VOLUME	ALIQUOT TAKEN	ALIQUOT FIN VOL	SAMPLE FIN VOL	AMT SUR	AMT SPK	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
MB091052	T	10.0g	180mL			10mL	100uL	—	T	mm	
SB091053								250uL			
SB091053dup											
OS-327-03								T	T		
23											
32											
32MS								250uL			
32MSD											
34								T			
OS-395-22											
32											
41											
42											
47											

Clean-up (A)Acid cleanup (S)Silica gel cleanup (F)Florisil cleanup (H)Mercury Cleanup

TITLE

PROJECT

Continued from page

	NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
	PestEval	PS4-5101	PNZ-13-01					Acetone	4-20-18	KMS	10-20-18
	DDT, Endrin	↓	↓	500ppm	5 µL	25mL	100ppb	Hexane	↓	↓	↓
5	Pest/PCB Surr	PS4-5102			0.25		20ppm	Acetone	4-23-18	KMS	4-23-18
	TCMX		PNZ-12-17	2000ppm	0.5mL						10
	DCB		PNZ-12-27	1000ppm	0.5mL						
10	Pest MidLate	PS4-5103	PS4-49-01	25ppm	100µL	25mL	100ppb	Hexane	4-25-18	KMS	10-25-18
	Pest/PCB Surr	PS4-5104					20ppm	Acetone	5-3-18	KMS	11-3-18
	TCMX	↓	PNZ-12-17	2000ppm	0.25mL			↓	↓	↓	↓
	DCB		PNZ-12-27	1000ppm	0.5mL						
15	HerbStock	PS4-5105				10mL		Acetone/ Hexane	5-7-18	KMS	12-4-18
	Herbs, ME		PNZ-13-05	100ppm	0.5mL		5ppm				
	DCAA, ME		PNZ-13-06		↓		↓				
	Bentazon, ME		PNZ-13-07								
20	2,4,6-TCP, ME		PNZ-12-13		0.25mL		2.5ppm				
	PCP, ME	↓	PNZ-12-09	↓	50µL	↓	0.5ppm	↓	↓	↓	↓
	HerbCCV	PS4-5106	PS4-5105	5ppm	0.5mL	25mL	100ppb	Hexane			11-7-18
25	HerbSurr	PS4-5107									
	DCAA		PNZ-12-16	100ppm	1mL	10mL	10ppm	Methanol	5-15-18	KMS	11-15-18
	Herbstc							Hexane	5-18-18	KMS	11-18-18
	2 ppb	PS4-5108	PS4-5105	5ppm	10µL	25mL	2 ppb				
30	5	09			↓	10mL	5				
	10	10			20µL		10				
	25	11			50		25				
	50	12			100		50				
	100	13			200		100				
35	250	14			500		250				
	500	15			1mL		500				

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SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

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PROJECT

Continued from page

NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	Exp
Pest/PCB Surr	PS4-5301				25 mL	20 ppm	Acetone	6-21-18	KMS	12-18
TCMX	↓	PNZ-B-09	2000 ppm	0.25 mL					↓	↓
DCB		PNZ-B-11	1000 ppm	0.5 mL						
Herb MDL	PS4-5302				10 mL		MeOH	6-22-18	KMS	7-18
10 Herbs		PNZ-13-18	100 ppm	200 µL		2.0 ppm				
Dalapon		PNZ-13-13	1000 ppm	80 µL		8.0 ppm				
PCP		PS4-4010	100 ppm	20 µL		0.2 ppm				
DCAA		PNZ-12-16	100 ppm	100 µL		1.0 ppm				
2,4,6-TCP		PNZ-11-19	100 ppm	↓		↓				
Bentazon		PNZ-B-20	1000 ppm	20 µL		2.0 ppm				
Herb Spike	PS4-5303						MeOH	7-2-18	KMS	12-19
10 Herbs		PNZ-13-18	100 ppm	1 mL		10 ppm				
PCP/Acid		PNZ-13-19	5000 ppm	2 µL		1.0 ppm				
EOB Surr	PS4-5304									
TCMX		PNZ-12-09	2000 ppm	17.5 µL	100 mL	0.35 ppm	MeOH	7-16-18	KMS	2-19
Pest/PCB Soil Surr	PS4-5305			0.25 mL	25 mL	20 ppm	Acetone			
TCMX		PNZ-B-09	2000 ppm	0.5 mL						
DCB		PNZ-B-11	1000 ppm							
PCB Stock	PS4-5306				10 mL		Hexane	7-23-18	KMS	1-19
AR1016		PNZ-12-03	0.25 mL	1000 ppm		25 ppm				
AR1260		10-25	25							
TCMX		B-11	50 µL	2000 ppm		5 ppm				
DCB		B-09	50 µL	1000 ppm						
PCB CCV	PS4-5307	PS4-5306		0.5 mL	25 mL	0.5 ppm	Hexane			
AR1016/1260			25 ppm							
TCMX/DCB			8 ppm			0.1 ppm				

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SIGNATURE DATE

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TITLE **PROJECT**

Continued from page

NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
Toxaphene SPQ	PS4-54-01		100ppm	0.1mL	10mL	1.0ppm	Hexane	7-27-18	KMS	1-27-19
Rest ICV	PS4-54-02		1000ppm	5µL	50mL	100ppb	↓	↓	↓	↓
Rest IPS Surr	PS4-54-03				25mL	20ppm	Acetone	8-7-18	KMS	2-7-19
TCMX		PNZ-13-09	2000ppm	0.25mL						
DCB		PNZ-13-11	1000ppm	0.5mL						
HerbSurr	PS4-054-04	PNZ-13-21	100ppm	1mL	10mL	10ppm	MeOH	8-8-18	KMS	2-8-19
PCBs/Spike	PS4-054-05									2-10-19
AR1260		PNZ-13-12	5000ppm	0.5mL	25mL	100ppm	Acetone	8-10-18	KMS	↓
AR1221					10mL		Hexane	8-11-18	KMS	2-11-19
~~AR1248 Stock~~	PS4-054-06									
~~AR1248~~ AR 1221	↓	PNZ-13-15	1000ppm	0.25mL		25ppm				
TCMX		PNZ-13-09	2000ppm	25µL		5ppm				
DCB		PNZ-13-11	1000ppm	50µL		↓				
AR1248 Stock	PS4-054-07									
AR1248	↓	PNZ-13-14	1000ppm	0.25mL		25ppm				
TCMX		PNZ-13-09	2000ppm	25µL		5ppm				
DCB		PNZ-13-11	1000ppm	50µL	↓	↓				
PCB IC		PS4-053-06				ppm				1-15-19
0.02	PS4-054-08	↓	25/5ppm	20µL	25mL	0.02/0.004	↓	↓	↓	↓
0.05	09			50µL		0.05/0.01				
0.1	10			100µL		0.1/0.02				
0.25	11			0.25mL		0.25/0.05				
0.5	12			0.5mL		0.5/0.1				
0.75	13			0.75mL		0.75/0.15				
1.0	14			1mL	↓	1.0/0.2				
2.0	↓ 15	↓	↓	0.8mL	10mL	2.0/0.4	↓	↓	↓	↓

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SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

TITLE

PROJECT

Continued from page	LB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
NAME										
ARLL2SPQ	PS46850	PS1-05406	25 ppm	0.5mL	25mL	0.5 ppm	Hexane	8-1-18	KMS	2-1-19
TCMX/DCB	↓	↓	5 ppm			0.1 ppm				↓
ARL2S2SPQ	02	PS4-4605	25 ppm			0.5 ppm				1-18-19
TCMX/DCB	↓		5 ppm			0.1 ppm				↓
ARL42SPQ	03	PS4-4606	25 ppm			0.5 ppm				1-18-19
TCMX/DCB	↓		5 ppm			0.1 ppm				
ARL48SPQ	04	PS4054-07	25 ppm			0.5 ppm				2-1-19
TCMX/DCB	↓		5 ppm			0.1 ppm				
ARL54SPQ	05	PS4-46-07	25 ppm			0.5 ppm				1-8-19
TCMX/DCB	↓	↓	5 ppm	↓		0.1 ppm				
ARL62SPQ	06	PN2-1308	100 ppm	0.125mL		0.5 ppm				2-1-19
ARL68SPQ	07	PN2-1211	↓	↓		↓				↓
RUBICV	08	PS4-4608		0.5 mL						1-8-19
AR1016/1260	↓	↓	25 ppm	↓	↓	0.5 ppm	↓	↓	↓	↓
TCMX/DCB	↓	↓	5 ppm	↓	↓	0.1 ppm	↓	↓	↓	↓
HerbICV	PS4055-09	PN2-1317	100 ppm	10 µL	10mL	100 ppb	Acetone/ Hexane	8-17-18	KMS	2-17-19
PestICV							Hexane			
1 ppb	PS4055-10	PS4-49-01	25 ppm	1 µL	25mL	1 ppb	↓	↓	↓	1-15-19
2 ppb	11	↓	↓	2	↓	2				↓
5	12			5		5				
10	13			10		10				
25	14			25		25				
50	15			50		50				
100	16			100		100				
200	17			200		200				
400	18	↓	↓	400	↓	400	↓	↓	↓	↓

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SIGNATURE DATE

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TITLE **PROJECT**

Continued from page

NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
Rest Rep	PS405601				25mL (KMS)	20 ppm	Acetone	8-30-18	KMS	2-28-19
Soil Surr	↓				↓	↓	↓	↓	↓	
TCMX		PNE-1309	2000 ppm	0.25mL						
DCB		PN2-13-11	1000 ppm	0.5 ↓						
PCB CCV	PS405602	PS405306		0.5mL			Hexane			1-5-19
PAH/OCP/PCB	↓	↓	25 ppm	↓			↓			
TCMX/DCB	↓	↓	5 ppm	↓	↓			↓	↓	↓
Rest Eval	PS405603	PN2-13-01	500 ppm	5 µL	25mL	100 ppb	Acetone/Hexane	9-4-18	KMS	3-4-19
HerbScurr	PS405604									
DCAA		PN2-13-21	100 ppm	1mL	10mL	10 ppm	MeOH	9-10-18	KMS	3-10-19
Pest Soil Spike	PS405605	PN2-12-26	1000 ppm	0.2mL	10mL	20 ppm	Acetone	9-17-18	KMS	2-4-19

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Pentachlorophenol by EPA 8151A Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914014.D
Acq On : 14 Sep 2018 2:33 pm
Operator :
Sample : 08-327-03
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 14 14:59:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.277	136	145045	2000.00	ppb	0.00
6) Acenaphthene-d10	9.492	164	65270	2000.00	ppb	0.00
10) Phenanthrene-d10	11.356	188	117869	2000.00	ppb	0.00
17) Chrysene-d12	15.685	240	77550	2000.00	ppb	0.00
21) Perylene-d12	18.545	264	181033	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.362	82	24552	1293.13	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 129.31%#			
7) 2-Fluorobiphenyl	8.635	172	61340	1354.82	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 135.48%#			
11) Pyrene-d10	13.426	212	79855	1516.53	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 151.65%#			
18) Terphenyl-d14	13.709	244	27646	1749.30	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 174.93%#			
Target Compounds						Qvalue
3) Naphthalene	7.301	128	489029	8332.96	ppb	100
4) 2-Methylnaphthalene	8.181	142	691903	18665.32	ppb	100
5) 1-Methylnaphthalene	8.317	142	2790587	82273.21	ppb	100
8) Acenaphthylene	9.317	152	48782	923.03	ppb	100
9) Acenaphthene	9.531	153	194447	5536.76	ppb	100
12) Fluorene	10.180	166	166440	4490.98	ppb	100
13) Phenanthrene	11.385	178	188820	3191.00	ppb	100
14) Anthracene	11.448	178	37991	697.33	ppb	100
15) Fluoranthene	13.082	202	137121	2378.80	ppb	100
16) Pyrene	13.457	202	152259	2474.37	ppb	100
19) Benzo[a]anthracene	15.666	228	42926	896.19	ppb	100
20) Chrysene	15.736	228	47253	948.19	ppb	100
22) Benzo[b]fluoranthene	17.804	252	65604	927.86	ppb	100
23) Benzo(j,k)fluoranthene	17.855	252	21759	~~303.15~~	ppb	100
24) Benzo[a]pyrene	18.428	252	60818	893.51	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.992	276	25163	551.55	ppb	100
26) Dibenz[a,h]anthracene	21.050	278	5188	~~116.40~~	ppb	100
27) Benzo[g,h,i]perylene	21.718	276	29721	605.86	ppb	100

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

20X

ZT

9-16-18

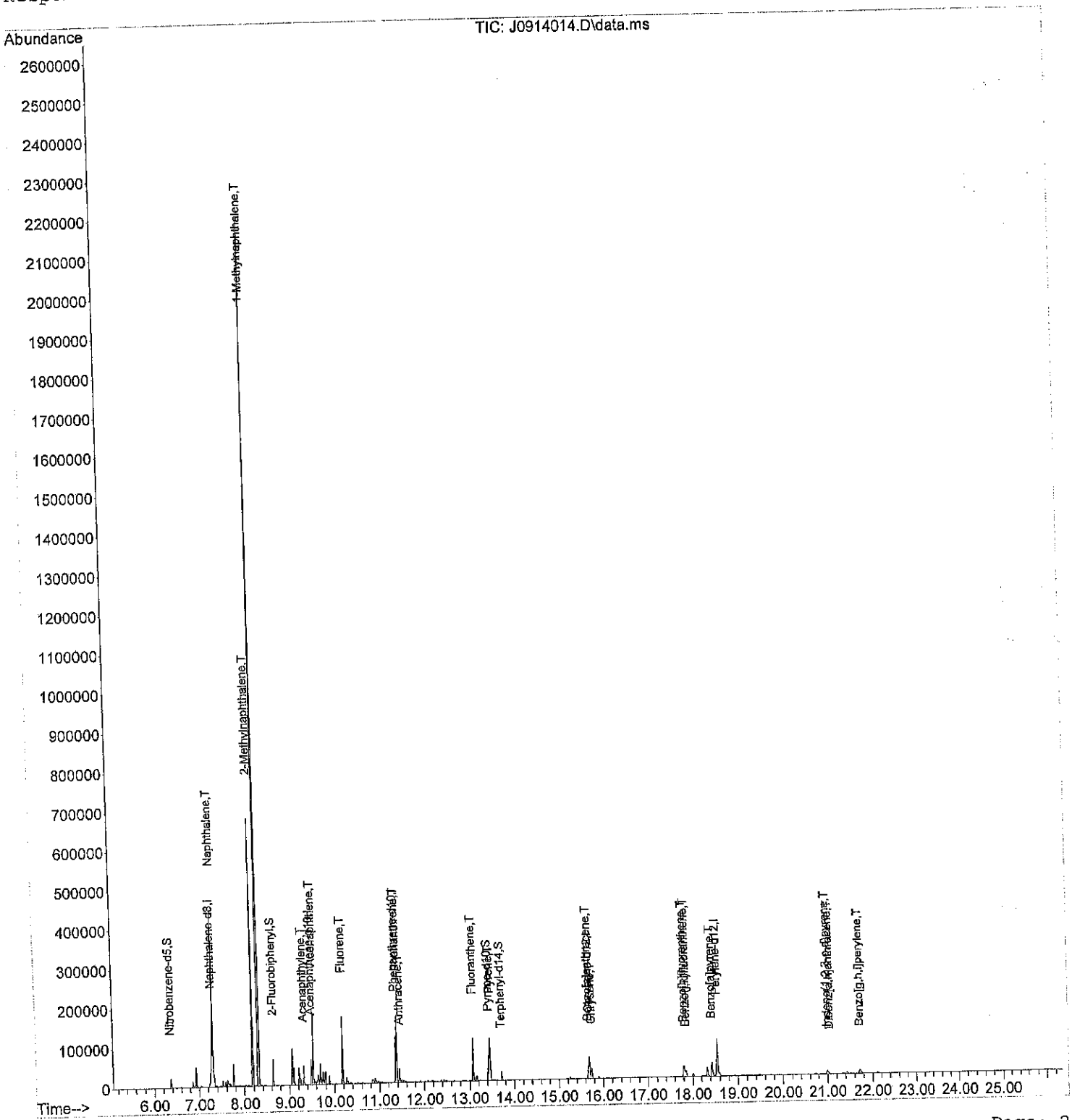
342.69

106.30

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914014.D
Acq On : 14 Sep 2018 2:33 pm
Operator :
Sample : 08-327-03
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 14 14:59:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916005.D
Acq On : 16 Sep 2018 3:46 pm
Operator :
Sample : 08-327-03 20X
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 16 16:12:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.285	136	258575	2000.00	ppb	0.01
6) Acenaphthene-d10	9.504	164	120562	2000.00	ppb	0.01
10) Phenanthrene-d10	11.367	188	221590	2000.00	ppb	0.02
17) Chrysene-d12	15.712	240	155310	2000.00	ppb	0.03
21) Perylene-d12	18.577	264	353469	2000.00	ppb	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	6.370	82	2009	59.35	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery =	5.93%#		
7) 2-Fluorobiphenyl	8.641	172	5324	63.66	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery =	6.37%#		
11) Pyrene-d10	13.441	212	7832	79.12	ug/L	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery =	7.91%#		
18) Terphenyl-d14	13.725	244	2537	68.78	ppb	0.02
Spiked Amount 1000.000	Range 48 - 112		Recovery =	6.88%#		
Target Compounds						Qvalue
3) Naphthalene	7.308	128	39587	378.38	ppb	100
4) 2-Methylnaphthalene	8.187	142	55154	834.61	ppb	100
5) 1-Methylnaphthalene	8.313	142	267483	4423.59	ppb	100
8) Acenaphthylene	9.325	152	4066	41.65	ppb	100
9) Acenaphthene	9.539	153	16554	255.19	ppb	100
12) Fluorene	10.190	166	13633	195.67	ppb	100
13) Phenanthrene	11.396	178	16631	149.50	ppb	100
14) Anthracene	11.460	178	3060	29.88	ppb	100
15) Fluoranthene	13.098	202	12092	111.58	ppb	100
16) Pyrene	13.473	202	13391	115.76	ppb	100
19) Benzo[a]anthracene	15.689	228	4620	41.96	ppb	100
20) Chrysene	15.763	228	4113	41.21	ppb	100
22) Benzo[b]fluoranthene	17.835	252	6092	44.13	ppb	100
23) Benzo(j,k)fluoranthene	17.886	252	2132	15.21	ppb	100
24) Benzo[a]pyrene	18.460	252	5793	43.59	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.039	276	2392	26.85	ppb	100
26) Dibenz[a,h]anthracene	21.109	278	642	7.38	ppb	100
27) Benzo[g,h,i]perylene	21.776	276	2971	31.02	ppb	100

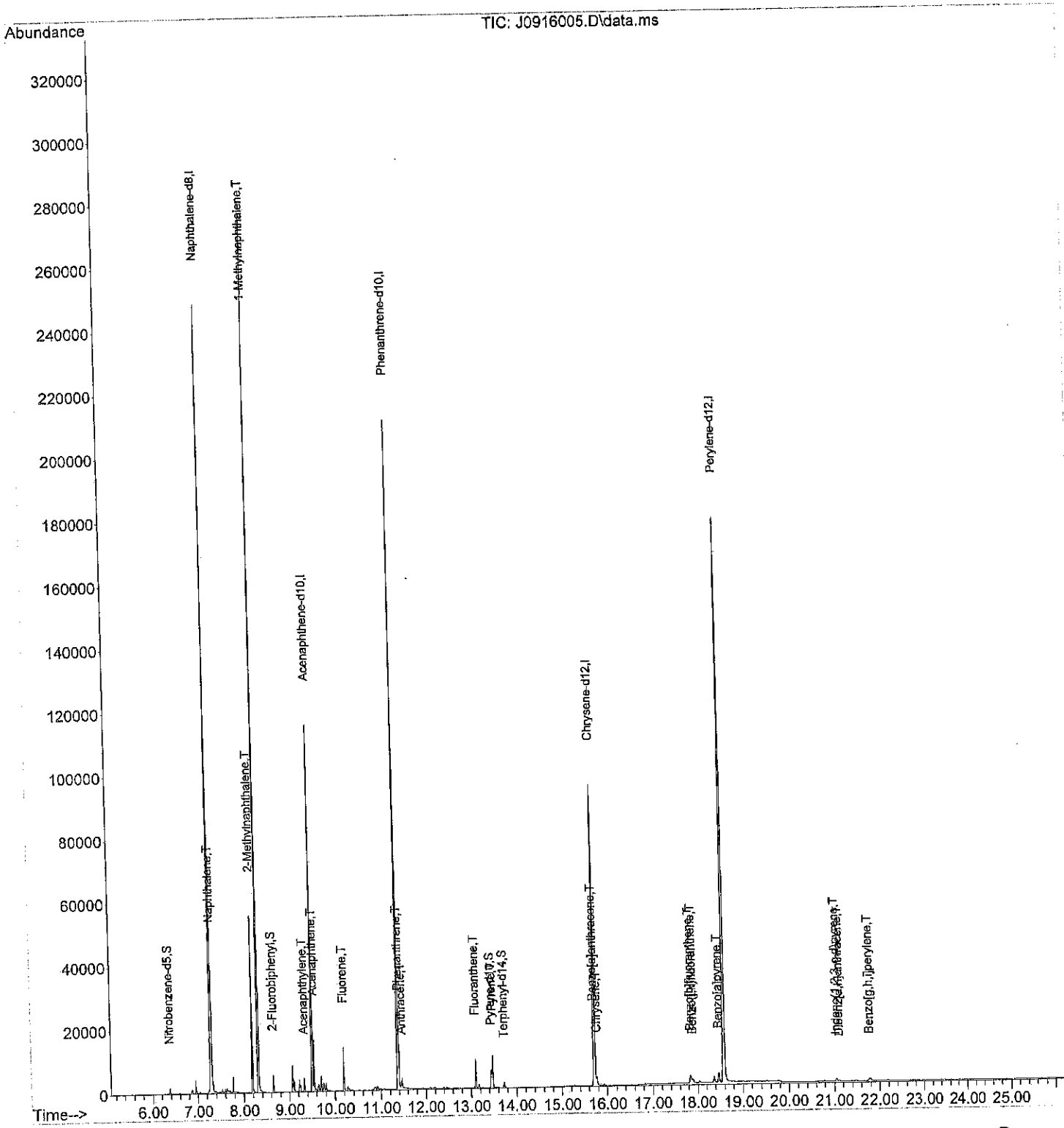
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-17-18
43.72

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916005.D
Acq On : 16 Sep 2018 3:46 pm
Operator :
Sample : 08-327-03 20X
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 16 16:12:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914012.D
Acq On : 14 Sep 2018 1:25 pm
Operator :
Sample : 08-327-23
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 14 13:52:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	7.277	136	142958	2000.00 ppb	0.00
6) Acenaphthene-d10	9.500	164	67148	2000.00 ppb	0.00
10) Phenanthrene-d10	11.361	188	110099	2000.00 ppb	0.01
17) Chrysene-d12	15.685	240	79255	2000.00 ppb	0.00
21) Perylene-d12	18.538	264	180313	2000.00 ppb	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	6.362	82	40964	2189.04 ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 218.90%#		
7) 2-Fluorobiphenyl	8.639	172	81661	1753.20 ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 175.32%#		
11) Pyrene-d10	13.426	212	102897	2092.04 ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 209.20%#		
18) Terphenyl-d14	13.711	244	37900	2350.60 ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 235.06%#		
Target Compounds					Qvalue
3) Naphthalene	7.301	128	71450	1235.27 ppb	100
4) 2-Methylnaphthalene	8.195	142	2833096	77543.59 ppb	100
5) 1-Methylnaphthalene	8.323	142	3012557	90114.04 ppb	100
8) Acenaphthylene	9.327	152	81499	1498.96 ppb	100
9) Acenaphthene	9.539	153	252082	6977.13 ppb	100
12) Fluorene	10.188	166	275808	7967.21 ppb	100
13) Phenanthrene	11.390	178	914288	16541.61 ppb	100
14) Anthracene	11.454	178	29797	~~585.53~~ ppb	100
15) Fluoranthene	13.082	202	48544	901.58 ppb	100
16) Pyrene	13.453	202	81468	1417.38 ppb	100
19) Benzo[a]anthracene	15.662	228	10188	203.10 ppb	100
20) Chrysene	15.732	228	15530	304.92 ppb	100
22) Benzo[b]fluoranthene	17.804	252	12653	179.67 ppb	100
23) Benzo(j,k)fluoranthene	17.851	252	3680	~~51.48~~ ppb	100
24) Benzo[a]pyrene	18.424	252	8635	127.37 ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.976	276	3853	84.79 ppb	100
26) Dibenz[a,h]anthracene	21.039	278	911	20.52 ppb	100
27) Benzo[g,h,i]perylene	21.702	276	4368	89.40 ppb	100

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

20X/100X

377.25

5867

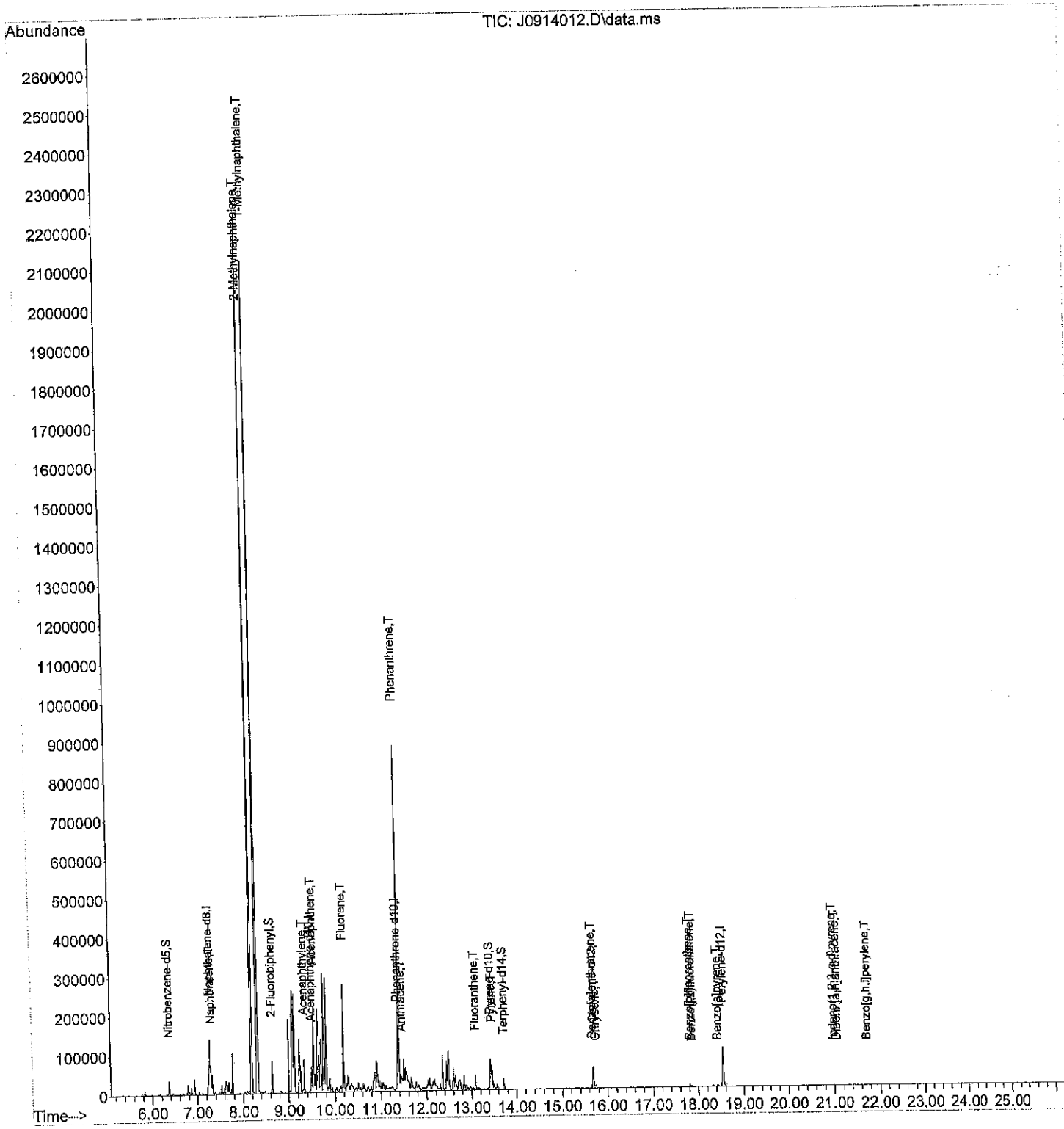
2T

9-16-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914012.D
Acq On : 14 Sep 2018 1:25 pm
Operator :
Sample : 08-327-23
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 14 13:52:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916009.D
Acq On : 16 Sep 2018 6:03 pm
Operator :
Sample : 08-327-23 100X
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 16 18:29:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.281	136	251373	2000.00	ppb	0.00
6) Acenaphthene-d10	9.500	164	114612	2000.00	ppb	0.00
10) Phenanthrene-d10	11.361	188	217049	2000.00	ppb	0.01
17) Chrysene-d12	15.708	240	153550	2000.00	ppb	0.02
21) Perylene-d12	18.569	264	350459	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	6.368	82	431	13.10	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 1.31%#			
7) 2-Fluorobiphenyl	8.639	172	1413	17.77	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 1.78%#			
11) Pyrene-d10	13.437	212	1876	19.35	ug/L	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 1.94%#			
18) Terphenyl-d14	13.721	244	593	7.16	ppb	0.01
Spiked Amount 1000.000	Range 48 - 112		Recovery = 0.72%#			
Target Compounds						Qvalue
3) Naphthalene	7.304	128	1358	13.35	ppb	100
4) 2-Methylnaphthalene	8.185	142	52006	809.52	ppb	100
5) 1-Methylnaphthalene	8.311	142	62478	1062.86	ppb	100
8) Acenaphthylene	9.323	152	1457	15.70	ppb	100
9) Acenaphthene	9.539	153	4791	~~77.69~~	ppb	100
12) Fluorene	10.188	166	4744	69.51	ppb	100
13) Phenanthrene	11.390	178	16865	154.78	ppb	100
14) Anthracene	11.501	178	1063	10.60	ppb	100
15) Fluoranthene	13.094	202	887	8.36	ppb	100
16) Pyrene	13.469	202	1379	12.17	ppb	100
19) Benzo[a]anthracene	15.704	228	869	2.68	ppb	100
20) Chrysene	15.755	228	238	2.41	ppb	100
22) Benzo[b]fluoranthene	17.827	252	283	2.07	ppb	100
23) Benzo(j,k)fluoranthene	17.827	252	283	2.04	ppb	100
24) Benzo[a]pyrene	18.455	252	178	1.35	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.031	276	103	1.17	ppb	100
26) Dibenz[a,h]anthracene	21.078	278	31	0.36	ppb	100
27) Benzo[g,h,i]perylene	21.768	276	179	1.88	ppb	100

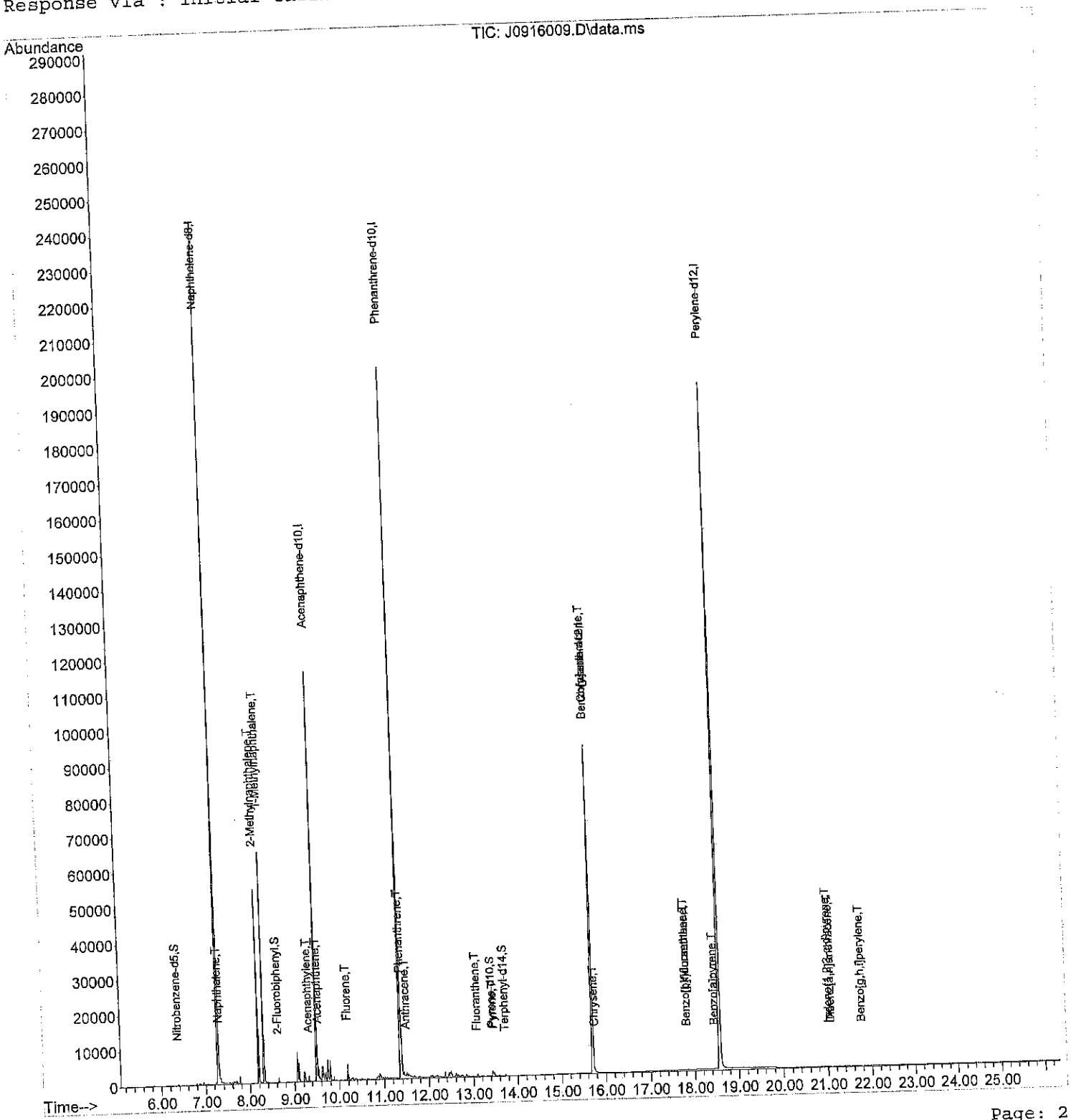
VR (4) (5)
VR (9) (12) (13)
73.10
ZT
9-17-18

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916009.D
Acq On : 16 Sep 2018 6:03 pm
Operator :
Sample : 08-327-23 100X
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 16 18:29:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914018.D
Acq On : 14 Sep 2018 4:48 pm
Operator :
Sample : 08-327-32
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 14 17:14:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	0.000	136	0	0.00 ppb	-7.27
6) Acenaphthene-d10	9.445	164	8657	2000.00 ppb	-0.05
10) Phenanthrene-d10	11.338	188	8512	2000.00 ppb	-0.01
17) Chrysene-d12	15.658	240	6287	2000.00 ppb	-0.03
21) Perylene-d12	18.608	264	177229	2000.00 ppb	0.07
System Monitoring Compounds					
2) Nitrobenzene-d5	0.000	82	0	0.00 ppb	
Spiked Amount 1000.000	Range 36 - 99		Recovery = 0.00%#		
7) 2-Fluorobiphenyl	8.531	172	2586	430.64 ppb	-0.10
Spiked Amount 1000.000	Range 34 - 92		Recovery = 43.06%		
11) Pyrene-d10	13.356	212	36555	9613.13 ug/L	-0.07
Spiked Amount 1000.000	Range 40 - 110		Recovery = 961.31%#		
18) Terphenyl-d14	13.621	244	1773	1381.33 ppb	-0.09
Spiked Amount 1000.000	Range 48 - 112		Recovery = 138.13%#		
Target Compounds					Qvalue
3) Naphthalene	0.000		0	N.D.	
4) 2-Methylnaphthalene	8.315	142	6861118	N.D.	
5) 1-Methylnaphthalene	8.315	142	6861118	N.D.	
8) Acenaphthylene	9.211	152	1531205	218442.46 ppb	100
9) Acenaphthene	9.445	153	395987	85012.26 ppb	100
12) Fluorene	0.000		0	N.D.	
13) Phenanthrene	11.553	178	4632303	1084035.58 ppb	100
14) Anthracene	11.553	178	4632303	1177404.31 ppb	100
15) Fluoranthene	13.024	202	284728	68399.27 ppb	100
16) Pyrene	13.398	202	112970	25422.18 ppb	100
19) Benzo[a]anthracene	15.638	228	63826	16550.41 ppb	100
20) Chrysene	15.728	228	416534	103099.04 ppb	100
22) Benzo[b]fluoranthene	17.870	252	446513	6450.71 ppb	100
23) Benzo(j,k)fluoranthene	17.870	252	446513	~~6354.52~~ ppb	100
24) Benzo[a]pyrene	18.495	252	300441	4508.70 ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.082	276	118996	2664.25 ppb	100
26) Dibenz[a,h]anthracene	21.136	278	26846	615.24 ppb	100
27) Benzo[g,h,i]perylene	21.823	276	136382	2839.80 ppb	100

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

Dil.

use Dil. some

193532

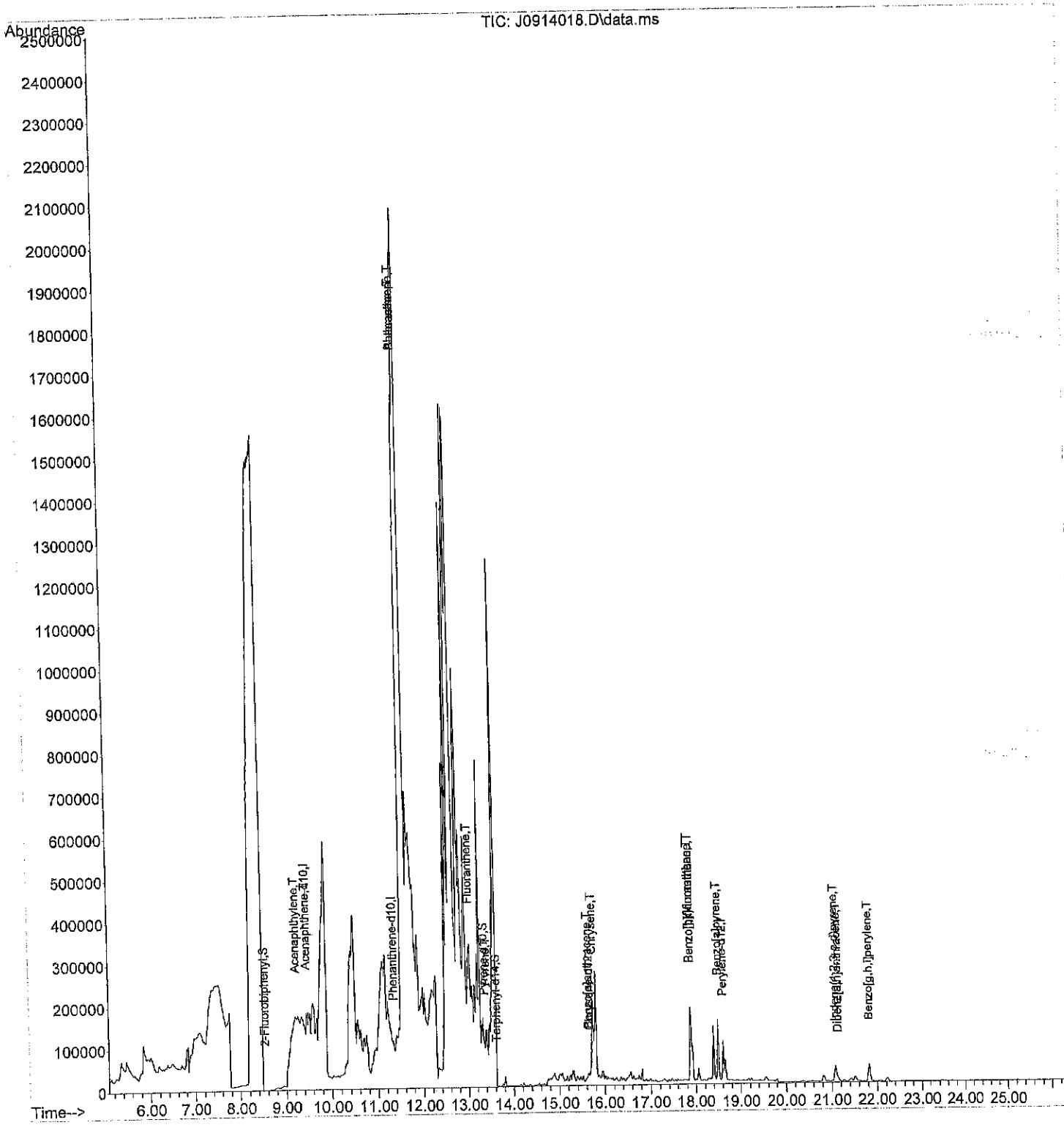
ZT

9-16-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914018.D
Acq On : 14 Sep 2018 4:48 pm
Operator :
Sample : 08-327-32
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 14 17:14:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916019.D
Acq On : 16 Sep 2018 11:42 pm
Operator :
Sample : 08-327-32 20X
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 00:09:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.289	136	232067	2000.00	ppb	0.02
6) Acenaphthene-d10	9.523	164	116132	2000.00	ppb	0.03
10) Phenanthrene-d10	11.384	188	155560	2000.00	ppb	0.03
17) Chrysene-d12	15.712	240	114828	2000.00	ppb	0.03
21) Perylene-d12	18.573	264	249969	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	6.348	82	15255	502.18	ppb	-0.01
Spiked Amount 1000.000	Range 36 - 99		Recovery = 50.22%			
7) 2-Fluorobiphenyl	8.657	172	3033	37.65	ppb	0.02
Spiked Amount 1000.000	Range 34 - 92		Recovery = 3.76%#			
11) Pyrene-d10	13.453	212	7190	103.46	ug/L	0.03
Spiked Amount 1000.000	Range 40 - 110		Recovery = 10.35%#			
18) Terphenyl-d14	13.731	244	2774	107.43	ppb	0.02
Spiked Amount 1000.000	Range 48 - 112		Recovery = 10.74%#			
Target Compounds						Qvalue
3) Naphthalene	7.312	128	173763	1850.60	ppb	100
4) 2-Methylnaphthalene	8.239	142	11464947	193308.86	ppb	100
5) 1-Methylnaphthalene	8.347	142	4396056	81005.68	ppb	100
8) Acenaphthylene	9.359	152	221082	2351.11	ppb	100
9) Acenaphthene	9.562	153	718732	11502.26	ppb	100
12) Fluorene	10.214	166	782660	16001.40	ppb	100
13) Phenanthrene	11.419	178	2634624	33736.41	ppb	100
14) Anthracene	11.477	178	208609	~~2901.32~~	ppb	100
15) Fluoranthene	13.110	202	120749	1587.22	ppb	100
16) Pyrene	13.480	202	227647	2803.14	ppb	100
19) Benzo[a]anthracene	15.693	228	23095	321.47	ppb	100
20) Chrysene	15.763	228	36902	500.09	ppb	100
22) Benzo[b]fluoranthene	17.831	252	25263	258.77	ppb	100
23) Benzo(j,k)fluoranthene	17.831	252	25263	~~254.91~~	ppb	100
24) Benzo[a]pyrene	18.459	252	16260	173.01	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.035	276	6353	100.85	ppb	100
26) Dibenz[a,h]anthracene	21.093	278	1430	23.24	ppb	100
27) Benzo[g,h,i]perylene	21.776	276	7365	108.73	ppb	100

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

use 3yrs for Cal. use

use

ZT

9-17-18

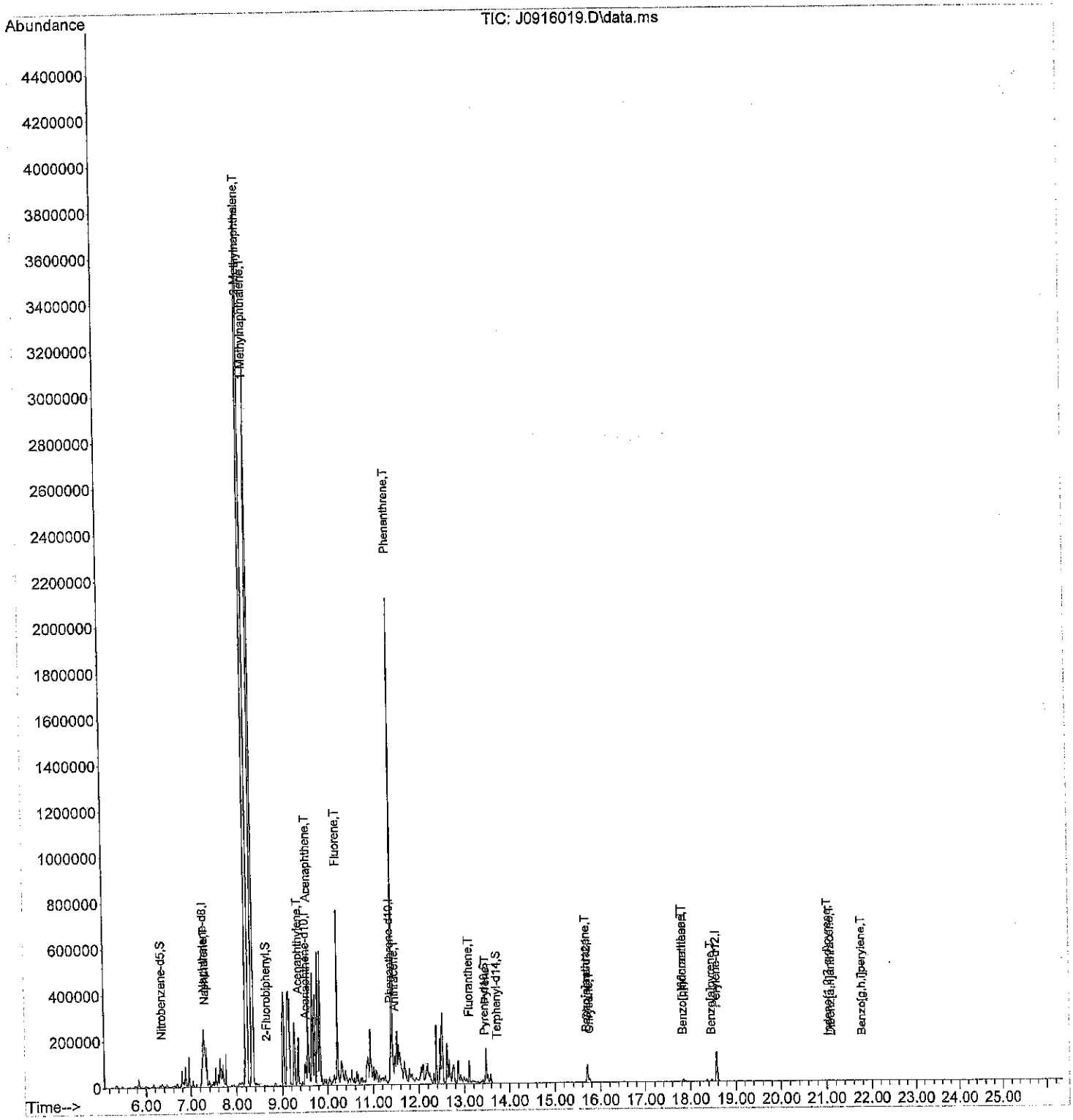
1711.91

78.10

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916019.D
Acq On : 16 Sep 2018 11:42 pm
Operator :
Sample : 08-327-32 20X
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 00:09:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916011.D
Acq On : 16 Sep 2018 7:11 pm
Operator :
Sample : 08-327-32 100X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 16 19:37:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.281	136	257103	2000.00	ppb	0.00
6) Acenaphthene-d10	9.504	164	115012	2000.00	ppb	0.01
10) Phenanthrene-d10	11.367	188	198081	2000.00	ppb	0.02
17) Chrysene-d12	15.704	240	144213	2000.00	ppb	0.02
21) Perylene-d12	18.568	264	321567	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	6.344	82	3599	106.94	ppb	-0.02
Spiked Amount 1000.000	Range 36 - 99		Recovery = 10.69%#			
7) 2-Fluorobiphenyl	8.643	172	2400	30.08	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 3.01%#			
11) Pyrene-d10	13.437	212	1906	21.54	ug/L	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 2.15%#			
18) Terphenyl-d14	13.721	244	682	11.44	ppb	0.01
Spiked Amount 1000.000	Range 48 - 112		Recovery = 1.14%#			
Target Compounds						Qvalue
3) Naphthalene	7.304	128	48861	469.70	ppb	100
4) 2-Methylnaphthalene	8.203	142	4778834	72729.05	ppb	100
5) 1-Methylnaphthalene	8.323	142	2907200	48354.11	ppb	100
8) Acenaphthylene	9.329	152	65445	702.76	ppb	100
9) Acenaphthene	9.543	153	201742	3260.03	ppb	100
12) Fluorene	10.192	166	220246	3536.29	ppb	100
13) Phenanthrene	11.396	178	742159	7463.32	ppb	100
14) Anthracene	11.460	178	45630	~~498.39~~	ppb	100
15) Fluoranthene	13.094	202	32518	335.69	ppb	100
16) Pyrene	13.468	202	59223	572.70	ppb	100
19) Benzo[a]anthracene	15.681	228	6432	66.19	ppb	100
20) Chrysene	15.755	228	10057	108.52	ppb	100
22) Benzo[b]fluoranthene	17.827	252	6379	50.79	ppb	100
23) Benzo(j,k)fluoranthene	17.878	252	1797	14.09	ppb	100
24) Benzo[a]pyrene	18.455	252	4134	34.19	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.023	276	1545	19.06	ppb	100
26) Dibenz[a,h]anthracene	21.073	278	172	2.17	ppb	100
27) Benzo[g,h,i]perylene	21.756	276	1873	21.49	ppb	100

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

2000X?

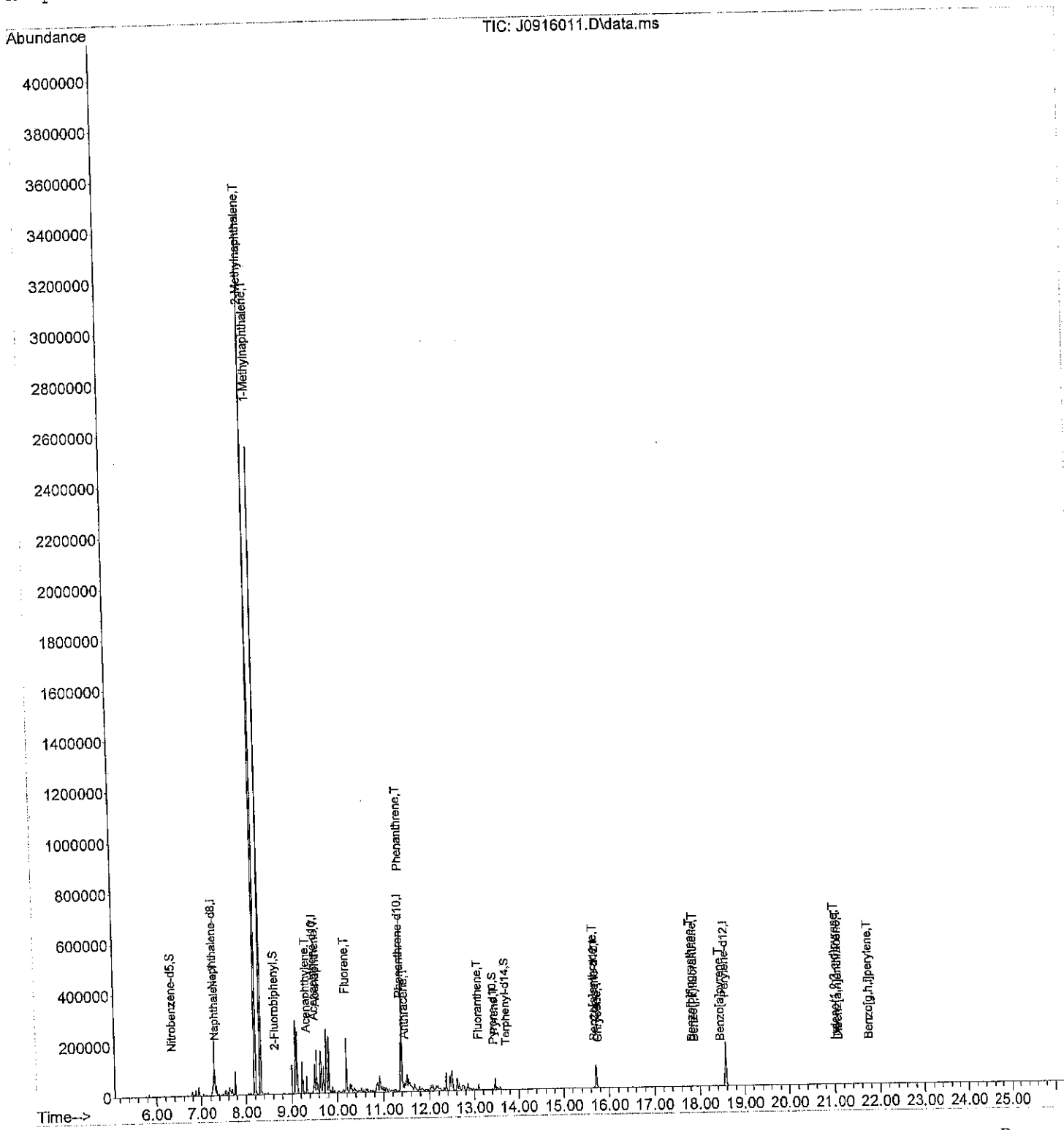
ZT
9-17-18

263.57

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916011.D
Acq On : 16 Sep 2018 7:11 pm
Operator :
Sample : 08-327-32 100X
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 16 19:37:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180917\
Data File : J0917007.D
Acq On : 17 Sep 2018 1:08 pm
Operator :
Sample : 08-327-32 2000X
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 17 13:35:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.277	136	171422	2000.00	ppb	0.00
6) Acenaphthene-d10	9.496	164	75463	2000.00	ppb	0.00
10) Phenanthrene-d10	11.361	188	141415	2000.00	ppb	0.01
17) Chrysene-d12	15.697	240	97095	2000.00	ppb	0.01
21) Perylene-d12	18.561	264	236067	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	6.442	82	153	6.82	ppb	0.08
Spiked Amount 1000.000	Range 36 - 99		Recovery = 0.68%#			
7) 2-Fluorobiphenyl	8.635	172	134	2.56	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 0.26%#			
11) Pyrene-d10	13.434	212	759	12.01	ug/L	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 1.20%#			
18) Terphenyl-d14	13.719	244	285	2.58	ppb	0.01
Spiked Amount 1000.000	Range 48 - 112		Recovery = 0.26%#			
Target Compounds						Qvalue
3) Naphthalene	7.301	128	1657	23.89	ppb	100
4) 2-Methylnaphthalene	8.183	142	202940	4632.27	ppb	100
5) 1-Methylnaphthalene	8.309	142	111490	2781.22	ppb	100
8) Acenaphthylene	9.319	152	2266	37.08	ppb	100
9) Acenaphthene	9.535	153	7140	175.85	ppb	100
12) Fluorene	10.186	166	7490	168.45	ppb	100
13) Phenanthrene	11.390	178	26843	378.11	ppb	100
14) Anthracene	11.501	178	1671	25.56	ppb	100
15) Fluoranthene	13.090	202	1311	18.96	ppb	100
16) Pyrene	13.461	202	2490	33.73	ppb	100
19) Benzo[a]anthracene	15.689	228	868	8.03	ppb	100
20) Chrysene	15.748	228	421	6.75	ppb	100
22) Benzo[b]fluoranthene	17.820	252	497	5.39	ppb	100
23) Benzo(j,k)fluoranthene	17.870	252	330	3.53	ppb	100
24) Benzo[a]pyrene	18.448	252	391	4.41	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.019	276	281	4.72	ppb	100
26) Dibenz[a,h]anthracene	21.085	278	164	2.82	ppb	100
27) Benzo[g,h,i]perylene	21.760	276	272	4.25	ppb	100

use

use

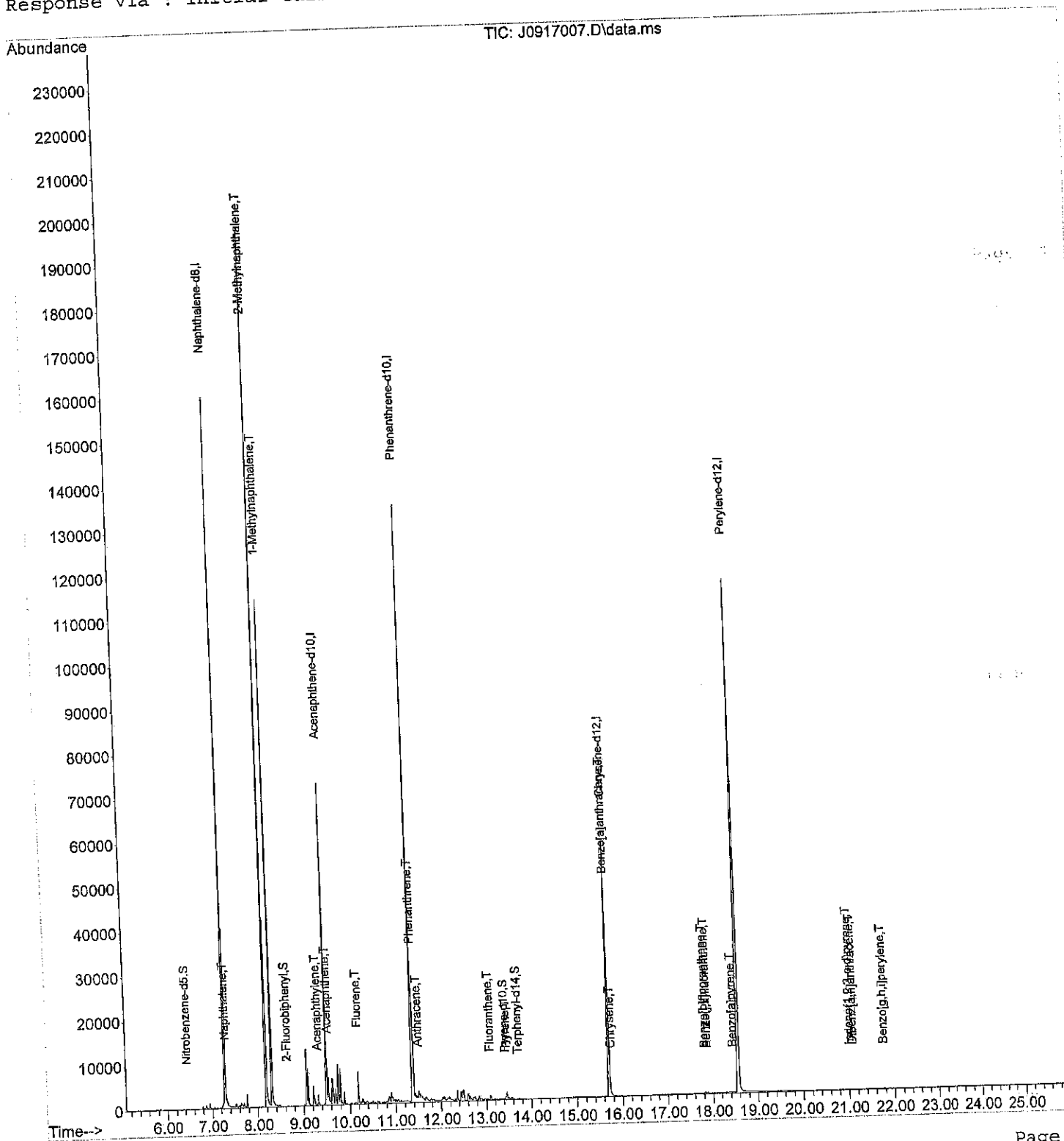
2T
9-17-18

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180917\
Data File : J0917007.D
Acq On : 17 Sep 2018 1:08 pm
Operator :
Sample : 08-327-32 2000X
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 17 13:35:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914009.D
Acq On : 14 Sep 2018 11:44 am
Operator :
Sample : 08-327-34
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 14 12:10:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	7.273	136	191892	2000.00 ppb	0.00
6) Acenaphthene-d10	9.492	164	84557	2000.00 ppb	0.00
10) Phenanthrene-d10	11.356	188	148326	2000.00 ppb	0.00
17) Chrysene-d12	15.681	240	103500	2000.00 ppb	0.00
21) Perylene-d12	18.530	264	238066	2000.00 ppb	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	6.360	82	54035	2151.19 ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 215.12%#		
7) 2-Fluorobiphenyl	8.635	172	118435	2019.21 ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 201.92%#		
11) Pyrene-d10	13.418	212	152712	2304.65 ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 230.47%#		
18) Terphenyl-d14	13.707	244	53365	2535.37 ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 253.54%#		
Target Compounds					Qvalue
3) Naphthalene	7.297	128	40004	515.25 ppb	100
4) 2-Methylnaphthalene	8.193	142	4252885	86720.12 ppb	100
5) 1-Methylnaphthalene	8.313	142	2474085	55134.49 ppb	100
8) Acenaphthylene	9.317	152	48890	714.07 ppb	100
9) Acenaphthene	9.531	153	153634	3376.80 ppb	100
12) Fluorene	10.180	166	177047	3796.24 ppb	100
13) Phenanthrene	11.385	178	632871	8499.16 ppb	100
14) Anthracene	11.495	178	36313	~~529.67~~ ppb	100
15) Fluoranthene	13.078	202	21652	298.49 ppb	100
16) Pyrene	13.449	202	44281	571.85 ppb	100
19) Benzo[a]anthracene	15.658	228	3699	51.74 ppb	100
20) Chrysene	15.728	228	6253	94.01 ppb	100
22) Benzo[b]fluoranthene	17.796	252	3956	42.55 ppb	100
23) Benzo(j,k)fluoranthene	17.847	252	931	9.86 ppb	100
24) Benzo[a]pyrene	18.417	252	1901	21.24 ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.965	276	884	14.73 ppb	100
26) Dibenz[a,h]anthracene	21.027	278	183	3.12 ppb	100
27) Benzo[g,h,i]perylene	21.686	276	1164	18.04 ppb	100

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

Needs 2nd/5th?

158.10

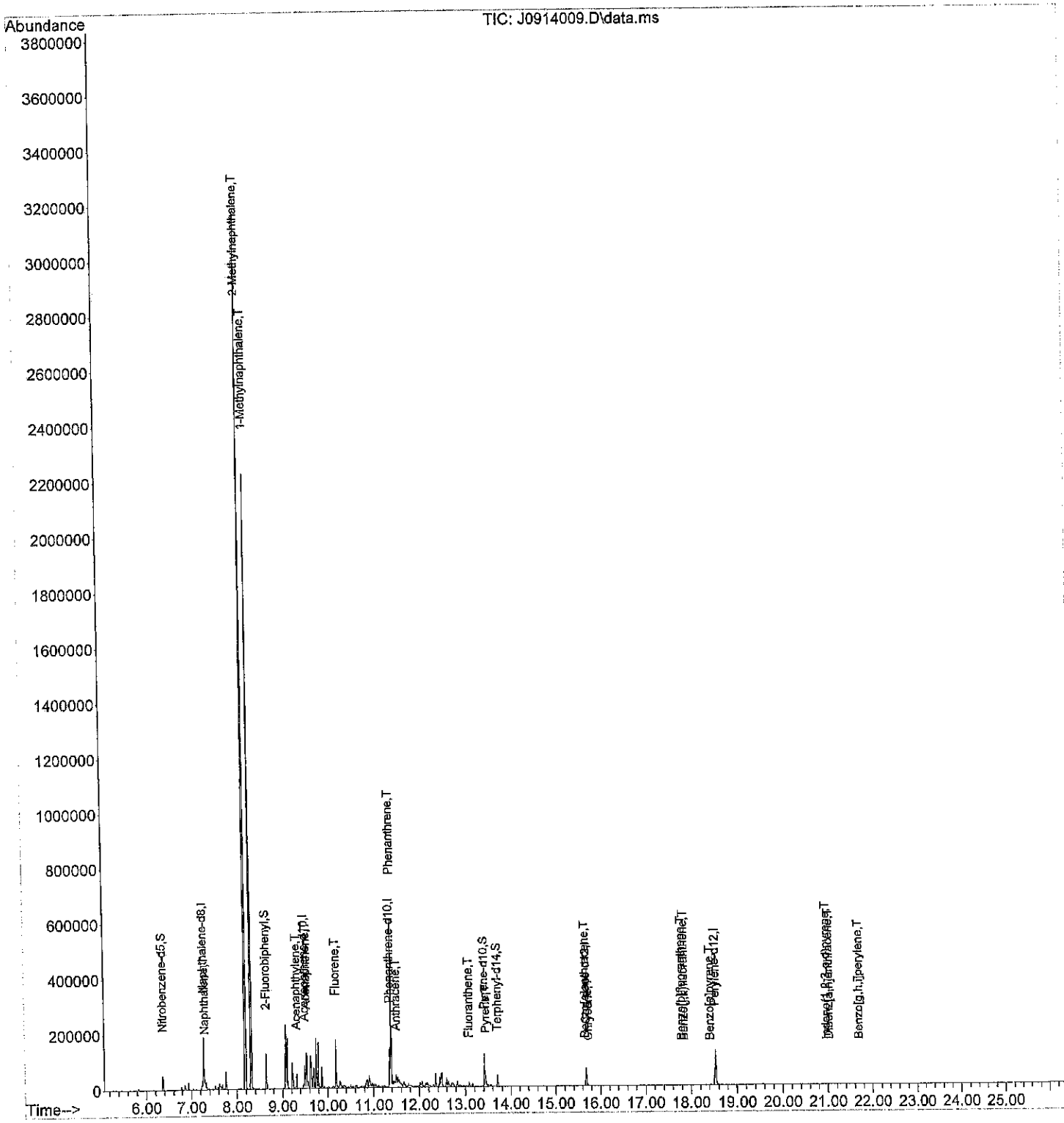
ZT

9-16-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914009.D
Acq On : 14 Sep 2018 11:44 am
Operator :
Sample : 08-327-34
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 14 12:10:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916021.D
Acq On : 17 Sep 2018 12:50 am
Operator :
Sample : 08-327-34 20X
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 01:16:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

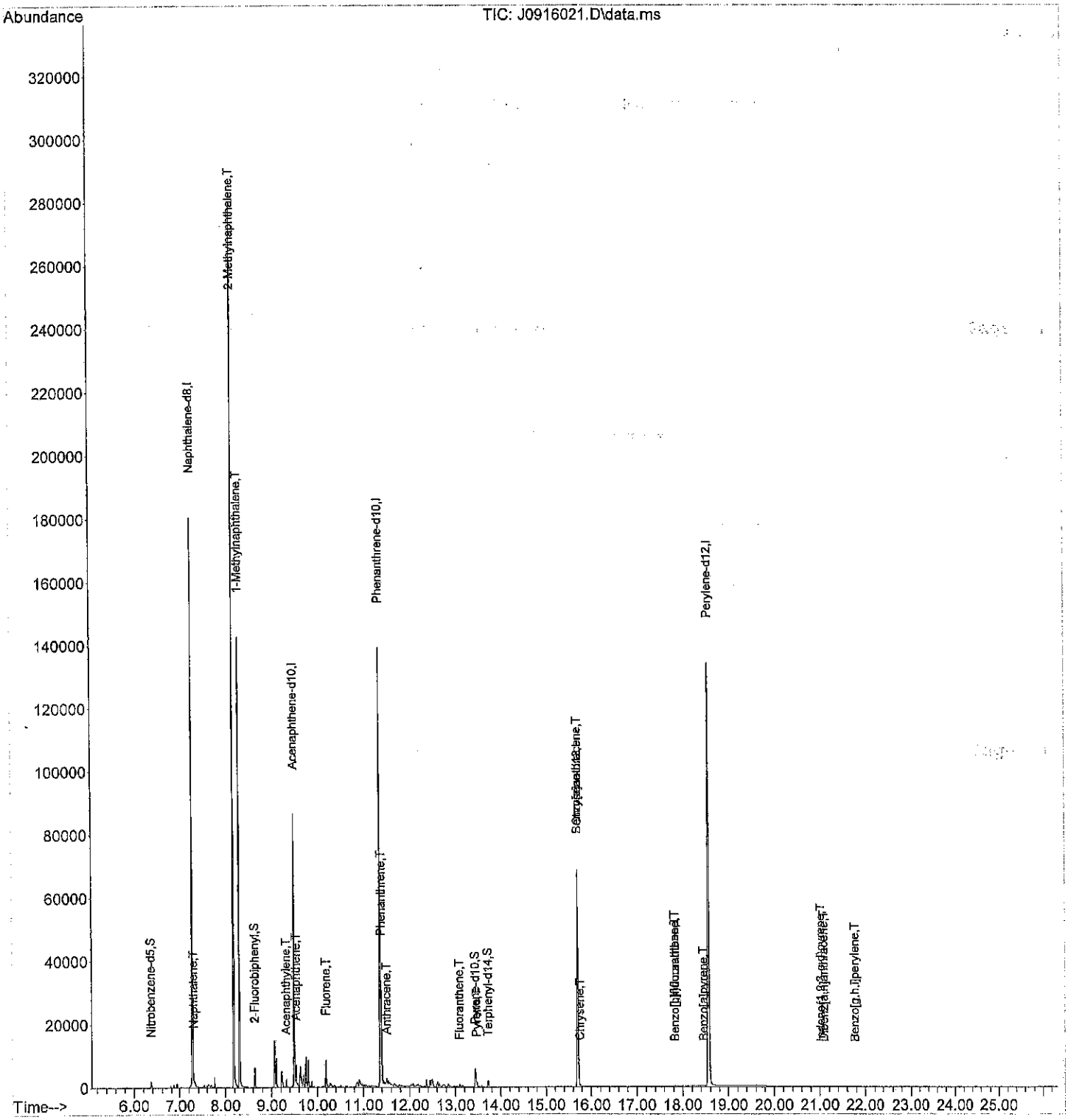
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.281	136	186551	2000.00	ppb	0.00
6) Acenaphthene-d10	9.500	164	84554	2000.00	ppb	0.00
10) Phenanthrene-d10	11.361	188	156991	2000.00	ppb	0.01
17) Chrysene-d12	15.705	240	111059	2000.00	ppb	0.02
21) Perylene-d12	18.569	264	263300	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	6.366	82	2305	94.39	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 9.44%#			
7) 2-Fluorobiphenyl	8.639	172	6090	103.83	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 10.38%#			
11) Pyrene-d10	13.437	212	8059	114.91	ug/L	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 11.49%#			
18) Terphenyl-d14	13.721	244	2618	104.54	ppb	0.01
Spiked Amount 1000.000	Range 48 - 112		Recovery = 10.45%#			
Target Compounds						Qvalue
3) Naphthalene	7.304	128	1957	25.93	ppb	100
4) 2-Methylnaphthalene	8.185	142	270974	5683.60	ppb	100
5) 1-Methylnaphthalene	8.311	142	143116	3280.62	ppb	100
8) Acenaphthylene	9.321	152	2489	36.35	ppb	100
9) Acenaphthene	9.539	153	8297	182.37	ppb	100
12) Fluorene	10.188	166	8978	181.88	ppb	100
13) Phenanthrene	11.390	178	34001	431.41	ppb	100
14) Anthracene	11.501	178	1811	24.96	ppb	100
15) Fluoranthene	13.090	202	1172	15.27	ppb	100
16) Pyrene	13.465	202	2253	27.49	ppb	100
19) Benzo[a]anthracene	15.701	228	731	4.18	ppb	100
20) Chrysene	15.755	228	257	3.60	ppb	100
22) Benzo[b]fluoranthene	17.831	252	266	2.59	ppb	100
23) Benzo(j,k)fluoranthene	17.831	252	266	2.55	ppb	100
24) Benzo[a]pyrene	18.455	252	130	1.31	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.027	276	26	0.39	ppb	100
26) Dibenz[a,h]anthracene	21.093	278	5	0.08	ppb	100
27) Benzo[g,h,i]perylene	21.768	276	99	1.39	ppb	100

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

ZT
9-17-18

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916021.D
Acq On : 17 Sep 2018 12:50 am
Operator :
Sample : 08-327-34 20X
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 01:16:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916007.D
Acq On : 16 Sep 2018 4:54 pm
Operator :
Sample : 08-327-34 100X
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 16 17:21:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.283	136	261583	2000.00	ppb	0.00
6) Acenaphthene-d10	9.500	164	120753	2000.00	ppb	0.00
10) Phenanthrene-d10	11.367	188	225166	2000.00	ppb	0.02
17) Chrysene-d12	15.708	240	160811	2000.00	ppb	0.02
21) Perylene-d12	18.576	264	359848	2000.00	ppb	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	6.370	82	516	15.07	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 1.51%#			
7) 2-Fluorobiphenyl	8.641	172	1564	18.67	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 1.87%#			
11) Pyrene-d10	13.441	212	2292	22.79	ug/L	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 2.28%#			
18) Terphenyl-d14	13.723	244	722	10.26	ppb	0.01
Spiked Amount 1000.000	Range 48 - 112		Recovery = 1.03%#			
Target Compounds						Qvalue
3) Naphthalene	7.306	128	604	5.71	ppb	100
4) 2-Methylnaphthalene	8.187	142	67539	1010.27	ppb	100
5) 1-Methylnaphthalene	8.311	142	35675	583.20	ppb	100
8) Acenaphthylene	9.323	152	685	7.01	ppb	100
9) Acenaphthene	9.543	153	2263	34.83	ppb	100
12) Fluorene	10.190	166	2300	32.49	ppb	100
13) Phenanthrene	11.396	178	9071	80.25	ppb	100
14) Anthracene	11.460	178	297	2.85	ppb	100
15) Fluoranthene	13.094	202	383	3.48	ppb	100
16) Pyrene	13.468	202	642	5.46	ppb	100
19) Benzo[a]anthracene	15.704	228	786	1.42	ppb	100
20) Chrysene	15.755	228	141	1.36	ppb	100
22) Benzo[b]fluoranthene	17.827	252	208	1.48	ppb	100
23) Benzo(j,k)fluoranthene	17.886	252	140	0.98	ppb	100
24) Benzo[a]pyrene	18.455	252	156	1.15	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.035	276	256	2.82	ppb	100
26) Dibenz[a,h]anthracene	21.105	278	128	1.44	ppb	100
27) Benzo[g,h,i]perylene	21.768	276	228	2.34	ppb	100

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

Use

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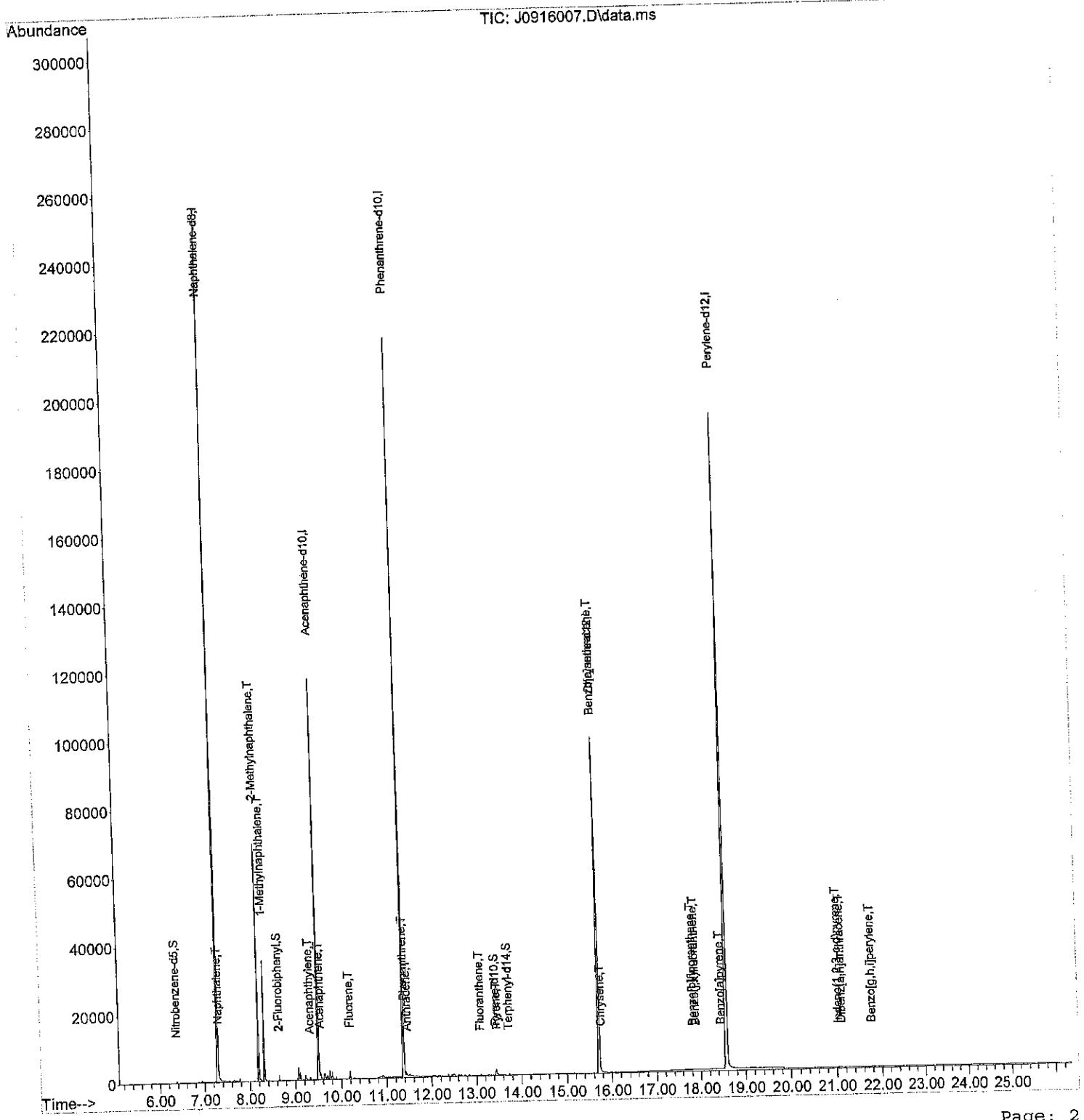
9-17-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916007.D
Acq On : 16 Sep 2018 4:54 pm
Operator :
Sample : 08-327-34 100X
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 16 17:21:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914003.D
Acq On : 14 Sep 2018 8:21 am
Operator :
Sample : MB0910S1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 14 08:48:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	204353	2000.00	ppb	0.00
6) Acenaphthene-d10	9.488	164	90763	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	168625	2000.00	ppb	0.00
17) Chrysene-d12	15.681	240	111234	2000.00	ppb	0.00
21) Perylene-d12	18.530	264	252823	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.358	82	55697	2082.14	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 208.21%#			
7) 2-Fluorobiphenyl	8.631	172	135513	2152.40	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 215.24%#			
11) Pyrene-d10	13.418	212	177273	2353.26	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 235.33%#			
18) Terphenyl-d14	13.705	244	56619	2502.79	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 250.28%#			
Target Compounds						Qvalue
3) Naphthalene	7.297	128	656	7.93	ppb	100
4) 2-Methylnaphthalene	8.175	142	275	5.27	ppb	100
5) 1-Methylnaphthalene	8.301	142	225	4.71	ppb	100
8) Acenaphthylene	0.000		0	N.D.		
9) Acenaphthene	9.531	153	84	1.72	ppb	100
12) Fluorene	0.000		0	N.D.		
13) Phenanthrene	11.379	178	255	3.01	ppb	100
14) Anthracene	11.442	178	32	0.41	ppb	100
15) Fluoranthene	13.074	202	63	0.76	ppb	100
16) Pyrene	13.418	202	212	2.41	ppb	100
19) Benzo[a]anthracene	15.677	228	476	0.43	ppb	100
20) Chrysene	15.677	228	476	~~6.66~~	ppb	100
22) Benzo[b]fluoranthene	17.792	252	44	0.45	ppb	100
23) Benzo(j,k)fluoranthene	17.843	252	25	0.25	ppb	100
24) Benzo[a]pyrene	18.530	252	888	~~9.34~~	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.949	276	10	0.16	ppb	100
26) Dibenz[a,h]anthracene	21.027	278	29	0.47	ppb	100
27) Benzo[g,h,i]perylene	21.690	276	31	0.45	ppb	100

ZT 9-14-18

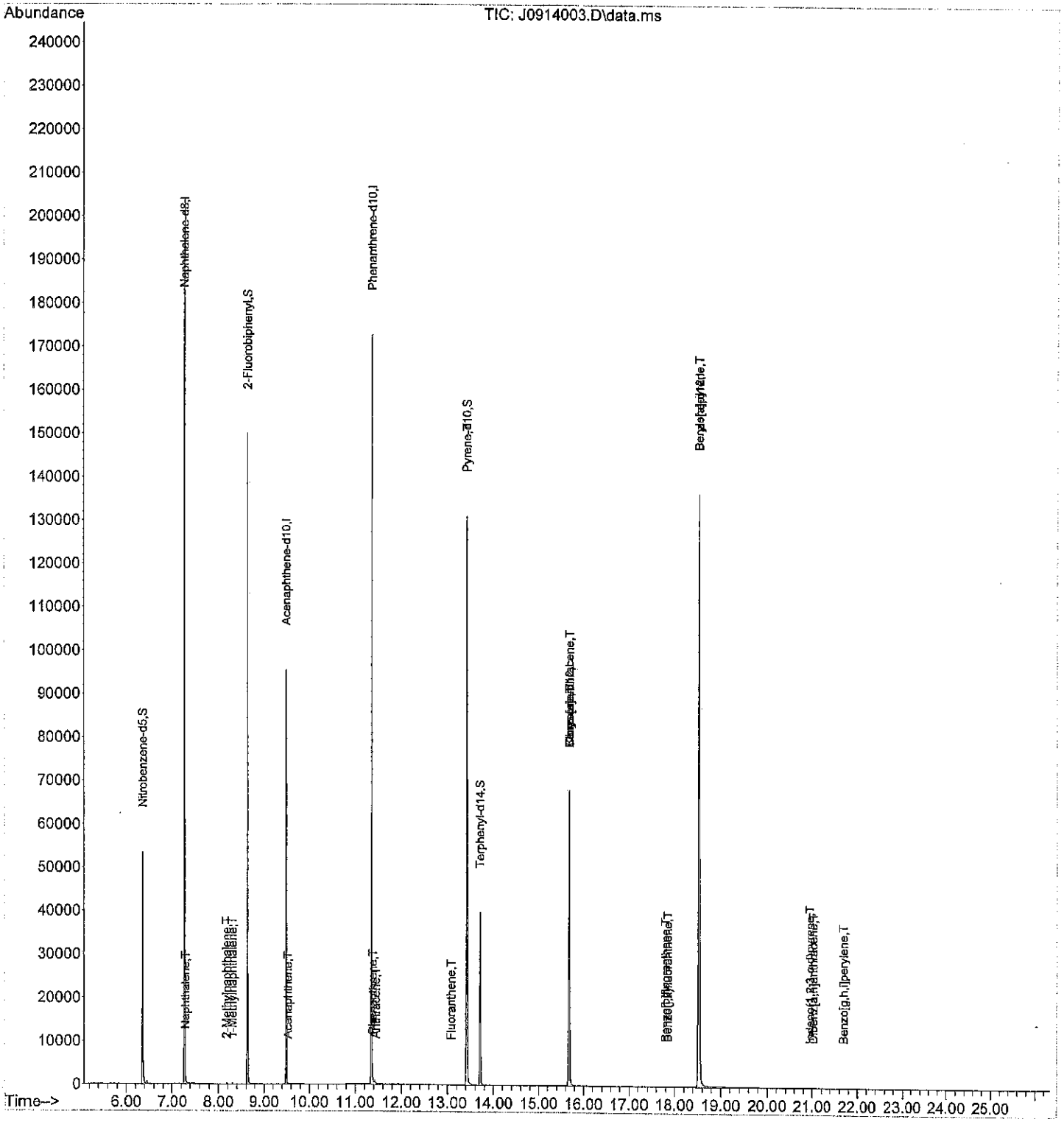
0.53

0.25

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

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914003.D
Acq On : 14 Sep 2018 8:21 am
Operator :
Sample : MB0910S1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 14 08:48:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914004.D
Acq On : 14 Sep 2018 8:55 am
Operator :
Sample : SB0910S1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 14 09:21:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	202455	2000.00	ppb	0.00
6) Acenaphthene-d10	9.488	164	91087	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	166237	2000.00	ppb	0.00
17) Chrysene-d12	15.677	240	112294	2000.00	ppb	0.00
21) Perylene-d12	18.530	264	254658	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.358	82	52609	1985.14	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 198.51%#			
7) 2-Fluorobiphenyl	8.631	172	128835	2039.05	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 203.91%#			
11) Pyrene-d10	13.418	212	166148	2237.26	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 223.73%#			
18) Terphenyl-d14	13.703	244	52594	2301.97	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 230.20%#			
Target Compounds						Qvalue
3) Naphthalene	7.297	128	88341	1078.45	ppb	100
4) 2-Methylnaphthalene	8.175	142	59289	1145.88	ppb	100
5) 1-Methylnaphthalene	8.301	142	54387	1148.77	ppb	100
8) Acenaphthylene	9.313	152	88753	1203.37	ppb	100
9) Acenaphthene	9.527	153	58022	1183.87	ppb	100
12) Fluorene	10.176	166	64973	1243.05	ppb	100
13) Phenanthrene	11.379	178	94098	1127.54	ppb	100
14) Anthracene	11.442	178	91816	1194.95	ppb	100
15) Fluoranthene	13.074	202	101104	1243.64	ppb	100
16) Pyrene	13.445	202	110134	1269.04	ppb	100
19) Benzo[a]anthracene	15.658	228	85925	1241.38	ppb	100
20) Chrysene	15.728	228	88151	1221.57	ppb	100
22) Benzo[b]fluoranthene	17.792	252	120302	1209.55	ppb	100
23) Benzo(j,k)fluoranthene	17.847	252	125826	1246.22	ppb	100
24) Benzo[a]pyrene	18.416	252	115173	1202.88	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.960	276	74636	1162.97	ppb	100
26) Dibenz[a,h]anthracene	21.031	278	73986	1180.02	ppb	100
27) Benzo[g,h,i]perylene	21.694	276	78759	1141.32	ppb	100

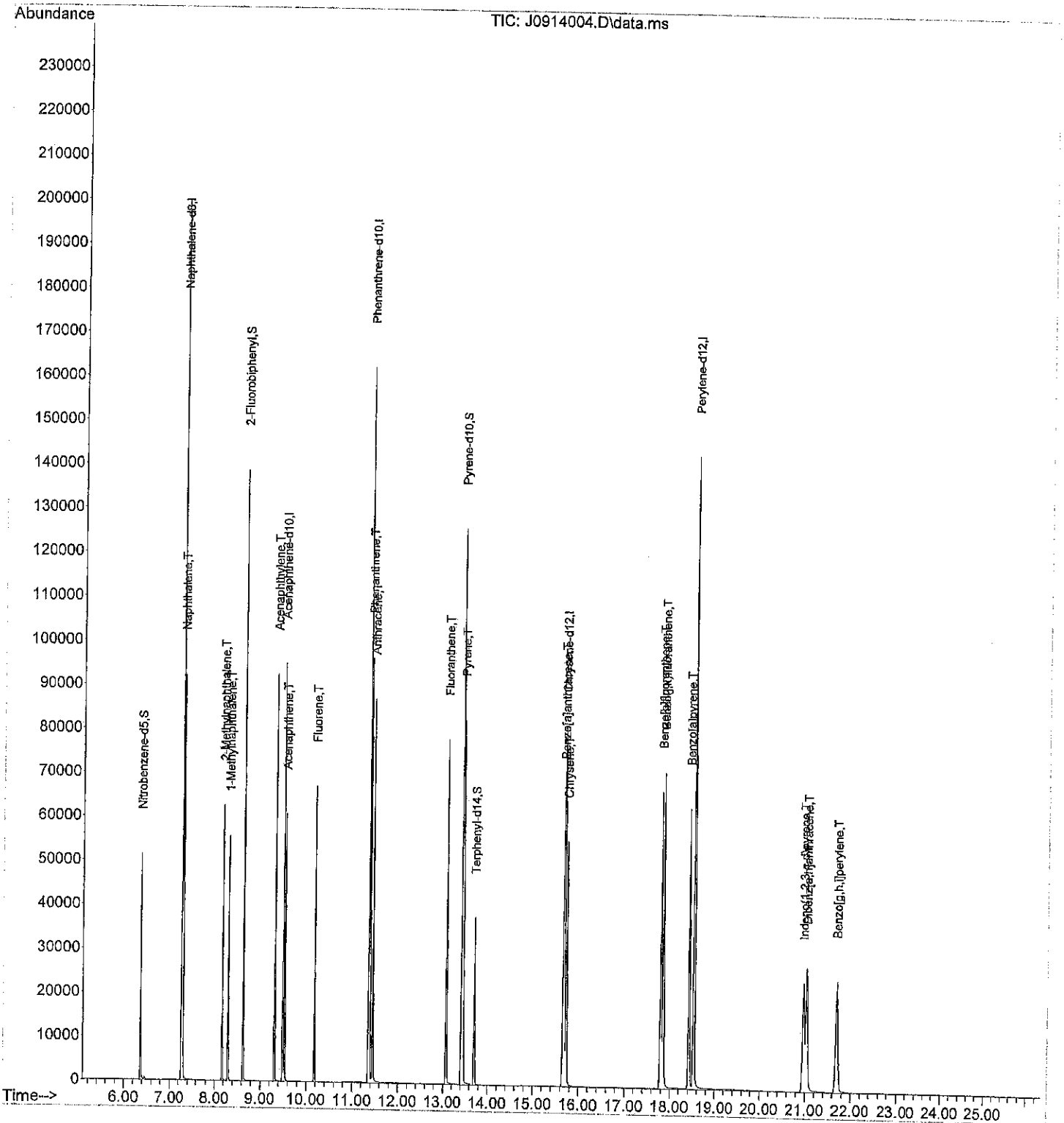
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-14-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914004.D
Acq On : 14 Sep 2018 8:55 am
Operator :
Sample : SB0910S1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 14 09:21:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



PAH0913.M Fri Sep 14 09:21:56 2018 JESSIE

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914005.D
Acq On : 14 Sep 2018 9:29 am
Operator :
Sample : SBD0910S1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 14 09:55:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	200522	2000.00	ppb	0.00
6) Acenaphthene-d10	9.488	164	90478	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	164256	2000.00	ppb	0.00
17) Chrysene-d12	15.677	240	110872	2000.00	ppb	0.00
21) Perylene-d12	18.530	264	249574	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.358	82	53707	2046.11	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 204.61%#			
7) 2-Fluorobiphenyl	8.631	172	130725	2082.89	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 208.29%#			
11) Pyrene-d10	13.418	212	171394	2335.74	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 233.57%#			
18) Terphenyl-d14	13.703	244	54516	2417.29	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 241.73%#			
Target Compounds						Qvalue
3) Naphthalene	7.297	128	91958	1133.43	ppb	100
4) 2-Methylnaphthalene	8.175	142	61582	1201.67	ppb	100
5) 1-Methylnaphthalene	8.301	142	56588	1206.78	ppb	100
8) Acenaphthylene	9.315	152	94856	1294.77	ppb	100
9) Acenaphthene	9.527	153	60600	1244.79	ppb	100
12) Fluorene	10.176	166	67936	1315.41	ppb	100
13) Phenanthrene	11.379	178	98477	1194.24	ppb	100
14) Anthracene	11.443	178	96551	1271.73	ppb	100
15) Fluoranthene	13.071	202	106131	1321.22	ppb	100
16) Pyrene	13.445	202	115879	1351.34	ppb	100
19) Benzo[a]anthracene	15.658	228	90465	1324.16	ppb	100
20) Chrysene	15.728	228	92378	1296.57	ppb	100
22) Benzo[b]fluoranthene	17.792	252	125936	1291.99	ppb	100
23) Benzo(j,k)fluoranthene	17.847	252	132027	1334.28	ppb	100
24) Benzo[a]pyrene	18.421	252	121165	1291.23	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.965	276	77160	1226.79	ppb	100
26) Dibenz[a,h]anthracene	21.035	278	78093	1270.89	ppb	100
27) Benzo[g,h,i]perylene	21.690	276	83146	1229.44	ppb	100

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

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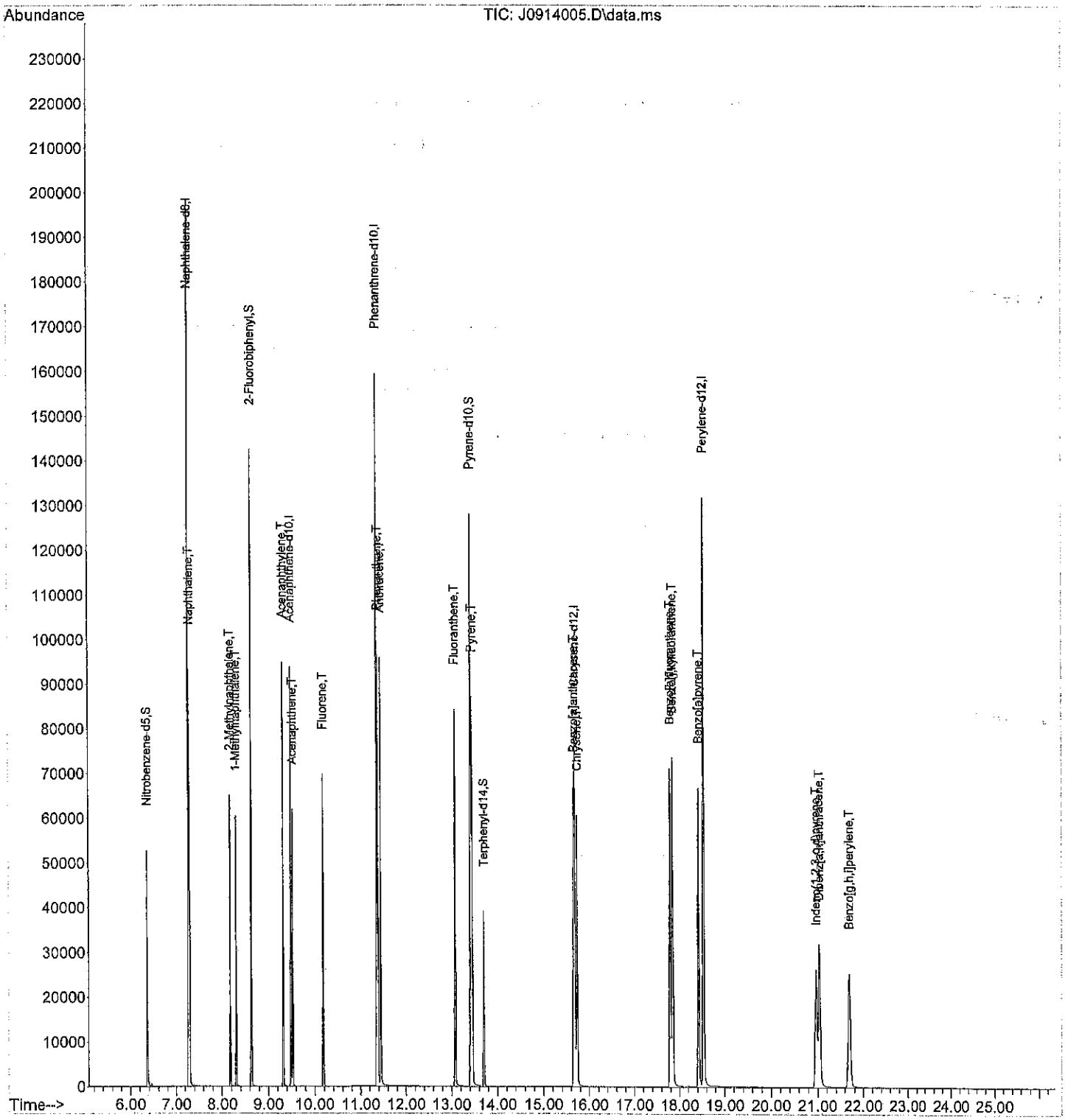
9-14-18

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914005.D
Acq On : 14 Sep 2018 9:29 am
Operator :
Sample : SBD0910S1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 14 09:55:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Compound List Report jessie

Method Path : C:\MSDCHEM\1\METHODS\
Method File : PAH0913.M
Title : SCAN MODE
Last Update : Fri Sep 14 06:59:18 2018
Response Via : Initial Calibration

Total Cpnds : 27

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	7.273	1.000	A	0	A	R
2	S	Nitrobenzene-d5	82	6.360	0.874	A	0	A	R
3	T	Naphthalene	128	7.301	1.004	A	0	A	R
4	T	2-Methylnaphthalene	142	8.177	1.124	A	0	A	R
5	T	1-Methylnaphthalene	142	8.301	1.141	A	0	A	R
6	I	Acenaphthene-d10	164	9.492	1.000	A	0	A	R
7	S	2-Fluorobiphenyl	172	8.633	0.910	A	0	A	R
8	T	Acenaphthylene	152	9.315	0.981	A	0	A	R
9	T	Acenaphthene	153	9.531	1.004	A	0	A	R
10	I	Phenanthrene-d10	188	11.350	1.000	A	0	A	R
11	S	Pyrene-d10	212	13.422	1.183	A	0	A	R
12	T	Fluorene	166	10.178	0.897	A	0	A	R
13	T	Phenanthrene	178	11.379	1.003	A	0	A	R
14	T	Anthracene	178	11.448	1.009	A	0	A	R
15	T	Fluoranthene	202	13.075	1.152	A	0	A	R
16	T	Pyrene	202	13.449	1.185	A	0	A	R
17	I	Chrysene-d12	240	15.685	1.000	A	0	A	R
18	S	Terphenyl-d14	244	13.708	0.874	L	0	A	R
19	T	Benzo[a]anthracene	228	15.665	0.999	L	0	A	R
20	T	Chrysene	228	15.736	1.003	A	0	A	R
21	I	Perylene-d12	264	18.538	1.000	A	0	A	R
22	T	Benzo[b]fluoranthene	252	17.800	0.960	A	0	A	R
23	T	Benzo(j,k)fluoranthene	252	17.855	0.963	A	0	A	R
24	T	Benzo[a]pyrene	252	18.424	0.994	A	0	A	R
25	T	Indeno(1,2,3-c,d)pyrene	276	20.980	1.132	A	0	A	R
26	T	Dibenz[a,h]anthracene	278	21.050	1.136	A	0	A	R
27	T	Benzo[g,h,i]perylene	276	21.714	1.171	A	0	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

PAH0913.M Tue Sep 18 10:59:47 2018 JESSIE

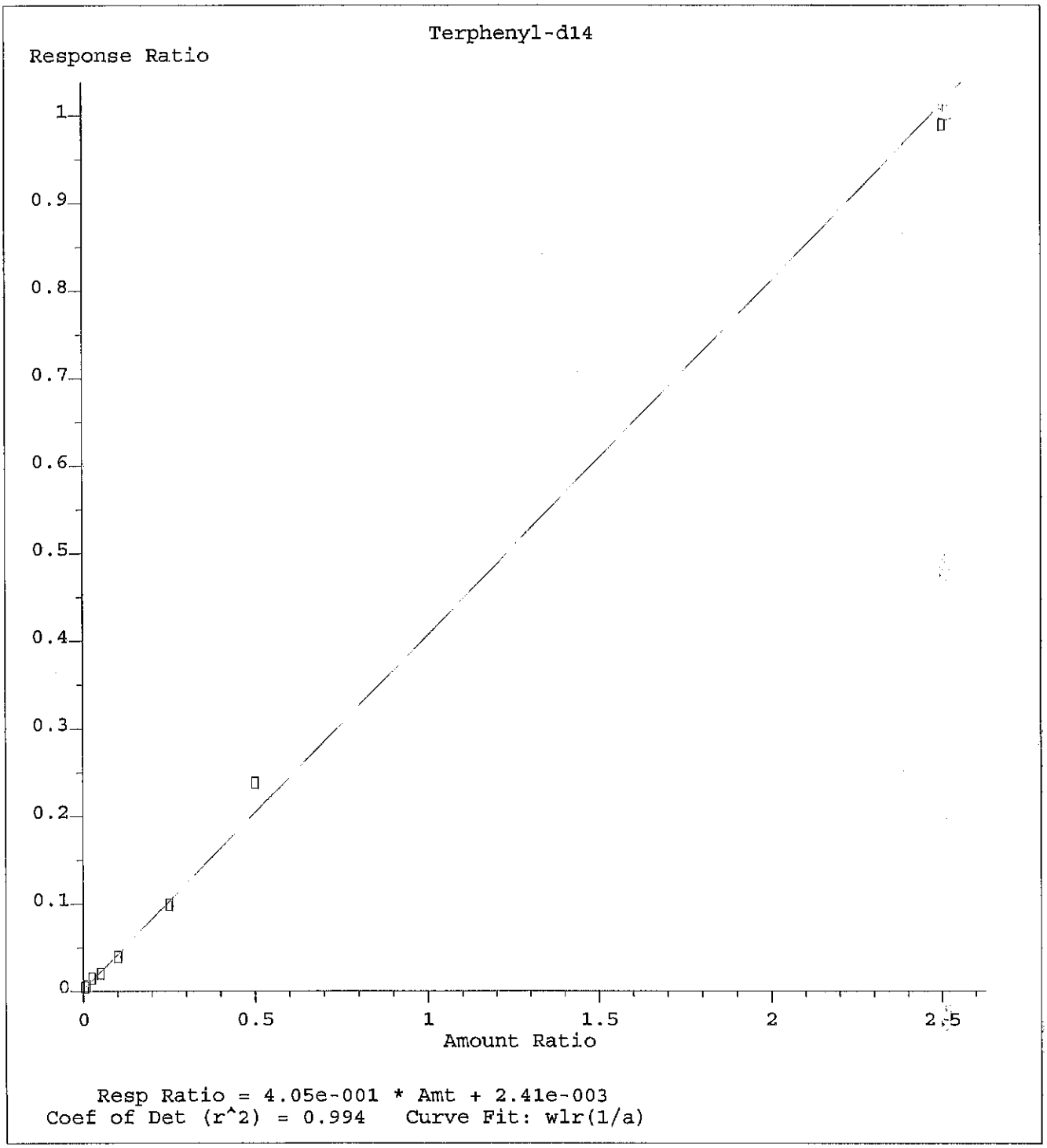
Response Factor Report jessie

Method Path : C:\MSDCHEM\1\METHODS\
Method File : PAH0913.M
Title : SCAN MODE
Last Update : Fri Sep 14 06:59:18 2018
Response Via : Initial Calibration

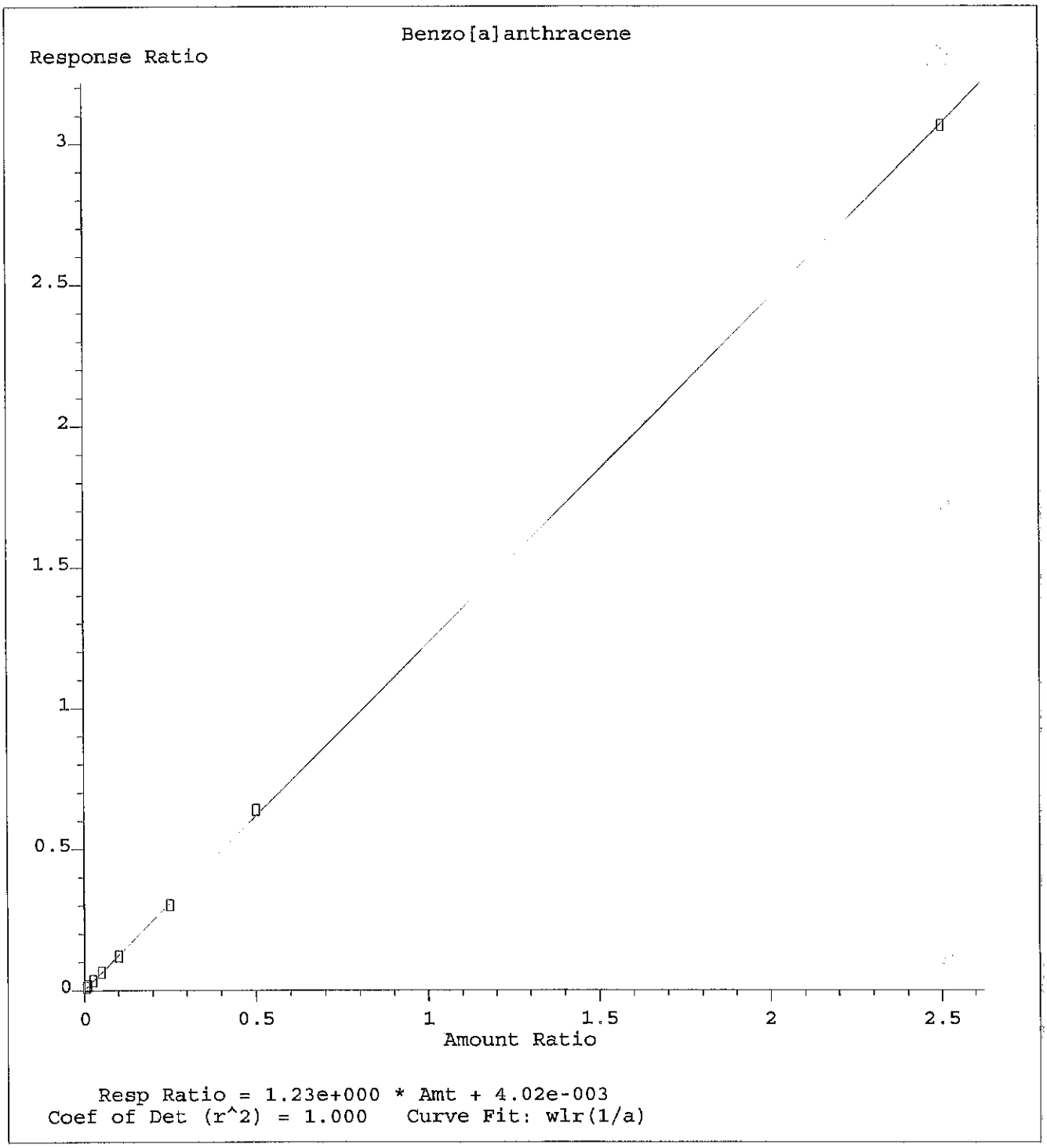
Calibration Files
10 =J0913018.D 20 =J0913019.D 50 =J0913020.D 100 =J0913021.D 200 =J0913022.D 500 =J0913023.D 1000=J0913024.D
5000=J0913025.D

		Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1)	I	Naphthalene-d8	ISTD									
2)	S	Nitrobenzene-d5	0.309	0.274	0.278	0.227	0.231	0.234	0.290	0.252	0.262	11.58
3)	T	Naphthalene	0.905	0.817	0.824	0.785	0.785	0.778	0.811	0.769	0.809	5.36
4)	T	2-Methylnaphth...	0.545	0.497	0.518	0.491	0.497	0.499	0.525	0.517	0.511	3.63
5)	T	1-Methylnaphth...	0.496	0.453	0.470	0.448	0.456	0.458	0.486	0.474	0.468	3.63
6)	I	Acenaphthene-d10	ISTD									
7)	S	2-Fluorobiphenyl	1.709	1.515	1.461	1.226	1.230	1.227	1.474	1.256	1.387	12.97
8)	T	Acenaphthylene	1.680	1.596	1.600	1.531	1.541	1.566	1.720	1.721	1.619	4.77
9)	T	Acenaphthene	1.164	1.082	1.097	1.053	1.048	1.041	1.092	1.033	1.076	3.97
10)	I	Phenanthrene-d10	ISTD									
11)	S	Pyrene-d10	1.051	0.916	0.934	0.786	0.785	0.817	1.008	0.851	0.893	11.28
12)	T	Fluorene	0.630	0.620	0.619	0.612	0.609	0.625	0.663	0.654	0.629	3.09
13)	T	Phenanthrene	1.140	1.055	1.008	0.978	0.954	0.956	1.003	0.938	1.004	6.63
14)	T	Anthracene	0.939	0.913	0.903	0.895	0.887	0.915	0.981	0.962	0.924	3.59
15)	T	Fluoranthene	1.016	0.954	0.962	0.940	0.936	0.962	1.037	1.017	0.978	4.02
16)	T	Pyrene	1.071	1.004	1.008	0.988	1.027	1.050	1.128	1.076	1.044	4.46
17)	I	Chrysene-d12	ISTD									
18)	S	Terphenyl-d14	0.878	0.607	0.589	0.407	0.398	0.397	0.476	0.396	0.518	32.64
19)	T	Benzo[a]anthra...	2.097	1.648	1.376	1.279	1.212	1.209	1.277	1.225	1.415	21.98
20)	T	Chrysene	1.347	1.293	1.292	1.278	1.260	1.266	1.328	1.218	1.285	3.13
21)	I	Perylene-d12	ISTD									
22)	T	Benzo[b]fluora...	0.825	0.794	0.767	0.753	0.748	0.748	0.804	0.811	0.781	3.97
23)	T	Benzo(j,k)fluo...	0.812	0.777	0.773	0.767	0.754	0.786	0.843	0.831	0.793	4.03
24)	T	Benzo[a]pyrene	0.795	0.757	0.738	0.726	0.710	0.725	0.783	0.783	0.752	4.23
25)	T	Indeno(1,2,3-c...	0.534	0.538	0.498	0.480	0.473	0.484	0.511	0.514	0.504	4.83
26)	T	Dibenz[a,h]ant...	0.492	0.521	0.485	0.479	0.470	0.478	0.511	0.503	0.492	3.64
27)	T	Benzo[g,h,i]pe...	0.580	0.598	0.536	0.524	0.508	0.513	0.548	0.530	0.542	5.87

(#) = Out of Range



Method Name: C:\MSDCHEM\1\METHODS\PAH0913.M
Calibration Table Last Updated: Fri Sep 14 06:59:18 2018



Method Name: C:\MSDCHEM\1\METHODS\PAH0913.M
Calibration Table Last Updated: Fri Sep 14 06:59:18 2018

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913018.D
Acq On : 13 Sep 2018 10:58 pm
Operator :
Sample : 10 PPB PAH ICAL
Misc : SV5-055-19
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 14 07:43:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

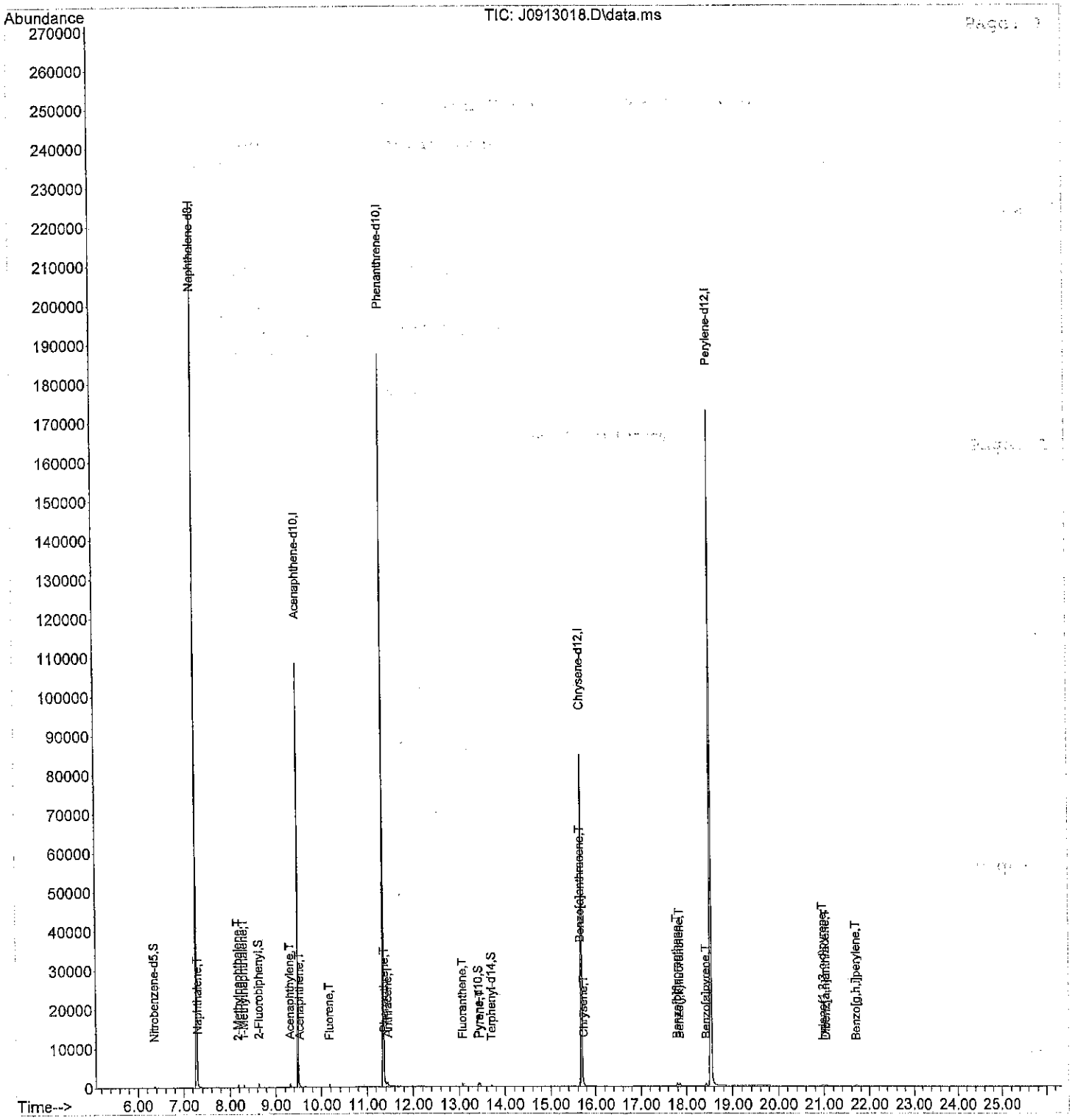
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	236500	2000.00	ppb	0.00
6) Acenaphthene-d10	9.492	164	107755	2000.00	ppb	0.00
10) Phenanthrene-d10	11.355	188	206452	2000.00	ppb	0.00
17) Chrysene-d12	15.681	240	140614	2000.00	ppb	0.00
21) Perylene-d12	18.537	264	317639	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.362	82	365	11.79	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 1.18%#			
7) 2-Fluorobiphenyl	8.633	172	921	12.32	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 1.23%#			
11) Pyrene-d10	13.422	212	1085	11.76	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 1.18%#			
18) Terphenyl-d14	13.707	244	617	9.76	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 0.98%#			
Target Compounds						Qvalue
3) Naphthalene	7.300	128	1070	11.18	ppb	100
4) 2-Methylnaphthalene	8.177	142	645	10.67	ppb	100
5) 1-Methylnaphthalene	8.303	142	587	10.61	ppb	100
8) Acenaphthylene	9.317	152	905	10.37	ppb	100
9) Acenaphthene	9.531	153	627	10.81	ppb	100
12) Fluorene	10.178	166	650	10.01	ppb	100
13) Phenanthrene	11.379	178	1177	11.36	ppb	100
14) Anthracene	11.448	178	969	10.15	ppb	100
15) Fluoranthene	13.074	202	1049	10.39	ppb	100
16) Pyrene	13.449	202	1106	10.26	ppb	100
19) Benzo[a]anthracene	15.666	228	1474	10.54	ppb	100
20) Chrysene	15.732	228	947	10.48	ppb	100
22) Benzo[b]fluoranthene	17.796	252	1310	10.56	ppb	100
23) Benzo(j,k)fluoranthene	17.851	252	1290	10.24	ppb	100
24) Benzo[a]pyrene	18.424	252	1262	10.57	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.976	276	848	10.59	ppb	100
26) Dibenz[a,h]anthracene	21.042	278	782	10.00	ppb	100
27) Benzo[g,h,i]perylene	21.698	276	921	10.70	ppb	100

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

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913018.D
Acq On : 13 Sep 2018 10:58 pm
Operator :
Sample : 10 PPB PAH ICAL
Misc : SV5-055-19
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 14 07:43:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913019.D
Acq On : 13 Sep 2018 11:32 pm
Operator :
Sample : 20 PPB PAH ICAL
Misc : SV5-055-18
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 14 07:43:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

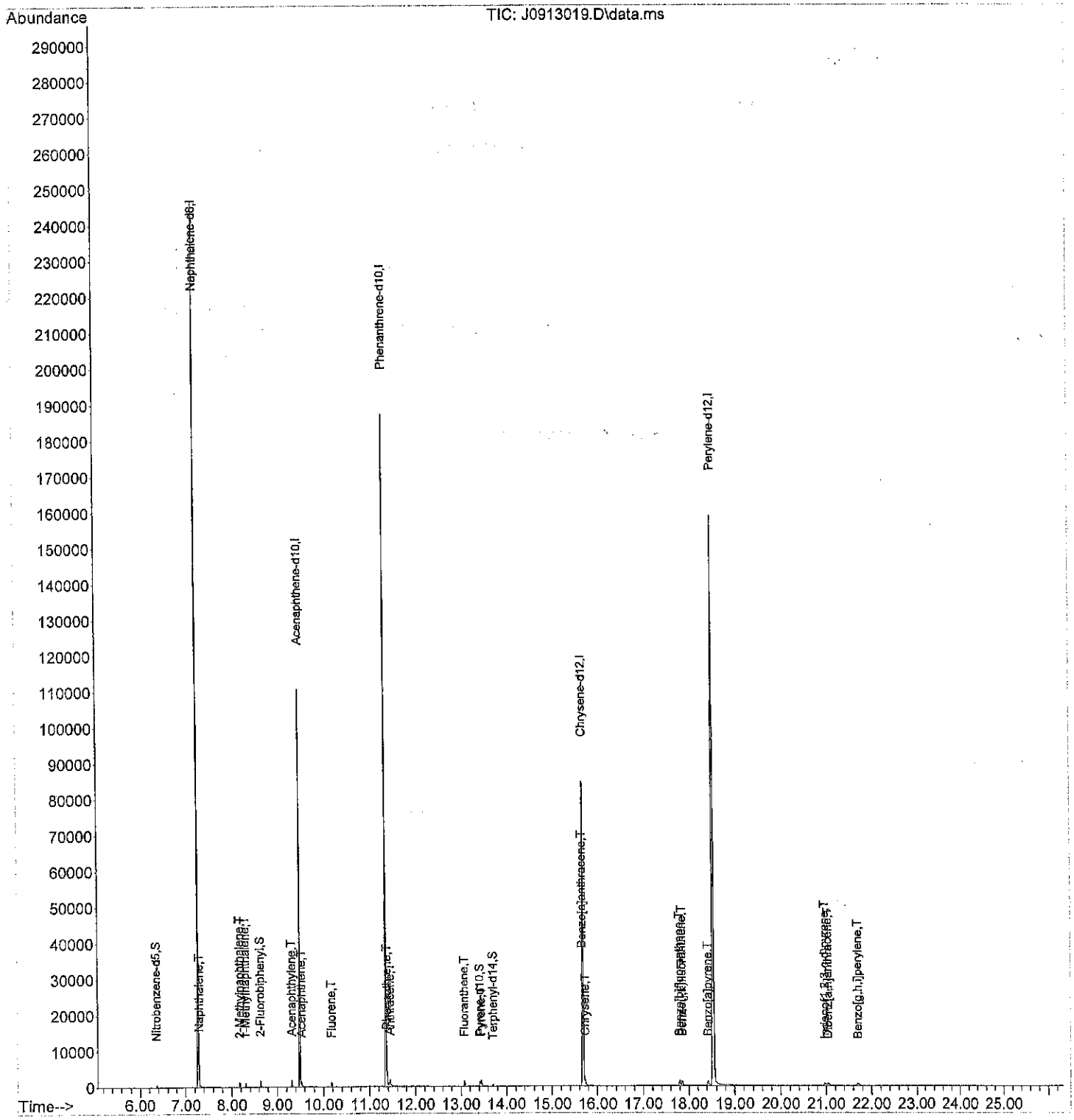
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	245066	2000.00	ppb	0.00
6) Acenaphthene-d10	9.492	164	109445	2000.00	ppb	0.00
10) Phenanthrene-d10	11.356	188	204179	2000.00	ppb	0.00
17) Chrysene-d12	15.681	240	137877	2000.00	ppb	0.00
21) Perylene-d12	18.538	264	311571	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.360	82	671	20.92	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery =	2.09%#		
7) 2-Fluorobiphenyl	8.633	172	1658	21.84	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery =	2.18%#		
11) Pyrene-d10	13.418	212	1870	20.50	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	2.05%#		
18) Terphenyl-d14	13.707	244	837	18.07	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery =	1.81%#		
Target Compounds						Qvalue
3) Naphthalene	7.301	128	2001	20.18	ppb	100
4) 2-Methylnaphthalene	8.177	142	1218	19.45	ppb	100
5) 1-Methylnaphthalene	8.301	142	1111	19.39	ppb	100
8) Acenaphthylene	9.317	152	1747	19.71	ppb	100
9) Acenaphthene	9.531	153	1184	20.11	ppb	100
12) Fluorene	10.178	166	1265	19.70	ppb	100
13) Phenanthrene	11.379	178	2154	21.01	ppb	100
14) Anthracene	11.443	178	1865	19.76	ppb	100
15) Fluoranthene	13.075	202	1948	19.51	ppb	100
16) Pyrene	13.449	202	2050	19.23	ppb	100
19) Benzo[a]anthracene	15.666	228	2272	20.32	ppb	100
20) Chrysene	15.732	228	1783	20.12	ppb	100
22) Benzo[b]fluoranthene	17.796	252	2474	20.33	ppb	100
23) Benzo(j,k)fluoranthene	17.851	252	2420	19.59	ppb	100
24) Benzo[a]pyrene	18.421	252	2358	20.13	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.968	276	1677	21.36	ppb	100
26) Dibenz[a,h]anthracene	21.043	278	1624	21.17	ppb	100
27) Benzo[g,h,i]perylene	21.698	276	1862	22.05	ppb	100

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

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913019.D
Acq On : 13 Sep 2018 11:32 pm
Operator :
Sample : 20 PPB PAH ICAL
Misc : SV5-055-18
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 14 07:43:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913020.D
Acq On : 14 Sep 2018 12:06 am
Operator :
Sample : 50 PPB PAH ICAL
Misc : SV5-055-17
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 14 07:43:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

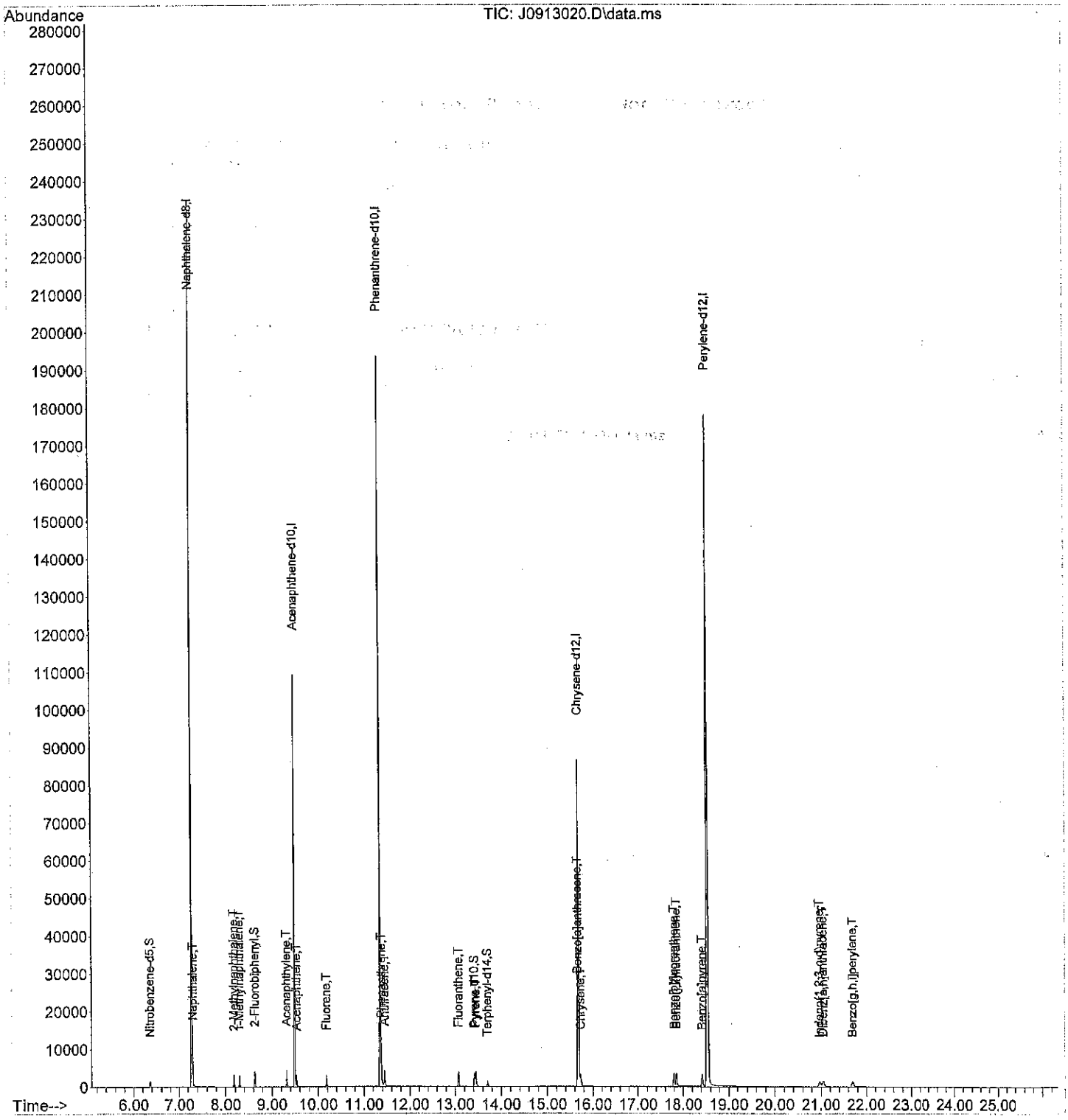
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	235032	2000.00	ppb	0.00
6) Acenaphthene-d10	9.492	164	107301	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	203134	2000.00	ppb	0.00
17) Chrysene-d12	15.681	240	138265	2000.00	ppb	0.00
21) Perylene-d12	18.534	264	312993	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.360	82	1633	53.08	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery =	5.31%#		
7) 2-Fluorobiphenyl	8.631	172	3919	52.65	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery =	5.26%#		
11) Pyrene-d10	13.418	212	4743	52.27	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	5.23%#		
18) Terphenyl-d14	13.705	244	2035	60.79	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery =	6.08%#		
Target Compounds						Qvalue
3) Naphthalene	7.301	128	4839	50.89	ppb	100
4) 2-Methylnaphthalene	8.177	142	3041	50.63	ppb	100
5) 1-Methylnaphthalene	8.301	142	2761	50.23	ppb	100
8) Acenaphthylene	9.315	152	4292	49.40	ppb	100
9) Acenaphthene	9.531	153	2942	50.96	ppb	100
12) Fluorene	10.176	166	3143	49.21	ppb	100
13) Phenanthrene	11.379	178	5121	50.22	ppb	100
14) Anthracene	11.443	178	4588	48.87	ppb	100
15) Fluoranthene	13.075	202	4886	49.18	ppb	100
16) Pyrene	13.449	202	5119	48.27	ppb	100
19) Benzo[a]anthracene	15.662	228	4757	49.56	ppb	100
20) Chrysene	15.728	228	4465	50.25	ppb	100
22) Benzo[b]fluoranthene	17.792	252	5999	49.07	ppb	100
23) Benzo(j,k)fluoranthene	17.851	252	6051	48.76	ppb	100
24) Benzo[a]pyrene	18.421	252	5774	49.06	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.965	276	3898	49.42	ppb	100
26) Dibenz[a,h]anthracene	21.043	278	3792	49.21	ppb	100
27) Benzo[g,h,i]perylene	21.694	276	4194	49.45	ppb	100

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

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913020.D
Acq On : 14 Sep 2018 12:06 am
Operator :
Sample : 50 PPB PAH ICAL
Misc : SV5-055-17
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 14 07:43:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913021.D
Acq On : 14 Sep 2018 12:40 am
Operator :
Sample : 100 PPB PAH ICAL
Misc : SV5-055-16
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 14 07:44:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

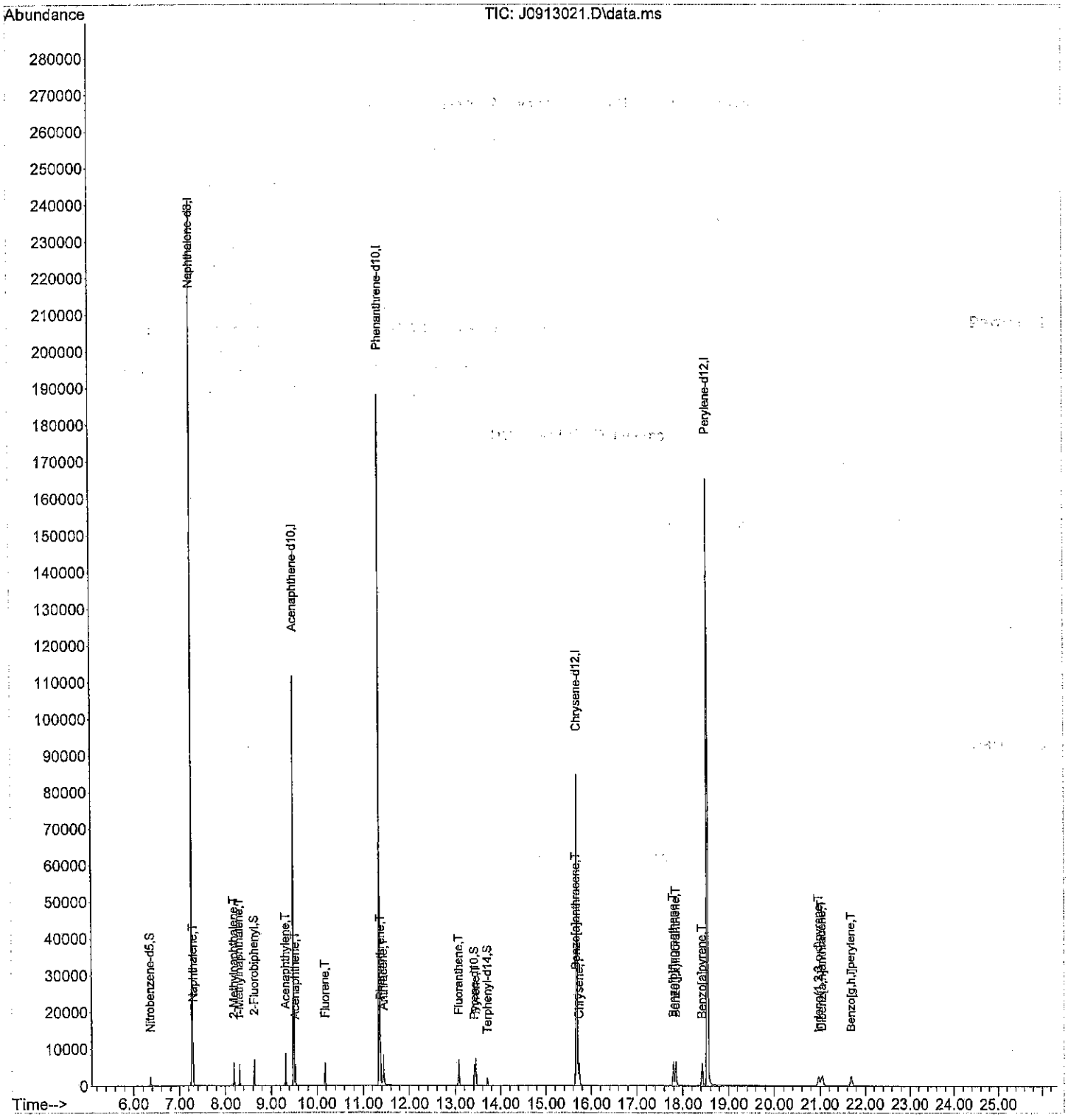
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	240758	2000.00	ppb	0.00
6) Acenaphthene-d10	9.492	164	109358	2000.00	ppb	0.00
10) Phenanthrene-d10	11.355	188	201477	2000.00	ppb	0.00
17) Chrysene-d12	15.685	240	135517	2000.00	ppb	0.00
21) Perylene-d12	18.533	264	306770	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.362	82	2733	86.72	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery =	8.67%#		
7) 2-Fluorobiphenyl	8.633	172	6705	88.39	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery =	8.84%#		
11) Pyrene-d10	13.418	212	7923	88.03	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	8.80%#		
18) Terphenyl-d14	13.707	244	2756	88.55	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery =	8.86%#		
Target Compounds						Qvalue
3) Naphthalene	7.300	128	9449	97.00	ppb	100
4) 2-Methylnaphthalene	8.177	142	5907	96.00	ppb	100
5) 1-Methylnaphthalene	8.303	142	5398	95.88	ppb	100
8) Acenaphthylene	9.315	152	8370	94.52	ppb	100
9) Acenaphthene	9.527	153	5756	97.82	ppb	100
12) Fluorene	10.178	166	6164	97.30	ppb	100
13) Phenanthrene	11.378	178	9848	97.36	ppb	100
14) Anthracene	11.442	178	9015	96.81	ppb	100
15) Fluoranthene	13.074	202	9465	96.06	ppb	100
16) Pyrene	13.449	202	9955	94.64	ppb	100
19) Benzo[a]anthracene	15.661	228	8666	97.74	ppb	100
20) Chrysene	15.732	228	8658	99.42	ppb	100
22) Benzo[b]fluoranthene	17.796	252	11549	96.39	ppb	100
23) Benzo(j,k)fluoranthene	17.851	252	11770	96.77	ppb	100
24) Benzo[a]pyrene	18.420	252	11129	96.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.968	276	7364	95.25	ppb	100
26) Dibenz[a,h]anthracene	21.038	278	7350	97.31	ppb	100
27) Benzo[g,h,i]perylene	21.694	276	8039	96.71	ppb	100

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

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913021.D
Acq On : 14 Sep 2018 12:40 am
Operator :
Sample : 100 PPB PAH ICAL
Misc : SV5-055-16
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 14 07:44:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



PAH0913.M Fri Sep 14 07:44:06 2018 JESSIE

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913022.D
Acq On : 14 Sep 2018 1:14 am
Operator :
Sample : 200 PPB PAH ICAL
Misc : SV5-055-15
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 14 07:44:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

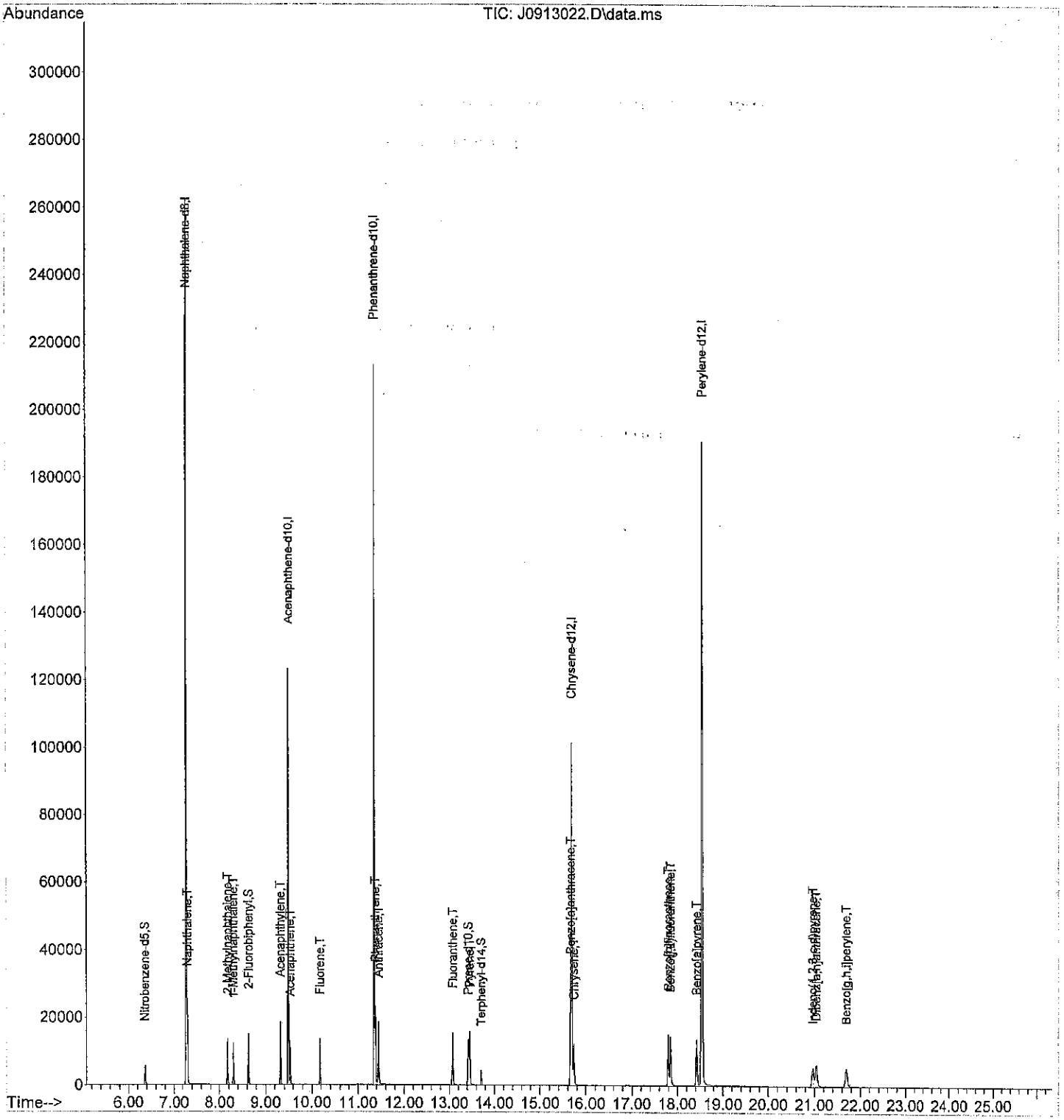
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	264550	2000.00	ppb	0.00
6) Acenaphthene-d10	9.492	164	120994	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	225207	2000.00	ppb	0.00
17) Chrysene-d12	15.681	240	152803	2000.00	ppb	0.00
21) Perylene-d12	18.534	264	346279	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.360	82	6102	176.21	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 17.62%#			
7) 2-Fluorobiphenyl	8.633	172	14886	177.36	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 17.74%#			
11) Pyrene-d10	13.418	212	17673	175.66	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 17.57%#			
18) Terphenyl-d14	13.707	244	6084	184.79	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 18.48%#			
Target Compounds						Qvalue
3) Naphthalene	7.300	128	20779	194.13	ppb	100
4) 2-Methylnaphthalene	8.177	142	13149	194.48	ppb	100
5) 1-Methylnaphthalene	8.301	142	12061	194.96	ppb	100
8) Acenaphthylene	9.315	152	18651	190.37	ppb	100
9) Acenaphthene	9.527	153	12680	194.77	ppb	100
12) Fluorene	10.178	166	13721	193.77	ppb	100
13) Phenanthrene	11.379	178	21479	189.98	ppb	100
14) Anthracene	11.443	178	19976	191.91	ppb	100
15) Fluoranthene	13.074	202	21090	191.49	ppb	100
16) Pyrene	13.445	202	23133	196.76	ppb	100
19) Benzo[a]anthracene	15.662	228	18515	191.06	ppb	100
20) Chrysene	15.732	228	19258	196.12	ppb	100
22) Benzo[b]fluoranthene	17.796	252	25892	191.45	ppb	100
23) Benzo(j,k)fluoranthene	17.847	252	26117	190.23	ppb	100
24) Benzo[a]pyrene	18.420	252	24593	188.89	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.964	276	16396	187.88	ppb	100
26) Dibenz[a,h]anthracene	21.039	278	16264	190.76	ppb	100
27) Benzo[g,h,i]perylene	21.694	276	17578	187.33	ppb	100

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

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913022.D
Acq On : 14 Sep 2018 1:14 am
Operator :
Sample : 200 PPB PAH ICAL
Misc : SV5-055-15
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 14 07:44:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913023.D
Acq On : 14 Sep 2018 1:48 am
Operator :
Sample : 500 PPB PAH ICAL
Misc : SV5-055-14
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 14 07:44:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

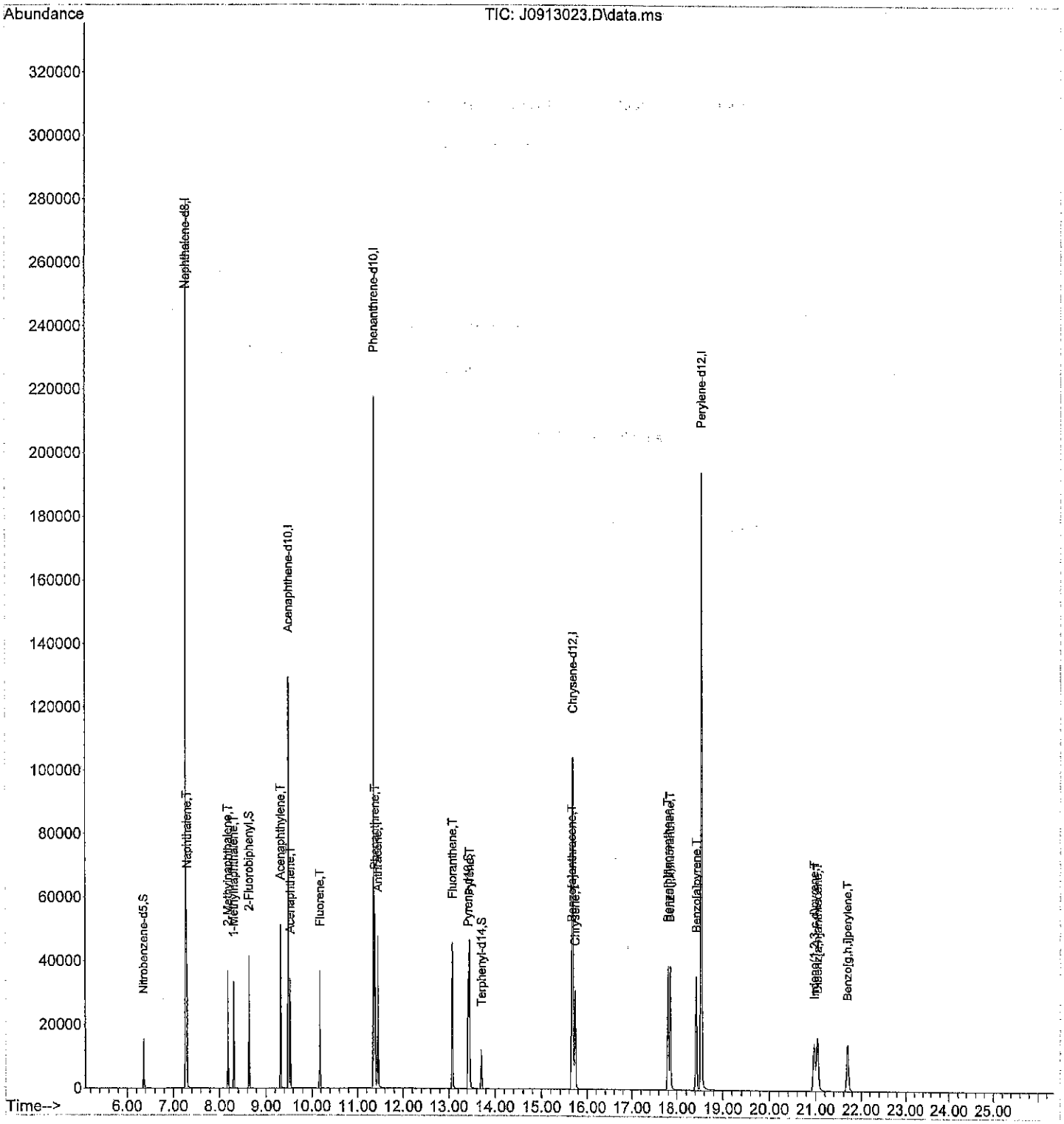
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	280661	2000.00	ppb	0.00
6) Acenaphthene-d10	9.488	164	129339	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	236447	2000.00	ppb	0.00
17) Chrysene-d12	15.681	240	162214	2000.00	ppb	0.00
21) Perylene-d12	18.534	264	365842	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.360	82	16424	447.05	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 44.70%			
7) 2-Fluorobiphenyl	8.633	172	39671	442.18	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 44.22%			
11) Pyrene-d10	13.418	212	48281	457.08	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 45.71%			
18) Terphenyl-d14	13.707	244	16082	477.87	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 47.79%#			
Target Compounds						Qvalue
3) Naphthalene	7.300	128	54600	480.82	ppb	100
4) 2-Methylnaphthalene	8.175	142	35033	488.41	ppb	100
5) 1-Methylnaphthalene	8.301	142	32116	489.33	ppb	100
8) Acenaphthylene	9.315	152	50643	483.57	ppb	100
9) Acenaphthene	9.527	153	33675	483.89	ppb	100
12) Fluorene	10.178	166	36942	496.90	ppb	100
13) Phenanthrene	11.379	178	56540	476.32	ppb	100
14) Anthracene	11.443	178	54103	495.05	ppb	100
15) Fluoranthene	13.074	202	56851	491.65	ppb	100
16) Pyrene	13.445	202	62042	502.61	ppb	100
19) Benzo[a]anthracene	15.658	228	49018	486.27	ppb	100
20) Chrysene	15.732	228	51354	492.64	ppb	100
22) Benzo[b]fluoranthene	17.796	252	68384	478.60	ppb	100
23) Benzo(j,k)fluoranthene	17.847	252	71896	495.67	ppb	100
24) Benzo[a]pyrene	18.424	252	66322	482.16	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.968	276	44246	479.91	ppb	100
26) Dibenz[a,h]anthracene	21.039	278	43719	485.37	ppb	100
27) Benzo[g,h,i]perylene	21.694	276	46928	473.37	ppb	100

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

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913023.D
Acq On : 14 Sep 2018 1:48 am
Operator :
Sample : 500 PPB PAH ICAL
Misc : SV5-055-14
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 14 07:44:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913024.D
Acq On : 14 Sep 2018 2:22 am
Operator :
Sample : 1000 PPB PAH ICAL
Misc : SV5-055-13
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 14 07:44:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

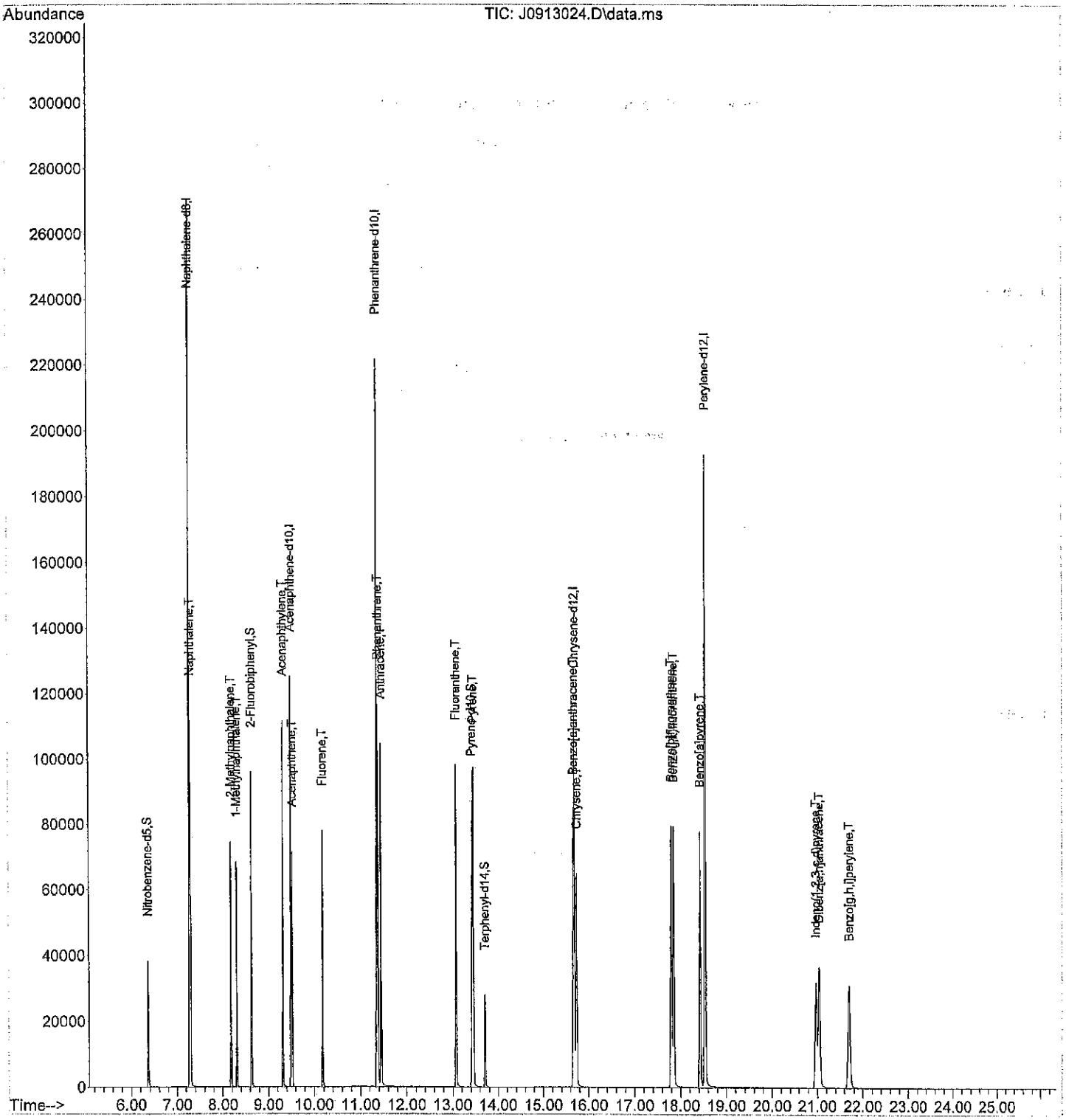
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	273315	2000.00	ppb	0.00
6) Acenaphthene-d10	9.492	164	126372	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	230831	2000.00	ppb	0.00
17) Chrysene-d12	15.681	240	159308	2000.00	ppb	0.00
21) Perylene-d12	18.534	264	357289	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.360	82	39628	1107.64	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 110.76%#			
7) 2-Fluorobiphenyl	8.631	172	93137	1062.48	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 106.25%#			
11) Pyrene-d10	13.418	212	116337	1128.17	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 112.82%#			
18) Terphenyl-d14	13.705	244	37945	1164.82	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 116.48%#			
Target Compounds						Qvalue
3) Naphthalene	7.297	128	110890	1002.76	ppb	100
4) 2-Methylnaphthalene	8.177	142	71812	1028.08	ppb	100
5) 1-Methylnaphthalene	8.301	142	66438	1039.49	ppb	100
8) Acenaphthylene	9.315	152	108651	1061.83	ppb	100
9) Acenaphthene	9.527	153	68977	1014.43	ppb	100
12) Fluorene	10.178	166	76468	1053.58	ppb	100
13) Phenanthrene	11.379	178	115758	998.93	ppb	100
14) Anthracene	11.443	178	113181	1060.82	ppb	100
15) Fluoranthene	13.074	202	119738	1060.70	ppb	100
16) Pyrene	13.449	202	130194	1080.38	ppb	100
19) Benzo[a]anthracene	15.662	228	101744	1035.04	ppb	100
20) Chrysene	15.732	228	105760	1033.07	ppb	100
22) Benzo[b]fluoranthene	17.792	252	143619	1029.20	ppb	100
23) Benzo(j,k)fluoranthene	17.847	252	150579	1062.99	ppb	100
24) Benzo[a]pyrene	18.420	252	139793	1040.62	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.964	276	91214	1013.02	ppb	100
26) Dibenz[a,h]anthracene	21.039	278	91263	1037.46	ppb	100
27) Benzo[g,h,i]perylene	21.698	276	97817	1010.32	ppb	100

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

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913024.D
Acq On : 14 Sep 2018 2:22 am
Operator :
Sample : 1000 PPB PAH ICAL
Misc : SV5-055-13
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 14 07:44:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913025.D
Acq On : 14 Sep 2018 2:56 am
Operator :
Sample : 5000 PPB PAH ICAL
Misc : SV5-055-12
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 14 07:44:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

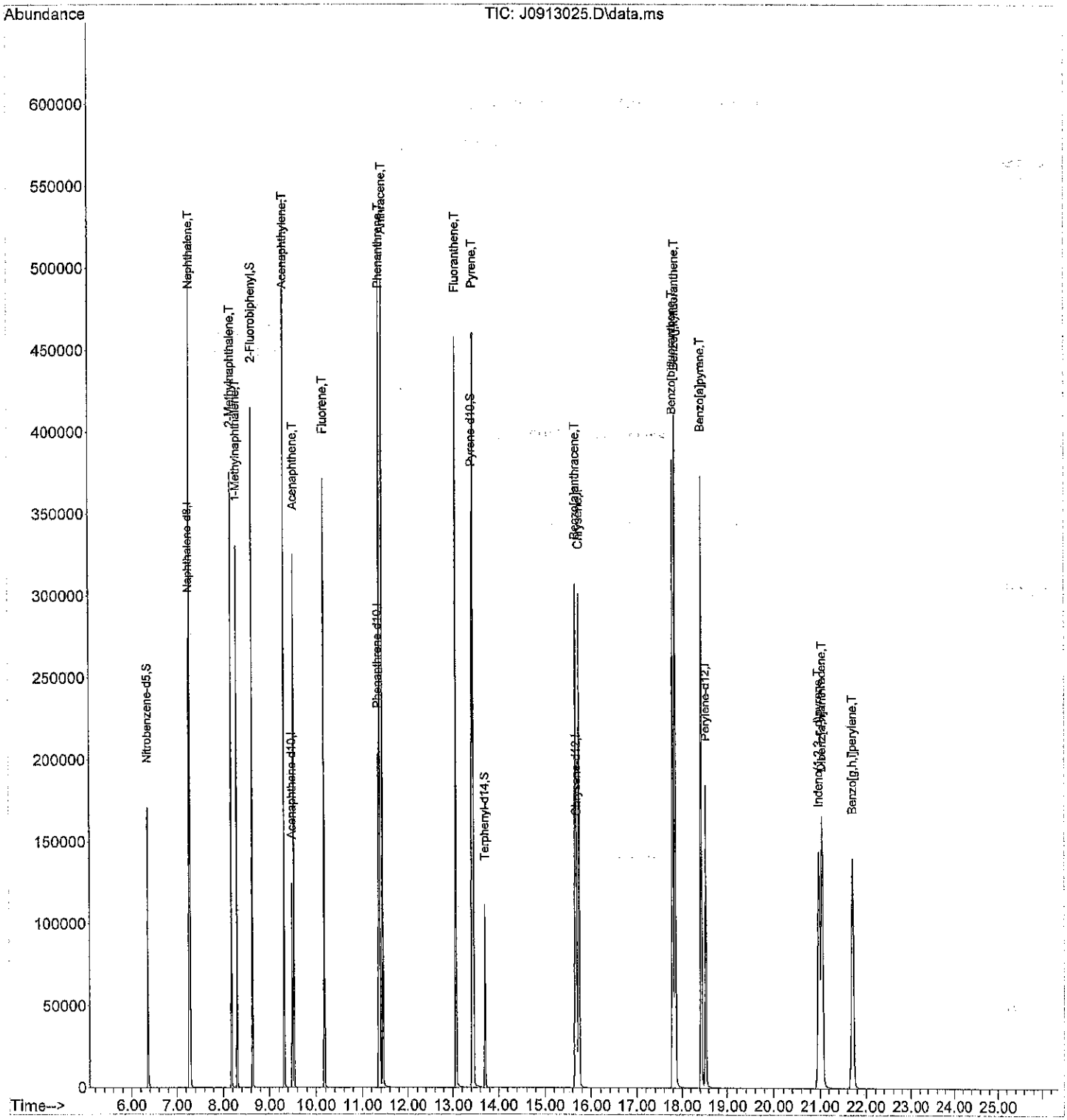
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	270216	2000.00	ppb	0.00
6) Acenaphthene-d10	9.492	164	124486	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	223751	2000.00	ppb	0.00
17) Chrysene-d12	15.685	240	158628	2000.00	ppb	0.00
21) Perylene-d12	18.538	264	341254	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.360	82	170416	4817.91	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 481.79%#			
7) 2-Fluorobiphenyl	8.633	172	390851	4526.28	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 452.63%#			
11) Pyrene-d10	13.422	212	475947	4761.49	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 476.15%#			
18) Terphenyl-d14	13.709	244	156922	4875.36	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 487.54%#			
Target Compounds						Qvalue
3) Naphthalene	7.301	128	519342	4750.18	ppb	100
4) 2-Methylnaphthalene	8.177	142	348962	5053.13	ppb	100
5) 1-Methylnaphthalene	8.301	142	320017	5064.40	ppb	100
8) Acenaphthylene	9.315	152	535725	5314.87	ppb	100
9) Acenaphthene	9.531	153	321457	4799.22	ppb	100
12) Fluorene	10.178	166	365843	5200.11	ppb	100
13) Phenanthrene	11.379	178	524683	4671.00	ppb	100
14) Anthracene	11.448	178	538115	5203.20	ppb	100
15) Fluoranthene	13.075	202	568912	5199.16	ppb	100
16) Pyrene	13.449	202	602147	5154.88	ppb	100
19) Benzo[a]anthracene	15.666	228	485933	4989.45	ppb	100
20) Chrysene	15.736	228	482968	4737.90	ppb	100
22) Benzo[b]fluoranthene	17.800	252	692052	5192.42	ppb	100
23) Benzo(j,k)fluoranthene	17.855	252	708785	5238.66	ppb	100
24) Benzo[a]pyrene	18.424	252	668030	5206.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.980	276	438439	5098.11	ppb	100
26) Dibenz[a,h]anthracene	21.050	278	429450	5111.30	ppb	100
27) Benzo[g,h,i]perylene	21.714	276	451960	4887.52	ppb	100

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

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913025.D
Acq On : 14 Sep 2018 2:56 am
Operator :
Sample : 5000 PPB PAH ICAL
Misc : SV5-055-12
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 14 07:44:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913027.D
Acq On : 14 Sep 2018 4:04 am
Operator :
Sample : PAH ICV0813-1
Misc : SV5-054-26
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 14 06:59:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	74	0.00
2	S	Nitrobenzene-d5	500.000	488.000	2.4	80	0.00
3	T	Naphthalene	500.000	508.850	-1.8	78	0.00
4	T	2-Methylnaphthalene	500.000	496.138	0.8	75	0.00
5	T	1-Methylnaphthalene	500.000	525.584	-5.1	79	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	73	0.00
7	S	2-Fluorobiphenyl	500.000	488.763	2.2	81	0.00
8	T	Acenaphthylene	500.000	520.646	-4.1	78	0.00
9	T	Acenaphthene	500.000	513.487	-2.7	77	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	73	0.00
11	S	Pyrene-d10	500.000	507.793	-1.6	81	0.00
12	T	Fluorene	500.000	530.723	-6.1	78	0.00
13	T	Phenanthrene	500.000	499.452	0.1	76	0.00
14	T	Anthracene	500.000	495.322	0.9	73	0.00
15	T	Fluoranthene	500.000	519.692	-3.9	77	0.00
16	T	Pyrene	500.000	563.879	-12.8	82	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	72	0.00
18	S	Terphenyl-d14	500.000	584.652	-16.9	88	0.00
19	T	Benzo[a]anthracene	500.000	508.933	-1.8	75	0.00
20	T	Chrysene	500.000	513.429	-2.7	75	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	72	0.00
22	T	Benzo[b]fluoranthene	500.000	513.191	-2.6	77	0.00
23	T	Benzo(j,k)fluoranthene	500.000	538.106	-7.6	78	0.00
24	T	Benzo[a]pyrene	500.000	483.672	3.3	72	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	511.748	-2.3	76	-0.02
26	T	Dibenz[a,h]anthracene	500.000	525.160	-5.0	78	-0.02
27	T	Benzo[g,h,i]perylene	500.000	512.333	-2.5	78	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913027.D
Acq On : 14 Sep 2018 4:04 am
Operator :
Sample : PAH ICV0813-1
Misc : SV5-054-26
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 14 06:59:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	206937	2000.00	ppb	0.00
6) Acenaphthene-d10	9.488	164	94264	2000.00	ppb	0.00
10) Phenanthrene-d10	11.350	188	172401	2000.00	ppb	0.00
17) Chrysene-d12	15.681	240	116634	2000.00	ppb	0.00
21) Perylene-d12	18.534	264	262067	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.360	82	13219	488.00	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 48.80%			
7) 2-Fluorobiphenyl	8.631	172	31959	488.76	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 48.88%			
11) Pyrene-d10	13.418	212	39109	507.79	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 50.78%			
18) Terphenyl-d14	13.705	244	14084	584.65	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 58.47%			
Target Compounds						Qvalue
3) Naphthalene	7.297	128	42605	508.85	ppb	100
4) 2-Methylnaphthalene	8.175	142	26239	496.14	ppb	100
5) 1-Methylnaphthalene	8.301	142	25434	525.58	ppb	100
8) Acenaphthylene	9.315	152	39739	520.65	ppb	100
9) Acenaphthene	9.527	153	26044	513.49	ppb	100
12) Fluorene	10.178	166	28769	530.72	ppb	100
13) Phenanthrene	11.379	178	43227	499.45	ppb	100
14) Anthracene	11.443	178	39470	495.32	ppb	100
15) Fluoranthene	13.074	202	43816	519.69	ppb	100
16) Pyrene	13.445	202	50751	563.88	ppb	100
19) Benzo[a]anthracene	15.658	228	36865	508.93	ppb	100
20) Chrysene	15.728	228	38482	513.43	ppb	100
22) Benzo[b]fluoranthene	17.792	252	52527	513.19	ppb	100
23) Benzo(j,k)fluoranthene	17.847	252	55911	538.11	ppb	100
24) Benzo[a]pyrene	18.420	252	47658	483.67	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.964	276	33798	511.75	ppb	100
26) Dibenz[a,h]anthracene	21.035	278	33885	525.16	ppb	100
27) Benzo[g,h,i]perylene	21.694	276	36383	512.33	ppb	100

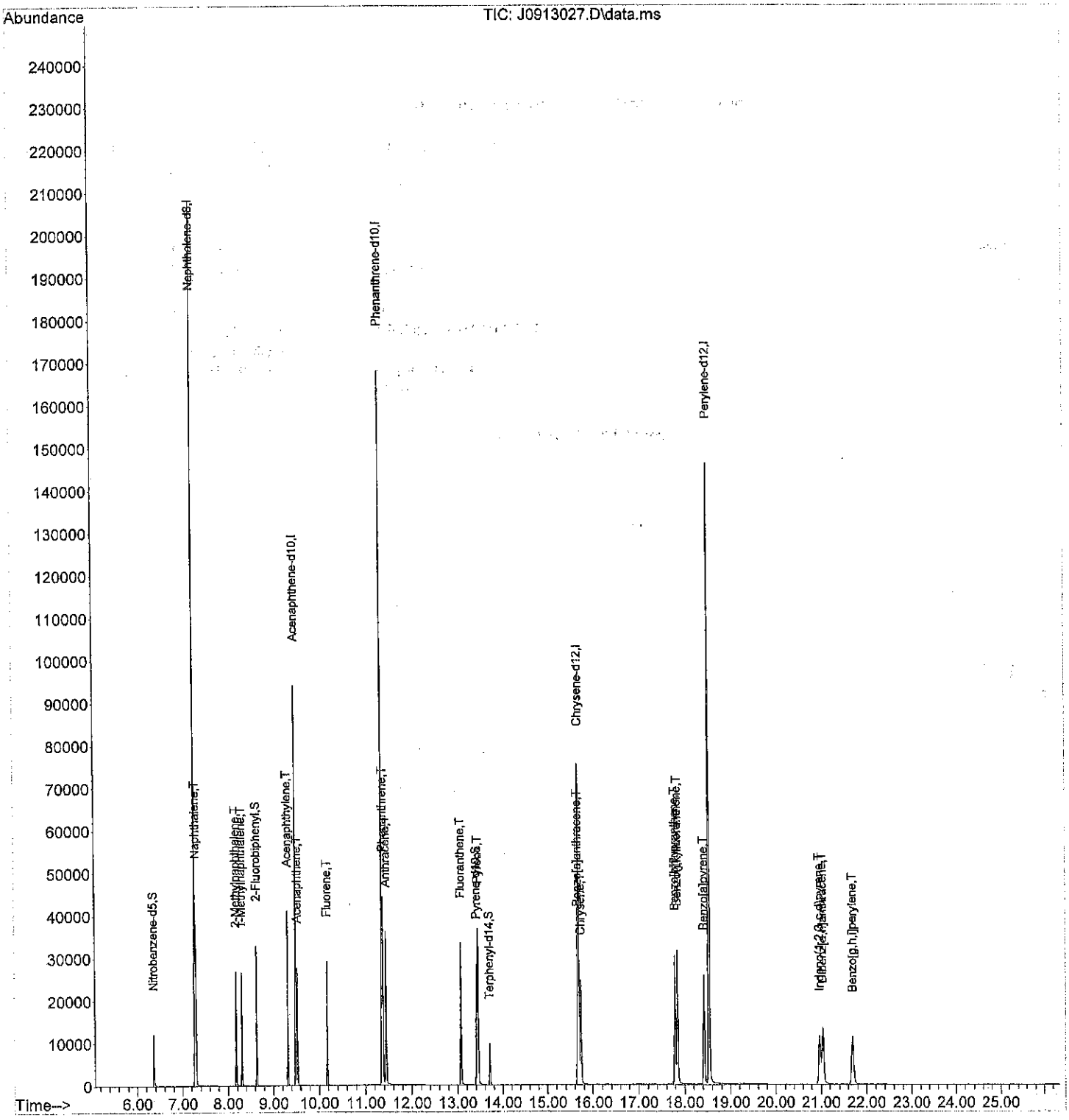
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
9-14-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913027.D
Acq On : 14 Sep 2018 4:04 am
Operator :
Sample : PAH ICV0813-1
Misc : SV5-054-26
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 14 06:59:48 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\JESSIE\DATA\J180914\
Data File : J0914002.D
Acq On : 14 Sep 2018 7:47 am
Operator :
Sample : PAH CCV0914-1
Misc : SV5-055-20
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 14 08:14:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	73	0.00
2	S	Nitrobenzene-d5	500.000	447.947	10.4	74	0.00
3	T	Naphthalene	500.000	491.051	1.8	75	0.00
4	T	2-Methylnaphthalene	500.000	497.559	0.5	75	0.00
5	T	1-Methylnaphthalene	500.000	502.009	-0.4	75	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	72	0.00
7	S	2-Fluorobiphenyl	500.000	458.065	8.4	75	0.00
8	T	Acenaphthylene	500.000	505.241	-1.0	76	0.00
9	T	Acenaphthene	500.000	502.835	-0.6	75	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	74	0.00
11	S	Pyrene-d10	500.000	459.439	8.1	75	0.00
12	T	Fluorene	500.000	499.441	0.1	75	0.00
13	T	Phenanthrene	500.000	488.579	2.3	76	0.00
14	T	Anthracene	500.000	497.266	0.5	75	0.00
15	T	Fluoranthene	500.000	494.849	1.0	75	0.00
16	T	Pyrene	500.000	511.133	-2.2	76	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	74	0.00
18	S	Terphenyl-d14	500.000	467.724	6.5	72	0.00
19	T	Benzo[a]anthracene	500.000	483.911	3.2	74	0.00
20	T	Chrysene	500.000	502.750	-0.5	75	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	75	0.00
22	T	Benzo[b]fluoranthene	500.000	475.648	4.9	75	0.00
23	T	Benzo(j,k)fluoranthene	500.000	494.899	1.0	75	0.00
24	T	Benzo[a]pyrene	500.000	473.004	5.4	74	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	468.190	6.4	73	-0.02
26	T	Dibenz[a,h]anthracene	500.000	477.646	4.5	74	-0.02
27	T	Benzo[g,h,i]perylene	500.000	468.691	6.3	74	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914002.D
Acq On : 14 Sep 2018 7:47 am
Operator :
Sample : PAH CCV0914-1
Misc : SV5-055-20
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 14 08:14:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

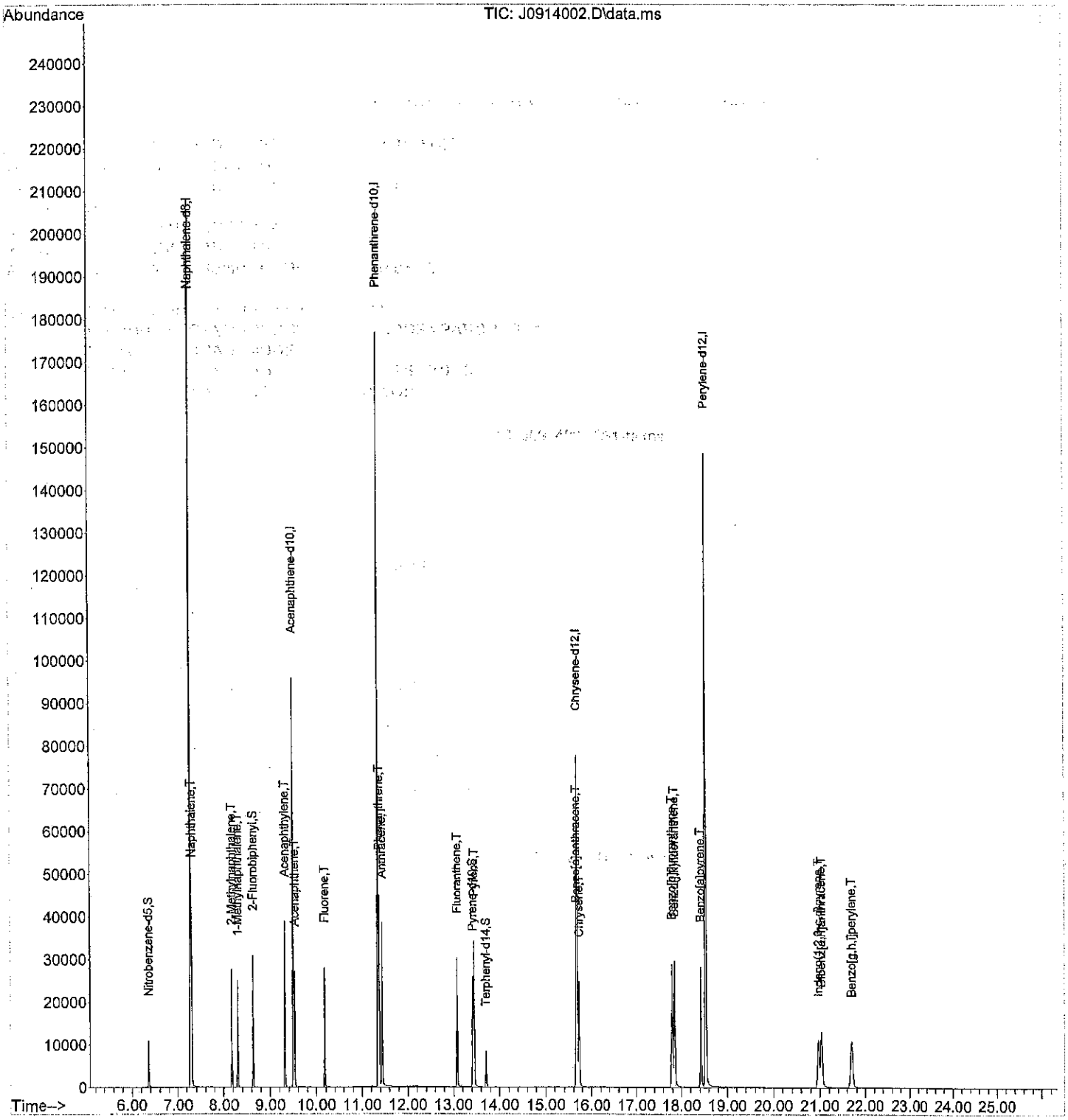
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.273	136	206118	2000.00	ppb	0.00
6) Acenaphthene-d10	9.488	164	93755	2000.00	ppb	0.00
10) Phenanthrene-d10	11.349	188	175895	2000.00	ppb	0.00
17) Chrysene-d12	15.677	240	119811	2000.00	ppb	0.00
21) Perylene-d12	18.533	264	274871	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	6.358	82	12086	447.95	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 44.80%			
7) 2-Fluorobiphenyl	8.631	172	29790	458.06	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 45.81%			
11) Pyrene-d10	13.418	212	36102	459.44	ug/L	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 45.94%			
18) Terphenyl-d14	13.703	244	11632	467.72	ppb	0.00
Spiked Amount 1000.000	Range 48 - 112		Recovery = 46.77%#			
Target Compounds						Qvalue
3) Naphthalene	7.297	128	40952	491.05	ppb	100
4) 2-Methylnaphthalene	8.175	142	26210	497.56	ppb	100
5) 1-Methylnaphthalene	8.301	142	24197	502.01	ppb	100
8) Acenaphthylene	9.315	152	38355	505.24	ppb	100
9) Acenaphthene	9.527	153	25366	502.84	ppb	100
12) Fluorene	10.176	166	27622	499.44	ppb	100
13) Phenanthrene	11.379	178	43143	488.58	ppb	100
14) Anthracene	11.442	178	40428	497.27	ppb	100
15) Fluoranthene	13.074	202	42567	494.85	ppb	100
16) Pyrene	13.445	202	46936	511.13	ppb	100
19) Benzo[a]anthracene	15.658	228	36031	483.91	ppb	100
20) Chrysene	15.728	228	38708	502.75	ppb	100
22) Benzo[b]fluoranthene	17.792	252	51063	475.65	ppb	100
23) Benzo(j,k)fluoranthene	17.847	252	53934	494.90	ppb	100
24) Benzo[a]pyrene	18.416	252	48884	473.00	ppb	100
25) Indeno(1,2,3-c,d)pyrene	20.964	276	32432	468.19	ppb	100
26) Dibenz[a,h]anthracene	21.035	278	32325	477.65	ppb	100
27) Benzo[g,h,i]perylene	21.690	276	34910	468.69	ppb	100

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

ZT
9-14-18

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914002.D
Acq On : 14 Sep 2018 7:47 am
Operator :
Sample : PAH CCV0914-1
Misc : SV5-055-20
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 14 08:14:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180916\
Data File : J0916002.D
Acq On : 16 Sep 2018 2:04 pm
Operator :
Sample : PAH CCV0916-1
Misc : SV5-055-22
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 16 14:30:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	83	0.01
2	S	Nitrobenzene-d5	500.000	469.902	6.0	87	0.01
3	T	Naphthalene	500.000	490.150	2.0	85	0.01
4	T	2-Methylnaphthalene	500.000	508.157	-1.6	86	0.01
5	T	1-Methylnaphthalene	500.000	511.721	-2.3	87	0.01
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	83	0.01
7	S	2-Fluorobiphenyl	500.000	456.179	8.8	86	0.01
8	T	Acenaphthylene	500.000	537.355	-7.5	93	0.02
9	T	Acenaphthene	500.000	502.958	-0.6	87	0.02
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	83	0.02
11	S	Pyrene-d10	500.000	518.365	-3.7	94	0.03
12	T	Fluorene	500.000	524.973	-5.0	88	0.02
13	T	Phenanthrene	500.000	494.983	1.0	86	0.02
14	T	Anthracene	500.000	546.067	-9.2	91	0.02
15	T	Fluoranthene	500.000	548.202	-9.6	92	0.03
16	T	Pyrene	500.000	535.853	-7.2	88	0.03
17	I	Chrysene-d12	2000.000	2000.000	0.0	85	0.04
18	S	Terphenyl-d14	500.000	527.363	-5.5	93	0.02
19	T	Benzo[a]anthracene	500.000	548.955	-9.8	95	0.04
20	T	Chrysene	500.000	512.361	-2.5	88	0.04
21	I	Perylene-d12	2000.000	2000.000	0.0	87	0.05
22	T	Benzo[b]fluoranthene	500.000	534.319	-6.9	97	0.04
23	T	Benzo(j,k)fluoranthene	500.000	540.328	-8.1	95	0.04
24	T	Benzo[a]pyrene	500.000	546.207	-9.2	99	0.05
25	T	Indeno(1,2,3-c,d)pyrene	500.000	546.103	-9.2	99	0.08
26	T	Dibenz[a,h]anthracene	500.000	512.123	-2.4	92	0.07
27	T	Benzo[g,h,i]perylene	500.000	503.108	-0.6	93	0.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916002.D
Acq On : 16 Sep 2018 2:04 pm
Operator :
Sample : PAH CCV0916-1
Misc : SV5-055-22
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 16 14:30:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.285	136	232758	2000.00	ppb	0.01
6) Acenaphthene-d10	9.504	164	107722	2000.00	ppb	0.01
10) Phenanthrene-d10	11.373	188	196099	2000.00	ppb	0.02
17) Chrysene-d12	15.724	240	137205	2000.00	ppb	0.04
21) Perylene-d12	18.588	264	318489	2000.00	ppb	0.05
System Monitoring Compounds						
2) Nitrobenzene-d5	6.372	82	14317	469.90	ppb	0.01
Spiked Amount 1000.000	Range 36 - 99		Recovery = 46.99%			
7) 2-Fluorobiphenyl	8.645	172	34087	456.18	ppb	0.01
Spiked Amount 1000.000	Range 34 - 92		Recovery = 45.62%			
11) Pyrene-d10	13.449	212	45411	518.36	ug/L	0.03
Spiked Amount 1000.000	Range 40 - 110		Recovery = 51.84%			
18) Terphenyl-d14	13.733	244	14977	527.36	ppb	0.02
Spiked Amount 1000.000	Range 48 - 112		Recovery = 52.74%			
Target Compounds						Qvalue
3) Naphthalene	7.312	128	46160	490.15	ppb	100
4) 2-Methylnaphthalene	8.191	142	30228	508.16	ppb	100
5) 1-Methylnaphthalene	8.315	142	27853	511.72	ppb	100
8) Acenaphthylene	9.333	152	46870	537.36	ppb	100
9) Acenaphthene	9.547	153	29152	502.96	ppb	100
12) Fluorene	10.194	166	32369	524.97	ppb	100
13) Phenanthrene	11.402	178	48729	494.98	ppb	100
14) Anthracene	11.466	178	49495	546.07	ppb	100
15) Fluoranthene	13.102	202	52573	548.20	ppb	100
16) Pyrene	13.480	202	54858	535.85	ppb	100
19) Benzo[a]anthracene	15.701	228	46734	548.96	ppb	100
20) Chrysene	15.771	228	45175	512.36	ppb	100
22) Benzo[b]fluoranthene	17.843	252	66464	534.32	ppb	100
23) Benzo(j,k)fluoranthene	17.898	252	68229	540.33	ppb	100
24) Benzo[a]pyrene	18.471	252	65407	546.21	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.062	276	43832	546.10	ppb	100
26) Dibenz[a,h]anthracene	21.124	278	40158	512.12	ppb	100
27) Benzo[g,h,i]perylene	21.799	276	43420	503.11	ppb	100

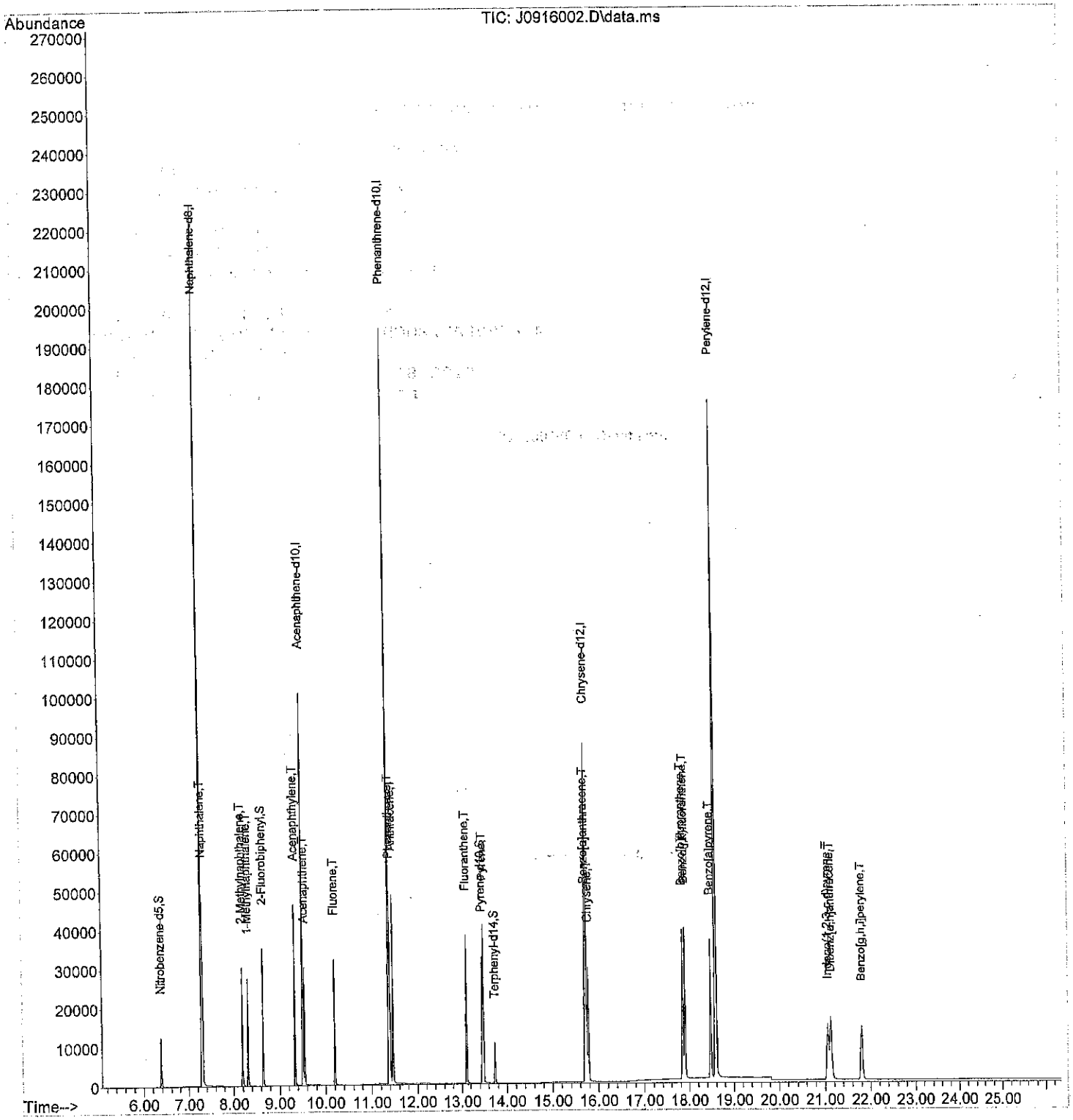
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-16-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916002.D
Acq On : 16 Sep 2018 2:04 pm
Operator :
Sample : PAH CCV0916-1
Misc : SV5-055-22
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 16 14:30:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\JESSIE\DATA\J180917\
Data File : J0917004.D
Acq On : 17 Sep 2018 11:27 am
Operator :
Sample : PAH CCV0917-1
Misc : SV5-056-04
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 17 11:53:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	70	0.00
2 S	Nitrobenzene-d5	500.000	384.504	23.1#	60	0.00
3 T	Naphthalene	500.000	417.427	16.5	60	0.00
4 T	2-Methylnaphthalene	500.000	420.571	15.9	60	0.00
5 T	1-Methylnaphthalene	500.000	423.631	15.3	60	0.00
6 I	Acenaphthene-d10	2000.000	2000.000	0.0	68	0.00
7 S	2-Fluorobiphenyl	500.000	389.379	22.1#	59	0.00
8 T	Acenaphthylene	500.000	477.060	4.6	67	0.00
9 T	Acenaphthene	500.000	432.915	13.4	60	0.00
10 I	Phenanthrene-d10	2000.000	2000.000	0.0	68	0.01
11 S	Pyrene-d10	500.000	423.310	15.3	63	0.01
12 T	Fluorene	500.000	446.931	10.6	61	0.00
13 T	Phenanthrene	500.000	418.847	16.2	59	0.01
14 T	Anthracene	500.000	462.036	7.6	63	0.00
15 T	Fluoranthene	500.000	454.640	9.1	62	0.02
16 T	Pyrene	500.000	456.815	8.6	61	0.01
17 I	Chrysene-d12	2000.000	2000.000	0.0	68	0.02
18 S	Terphenyl-d14	500.000	415.775	16.8	59	0.01
19 T	Benzo[a]anthracene	500.000	457.344	8.5	64	0.02
20 T	Chrysene	500.000	437.131	12.6	60	0.02
21 I	Perylene-d12	2000.000	2000.000	0.0	73	0.03
22 T	Benzo[b]fluoranthene	500.000	438.378	12.3	67	0.02
23 T	Benzo(j,k)fluoranthene	500.000	449.595	10.1	66	0.02
24 T	Benzo[a]pyrene	500.000	450.468	9.9	68	0.02
25 T	Indeno(1,2,3-c,d)pyrene	500.000	435.041	13.0	66	0.04
26 T	Dibenz[a,h]anthracene	500.000	421.630	15.7	63	0.03
27 T	Benzo[g,h,i]perylene	500.000	410.011	18.0	63	0.04

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180917\
Data File : J0917004.D
Acq On : 17 Sep 2018 11:27 am
Operator :
Sample : PAH CCV0917-1
Misc : SV5-056-04
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 17 11:53:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.281	136	195265	2000.00	ppb	0.00
6) Acenaphthene-d10	9.496	164	87372	2000.00	ppb	0.00
10) Phenanthrene-d10	11.361	188	159671	2000.00	ppb	0.01
17) Chrysene-d12	15.701	240	109794	2000.00	ppb	0.02
21) Perylene-d12	18.565	264	265661	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	6.366	82	9828	384.50	ppb	0.00
Spiked Amount 1000.000	Range 36 - 99		Recovery = 38.45%			
7) 2-Fluorobiphenyl	8.637	172	23599	389.38	ppb	0.00
Spiked Amount 1000.000	Range 34 - 92		Recovery = 38.94%			
11) Pyrene-d10	13.433	212	30195	423.31	ug/L	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 42.33%			
18) Terphenyl-d14	13.719	244	9505	415.78	ppb	0.01
Spiked Amount 1000.000	Range 48 - 112		Recovery = 41.58%#			
Target Compounds						Qvalue
3) Naphthalene	7.304	128	32979	417.43	ppb	100
4) 2-Methylnaphthalene	8.183	142	20988	420.57	ppb	100
5) 1-Methylnaphthalene	8.309	142	19344	423.63	ppb	100
8) Acenaphthylene	9.323	152	33750	477.06	ppb	100
9) Acenaphthene	9.535	153	20352	432.92	ppb	100
12) Fluorene	10.186	166	22438	446.93	ppb	100
13) Phenanthrene	11.390	178	33574	418.85	ppb	100
14) Anthracene	11.454	178	34099	462.04	ppb	100
15) Fluoranthene	13.090	202	35501	454.64	ppb	100
16) Pyrene	13.461	202	38079	456.82	ppb	100
19) Benzo[a]anthracene	15.681	228	31230	457.34	ppb	100
20) Chrysene	15.751	228	30842	437.13	ppb	100
22) Benzo[b]fluoranthene	17.819	252	45485	438.38	ppb	100
23) Benzo(j,k)fluoranthene	17.874	252	47355	449.59	ppb	100
24) Benzo[a]pyrene	18.448	252	44995	450.47	ppb	100
25) Indeno(1,2,3-c,d)pyrene	21.019	276	29126	435.04	ppb	100
26) Dibenz[a,h]anthracene	21.085	278	27578	421.63	ppb	100
27) Benzo[g,h,i]perylene	21.756	276	29516	410.01	ppb	100

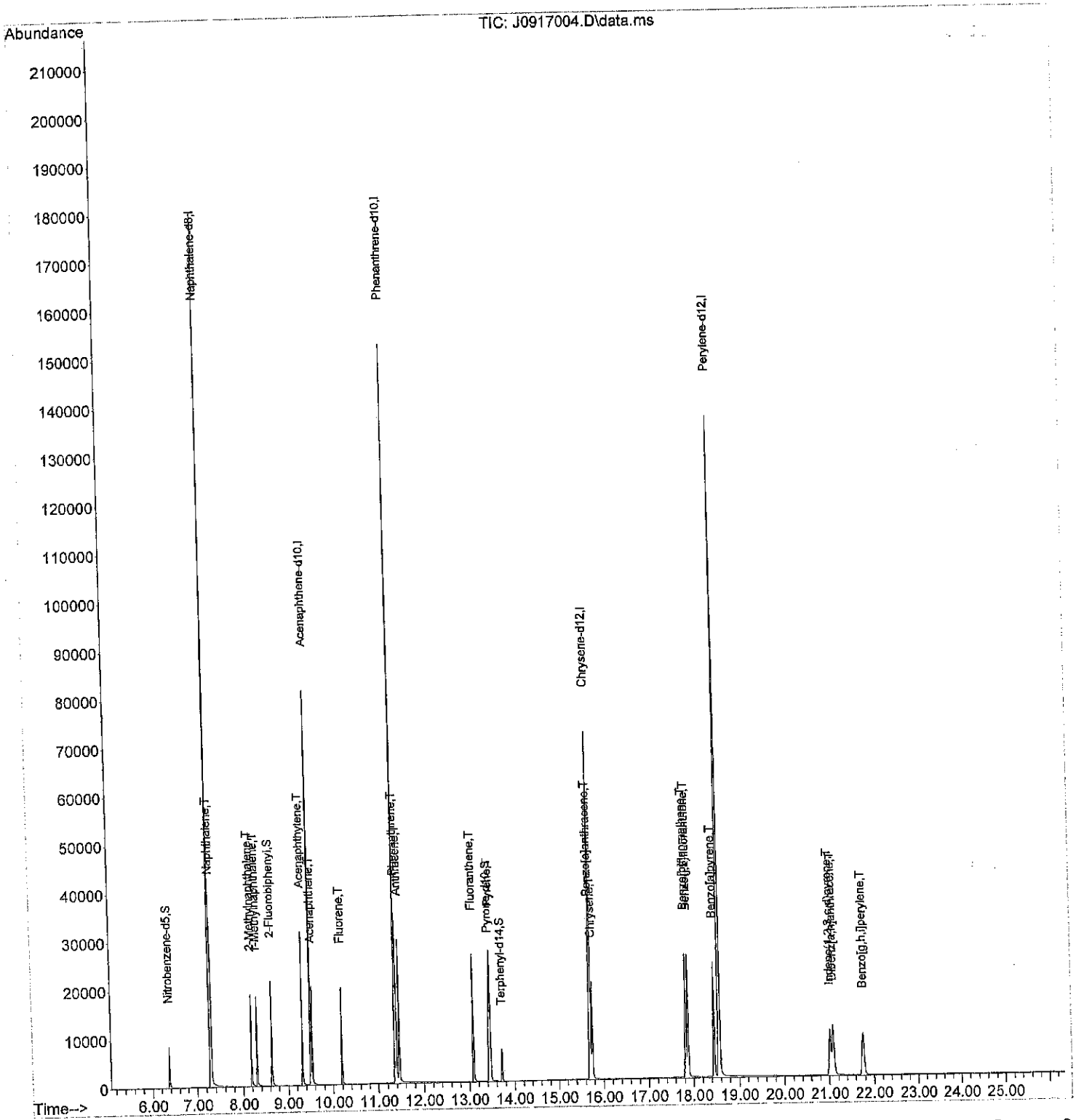
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-17-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180917\
Data File : J0917004.D
Acq On : 17 Sep 2018 11:27 am
Operator :
Sample : PAH CCV0917-1
Misc : SV5-056-04
ALS Vial : 4 Sample Multiplier: 1

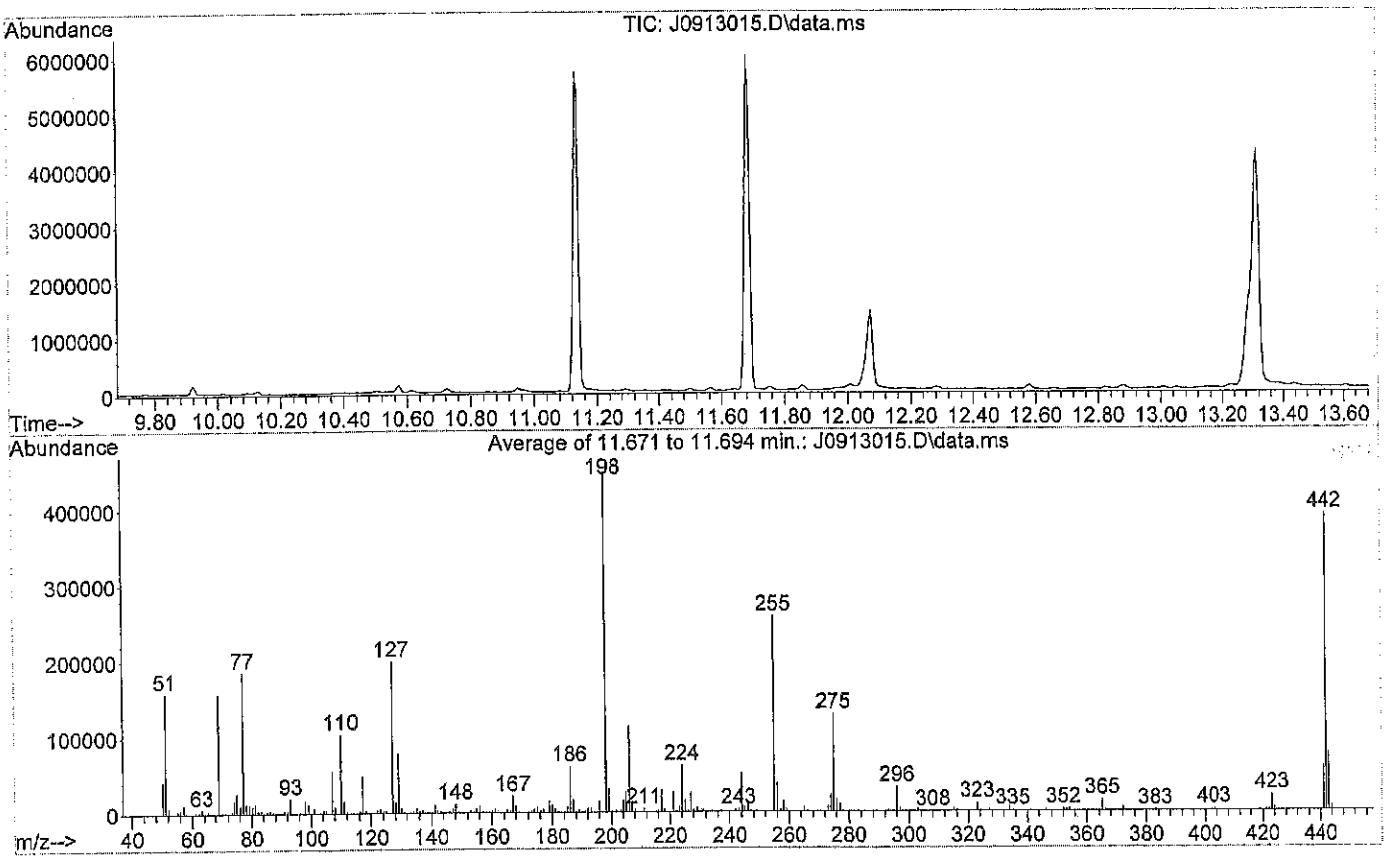
Quant Time: Sep 17 11:53:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Quant Title : SCAN MODE
QLast Update : Fri Sep 14 06:59:18 2018
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\JESSIE\DATA\J180913\
Data File : J0913015.D
Acq On : 13 Sep 2018 9:15 pm
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 15 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Title : SCAN MODE
Last Update : Thu Sep 13 19:56:34 2018



Spectrum Information: Average of 11.671 to 11.694 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	35.3	158577	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	35.1	157537	PASS
70	69	0.00	2	1.0	1633	PASS
127	198	10	80	44.5	199752	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	448908	PASS
199	198	5	9	6.9	31110	PASS
275	198	10	60	28.6	128219	PASS
365	198	1	100	3.4	15402	PASS
441	443	0.01	110	76.7	58764	PASS
442	198	50	110	87.1	391001	PASS
443	442	15	24	19.6	76656	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180913\
Data File : J0913015.D
Acq On : 13 Sep 2018 9:15 pm
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 13 21:42:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Quant Title : SCAN MODE
QLast Update : Sat Aug 13 11:53:25 2011
Response via : Initial Calibration

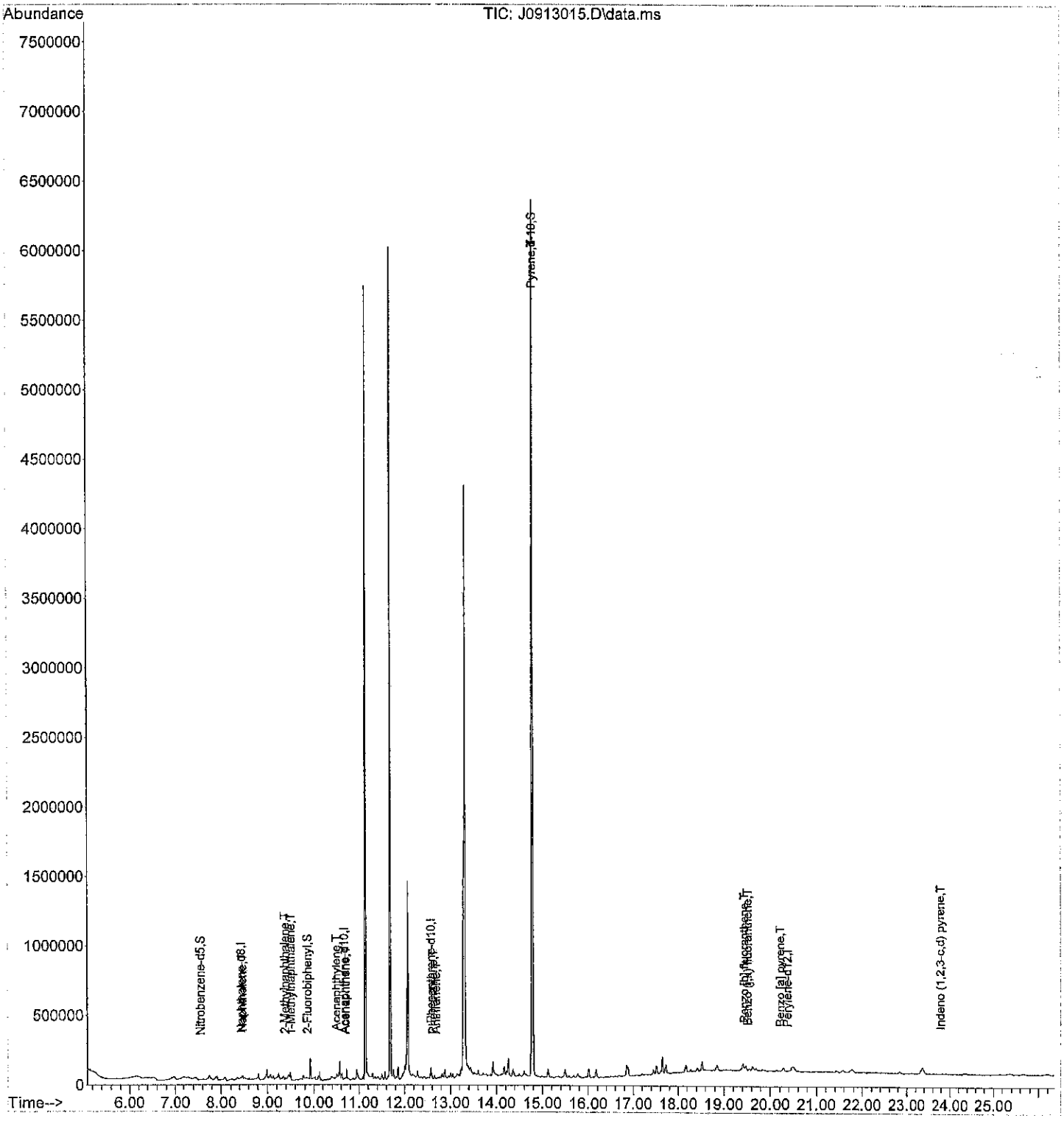
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	8.431	136	125	2000.00 ppb	0.00
6) Acenaphthene-d10	10.671	164	66	2000.00 ppb	0.00
10) Phenanthrene-d10	12.580	188	724	2000.00 ppb	0.00
17) Chrysene-d12	0.000	240	0	0.00 ppb	-17.25
21) Perylene-d12	20.370	264	52	2000.00 ppb	-0.05
System Monitoring Compounds					
2) Nitrobenzene-d5	7.556	82	452	20323.33 ppb	0.03
Spiked Amount 1000.000	Range 36 - 99		Recovery = 2032.33%#		
7) 2-Fluorobiphenyl	9.860	172	343	8547.79 ppb	0.06
Spiked Amount 1000.000	Range 34 - 92		Recovery = 854.78%#		
11) Pyrene d-10	14.786	212	211357	3110909.05 ug/L	-0.07
Spiked Amount 1000.000	Range 40 - 110		Recovery = 311090.90%#		
18) Terphenyl-d14	0.000	244	0	0.00 ppb	
Spiked Amount 1000.000	Range 48 - 112		Recovery = 0.00%#		
Target Compounds					Qvalue
3) Naphthalene	8.465	128	58	1020.26 ppb	100
4) 2-Methylnaphthalene	9.374	142	63	1673.75 ppb	100
5) 1-Methylnaphthalene	9.505	142	62	1644.46 ppb	100
8) Acenaphthylene	10.494	152	73	1522.09 ppb	100
9) Acenaphthene	10.700	153	236	7187.21 ppb	100
12) Fluorene	0.000		0	N.D.	
13) Phenanthrene	12.626	178	69	182.13 ppb	100
14) Anthranene	12.689	178	57	164.23 ppb	100
15) Fluoranthene	0.000		0	N.D.	
16) Pyrene	14.786	202	43999	108634.70 ppb	100
19) Benzo [a] anthracene	0.000		0	N.D.	
20) Chrysene	17.472	228	61	N.D.	
22) Benzo [b] fluoranthene	19.444	252	66	2494.76 ppb	100
23) Benzo (j,k) fluoranthene	19.519	252	158	5727.01 ppb	100
24) Benzo [a] pyrene	20.222	252	52	2143.31 ppb	100
25) Indeno (1,2,3-c,d) pyrene	23.788	276	52	1474.98 ppb	100
26) Dibenz [a,h] anthracene	0.000		0	N.D.	
27) Benzo [g,h,i] perylene	0.000		0	N.D.	
28) Pentachlorophenol	12.300	266	171	No Calib #	
29) Benzidine	14.558	184	476	No Calib	

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180913\
Data File : J0913015.D
Acq On : 13 Sep 2018 9:15 pm
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 15 Sample Multiplier: 1

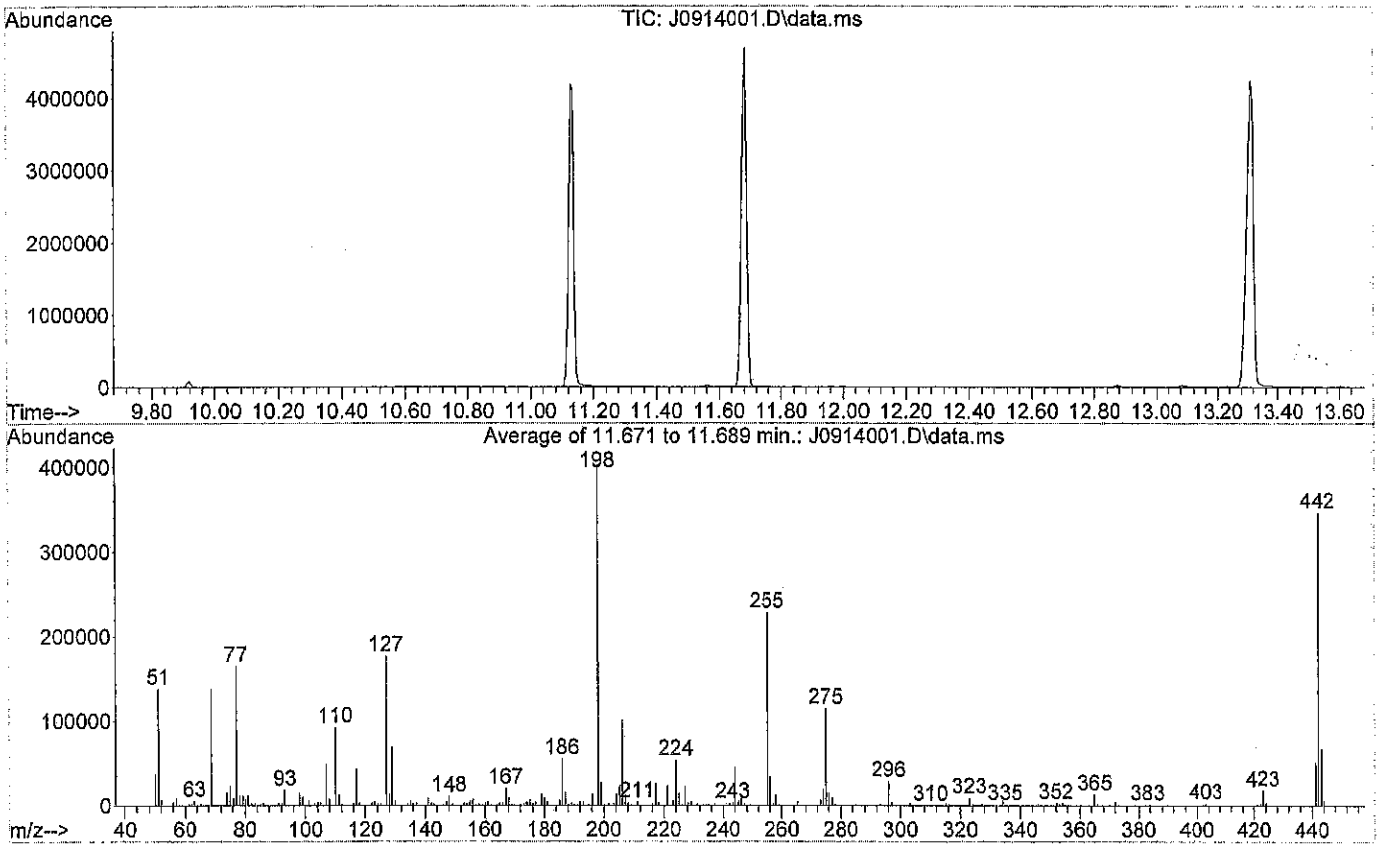
Quant Time: Sep 13 21:42:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Quant Title : SCAN MODE
QLast Update : Sat Aug 13 11:53:25 2011
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\JESSIE\DATA\J180914\
Data File : J0914001.D
Acq On : 14 Sep 2018 7:14 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\PAH0913.M
Title : SCAN MODE
Last Update : Fri Sep 14 06:59:18 2018



Spectrum Information: Average of 11.671 to 11.689 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.3	138148	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	34.2	137582	PASS
70	69	0.00	2	0.5	710	PASS
127	198	10	80	43.8	176556	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	402688	PASS
199	198	5	9	6.9	27662	PASS
275	198	10	60	28.5	114636	PASS
365	198	1	100	3.2	13074	PASS
441	443	0.01	110	75.4	51278	PASS
442	198	50	110	86.0	346256	PASS
443	442	15	24	19.7	68042	PASS

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914001.D
Acq On : 14 Sep 2018 7:14 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

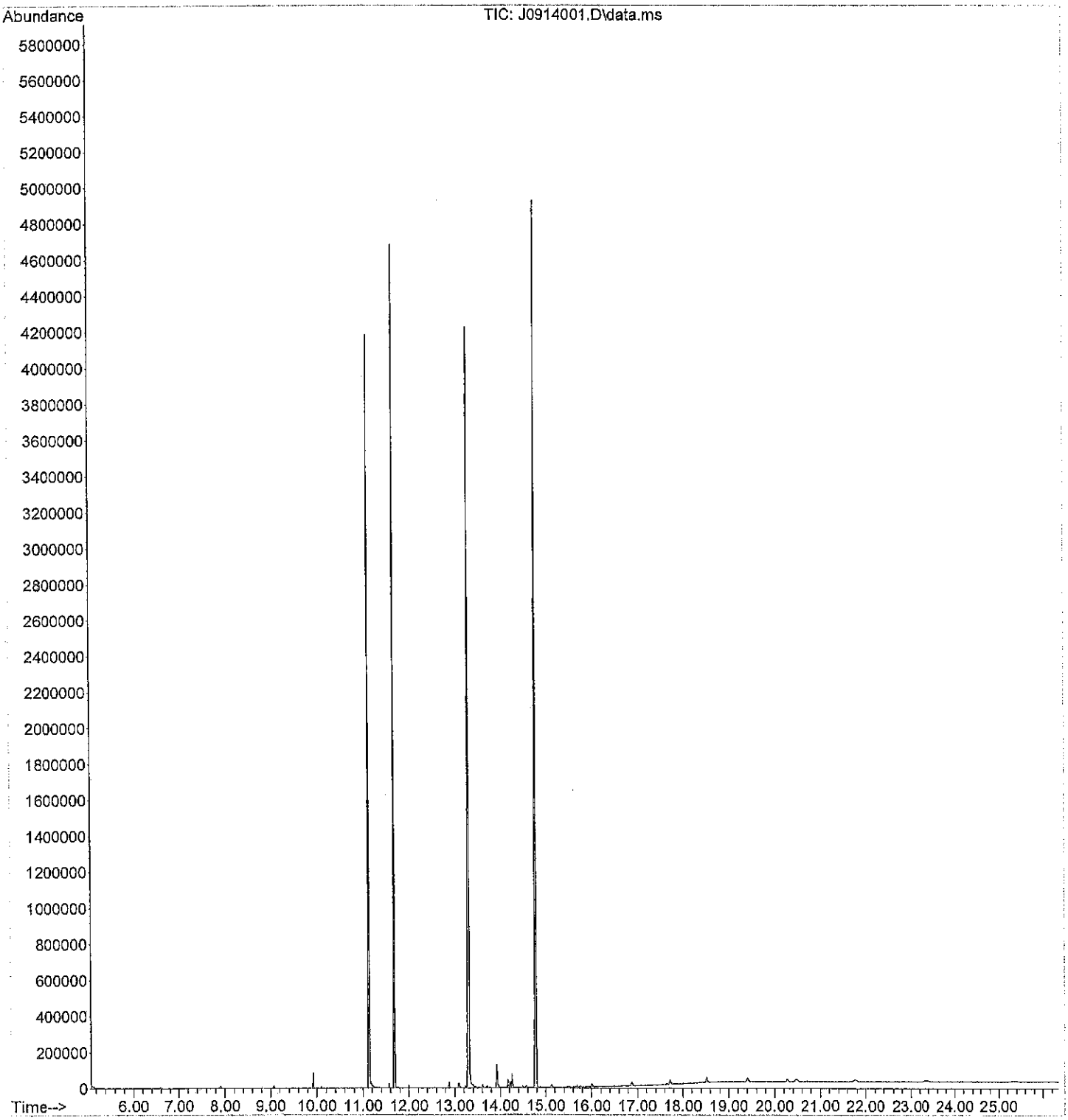
Quant Time: Sep 14 07:40:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Quant Title : SCAN MODE
QLast Update : Sat Aug 13 11:53:25 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	0.000	136	0	0.00	ppb	-8.43
6) Acenaphthene-d10	0.000	164	0	0.00	ppb	-10.68
10) Phenanthrene-d10	0.000	188	0	0.00	ppb	-12.58
17) Chrysene-d12	0.000	240	0	0.00	ppb	-17.25
21) Perylene-d12	0.000	264	0	0.00	ppb	-20.42
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 36 - 99		Recovery	=	0.00%#	
7) 2-Fluorobiphenyl	9.917	172	105	0.00	ppb	0.12
Spiked Amount 1000.000	Range 34 - 92		Recovery	=	0.00%#	
11) Pyrene d-10	14.781	212	153087	0.00	ug/L	-0.08
Spiked Amount 1000.000	Range 40 - 110		Recovery	=	0.00%#	
18) Terphenyl-d14	0.000	244	0	0.00	ppb	
Spiked Amount 1000.000	Range 48 - 112		Recovery	=	0.00%#	
Target Compounds						Qvalue
3) Naphthalene	0.000		0	N.D.		
4) 2-Methylnaphthalene	0.000		0	N.D.		
5) 1-Methylnaphthalene	0.000		0	N.D.		
8) Acenaphthylene	0.000		0	N.D.		
9) Acenaphthene	0.000		0	N.D.		
12) Fluorene	0.000		0	N.D.		
13) Phenanthrene	0.000		0	N.D.		
14) Anthranene	0.000		0	N.D.		
15) Fluoranthene	0.000		0	N.D.		
16) Pyrene	14.781	202	32231	N.D.		
19) Benzo [a] anthracene	0.000		0	N.D.		
20) Chrysene	0.000		0	N.D.		
22) Benzo [b] fluoranthene	0.000		0	N.D.		
23) Benzo (j,k) fluoranthene	0.000		0	N.D.		
24) Benzo [a] pyrene	0.000		0	N.D.		
25) Indeno (1,2,3-c,d) pyrene	0.000		0	N.D.		
26) Dibenz [a,h] anthracene	0.000		0	N.D.		
27) Benzo [g,h,i] perylene	0.000		0	N.D.		
28) Pentachlorophenol	12.312	266	109	No Calib	#	
29) Benzidine	14.638	184	262	No Calib		

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

Data Path : C:\MSDCHEM\1\DATA\J180914\
Data File : J0914001.D
Acq On : 14 Sep 2018 7:14 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

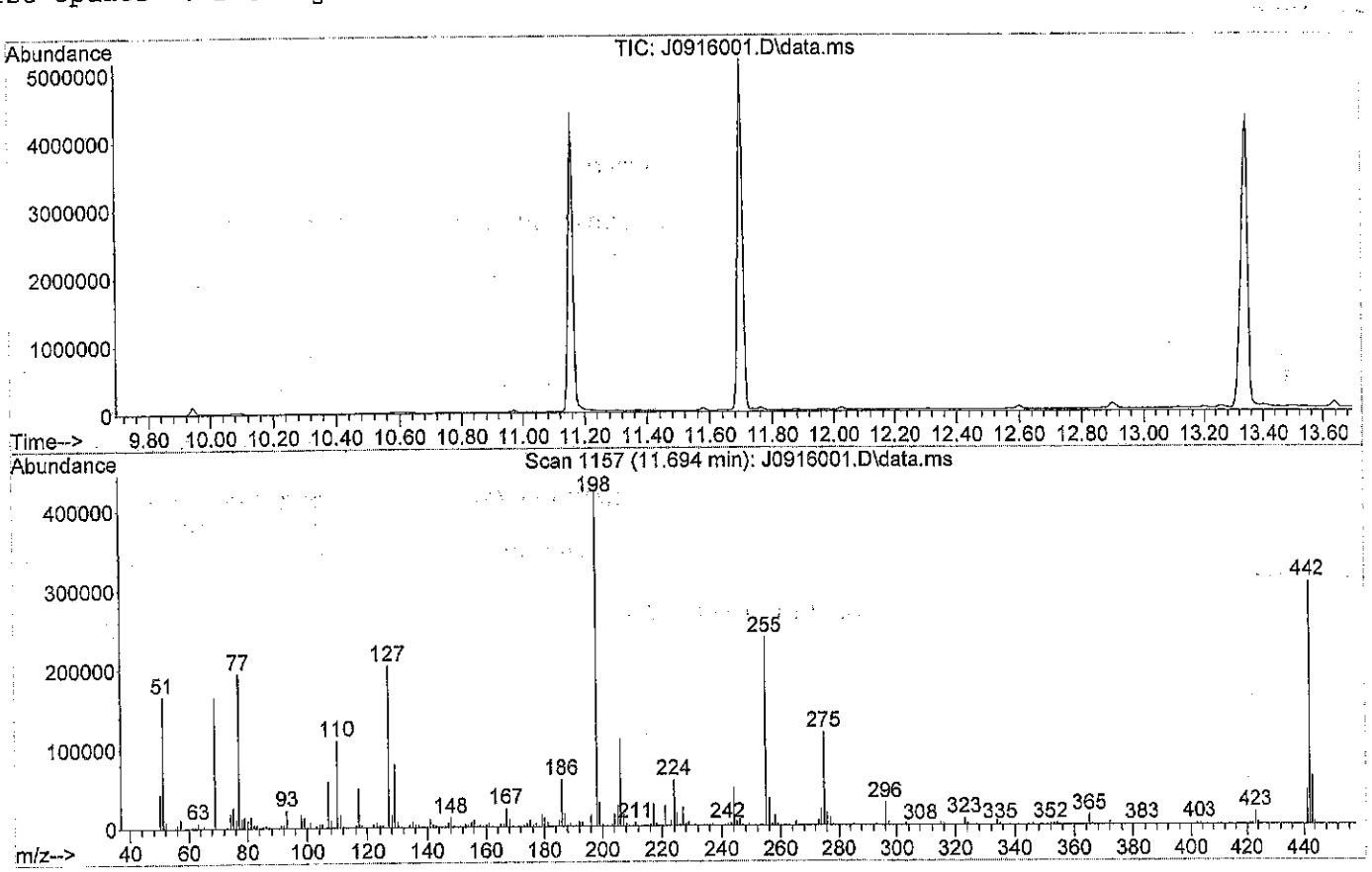
Quant Time: Sep 14 07:40:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Quant Title : SCAN MODE
QLast Update : Sat Aug 13 11:53:25 2011
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\JESSIE\DATA\J180916\
Data File : J0916001.D
Acq On : 16 Sep 2018 1:25 pm
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Title : SCAN MODE
Last Update : Sat Aug 13 11:53:25 2011



Spectrum Information: Scan 1157

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	39.2	166272	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.0	165760	PASS
70	69	0.00	2	0.8	1254	PASS
127	198	10	80	48.0	203904	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	424512	PASS
199	198	5	9	7.3	30808	PASS
275	198	10	60	27.7	117536	PASS
365	198	1	100	3.0	12535	PASS
441	443	0.01	110	73.6	45344	PASS
442	198	50	110	72.3	306944	PASS
443	442	15	24	20.1	61616	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916001.D
Acq On : 16 Sep 2018 1:25 pm
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 16 13:51:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Quant Title : SCAN MODE
QLast Update : Sat Aug 13 11:53:25 2011
Response via : Initial Calibration

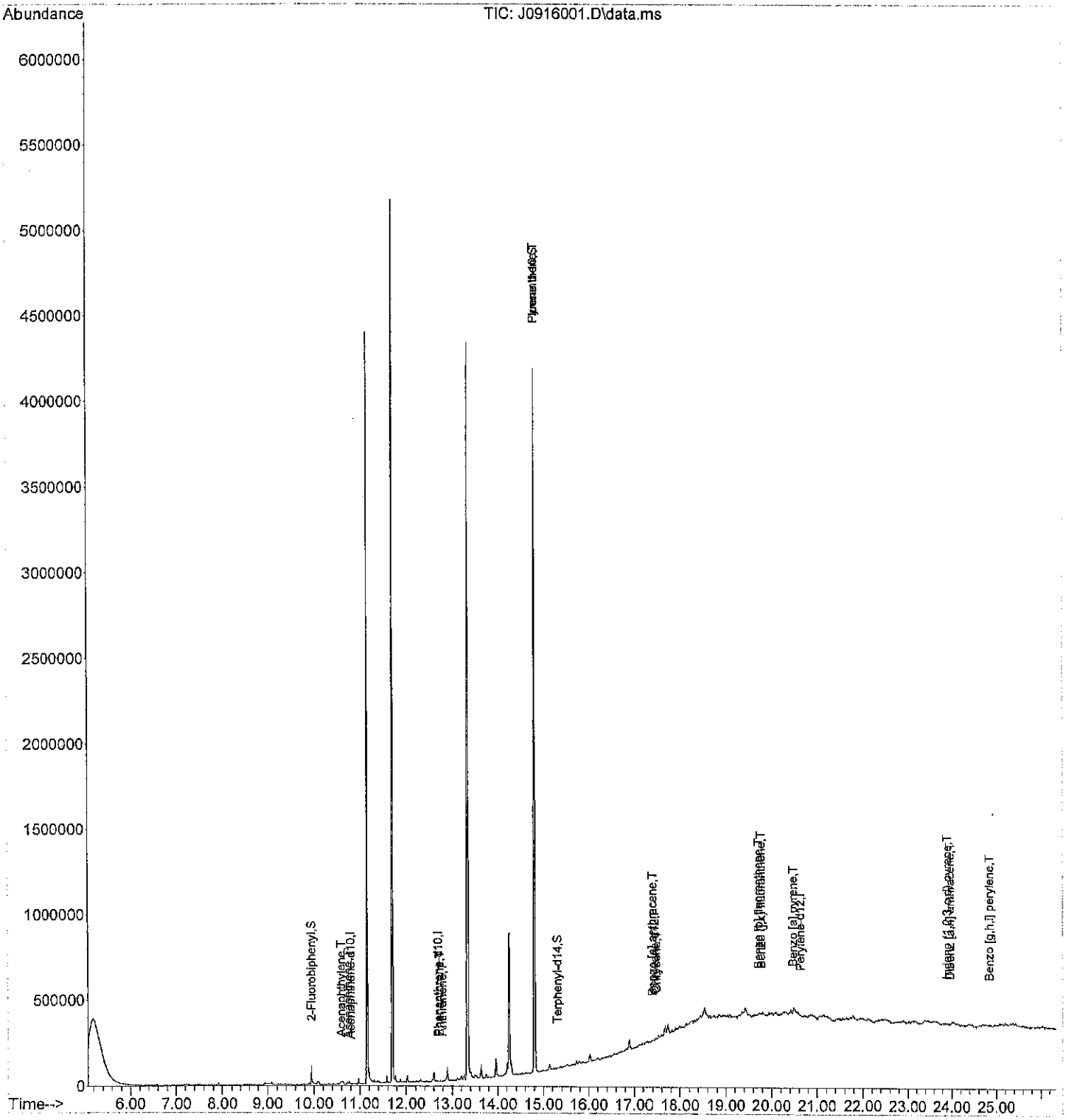
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	0.000	136	0	0.00	ppb	-8.43
6) Acenaphthene-d10	10.797	164	51	2000.00	ppb	0.12
10) Phenanthrene-d10	12.695	188	55	2000.00	ppb	0.12
17) Chrysene-d12	17.438	240	317	2000.00	ppb	0.19
21) Perylene-d12	20.633	264	125	2000.00	ppb	0.21
System Monitoring Compounds						
2) Nitrobenzene-d5	7.505	82	375	0.00	ppb	-0.03
Spiked Amount 1000.000	Range 36 - 99		Recovery = 0.00%#			
7) 2-Fluorobiphenyl	9.940	172	122	3934.53	ppb	0.14
Spiked Amount 1000.000	Range 34 - 92		Recovery = 393.45%#			
11) Pyrene d-10	14.809	212	132008	25576835.28	ug/L	-0.05
Spiked Amount 1000.000	Range 40 - 110		Recovery = 2557683.53%#			
18) Terphenyl-d14	15.306	244	175	759.45	ppb	0.17
Spiked Amount 1000.000	Range 48 - 112		Recovery = 75.95%			
Target Compounds						Qvalue
3) Naphthalene	8.500	128	71	N.D.		
4) 2-Methylnaphthalene	0.000		0	N.D.		
5) 1-Methylnaphthalene	0.000		0	N.D.		
8) Acenaphthylene	10.591	152	792	21370.55	ppb	100
9) Acenaphthene	10.746	153	134	5281.13	ppb	100
12) Fluorene	0.000		0	N.D.		
13) Phenanthrene	12.723	178	365	12682.12	ppb	100
14) Anthranene	12.786	178	311	11795.11	ppb	100
15) Fluoranthene	14.809	202	28683	954709.56	ppb	100
16) Pyrene	0.000		0	N.D.		
19) Benzo [a] anthracene	17.398	228	156	621.83	ppb	100
20) Chrysene	17.484	228	125	558.29	ppb	100
22) Benzo [b] fluoranthene	19.713	252	640	10063.71	ppb	100
23) Benzo (j,k) fluoranthene	19.770	252	358	5398.17	ppb	100
24) Benzo [a] pyrene	20.467	252	458	7853.08	ppb	100
25) Indeno (1,2,3-c,d) pyrene	23.897	276	267	3150.56	ppb	100
26) Dibenz [a,h] anthracene	23.959	278	157	2104.33	ppb	100
27) Benzo [g,h,i] perylene	24.840	276	275	3646.21	ppb	100
28) Pentachlorophenol	12.449	266	635	No Calib	#	
29) Benzidine	14.809	184	5982	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180916\
Data File : J0916001.D
Acq On : 16 Sep 2018 1:25 pm
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

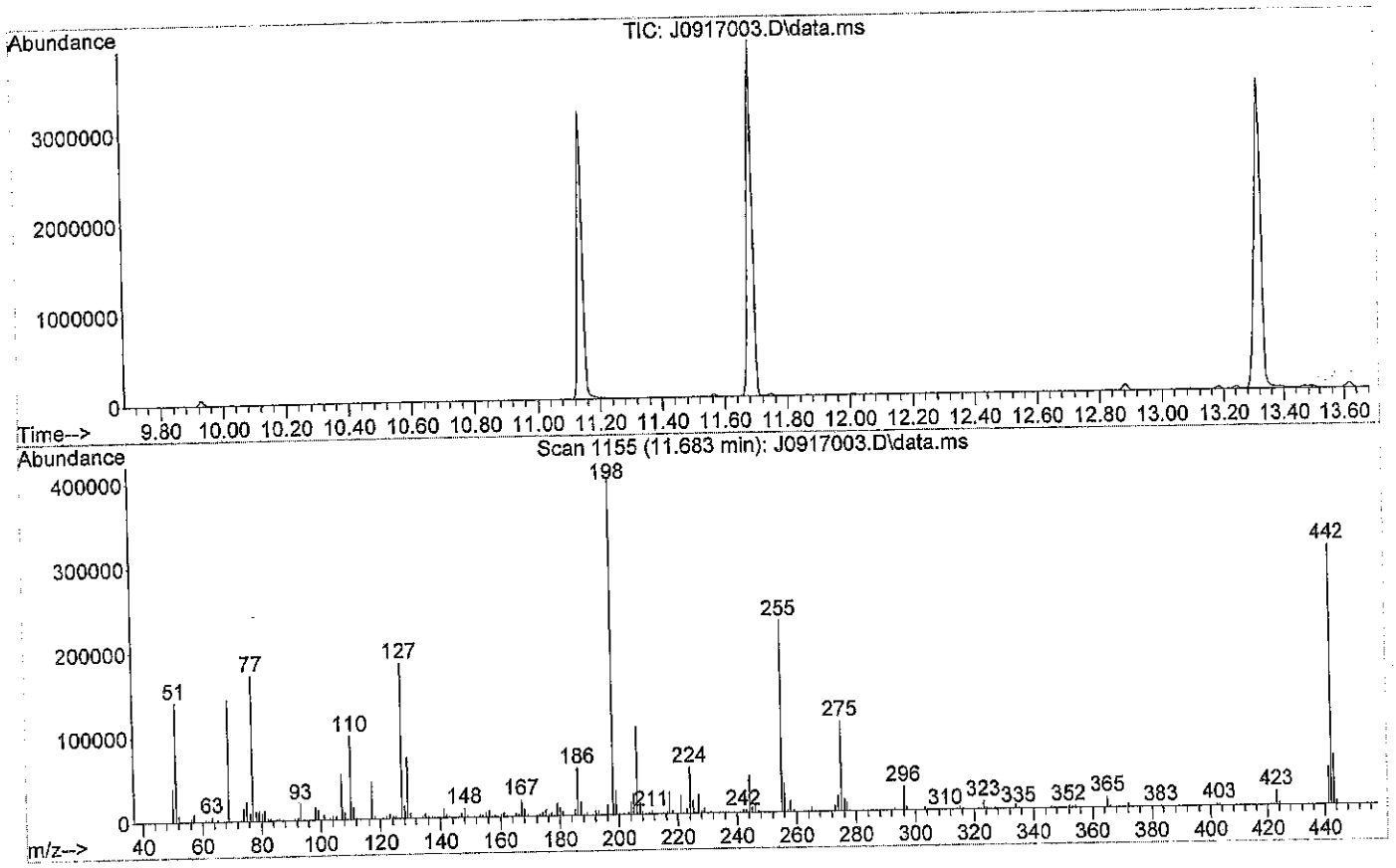
Quant Time: Sep 16 13:51:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Quant Title : SCAN MODE
QLast Update : Sat Aug 13 11:53:25 2011
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\JESSIE\DATA\J180917\
Data File : J0917003.D
Acq On : 17 Sep 2018 10:53 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 3 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Title : SCAN MODE
Last Update : Sat Aug 13 11:53:25 2011



Spectrum Information: Scan 1155

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	35.3	141312	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	35.9	143936	PASS
70	69	0.00	2	0.6	863	PASS
127	198	10	80	46.0	184256	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	400384	PASS
199	198	5	9	7.2	28760	PASS
275	198	10	60	26.7	106832	PASS
365	198	1	100	3.3	13064	PASS
441	443	0.01	110	75.7	45488	PASS
442	198	50	110	76.9	307776	PASS
443	442	15	24	19.5	60128	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180917\
Data File : J0917003.D
Acq On : 17 Sep 2018 10:53 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 17 11:20:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Quant Title : SCAN MODE
QLast Update : Sat Aug 13 11:53:25 2011
Response via : Initial Calibration

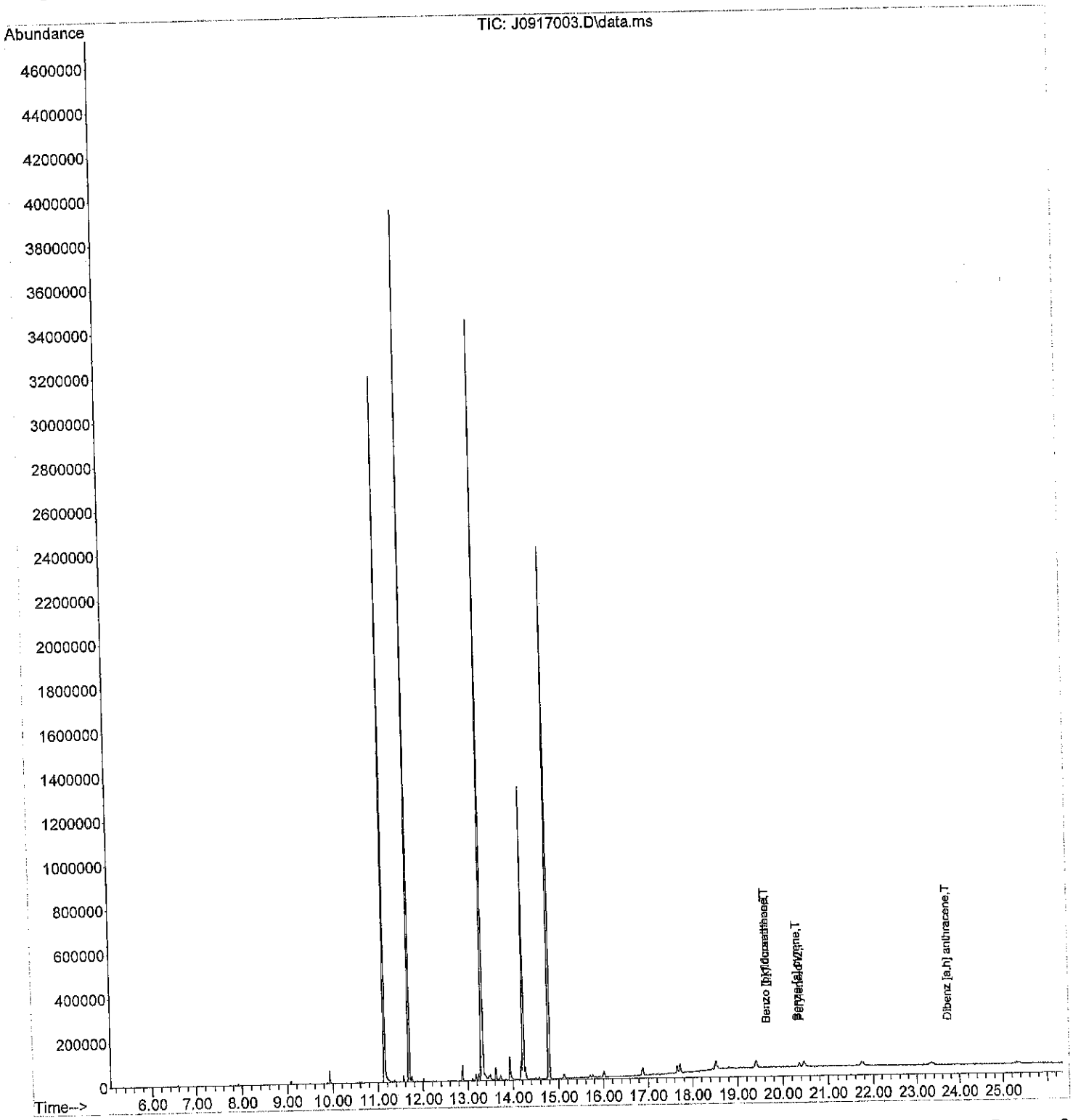
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	0.000	136	0	0.00	ppb	-8.43
6) Acenaphthene-d10	0.000	164	0	0.00	ppb	-10.68
10) Phenanthrene-d10	0.000	188	0	0.00	ppb	-12.58
17) Chrysene-d12	0.000	240	0	0.00	ppb	-17.25
21) Perylene-d12	20.382	264	175	2000.00	ppb	-0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 36 - 99		Recovery	=	0.00%#	
7) 2-Fluorobiphenyl	0.000	172	0	0.00	ppb	
Spiked Amount 1000.000	Range 34 - 92		Recovery	=	0.00%#	
11) Pyrene d-10	14.786	212	75096	0.00	ug/L	-0.07
Spiked Amount 1000.000	Range 40 - 110		Recovery	=	0.00%#	
18) Terphenyl-d14	0.000	244	0	0.00	ppb	
Spiked Amount 1000.000	Range 48 - 112		Recovery	=	0.00%#	
Target Compounds						Qvalue
3) Naphthalene	0.000		0	N.D.		
4) 2-Methylnaphthalene	0.000		0	N.D.		
5) 1-Methylnaphthalene	0.000		0	N.D.		
8) Acenaphthylene	0.000		0	N.D.		
9) Acenaphthene	0.000		0	N.D.		
12) Fluorene	0.000		0	N.D.		
13) Phenanthrene	0.000		0	N.D.		
14) Anthranene	0.000		0	N.D.		
15) Fluoranthene	0.000		0	N.D.		
16) Pyrene	14.786	202	16737	N.D.		
19) Benzo [a] anthracene	0.000		0	N.D.		
20) Chrysene	0.000		0	N.D.		
22) Benzo [b] fluoranthene	19.656	252	52	584.05	ppb	100
23) Benzo (j,k) fluoranthene	19.656	252	52	560.07	ppb	100
24) Benzo [a] pyrene	20.336	252	57	698.11	ppb	100
25) Indeno (1,2,3-c,d) pyrene	0.000		0	N.D.		
26) Dibenz [a,h] anthracene	23.737	278	58	555.28	ppb	100
27) Benzo [g,h,i] perylene	0.000		0	N.D.		
28) Pentachlorophenol	12.312	266	56	No Calib	#	
29) Benzidine	14.603	184	419	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\J180917\
Data File : J0917003.D
Acq On : 17 Sep 2018 10:53 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 17 11:20:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\PAHSCAN.M
Quant Title : SCAN MODE
QLast Update : Sat Aug 13 11:53:25 2011
Response via : Initial Calibration



Sequence Name: C:\msdchem\1\sequence\J180913.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\J180913\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

	Line		Sample Name/Misc Info		
1)	Sample	1	J0913001	PAHSCAN	DFTPP
2)	Sample	2	J0913002	PAHSCAN	PAH RT TEST
3)	Sample	3	J0913003	PAH0830	PAH 0913-1
4)	Sample	4	J0913004	PAH0913	10 PPM
5)	Sample	5	J0913005	PAH0913	20 PPM
6)	Sample	6	J0913006	PAHSCAN	RT CHECK
7)	Sample	7	J0913007	PAHSCAN	DFTPP
8)	Sample	8	J0913008	PAH0913	10 PPB PAH ICAL
9)	Sample	9	J0913009	PAH0913	20 PPB PAH ICAL
10)	Sample	10	J0913010	PAH0913	10 PPB PAH ICAL
11)	Sample	11	J0913011	PAH0913	50 PPB PAH ICAL
12)	Sample	12	J0913012	PAH0913	100 PPB PAH ICAL
13)	Sample	13	J0913013	PAH0913	200 PPB PAH ICAL
14)	Sample	14	J0913014	PAH0913	500 PPB PAH ICAL
15)	Sample	15	J0913015	PAHSCAN	DFTPP
16)	Sample	16	J0913016	PAH0913	BLANK
17)	Sample	17	J0913017	PAH0913	BLANK
18)	Sample	18	J0913018	PAH0913	10 PPB PAH ICAL
19)	Sample	19	J0913019	PAH0913	20 PPB PAH ICAL
20)	Sample	20	J0913020	PAH0913	50 PPB PAH ICAL
21)	Sample	21	J0913021	PAH0913	100 PPB PAH ICAL
22)	Sample	22	J0913022	PAH0913	200 PPB PAH ICAL
23)	Sample	23	J0913023	PAH0913	500 PPB PAH ICAL
24)	Sample	24	J0913024	PAH0913	1000 PPB PAH ICAL
25)	Sample	25	J0913025	PAH0913	5000 PPB PAH ICAL
26)	Sample	26	J0913026	PAH0913	DFTPP
27)	Sample	27	J0913027	PAH0913	PAH ICV0813-1

Sequence Name: C:\MSDCHEM\1\SEQUENCE\J180914.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\J180914\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info			
1)	Sample	1	J0914001	PAHSCAN	DFTPP
2)	Sample	2	J0914002	PAH0913	PAH CCV0914-1
3)	Sample	3	J0914003	PAH0913	MB0910S1
4)	Sample	4	J0914004	PAH0913	SB0910S1
5)	Sample	5	J0914005	PAH0913	SBD0910S1
6)	Sample	6	J0914006	PAH0913	08-394-15
7)	Sample	7	J0914007	PAH0913	08-394-12
8)	Sample	8	J0914008	PAH0913	08-395-42
9)	Sample	9	J0914009	PAH0913	08-327-34
10)	Sample	10	J0914010	PAH0913	08-395-32
11)	Sample	11	J0914011	PAH0913	08-395-47
12)	Sample	12	J0914012	PAH0913	08-327-23
13)	Sample	13	J0914013	PAH0913	08-394-16
14)	Sample	14	J0914014	PAH0913	08-327-03
15)	Sample	15	J0914015	PAH0913	08-394-08
16)	Sample	16	J0914016	PAH0913	08-394-11
17)	Sample	17	J0914017	PAH0913	08-394-10
18)	Sample	18	J0914018	PAH0913	08-327-32
19)	Sample	19	J0914019	PAH0913	08-395-41
20)	Sample	20	J0914020	PAH0913	08-394-09
21)	Sample	21	J0914021	PAH0913	08-395-22
22)	Sample	22	J0914022	PAH0913	08-394-14
23)	Sample	23	J0914023	PAH0913	08-394-13
24)	Sample	24	J0914024	PAH0913	M
25)	Sample	25	J0914025	PAH0913	PAH CHECK

Sequence Name: C:\msdchem\1\sequence\J180916.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\J180916\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info		
1)	Sample 1	J0916001	PAHSCAN	DFTPP
2)	Sample 2	J0916002	PAH0913	PAH CCV0916-1
3)	Sample 3	J0916003	PAH0913	08-394-11 10X
4)	Sample 4	J0916004	PAH0913	08-395-42 20X
5)	Sample 5	J0916005	PAH0913	08-327-03 20X
6)	Sample 6	J0916006	PAH0913	08-394-08 10X
7)	Sample 7	J0916007	PAH0913	08-327-34 100X
8)	Sample 8	J0916008	PAH0913	08-395-47 100X
9)	Sample 9	J0916009	PAH0913	08-327-23 100X
10)	Sample 10	J0916010	PAH0913	08-395-32 100X
11)	Sample 11	J0916011	PAH0913	08-327-32 100X
12)	Sample 12	J0916012	PAH0913	08-395-41 100X
13)	Sample 13	J0916013	PAH0913	08-394-09 100X
14)	Sample 14	J0916014	PAH0913	08-395-22 100X
15)	Sample 15	J0916015	PAH0913	08-394-13 RR
16)	Sample 16	J0916016	PAH0913	08-395-22 20X
17)	Sample 17	J0916017	PAH0913	08-394-09 20X
18)	Sample 18	J0916018	PAH0913	08-395-41 20X
19)	Sample 19	J0916019	PAH0913	08-327-32 20X
20)	Sample 20	J0916020	PAH0913	08-395-32 20X
21)	Sample 21	J0916021	PAH0913	08-327-34 20X
22)	Sample 22	J0916022	PAH0913	08-395-47 20X
23)	Sample 23	J0916023	PAH0913	08-327-23 20X
24)	Sample 24	J0916024	PAH0913	PAH TEST

Sequence Name: C:\msdchem\1\sequence\J180917.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\J180917\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info			
1)	Sample	1	J0917001	PAH0913	09-126-01
2)	Sample	2	J0917002	PAH0913	09-126-02
3)	Sample	3	J0917003	PAHSCAN	DFTPP
4)	Sample	4	J0917004	PAH0913	PAH CCV0917-1
5)	Sample	5	J0917005	PAH0913	09-126-01
6)	Sample	6	J0917006	PAH0913	09-126-02
7)	Sample	7	J0917007	PAH0913	08-327-32 2000X
8)	Sample	8	J0917008	PAH0913	09-105-04
9)	Sample	9	J0917009	PAH0913	09-110-03
10)	Sample	10	J0917010	PAH0913	09-110-05
11)	Sample	11	J0917011	PAH0913	09-109-01
12)	Sample	12	J0917012	PAH0913	09-106-03
13)	Sample	13	J0917013	PAH0913	08-394-09 5X
14)	Sample	14	J0917014	PAH0913	08-395-41 10X
15)	Sample	15	J0917015	PAH0913	08-395-41 5X
16)	Sample	16	J0917016	PAH0913	09-127-06
17)	Sample	17	J0917017	PAH0913	09-127-05
18)	Sample	18	J0917018	PAH0913	09-127-02
19)	Sample	19	J0917019	PAH0913	09-127-04
20)	Sample	20	J0917020	PAH0913	09-127-03
21)	Sample	21	J0917021	PAH0913	09-127-01
22)	Sample	22	J0917022	PAH0913	09-027-11 5X
23)	Sample	23	J0917023	PAH0913	09-027-18 5X

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\JESSIE\DATA\J180913\J0913015.D
Tune Time : 13 Sep 2018 9:15 pm

Daily Calibration File : X:\SEMIVOLS\JESSIE\DATA\J180913\J0913023.D

(NBZ)	(FBP)	(PRY)	(TPH)	(NPT)	(ANT)	(PHN)
				280661	129339	236447

(CRY)	(PRY)
162214	365842

File	Sample	Surrogate Recovery %				Internal Standard Responses		
J0913018.D								
	10 PPB PAH	1*	1*	1*	1*	236500	107755	206452
			140614		317639			
J0913019.D								
	20 PPB PAH	2*	2*	2*	2*	245066	109445	204179
			137877		311571			
J0913020.D								
	50 PPB PAH	5*	5*	5*	6*	235032	107301	203134
			138265		312993			
J0913021.D								
	100 PPB PA	9*	9*	9*	9*	240758	109358	201477
			135517		306770			
J0913022.D								
	200 PPB PA	18*	18*	18*	18*	264550	120994	225207
			152803		346279			
J0913023.D								
	500 PPB PA	45	44	46	48*	280661	129339	236447
			162214		365842			
J0913024.D								
	1000 PPB P	111*	106*	113*	116*	273315	126372	230831
			159308		357289			
J0913025.D								
	5000 PPB P	482*	453*	476*	488*	270216	124486	223751
			158628		341254			
J0913027.D								
	PAH ICV081	49	49	51	58	206937	94264	172401
			116634		262067			

(fails) - fails 12hr time check * - fails criteria

Created: Fri Sep 14 07:49:02 2018 jessie

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\JESSIE\DATA\J180914\J0914001.D
Tune Time : 14 Sep 2018 7:14 am

Daily Calibration File : X:\SEMIVOLS\JESSIE\DATA\J180914\J0914002.D

(NBZ)	(FBP)	(PRY)	(TPH)	(NPT)	(ANT)	(PHN)
				206118	93755	175895

(CRY)	(PRY)
119811	274871

File	Sample	Surrogate Recovery %				Internal Standard Responses		
J0914003.D								
	MB0910S1	208*	215*	235*	250*	204353	90763	168625
				111234	252823			
J0914004.D								
	SB0910S1	199*	204*	224*	230*	202455	91087	166237
				112294	254658			
J0914005.D								
	SBD0910S1	205*	208*	234*	242*	200522	90478	164256
				110872	249574			
J0914006.D								
	08-394-15	175*	182*	201*	209*	199999	88595	163242
				109853	255936			
J0914007.D								
	08-394-12	173*	186*	211*	218*	202534	90074	166617
				112658	260483			
J0914008.D								
	08-395-42	186*	199*	221*	232*	203754	89153	159765
				107790	256066			
J0914009.D								
	08-327-34	215*	202*	230*	254*	191892	84557	148326
				103500	238066			
J0914010.D								
	08-395-32	242*	161*	222*	246*	183255	89989	127636
				92494	206891			
J0914011.D								
	08-395-47	138*	130*	149*	182*	158816	66229	116184
				80005	180871			
J0914012.D								
	08-327-23	219*	175*	209*	235*	142958	67148	110099
				79255	180313			
J0914013.D								
	08-394-16	190*	201*	226*	243*	139725	63441	117023
				79148	185063			
J0914014.D								
	08-327-03	129*	135*	152*	175*	145045	65270	117869
				77550	181033			
J0914015.D								
	08-394-08	180*	163*	191*	226*	137029	68098	113233
				75411	181965			
J0914016.D								

```
         08-394-11   185* 177* 204* 240*     136062      66088      113726
                              74017     178306
-------------------------------------------------------------------------------
J0914017.D
         08-394-10   186* 198* 219* 236*     136663      62624      114058
                              77101     184748
-------------------------------------------------------------------------------
J0914018.D
         08-327-32     0*  43  961* 138*          0*       8657*       8512*
                              6287*     177229
-------------------------------------------------------------------------------
J0914019.D
         08-395-41   157*  75    0*   0*     150832     157646      11546*
                                0*       8453*
-------------------------------------------------------------------------------
J0914020.D
         08-394-09     0* 148*   0* 11142*        105*        42*         67*
                                9*       136*
-------------------------------------------------------------------------------
J0914021.D                                                    84457462
         08-395-22   244* 150* 202* 249*     129455      71249      107401
                              78732     177807
-------------------------------------------------------------------------------
J0914022.D
         08-394-14   167* 172* 197* 225*     150430      70086      129165
                              94240     218560
-------------------------------------------------------------------------------
J0914023.D
(fails)  08-394-13   188* 190* 211* 236*     176012      81338      149128
                             107064     248777
-------------------------------------------------------------------------------
(fails) - fails 12hr time check   * - fails criteria

    Created: Sun Sep 16 10:44:56 2018  jessie
```

✓ ZT 9-16-18

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\JESSIE\DATA\J180916\J0916001.D
Tune Time : 16 Sep 2018 1:25 pm

Daily Calibration File : X:\SEMIVOLS\JESSIE\DATA\J180916\J0916002.D

(NBZ)	(FBP)	(PRY)	(TPH)	(NPT)	(ANT)	(PHN)
				232758	107722	196099

(CRY)	(PRY)
137205	318489

File	Sample	Surrogate Recovery %				Internal Standard Responses		
J0916003.D	08-394-11	14*	17*	19*	19*	249674	115134	212372
				149002	343471			
J0916004.D	08-395-42	8*	9*	10*	9*	256785	118695	218952
				153874	350656			
J0916005.D	08-327-03	6*	6*	8*	7*	258575	120562	221590
				155310	353469			
J0916006.D	08-394-08	13*	15*	16*	17*	256086	117333	214984
				151557	348463			
J0916007.D	08-327-34	2*	2*	2*	1*	261583	120753	225166
				160811	359848			
J0916008.D	08-395-47	1*	1*	1*	0*	312877	145334	267665
				189952	430963			
J0916009.D	08-327-23	1*	2*	2*	1*	251373	114612	217049
				153550	350459			
J0916010.D	08-395-32	1*	2*	2*	1*	299526	133675	252919
				177817	407892			
J0916011.D	08-327-32	11*	3*	2*	1*	257103	115012	198081
				144213	321567			
J0916012.D	08-395-41	1*	1*	2*	1*	238663	109040	192837
				134824	316622			
J0916013.D	08-394-09	1*	2*	2*	1*	237471	108143	200724
				141061	325649			
J0916014.D	08-395-22	1*	2*	2*	1*	238374	107735	198214
				138304	321398			
J0916015.D	08-394-13	175*	182*	191*	207*	223892	99299	183854
				124328	299602			
J0916016.D								

	08-395-22	9*	9*	9*	8*	243161	110375	200030
			143071		329264			
J0916017.D								
	08-394-09	7*	8*	9*	8*	238969	108967	200454
			141562		330178			
J0916018.D								
	08-395-41	6*	7*	8*	7*	238632	106227	186037
			138340		324145			
J0916019.D								
	08-327-32	50	4*	10*	11*	232067	116132	155560
			114828		249969			
J0916020.D								
	08-395-32	9*	9*	9*	8*	189984	84065	157803
			116516		266716			
J0916021.D								
	08-327-34	9*	10*	11*	10*	186551	84554	156991
			111059		263300			
J0916022.D								
	08-395-47	5*	6*	7*	6*	188675	84378	154057
			108378		259954			
J0916023.D								
(fails)	08-327-23	8*	9*	10*	8*	188400	81084	152988
			108830		262522			

(fails) - fails 12hr time check * - fails criteria

Created: Mon Sep 17 09:27:36 2018 jessie

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\JESSIE\DATA\J180917\J0917003.D
Tune Time : 17 Sep 2018 10:53 am

Daily Calibration File : X:\SEMIVOLS\JESSIE\DATA\J180917\J0917004.D

(NBZ)	(FBP)	(PRY)	(TPH)	(NPT)	(ANT)	(PHN)
				195265	87372	159671

(CRY)	(PRY)
109794	265661

File	Sample	Surrogate Recovery %				Internal Standard Responses		
J0917005.D	09-126-01	17*	61	78	80	168181	75059	137330
				94449	222440			
J0917006.D	09-126-02	16*	63	82	83	178181	80442	148485
				101696	243131			
J0917007.D	08-327-32	1*	0*	1*	0*	171422	75463	141415
				97095	236067			
J0917008.D	09-105-04	75	88	87	92	167379	75172	137879
				93039	228134			
J0917009.D	09-110-03	69	72	89	87	165923	73531	132622
				89340	220938			
J0917010.D	09-110-05	69	73	85	84	168624	74310	135031
				90147	223758			
J0917011.D	09-109-01	69	77	91	89	157666	70121	128244
				86886	213964			
J0917012.D	09-106-03	74	89	91	91	166231	73402	133452
				90302	222417			
J0917013.D	08-394-09	28*	34	36*	37*	177057	76484	142110
				95412	232493			
J0917014.D	08-395-41	12*	14*	14*	17*	186731	80514	140218
				101874	242092			
J0917015.D	08-395-41	25*	28*	30*	32*	180167	80573	134792
				99029	249534			
J0917016.D	09-127-06	58	60	72	68	162701	72380	134765
				99013	237818			
J0917017.D	09-127-05	55	61	75	68	180080	75387	137953
				104213	250397			
J0917018.D								

	09-127-02	53	62	62	66	182325	80245	146556
				103945		248767		
J0917019.D								
	09-127-04	112*	120*	138*	139*	186939	83323	150763
				103726		250405		
J0917020.D								
	09-127-03	61	68	74	79	181749	81331	148676
				102207		244841		
J0917021.D								
	09-127-01	51	60	72	74	191793	85202	155237
				106549		256427		
J0917022.D								
	09-027-11	11*	12*	14*	13*	200284	89395	163012
				111791		269922		
J0917023.D								
	09-027-18	11*	13*	14*	14*	200214	88267	161198
				109320		267222		

(fails) - fails 12hr time check * - fails criteria

Created: Tue Sep 18 08:42:17 2018 jessie

OnSite Environmental Inc.

Date Extracted: 9/10/18 Time Ext. 12:00 am/pm

Analysis: PAH

Matrix: SOIL

Surrogate Std. ID: SVS-053-20

Spike Std. ID: SVS-050-02

OSE TRAVELER #	pH	SAMPLE W/V	INTER VOLUME	SAMPLE FIN VOL (See Comments)	AMT SUR	AMT SPIKE	CLEAN UP	ANALYST	COMMENTS/ BATCH QA	Final Vol
MB091051		30.0g	25mL	~~5mL~~ 2mL	500µL	—	L	AK		~~2.0mL~~ 2.0mL
SB091051						500µL				
SB091051 DUP						↓				
OB-394-08						—				
09										
10										
11										
12										
13										
14										
14 MS						500µL				
14 MSD						↓				
15						—				
16		↓	↓	2mL	↓		↓	↓	extracted @ 4pm	1.0mL
OB-327-03		15.0g		~~2.5mL~~ 2mL	200µL					~~2.0mL~~ 2.0mL
23		30.0g		~~1.2mL~~ 1mL	500µL					
32				~~5mL~~						
34										
OB-395-22										
32										
41										
42				↓						↓
47		15.0g		2.5mL	200µL					1.0mL
				~~2.5mL~~ 1.0mL						

Clean-up (L)Alumina

Work continued from Page

	Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
	BNA CCV	SV501901	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	12-14-17
	1,4 Diox ICV	SV501902	SV417401	10 ppm	10 ul	200 ul	500 ppb			
5	PAH CCV	SV501903	SV501009	10 ppm	10 ul	200 ul	500 ppb			
	PAH CCV	SV501904	SV501009	10 ppm	1		1			12-15-17
	BNA CCV	SV501905	SV5018 10/12	200 ppm	20/20 ul		20 ppm			1
	PAH CCV	SV501906	SV501009	10 ppm	10 ul		500 ppb			12-19-17
	PAH CCV	SV501907	SV501009	1	1		1			12-20-17
10	BNA CCV	SV501908	SV5018 10/12	200 ppm	20/200 ul		20 ppm			1
	PAH CCV	SV501909	SV501009	10 ppm	10 ul		500 ppb			12-21-17
	PAH CCV	SV501910	SV501009	10 ppm	10 ul		500 ppb			12-27-17
	PAH CCV	SV501911	SV501009	10 ppm	10 ul		500 ppb			12-29-17
	DFTPP	SV501912	SV420404	1000 ppm	50 ul	1.0 mL	50 ppm		ZT	1-2-18
15	Cal Mix #5	SV501913	31995 8270 Calibration Mix #5, Revised Lot# A0121340 Expire: 08/2022 Store: 10°C or colder 2000 µg/mL each in Methylene Chloride RESTEK Sonication required. Mix is photosensitive.	Recieved 2/24/17 1 mL ZT					ZT	1-2-18
20	PAH Stock	SV501914	SV501903	2000 ppm	1.0 mL	20 mL	100 ppm	MeCl2	ZT	1-2-18
	PAH Matrix Spike	SV501915	SV501914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	1	1
	PAH CCV	SV501916	SV501009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	1-2-18
	BNA CCV	SV501917	SV5018 10/12	200 ppm	20/20 ul	1	20 ppm	1	1	1
25	BNA CCV	SV501918	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	01-3-18
	PAH CCV	SV501919	SV501009	10 ppm	10 ul	200 ul	500 ppb			1-3-18
	PAH CCV	SV501920	SV501009	10 ppm						1-4-18
	PAH CCV	SV501921	SV501009	10 ppm						1-5-18
	PAH ICV	SV501922	SV501010	10 ppm						1
30	PAH CCV	SV501923	SV501009	10 ppm						11-8-18
	PAH CCV	SV501924								1
	PAH CCV	SV501925								11-9-18
	PAH CCV	SV501926								11-10-18
	BNA CCV	SV501927	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm			1
35										

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page

Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
BNA	60	SV502001	SV5018 10/12	200 ppm	60/60 ul	200 ul	60 ppm	MeCl2	ZT	1-10-18
	50	02			50/60		50			
	35	03			35/35		35			
	20	04			40/40	400 ul	20			
	10	05			10/10	200 ul	10			
	5	06	SV502004	20 ppm	50		5			
	2	07			20		2			
	1	08			10		1			
BNA	ICV	SV502009	SV5 cal-17 010-15	200 ppm	20/20		20			
BNA	CCV	SV502010	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm			1-11-18
BNA	CCV	SV502011	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm			1-15-18
PAH	CCV	SV502012	SV501009	10 ppm	10 ul	200 ul	500 ppb			1
PAH	CCV	SV502013	SV501009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	1-16-18
BN	CCV	SV502014	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm	1	1	1
8270 Surr. Stock		SV502015							ZT	1-17-18
8270	Surr.	SV502016	SV502015	4000 ppm	2 mL	100 mL	80 ppm	Acetone	ZT	1-17-18
PAH	INST.	SV502017	SV501719	4000 ppm	40 ul	4 mL	40 ppm	MeCl2	ZT	1
PAH	ICV	SV502018	SV501010	10 ppm	10 ul	200 ul	500 ppb	MeCl2	1	1
BNA	CCV	SV502019	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm	1		
Revised B/N	Surr.	SV502020							ZT	1-17-18
PAH	MDL	SV502021	SV502020	1000 ppm	5 ul	10 mL	0.5 ppm	Acetone	ZT	1-17-18
	Surr.									

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M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280

Signal Word Warning

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M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280

Signal Word Warning

31887
Revised B/N Surrogate Mix
Lot# A0124675
Expire: 01/2023 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Sonication required. Mix is photosensitive

Recieved 9-21-17

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ANALYTE	LAB ID	STOCK ID	STOCK CONC.	STOCK VOL.	FINAL VOL.	FINAL CON.	SOLVENT	ANALYST	DATE
Cal Mix #5 PAH	SV502301	31995 8270 Calibration Mix #5, Revised Lot# A0122625 Expire: 10/2022 Store: 10°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK Sonication required. Mix is photosensitive. Recieved 2-24-17 ZT						ZT	2-2-18
PAH ccv	SV502302	SV502301	2000 ppm	50 µl	10 mL	10 ppm	$MeCl_2$	ZT	2-2-18
Mix		SV502020	1000 ppm	100 µl	〃	〃	〃	〃	〃
PAH INSI	SV502303	SV501719	4000 ppm	40 µl	4 mL	40 ppm	$MeCl_2$	ZT	〃
PAH Ical									
5000	SV502304	SV502302	10 ppm	500 µl	10 mL	5000 ppb	$MeCl_2$	ZT	2-2-18
1000	05	〃	〃	100	〃	1000	〃	〃	〃
500	06	〃	〃	50	〃	500	〃	〃	〃
200	07	〃	〃	20	〃	200	〃	〃	〃
100	08	〃	〃	10	〃	100	〃	〃	〃
50	09	SV502305	1000 ppb	50	〃	50	〃	〃	〃
20	10	〃	〃	20	〃	20	〃	〃	〃
10	11	〃	〃	10	〃	10	〃	〃	〃
PAH ICV	SV502312	SV501010	10 ppm	10	200 µl	500	〃	〃	〃
PAH ICV	SV502313	SV501010	〃	〃	〃	〃	〃	〃	2-5-18
PAH ccv	SV502314	SV502302	10 ppm	10 µl	200 µl	500 ppb	$MeCl_2$	ZT	2-6-18
BNA ccv	SV502315	SV501818½	200 ppm	20/30 µl	200 µl	20 ppm	〃	〃	〃
PAH ccv	SV502316	SV502302	10 ppm	10 µl	200 µl	500 ppb	〃	〃	2-7-18
BNA ccv	SV502317	SV501818½	200 ppm	20/30 µl	200 µl	20 ppm	〃	〃	〃
PAH ccv	SV502318	SV502302	10 ppm	10 µl	〃	500 ppb	〃	〃	〃
PAH INSI	SV502319	SV501719	4000 ppm	40 µl	4 mL	40 ppm	〃	〃	〃
PAH ICV	SV502320	SV501010	10 ppm	10 µl	200 µl	500 ppb	〃	〃	〃
1,4 dioxane Std. (Ical)	SV502321	31853 1,4-dioxane Lot# A0128697 Expire: 06/2022 Store: 0°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK						ZT	2-8-18
1,4 dioxane	SV502322	SV502321	2000 ppm	10 µl	2 mL	10 ppm	$MeCl_2$	ZT	2-8-18
ICV Stock		SV502020	1000 ppm	20 µl	〃	〃	〃	〃	〃

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ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	ANALYST	DATE
PAH ICV 5000	SVS-033-01	SVS-023-02	10 ppm	500 µl	1.0 ml	5000 ppb	$MeCl_2$	ZT	4-17-18
1000	-02			100 µl		1000			
500	-03			50		500			
200	-04			20		200			
100	-05			10		100			
50	-06	SVS-33-02	1.0 ppm	50		50			
20	-07			20		20			
10	-08			10		10			
BNA ICV	SVS-32-09	SVS-26 4/5	200 ppm	20/20 µl	200 µl	20 ppm	$MeCl_2$	ZT	
PAH ICV	SVS-33-10	SVS-10-10	10 ppm	10 µl	200 µl	500 ppb			
PAH CCV	SVS-33-11	SVS-022-2	10 ppm	10 µl	200 µl	500 ppb			4-17-18
BNA CCV	SVS-33-12	SVS-26 4/5	200 ppm	20/20 µl	200 µl	20 ppm	$MeCl_2$		4-02-18
BNA CCV	SVS033313	SVS026 4/5	200 ppm	20/20 µl	200 µl	20 ppm	$MeCl_2$	ZT	4-13-18
PAH CCV	SVS033314	SVS02302	10 ppm	10 µl	200 µl	500 ppb			
PAH CCV	SVS033315	SVS02302	10 ppm	10 µl	200 µl	500 ppb			4-16-18
BNA CCV	SVS033316	SVS026 4/5	200 ppm	20/20 µl	200 µl	20 ppm			
PAH CCV	SVS033317	SVS02302	10 ppm	10 µl	200 µl	500 ppb			4-17-18
PAH INST	SVS033318	SVS03325	4000 ppm	40 µl	4 mL	40 ppm			
PAH CCV	SVS033319	SVS02302	10 ppm	10 µl	200 µl	500 ppb			
DFTPP Mix	SVS033320							ZT	4-17-18
DFTPP	SVS033321	SVS033320	1000 ppm	50 µl	1.0 mL	50 ppm	$MeCl_2$	ZT	4-17-18
PAH Surr. Stock	SVS033322							ZT	4-17-18
PAH Surr.	SVS033323	SVS033322	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	4-17-18
BNA CCV	SVS033324	SVS026 4/5	200 ppm	20/20 µl	200 µl	20 ppm	$MeCl_2$		
PAH CCV	SVS033325	SVS02302	10 ppm	10 µl	200 µl	500 ppb			4-18-18
BNA CCV	SVS033326	SVS026 4/5	200 ppm	20/20 µl		20 ppm			

NOTEBOOK INSERT LABEL

EPA 8270 GC/MS Tuning Solution II 47548-U
Lot: XA19099V EXP: MAR/2019 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED:
SUPELCO "Solutions within."
595 North Harrison Road • Bellefonte, PA
16823-0048 USA • Phone 814-359-3441

31887 US/EN
Revised B/N Surrogate Mix
Lot# A0134896
Expire: 01/2024 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Rec. 4-3-18 ZT

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SIGNATURE DATE

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Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH										
ICV		SV503401							ZT	4-18-18
Stock Solution										
PAH	ICV	SV503402	SV503401	2000 ppm	50 ul	10 mL	10 ppm	MeCl2	ZT	4-18-18
Stock			SV502020	1000 ppm	100 ul	"	"	"	"	
PAH	ICV	SV503403	SV503402	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	4-18-18
PAH	CCV	SV503404	SV502302	10 ppm	10 ul	200 ul	500 ppb			4-19-18
BNA	CCV	SV503405	SV502645	200 ppm	20 ul	200 ul	20 ppm			4-19-18
PAH	CCV	SV503406	SV502302	10 ppm	10 ul	200 ul	500 ppb			"
PAH	ICV	SV503407	SV503402	10 ppm	10 ul	200 ul	500 ppb			"
PAH	CCV	SV503408	SV502302	10 ppm	10 ul	200 ul	500 ppb			4-20-18
BNA	CCV	SV503409	SV502645	200 ppm	20 ul	200 ul	20 ppm			"
BNA	60	SV503410	SV502645	200 ppm	60 ul	200 ul	60 ppm			4-22-18
	50	-11			50 ul	"	50			"
	35	-12			35 ul	"	35			"
	20	-13			40 ul	400 ul	20			"
	10	-14			10 ul	200 ul	10			"
	5	-15	SV503413	20 ppm	50	"	5			"
	2	-16	"	"	20	"	2			"
	1	-17	"	"	10	"	1			"
BNA	ICV	SV503418	SV501849/12	200 ppm	20 ul	"	20			"
BNA	CCV	SV503419	SV502645	200 ppm	20 ul	200 ul	20 ppm			4-23-18
PAH	CCV	SV503420	SV502302	10 ppm	10 ul	200 ul	500 ppb			"
PAH	CCV	SV503421	SV502302	10 ppm	10 ul	200 ul	"			"
PAH	CCV	SV503422	SV502302	10 ppm	10 ul	200 ul	"			4-24-18
PAH	CCV	SV503423	SV502302	10 ppm	10 ul	200 ul	"			4-25-18
~~PAH~~	~~CCV~~	~~SV503~~								

NOTEBOOK INSERT LABEL

Polynuclear Aromatic Hydrocarbons Mix CRM47543

Lot: ~~LC07521V~~ XA261145V EXP: APR/~~2017~~ 2020 STORAGE: REFRIGERATE 1 x 1ml

DATE RECEIVED:

SUPELCO

Solutions within.

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4.27

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SIGNATURE DATE

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Analyte		Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst Date	Date
PAH	CCV	SVS04461	SVS02302	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	6-15-18
PAH	CCV	SVS04402	SVS02302	10 ppm	10 ul	200 ul	500 ppb			
PAH	ICV	SVS04463	SVS03402	10 ppm	10 ul	200 ul	1			
PAH	CCV	SVS04464	SVS02301	2000 ppm	50 ul	10 mL	10 ppm			
MIX			SVS00020	1000 ppm	100 ul	"	"			
PAH	5000	SVS04465	SVS04404	10 ppm	500 ul	1.0 mL	5000 ppb			
	1000	06			100		1000			
	500	07			50		500			
	200	08			20		200			
	100	09	"	"	10		100			
	50	10	SVS04406	1000 ppb	50		50			
	20	11	"	"	20		20			
	10	12	"	"	10		10			
PAH	1000	SVS04413	SVS04404	10 ppm	100 ul	1.0 mL	1000 ppb			6-18-18
	50	SVS04414	SVS04413	1000 ppb	50		50			
	20	15	"	"	20		20			
	10	16	"	"	10		10			
PAH	5000	SVS04417	SVS04404	10 ppm	500 ul		5000 ppb			
PAH	ICV	SVS04418	SVS03402	10 ppm	10 ul	200 ul	500 ppb			
PAH	ICV	SVS04419	"	"	"	"	"			
DPTPO		SVS 044 20	SVS-033-20	1000 ppm	50 µl	1 ml	50 ppm	MeCl2	LM	6-19-18
PAH	CCV	SVS 044 21 ~~SVS 033 20~~	SVS-044-4	10 ppm	10 "	200 µl	500 ppb			
BNA	CCV	SVS04422	SVS-043 8/9	200 ppm	20/20 µl	20 µl	20 ppm			
BNA	CCV	SVS04423	SVS04389	200 ppm	2/20 ul	200 ul	20 ppm		ZT	6-20-18
PAH	CCV	SVS04424	SVS04404	10 ppm	10 ul	200 ul	500 ppb			
BNA	CCV	SVS04425	SVS04389	200 ppm	20/20 ul	200 ul	20 ppm			6-21-18
PAH	CCV	SVS04426	SVS04404	10 ppm	10 ul	200 ul	500 ppb			
BNA	60	SVS04427	SVS04389	200 ppm	60/60 ul	200 ul	60 ppm			
	50	28			50/50		50			
	35	29			35/35	"	35			
	20	30			40/40	400 ul	20			
	10	31			10/10	200 ul	10			
BNA	ICV	32	SVS03912		20/20 ul	"	20 ppm			

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Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
8270	SVS05001	SVS04911	2000 ppm	2.0 mL	50 mL	80 ppm	MeCl2/Acetone	ZT	8-6-18
Spike		SVS04912	1000 ppm	"	"	40 ppm	"	"	"
PAH Spike	SVS05002	SVS04914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	ZT	"
INSTD	SVS05003								
Stock									
BNA INST	SVS05004	SVS05003	4000 ppm	500 µl	4 mL	500 ppm	MeCl2	ZT	8-6-18
BNA 60	SVS05005	SVS04389	200 ppm	60/60 µl	200 µl	60 ppm			
50	06			50/50		50			
35	07			35/35	"	35			
20	08			40/40	400 µl	20			
10	09	"	"	10/10	200 µl	10			
5	10	SVS05008	20 ppm	50		5			
2	11	"	"	20		2			
1	12	"	"	10		1			
BNA ICV	SVS05013	SVS03912	200 ppm	20/20 µl		20 ppm			
BNA CCV	SVS05014	SVS04389	200 ppm	20/20 µl		20 ppm			8-7-18
PAH CCV	SVS05015	SVS04404	10 ppm	10 µl		500 ppb			
PAH INST.	SVS05016	SVS03025	4000 ppm	40 µl	4 mL	40 ppm			
PAH CCV	SVS05017	SVS04404	10 ppm	10 µl	200 µl	500 ppb			
PAH ICV	SVS05018	SVS03402	10 ppm	10 µl					
PAH CCV	SVS05019	SVS04404	10 ppm	10 µl					8-8-18
PAH CCV	SVS05020	SVS04404	10 ppm	10 µl					8-9-18
BNA CCV	SVS05021	SVS04389	200 ppm	20/20 µl		20 ppm			
PAH Surr. Stock	SVS05022	31887 Revised B/N Surrogate Mix Lot# A0124675 Expire: 01/2023 Store: 10°C or colder 1000 µg/mL each in Methylene Chloride 1 mL RESTEK Rec. 1-26-18						ZT	8-14-18
PAH Surr.	SVS05023	SVS05022	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	8-14-18
BNA CCV	SVS05024	SVS04389	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	
PAH CCV	SVS05025	SVS04404	10 ppm	10 µl	200 µl	500 ppb			

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Z-014J 1 mL
Internal Standard Mix
4.0 mg/mL in CH2Cl2
Lot: 217111166 6 comp(s)
Exp: Nov 14, 2027 Storage: Ambient (>5 °C)/Sonicate

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280

Signal Word: Warning

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Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc	Solvent	Analyst	Date
PAH	CCV	SV505301	SV504404	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	9-1-18
PAH	CCV	SV505302	1	1	1	1	1	1	1	1
PAH	ICV	SV505303	SV503402	1	1	1	1	1	1	1
DFTPP		SV505304	SV503300	1000 ppm	50 ul	1 mL	50 ppm	1	1	9-4-18
BNA	CCV	SV505305	SV505312	200 ppm	20/20 ul	200 ul	20 ppm	1	1	1
PAH	CCV	SV505306	SV504404	10 ppm	10 ul	1	500 ppb	1	1	1
BNA	CCV	SV505307	SV505312	200 ppm	20/20 ul	1	20 ppm	1	MM	9-5-18
PAH	CCV	SV505308	SV504404	10 ppm	10 ul	1	1	1	1	1
BNA	60	SV505309	SV505312	200 ppm	60/60 ul	200 ul	60 ppm	1	ZT	9-5-18
	50	10	1	1	50/50	1	50	1	1	1
	35	11	1	1	35/35	1	35	1	1	1
	20	12	1	1	40/40	400 ul	20	1	1	1
	10	13	1	1	10/10	200 ul	10	1	1	1
	5	14	SV505312	20 ppm	50	1	5	1	1	1
	2	15	1	1	20	1	2	1	1	1
	1	16	1	1	10	1	1	1	1	1
BNA	ICV	17	SV505312	200 ppm	20/20	1	20	1	1	1
PAH	CCV	SV505318	SV504404	10 ppm	10 ul	200 ul	500 ppb	1	1	9-6-18
PAH										
	Surr.	SV505319							ZT	9-6-18
	Stock									
PAH	Surr.	SV505320	SV505319	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	9-6-18
BNA	CCV	SV505321	SV505312	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	1	1
SVOC	SURR	SV505322							MM	9-7-18
	Stock									

31887 US/EN
Revised B/N Surrogate Mix
Lot# A0134896
Expire: 01/2024 Store: 10°C or colder
1000 µg/mL each in Methylene Chloride
1 mL
RESTEK
Rec. 4-1-18 ZT

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M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)
FOR LABORATORY USE ONLY
H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 P264 P284 P280
Signal Word: Warning

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M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217111366 6 comp(s)
Exp: Nov 30, 2027 Storage: Ambient (>5 °C)
FOR LABORATORY USE ONLY
H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 P264 P284 P280
Signal Word: Warning

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Analyte		Lab ID	Stock ID	Stock conc	Stock vol	Final vol	Final conc.	Solvent	Analyst	Date
SVOC	surr	SVS-054401	SVS-053201	4000 ppm	2 mL	100 uL	80 ppm	Acetone	MM	9-7-18
BNA	CCV	SVS05402	SVS05 S/6	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ET	9-7-18
PAH	CCV	SVS05403	SVS044404	10 ppm	10 ul	200 ul	500 ppb			"
PAH	CCV	SVS05404	SVS044404	10 ppm	10 ul	200 ul	↓			9-10-18
PAH	INST.	SVS05405	SVS05003	4000 ppm	40 ul	4 mL	40 ppm			
PAH	5000	SVS05406	SVS044404	10 ppm	500 ul	1.0 mL	5000 ppb			
	1000	07			100		1000			
	500	08			50		500			
	200	09			20		200			
	100	10	—	—	10		100			
	50	11	SVS05407	1000 ppb	50		50			
	20	12			20		20			
	10	13	—	—	10		10			
PAH	ICV	SVS05414	SVS03402	10 ppm	10 ul	200 ul	500 ppb			
1,4 Diox	CCV	SVS05415	SVS04701	10 ppm	10 ul	200 ul	500 ppb			
BNA	CCV	SVS05416	SVS05 S/6	200 ppm	20/20 ul	200 ul	20 ppm			9-11-18
1,4 Diox	CCV	SVS05417	SVS04701	10 ppm	10 ul		500 ppb			
PAH	ICV	SVS05418	SVS03402	10 ppm	10 ul		"			
BNA	CCV	SVS05419	SVS05 S/6	200 ppm	20/20 ul		20 ppm			9-12-18
PAH	CCV	SVS05420	SVS044404	10 ppm	10 ul		500 ppb			
PAH	CCV	SVS05421	"							
PAH	ICV	SVS05422	SVS03402							
PAH	CCV	SVS05423	SVS044404							9-13-18
BNA	CCV	SVS05424	SVS05 S/6	200 ppm	20/20 ul		20 ppm			
PAH	CCV	SVS05425	SVS044404	10 ppm	10 ul		500 ppb			
PAH	ICV	SVS05426	SVS03402	10 ppm	"		"			
PAH		SVS05427	SVS02801	2000 ppm	50 ul	10 mL	10 ppm			
Stock			SVS02020	1000 ppm	100 ul	—	—			
PAH	CCV	SVS05428	SVS05427	10 ppm	10 ul	200 ul	500 ppb			

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Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH	5000	SV505501	SV505427	10 ppm	500 µl	1.0 mL	5000 ppb	MeCl2	ZT	9-13-18
	1000	02			100		1000			
	500	03			50		500			
	200	04			20		200			
	100	05			10		100			
	50	06	SV505502	1000 ppb	50		50			
	20	07			20		20			
	10	08			10		10			
PAH	Stock	SV505509	31995 8270 Calibration Mix #5, Revised Lot# A0122625 Expire: 10/2022 Store: 10°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK Recieved 2-24-17 ZT							
PAH	SURR STOCK	SV505510	31887 USIEN Revised B/N Surrogate Mix Lot# A0134896 Expire: 01/2024 Store: 10°C or colder 1 mL 1000 µg/mL each in Methylene Chloride RESTEK Rec. 4-3-18 ZT							
PAH	WORKING STOCK	SV505511	SV505509	2000 ppm	50 µl	10 ml	10 ppm	MeCl2	VM	9.13.18
			SV505510	1000 ppm	100 µl	1	1	1	1	1
PAH	ICAL 5000	SV505512	SV505511	10 ppm	500 µl	1.0 ml	5000 ppb			
	1000	13			100		1000			
	500	14			50		500			
	200	15			20		200			
	100	16			10		100			
	50	17	SV505513	1000 ppb	50		50			
	20	18			20		20			
	10	19			10		10			
PAH	CCV	SV505520	SV505511	10 ppm	10 µl	2.00 µl	500 ppb	MeCl2	VM	9.11.18
BNA	CCV	SV505521	SV505516	200 ppm	10 µl	200 µl	20 ppm		ZT	9-14-18
PAH	CCV	SV505522	SV505511	10 ppm	10 µl	200 µl	500 ppb			9-16-18
PAH	CCV	SV505523	SV505511	10 ppm	10 µl	200 µl	500 ppb	MeCl2	VM	9.17.18
					VM 6.17.18					

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY | DATE | WITNESS | DATE

TOC Data Package

	Type	Analysis	Sample Name	Sample ID	Origin	Result	Notes	Status	Date / Time
1	Standard	SSM-TC	Untitled	Untitled	SSM Total Carbon.201			Completed	5/23/2017 12:18:57
2	Standard	SSM-IC	Untitled	Untitled	SSM Inorganic Carbon.			Completed	5/23/2017 1:52:43 P
3	Unknown	SSM-TOC	icv	Soil	SSM-TC-IC 170523.me	SSM-TOC:30.26% S		Completed	5/23/2017 2:26:45 P
4	Unknown	SSM-TOC	icb	Soil	SSM-TC-IC 170523.me	SSM-TOC:-0.02212%		Completed	5/23/2017 2:38:51 P

Instr.Information

System	SSM
Instrument Options	TOC/SSM/
Catalyst	Regular Sensitivity

Cal. Curve

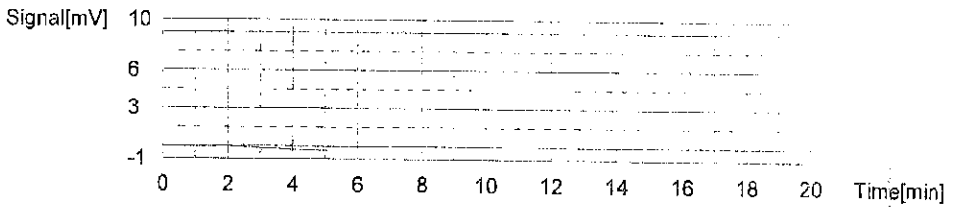
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	SSM Total Carbon.2017_05_23_11_14_23.cal
Status	Completed

Type	Anal.
Standard	SSM-TC

AbsC: 0.000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	0.000	0.000	0.000ug	0.000mg	*****P*		5/23/2017 11:24:02 AM

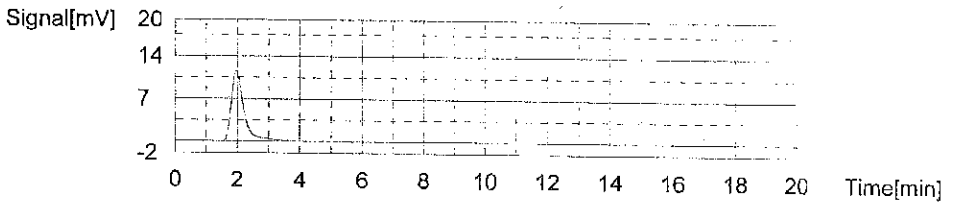
Mean Area 0.000
Mean CNV 0.000



AbsC: 210.6ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	32.03	32.03	210.6ug	0.5000mg	*****P*		5/23/2017 11:33:19 AM

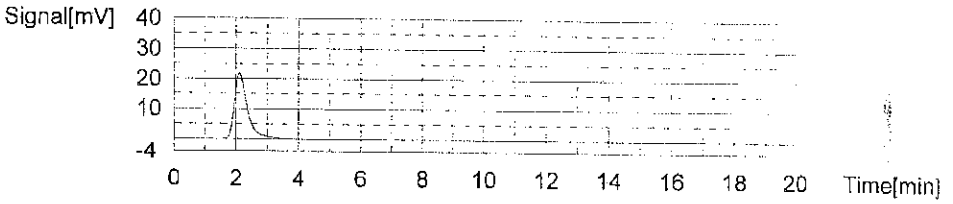
Mean Area 32.03
Mean CNV 32.03



AbsC: 421.1ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	62.90	62.90	421.1ug	1.000mg	*****P*		5/23/2017 11:41:34 AM

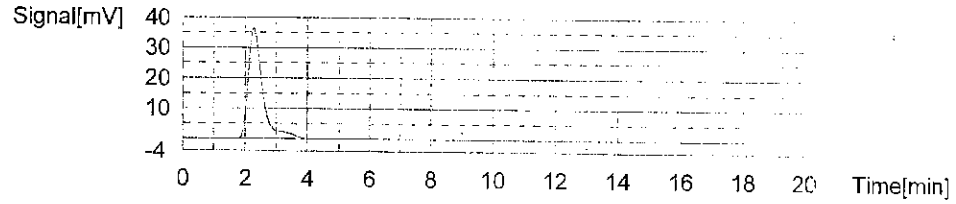
Mean Area 62.90
Mean CNV 62.90



AbsC: 842.2ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	118.2	118.2	842.2ug	2.000mg	*****P*		5/23/2017 11:49:52 AM

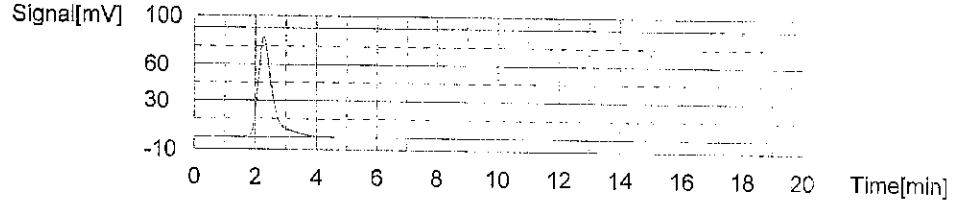
Mean Area 118.2
Mean CNV 118.2



AbsC: 2106ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	272.9	272.9	2106ug	5.000mg	*****P*		5/23/2017 11:58:44 AM

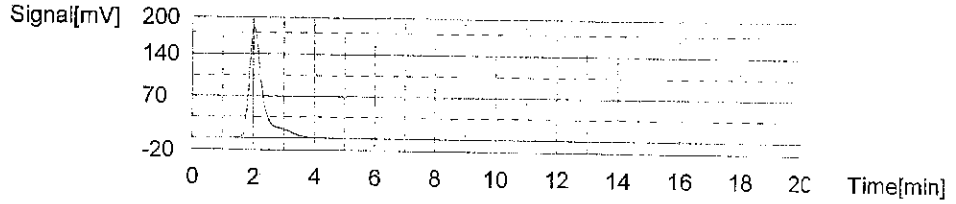
Mean Area 272.9
Mean CNV 272.9



AbsC: 4211ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	577.5	577.5	4211ug	10.00mg	*****P*		5/23/2017 12:09:08 PM

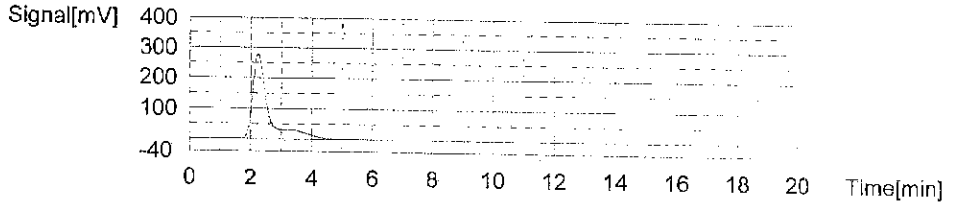
Mean Area 577.5
Mean CNV 577.5



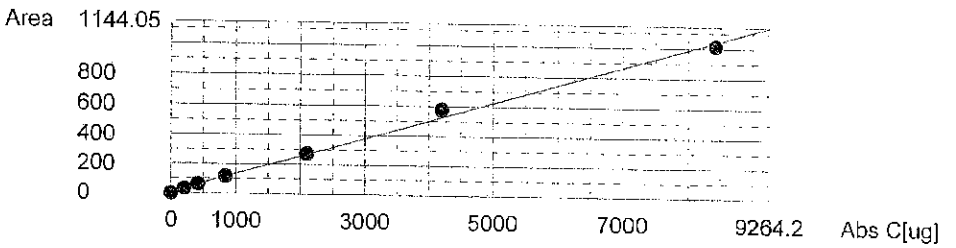
AbsC: 8422ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	1015	1015	8422ug	20.00mg	*****P*		5/23/2017 12:18:57 PM

Mean Area 1015
Mean CNV 1015



Slope: 0.1217
Intercept 15.06
r^2 0.9959
r 0.9980
Zero Shift No



Cal. Curve

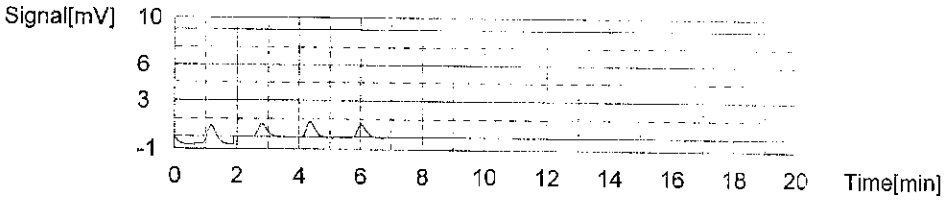
Sample Name: Untitled
Sample ID: Untitled
Cal. Curve: SSM Inorganic Carbon.2017_05_23_12_55_37.cal
Status Completed

Type	Anal.
Standard	SSM-IC

AbsC: 0.000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	2.840	2.840	0.000ug	0.000mg	*****P*	E	5/23/2017 12:58:56 PM
2	2.099	2.099	0.000ug	0.000mg	*****P*	E	5/23/2017 1:02:02 PM
3	2.572	2.572	0.000ug	0.000mg	*****P*	E	5/23/2017 1:07:19 PM
4	2.134	2.134	0.000ug	0.000mg	*****P*		5/23/2017 1:09:58 PM

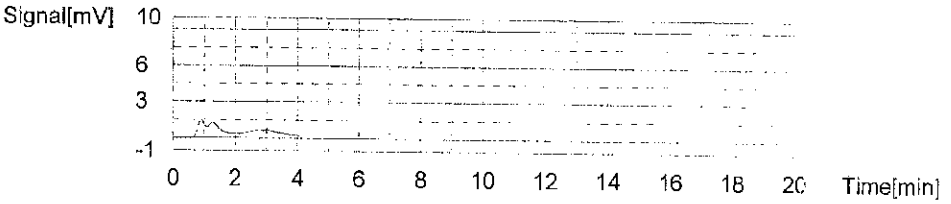
Mean Area 2.134
Mean CNV 2.134



AbsC: 56.65ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	9.841	9.841	56.65ug	0.5000mg	*****P*		5/23/2017 1:17:46 PM

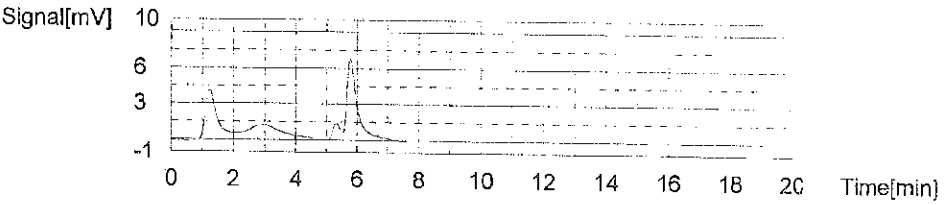
Mean Area 9.841
Mean CNV 9.841



AbsC: 113.3ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	19.95	19.95	113.3ug	1.000mg	*****P*	E	5/23/2017 1:23:58 PM
2	18.93	18.93	113.3ug	1.000mg	*****P*		5/23/2017 1:29:13 PM

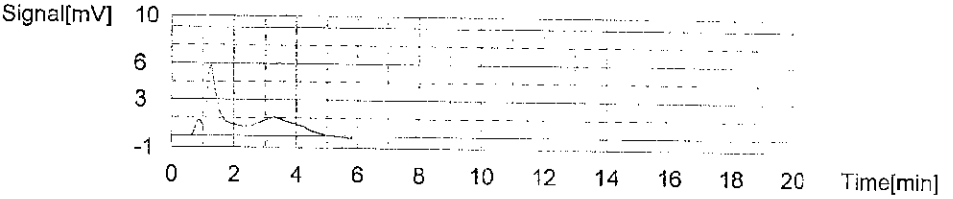
Mean Area 18.93
Mean CNV 18.93



AbsC: 226.6ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	35.39	35.39	226.6ug	2.000mg	*****P*		5/23/2017 1:36:51 PM

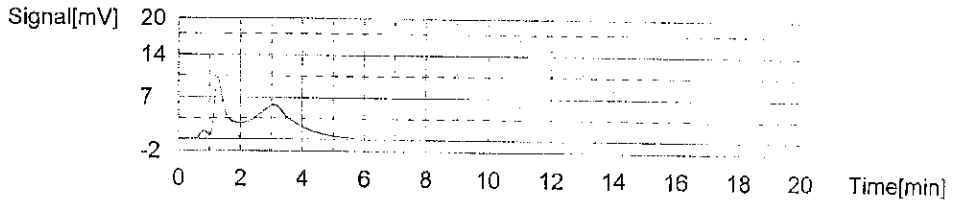
Mean Area 35.39
Mean CNV 35.39



AbsC: 566.5ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	82.67	82.67	566.5ug	5.000mg	*****P*		5/23/2017 1:44:31 PM

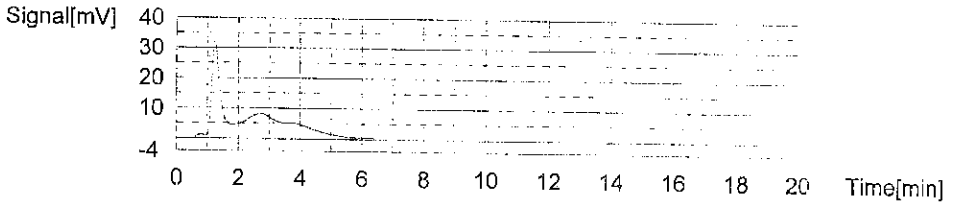
Mean Area 82.67
Mean CNV 82.67



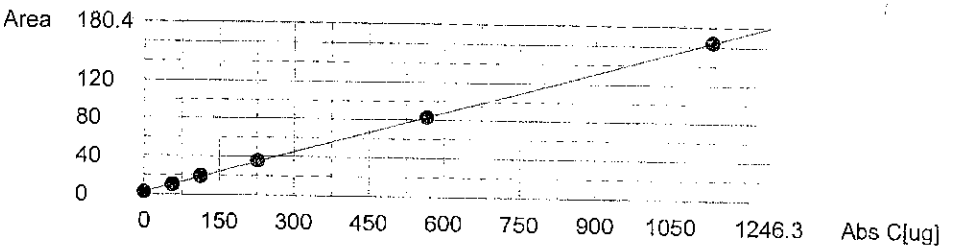
AbsC: 1133ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	164.0	164.0	1133ug	10.00mg	*****P*		5/23/2017 1:52:43 PM

Mean Area 164.0
Mean CNV 164.0



Slope: 0.1426
Intercept 2.336
r^2 0.9999
r 1.0000
Zero Shift No



Sample

Sample Name: lcv
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

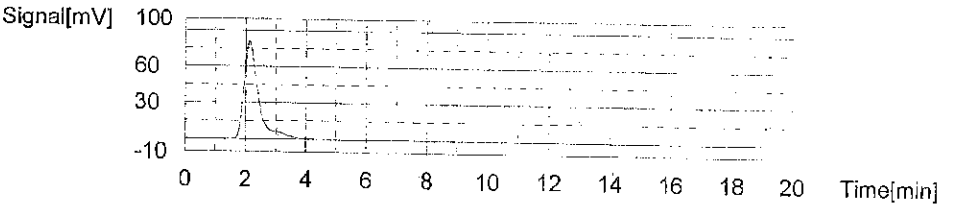
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:30.26% SSM-TC:41.73% SSM-IC:11.47%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	269.0	269.0	2087ug	41.73%	5.000mg	5uL		SSM Total Carbon.2017_05_23_11_14_23.ca	5/23/2017 2:17:57 PM

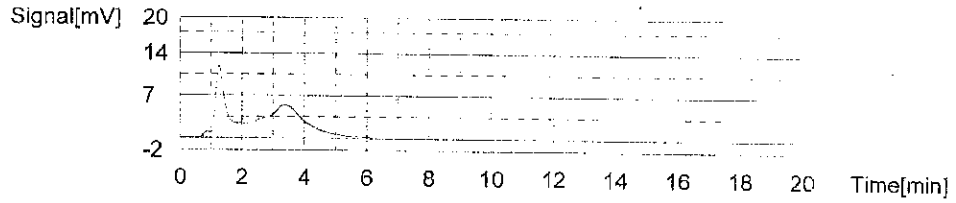
Mean Area 269.0
Mean CNV 269.0
Mean Conc. 41.73%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	84.16	84.16	573.7ug	11.47%	5.000mg	5uL		SSM Inorganic Carbon.2017_05_23_12_55_35	23/2017 2:26:45 PM

Mean Area 84.16
Mean CNV 84.16
Mean Conc. 11.47%



Sample

Sample Name: icb
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

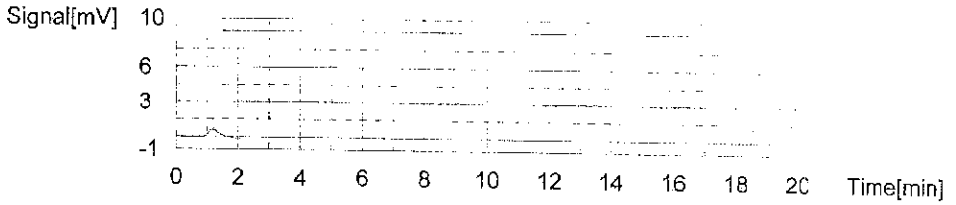
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:-0.02212% SSM-TC:-0.02228% SSM-IC:-0.00015%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1.507	1.507	-111.4ug	-0.02228%	500.0mg	500uL		SSM Total Carbon.2017_05_23_11_14_23.ca	5/23/2017 2:33:40 PM

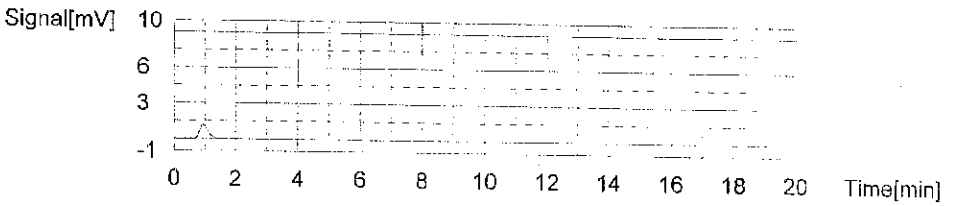
Mean Area 1.507
Mean CNV 1.507
Mean Conc. -0.02228%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2.270	2.270	-0.4622ug	-0.00015%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_35	23/2017 2:38:51 PM

Mean Area 2.270
Mean CNV 2.270
Mean Conc. -0.00015%



	Type	Analysis	Sample Nam	Sample I	Origin	Result	Status	Date / Time
1	Unknow	SSM-TOC	CCV	Soil	SSM-TC-IC	SSM-TOC:31.11% SSM-TC:43.41% SSM-IC:12.30%	Completed	9/20/2018 11:22:30 AM
2	Unknow	SSM-TOC	CCB	Soil	SSM-TC-IC	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546	Completed	9/20/2018 11:34:41 AM
3	Unknow	SSM-TOC	MB0920S1	Soil	SSM-TC-IC	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546	Completed	9/20/2018 11:46:04 AM
4	Unknow	SSM-TOC	SB0920S1	Soil	SSM-TC-IC	SSM-TOC:32.96% SSM-TC:44.82% SSM-IC:11.86%	Completed	9/20/2018 12:03:11 PM
5	Unknow	SSM-TOC	08-327-03	Soil	SSM-TC-IC	SSM-TOC:21.28% SSM-TC:21.28% SSM-IC:0.00008%	Completed	9/20/2018 1:29:44 PM
6	Unknow	SSM-TOC	08-327-23	Soil	SSM-TC-IC	SSM-TOC:0.6182% SSM-TC:0.6189% SSM-IC:0.00073%	Completed	9/20/2018 2:23:51 PM
7	Unknow	SSM-TOC	08-327-32	Soil	SSM-TC-IC	SSM-TOC:6.417% SSM-TC:6.417% SSM-IC:-0.00058%	Completed	9/20/2018 3:11:55 PM
8	Unknow	SSM-TOC	08-327-32	Soil	SSM-TC-IC	SSM-TOC:5.211% SSM-TC:5.211% SSM-IC:-0.00065%	Completed	9/20/2018 3:40:03 PM
9	Unknow	SSM-TOC	CCV	Soil	SSM-TC-IC	SSM-TOC:33.35% SSM-TC:45.76% SSM-IC:12.41%	Completed	9/20/2018 3:57:45 PM
10	Unknow	SSM-TOC	CCB	Soil	SSM-TC-IC	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546	Completed	9/20/2018 4:10:25 PM
11	Unknow	SSM-TOC	CCV	Soil	SSM-TC-IC	SSM-TOC:35.25% SSM-TC:45.74% SSM-IC:10.49%	Completed	9/21/2018 10:40:27 AM
12	Unknow	SSM-TOC	CCB	Soil	SSM-TC-IC	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546	Completed	9/21/2018 10:54:28 AM
13	Unknow	SSM-TOC	08-327-34	Soil	SSM-TC-IC	SSM-TOC:0.3115% SSM-TC:0.6006% SSM-IC:0.2891%	Completed	9/21/2018 12:39:09 PM
14	Unknow	SSM-TOC	08-395-22	Soil	SSM-TC-IC	SSM-TOC:4.119% SSM-TC:4.180% SSM-IC:0.06082%	Completed	9/21/2018 2:18:31 PM
15	Unknow	SSM-TOC	08-395-32	Soil	SSM-TC-IC	SSM-TOC:0.09345% SSM-TC:0.09263% SSM-IC:-0.00082%	Completed	9/21/2018 3:13:49 PM
16	Unknow	SSM-TOC	08-395-32 D	Soil	SSM-TC-IC	SSM-TOC:0.09843% SSM-TC:0.09984% SSM-IC:0.00140%	Completed	9/21/2018 4:14:29 PM
17	Unknow	SSM-TOC	CCV	Soil	SSM-TC-IC	SSM-TOC:31.44% SSM-TC:43.46% SSM-IC:12.01%	Completed	9/21/2018 4:32:18 PM
18	Unknow	SSM-TOC	CCB	Soil	SSM-TC-IC	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546	Completed	9/21/2018 4:44:03 PM
19	Unknow	SSM-TOC	CCV	Soil	SSM-TC-IC	SSM-TOC:31.55% SSM-TC:43.75% SSM-IC:12.21%	Completed	9/24/2018 10:39:29 AM
20	Unknow	SSM-TOC	CCB	Soil	SSM-TC-IC	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546	Completed	9/24/2018 10:51:24 AM
21	Unknow	SSM-TOC	08-395-41	Soil	SSM-TC-IC	SSM-TOC:15.26% SSM-TC:15.26% SSM-IC:0.00128%	Completed	9/24/2018 11:42:04 AM
22	Unknow	SSM-TOC	08-395-42	Soil	SSM-TC-IC	SSM-TOC:1.453% SSM-TC:1.453% SSM-IC:-0.00013%	Completed	9/24/2018 12:37:16 PM
23	Unknow	SSM-TOC	08-395-47	Soil	SSM-TC-IC	SSM-TOC:44.75% SSM-TC:44.75% SSM-IC:0.00591%	Completed	9/24/2018 1:33:15 PM
24	Unknow	SSM-TOC	CCV	Soil	SSM-TC-IC	SSM-TOC:31.95% SSM-TC:44.38% SSM-IC:12.43%	Completed	9/24/2018 1:51:39 PM
25	Unknow	SSM-TOC	CCB	Soil	SSM-TC-IC	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546	Completed	9/24/2018 2:03:46 PM

AVG 5.814

Instr.Information

System SSM
Instrument Options TOC/SSM/
Catalyst Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

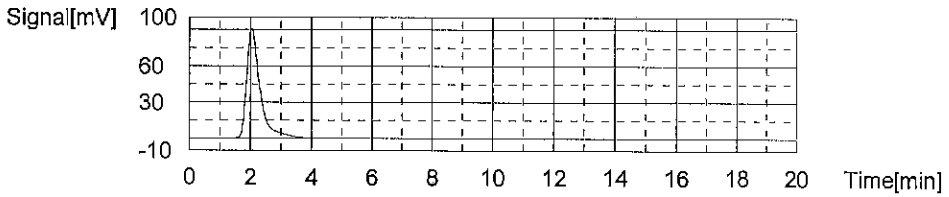
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:31.11% SSM-TC:43.41% SSM-IC:12.30%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	279.2	279.2	2170ug	43.41%	5.000mg	5uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 11:14:35 AM

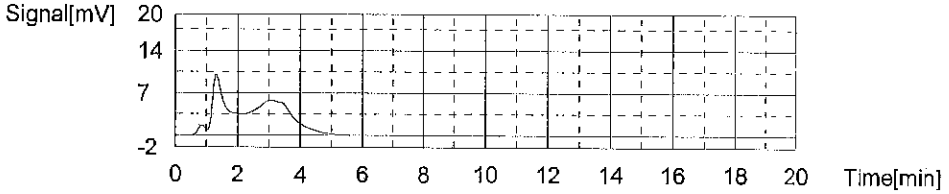
Mean Area 279.2
Mean CNV 279.2
Mean Conc. 43.41%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	90.03	90.03	614.9ug	12.30%	5.000mg	5uL		SSM Inorgenic Carbon.2017_05_23_12_55_39	9/20/2018 11:22:30 AM

Mean Area 90.03
Mean CNV 90.03
Mean Conc. 12.30%



Sample

Sample Name: CCB
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

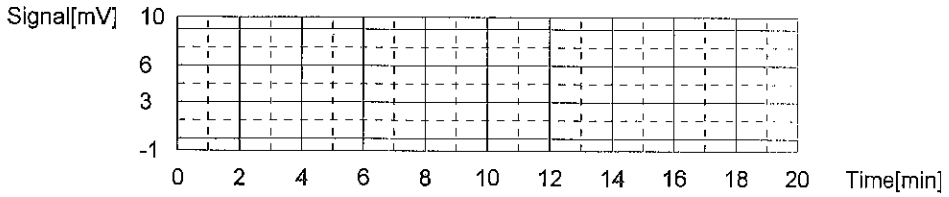
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-123.8ug	-0.02475%	500.0mg	500uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 11:29:04 AM

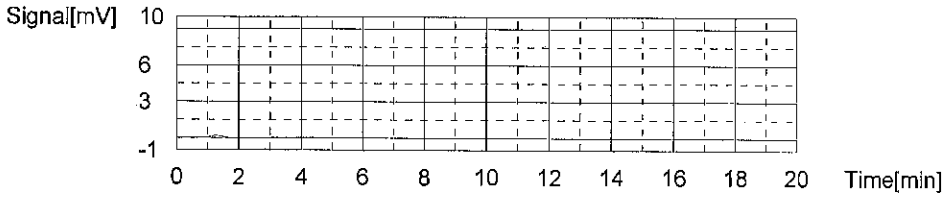
Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.02475%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-16.38ug	-0.00546%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 11:34:41 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.00546%



Sample

Sample Name: MB0920S1
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

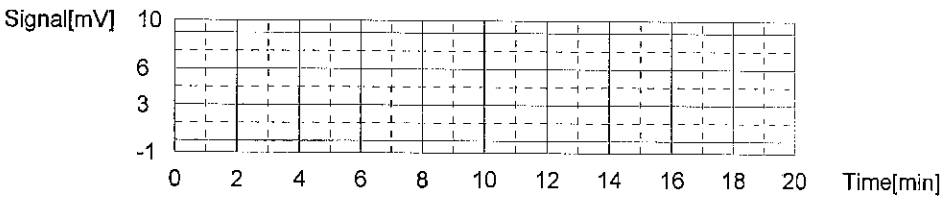
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-123.8ug	-0.02475%	500.0mg	500uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 11:40:39 AM

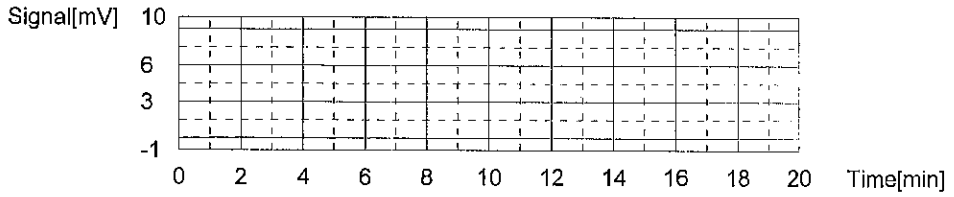
Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.02475%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-16.38ug	-0.00546%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 11:46:04 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.00546%



Sample

Sample Name: SB0920S1
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

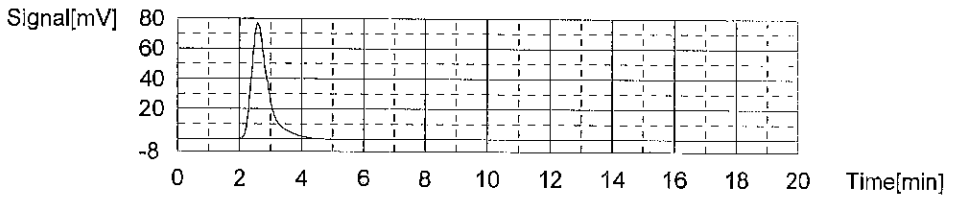
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:32.96% SSM-TC:44.82% SSM-IC:11.86%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	287.8	287.8	2241ug	44.82%	5.000mg	5uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 11:54:49 AM

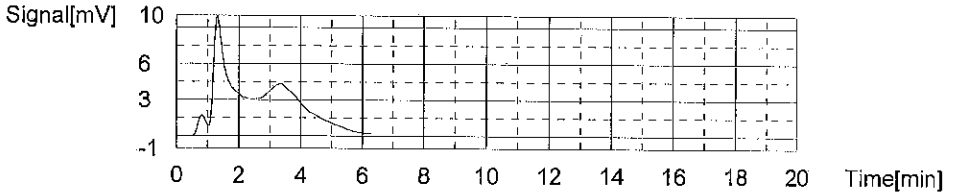
Mean Area 287.8
Mean CNV 287.8
Mean Conc. 44.82%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	86.92	86.92	593.1ug	11.86%	5.000mg	5uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 12:03:11 PM

Mean Area 86.92
Mean CNV 86.92
Mean Conc. 11.86%



Sample

Sample Name: 08-327-03
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

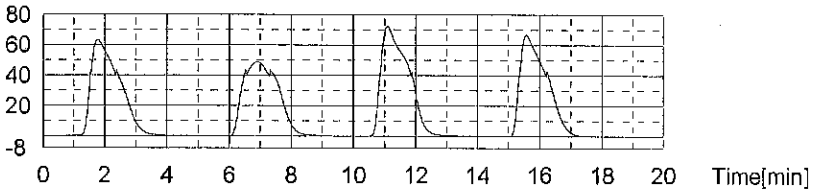
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:21.28% SSM-TC:21.28% SSM-IC:0.00008%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	404.7	404.7	3202ug	26.46%	12.10mg	12uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 12:11:48 PM
2	387.5	272.6	3060ug	17.79%	17.20mg	17uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 12:55:07 PM
3	442.2	320.4	3510ug	21.02%	16.70mg	16uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 1:04:03 PM
4	401.3	303.5	3174ug	19.84%	16.00mg	16uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 1:11:32 PM

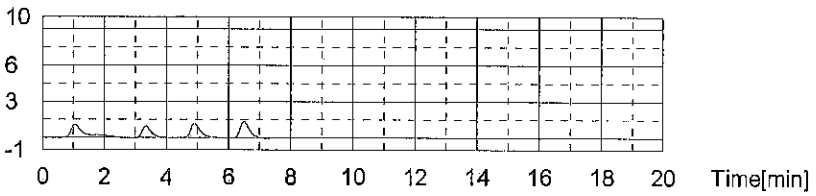
Mean Area 408.9
Mean CNV 325.3
Mean Conc. 21.28%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2.619	2.619	1.985ug	0.00065%	306.0mg	306uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/20/2018 1:17:28 PM
2	1.830	1.824	-3.547ug	-0.00116%	307.0mg	307uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/20/2018 1:21:45 PM
3	2.304	2.374	-0.2238ug	-0.00008%	297.0mg	297uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/20/2018 1:26:17 PM
4	2.727	2.782	2.742ug	0.00091%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/20/2018 1:29:44 PM

Mean Area 2.370
Mean CNV 2.400
Mean Conc. 0.00008%



Sample

Sample Name: 08-327-23
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

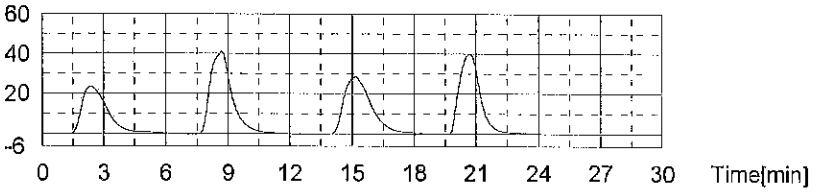
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:0.6182% SSM-TC:0.6189% SSM-IC:0.00073%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	197.2	197.2	1497ug	0.4677%	320.0mg	320uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 1:40:38 PM
2	300.6	302.5	2346ug	0.7378%	318.0mg	318uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 1:51:24 PM
3	249.9	244.6	1930ug	0.5901%	327.0mg	327uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 2:02:04 PM
4	278.3	280.1	2163ug	0.6802%	318.0mg	318uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 2:11:33 PM

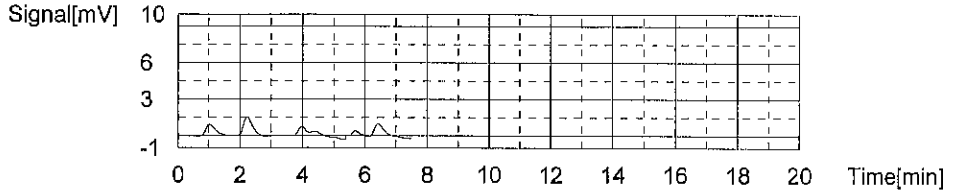
Mean Area 256.5
Mean CNV 256.1
Mean Conc. 0.6189%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1.977	1.977	-2.517ug	-0.00085%	296.0mg	296uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 2:14:31 PM
2	2.867	2.773	3.724ug	0.00122%	306.0mg	306uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 2:17:27 PM
3	2.586	2.469	1.753ug	0.00057%	310.0mg	310uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 2:20:58 PM
4	3.181	3.128	5.925ug	0.00197%	301.0mg	301uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 2:23:51 PM

Mean Area 2.653
Mean CNV 2.587
Mean Conc. 0.00073%



Sample

Sample Name: 08-327-32
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

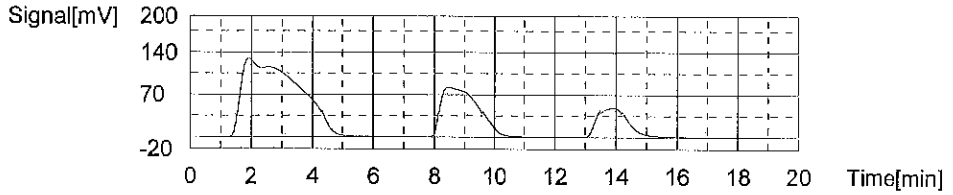
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:6.417% SSM-TC:6.417% SSM-IC:-0.00058%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1660	1660	13516ug	8.142%	166.0mg	166uL	E	SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 2:35:04 PM
2	709.2	1768	5704ug	8.564%	66.60mg	66uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 2:46:14 PM
3	346.6	901.8	2724ug	4.270%	63.80mg	63uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 2:57:14 PM

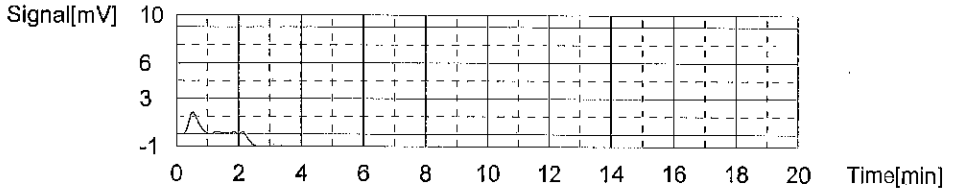
Mean Area 527.9
Mean CNV 1335
Mean Conc. 6.417%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	4.129	4.129	12.57ug	0.00418%	301.0mg	301uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 3:08:29 PM
2	0.1150	0.1185	-15.57ug	-0.00533%	292.0mg	292uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 3:11:55 PM

Mean Area 2.122
Mean CNV 2.124
Mean Conc. -0.00058%



Sample

Sample Name: 08-327-32
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

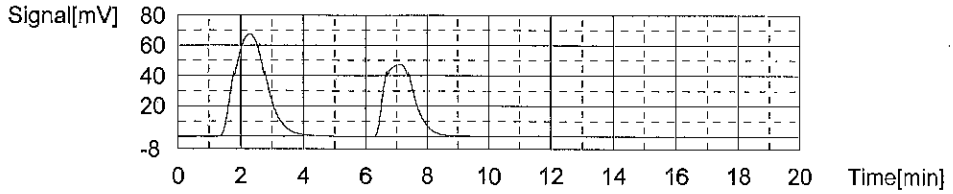
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:5.211% SSM-TC:5.211% SSM-IC:-0.00065%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	470.0	470.0	3738ug	5.896%	63.40mg	63uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 3:22:56 PM
2	323.5	366.2	2534ug	4.526%	56.00mg	56uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 3:30:52 PM

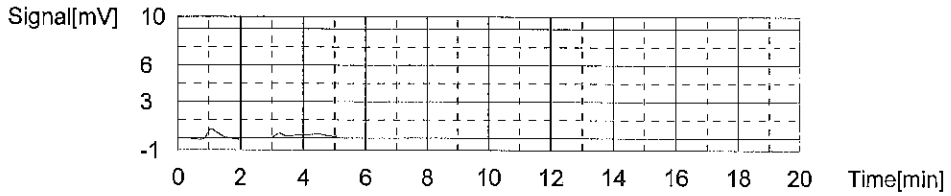
Mean Area 396.8
Mean CNV 418.1
Mean Conc. 5.211%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2.105	2.105	-1.619ug	-0.00054%	298.0mg	298uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 3:33:47 PM
2	2.007	1.987	-2.306ug	-0.00077%	301.0mg	301uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 3:40:03 PM

Mean Area 2.056
Mean CNV 2.046
Mean Conc. -0.00065%



Sample

Sample Name: CCV
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

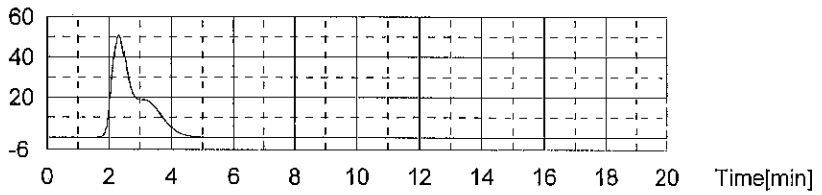
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:33.35% SSM-TC:45.76% SSM-IC:12.41%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	293.5	293.5	2288ug	45.76%	5.000mg	5uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 3:49:23 PM

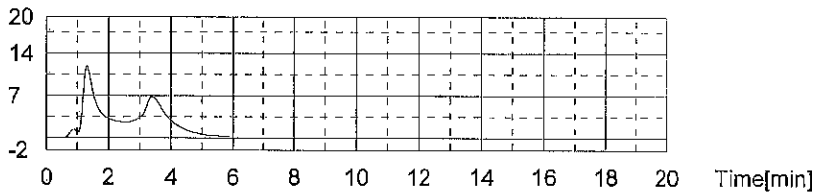
Mean Area 293.5
Mean CNV 293.5
Mean Conc. 45.76%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	90.81	90.81	620.3ug	12.41%	5.000mg	5uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 3:57:45 PM

Mean Area 90.81
Mean CNV 90.81
Mean Conc. 12.41%



Sample

Sample Name: CCB
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

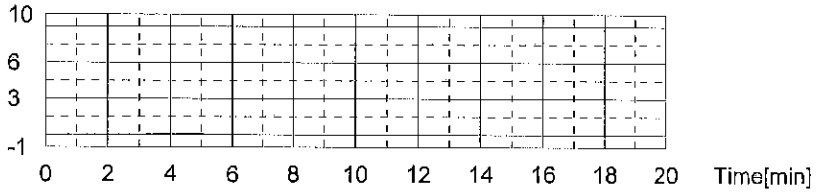
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-123.8ug	-0.02475%	500.0mg	500uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/20/2018 4:04:30 PM

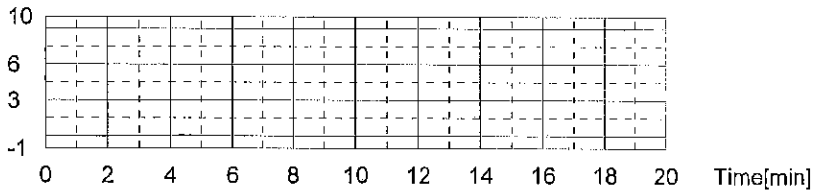
Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.02475%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-16.38ug	-0.00546%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/20/2018 4:10:25 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.00546%



Sample

Sample Name: CCV
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

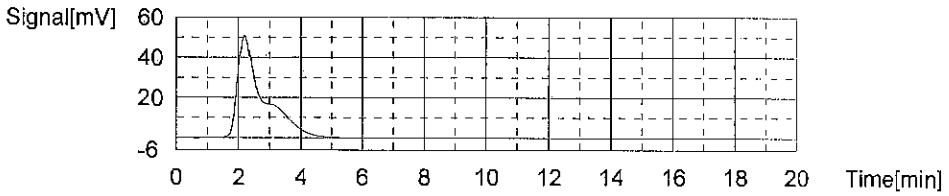
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:35.25% SSM-TC:45.74% SSM-IC:10.49%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	293.4	293.4	2287ug	45.74%	5.000mg	5uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 10:25:31 AM

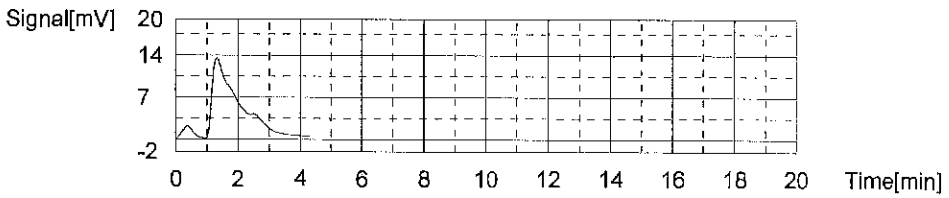
Mean Area 293.4
Mean CNV 293.4
Mean Conc. 45.74%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	77.14	77.14	524.5ug	10.49%	5.000mg	5uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/21/2018 10:40:27 AM

Mean Area 77.14
Mean CNV 77.14
Mean Conc. 10.49%



Sample

Sample Name: CCB
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

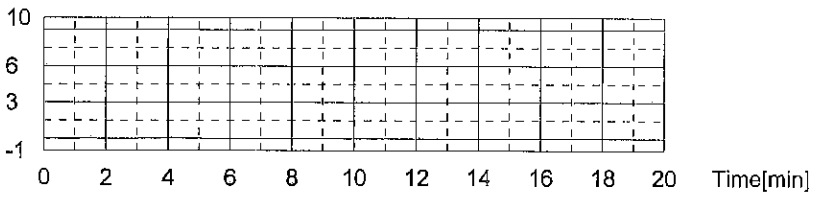
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-123.8ug	-0.02475%	500.0mg	500uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 10:48:18 AM

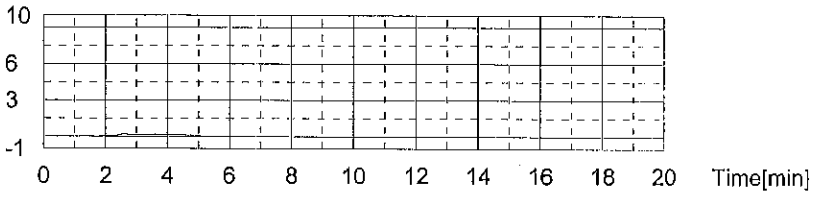
Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.02475%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-16.38ug	-0.00546%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 10:54:28 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.00546%



Sample

Sample Name: 08-327-34
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

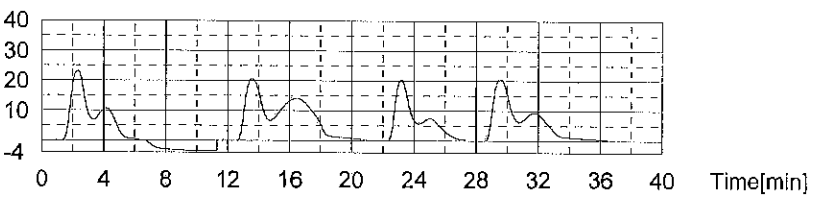
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:0.3115% SSM-TC:0.6006% SSM-IC:0.2891%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	236.7	236.7	1821ug	0.5420%	336.0mg	336uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 11:04:42 AM
2	0.000	0.000	-123.8ug	-0.03683%	336.0mg	336uL	E	SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 11:23:28 AM
3	380.6	347.5	3004ug	0.8162%	368.0mg	368uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 11:38:35 AM
4	194.2	194.8	1472ug	0.4394%	335.0mg	335uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 11:52:01 AM
5	266.1	262.2	2063ug	0.6049%	341.0mg	341uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 12:08:47 PM

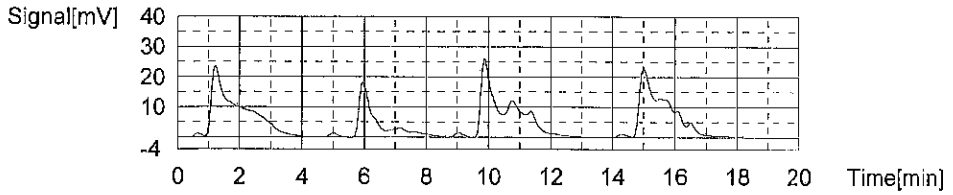
Mean Area 269.4
Mean CNV 260.3
Mean Conc. 0.6006%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	145.7	145.7	1005ug	0.3655%	275.0mg	275uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 12:17:49 PM
2	62.75	59.92	423.6ug	0.1471%	288.0mg	288uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 12:24:47 PM
3	140.9	130.5	971.5ug	0.3271%	297.0mg	297uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 12:32:24 PM
4	129.7	126.5	893.0ug	0.3167%	282.0mg	282uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 12:39:09 PM

Mean Area 119.8
Mean CNV 115.6
Mean Conc. 0.2891%



Sample

Sample Name: 08-395-22
Sample ID: Soil
OrgIn: SSM-TC-IC 170523.met
Status Completed
Chk. Result

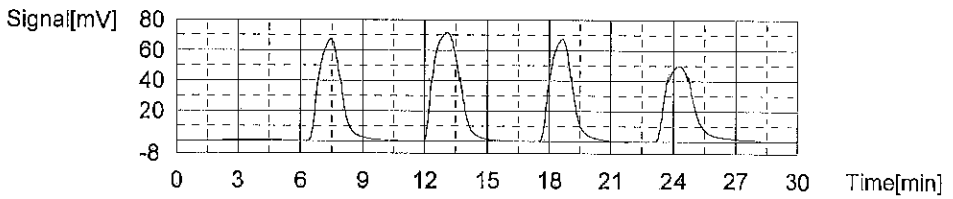
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:4.119% SSM-TC:4.180% SSM-IC:0.06082%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-123.8ug	-0.1263%	98.00mg	98uL	E	SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 12:58:25 PM
2	494.6	470.6	3940ug	3.825%	103.0mg	103uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 1:12:58 PM
3	623.1	616.8	4996ug	5.047%	99.00mg	99uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 1:25:37 PM
4	509.0	498.8	4059ug	4.059%	100.0mg	100uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 1:35:31 PM
5	457.7	467.2	3637ug	3.789%	96.00mg	96uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 1:46:29 PM

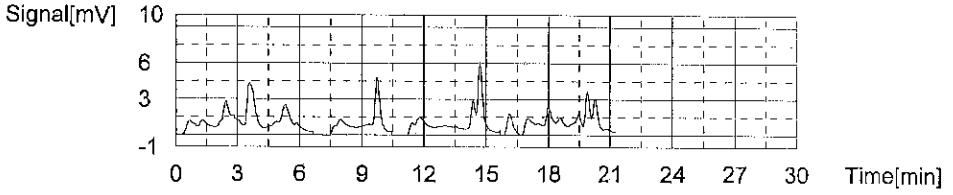
Mean Area 521.1
Mean CNV 513.4
Mean Conc. 4.180%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	40.35	40.35	266.5ug	0.09004%	296.0mg	296uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/21/2018 1:55:55 PM
2	16.15	16.54	96.86ug	0.03351%	289.0mg	289uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/21/2018 2:03:50 PM
3	24.69	24.20	156.7ug	0.05190%	302.0mg	302uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/21/2018 2:11:01 PM
4	31.16	30.95	202.1ug	0.06782%	298.0mg	298uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/21/2018 2:18:31 PM

Mean Area 28.09
Mean CNV 28.01
Mean Conc. 0.06082%



Sample

Sample Name: 08-395-32
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

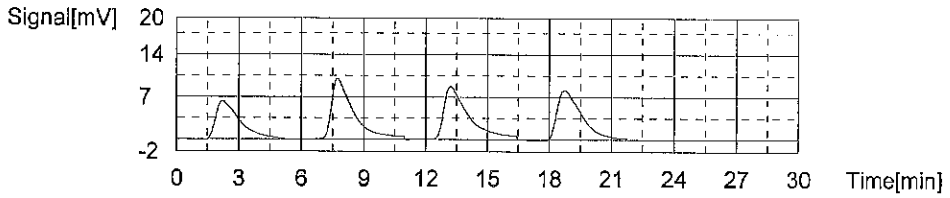
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:0.09345% SSM-TC:0.09263% SSM-IC:-0.00082%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	53.07	53.07	312.3ug	0.08627%	362.0mg	362uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 2:31:41 PM
2	67.59	54.74	431.6ug	0.09656%	447.0mg	447uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 2:41:42 PM
3	66.47	50.55	422.4ug	0.08874%	476.0mg	476uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 2:51:01 PM
4	66.24	56.42	420.5ug	0.09895%	425.0mg	425uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 3:00:53 PM

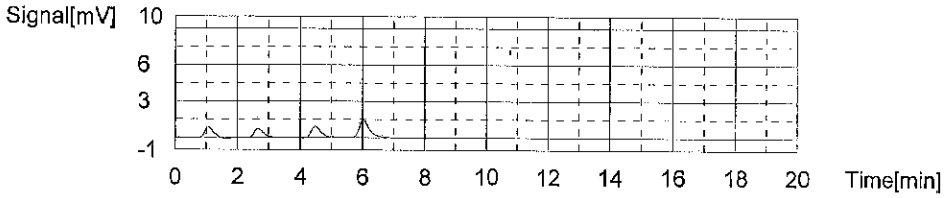
Mean Area 63.34
Mean CNV 53.69
Mean Conc. 0.09263%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1.686	1.686	-4.557ug	-0.00151%	301.0mg	301uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 3:04:11 PM
2	1.459	1.499	-6.148ug	-0.00210%	293.0mg	293uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 3:08:15 PM
3	1.766	1.754	-3.996ug	-0.00132%	303.0mg	303uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 3:10:56 PM
4	3.034	3.075	4.895ug	0.00165%	297.0mg	297uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 3:13:49 PM

Mean Area 1.986
Mean CNV 2.004
Mean Conc. -0.00082%



Sample

Sample Name: 08-395-32 DUP
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

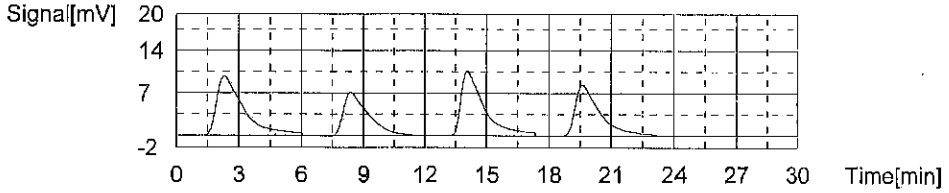
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:0.09843% SSM-TC:0.09984% SSM-IC:0.00140%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	81.34	81.34	544.6ug	0.1100%	495.0mg	495uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 3:24:18 PM
2	61.20	73.17	379.1ug	0.09157%	414.0mg	414uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 3:34:09 PM
3	74.21	77.17	486.0ug	0.1021%	476.0mg	476uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 3:43:55 PM
4	66.52	74.50	422.8ug	0.09566%	442.0mg	442uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 3:54:26 PM

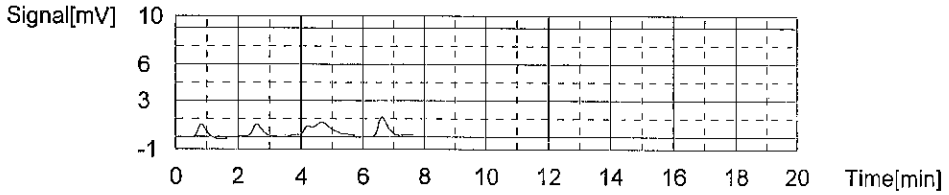
Mean Area 70.82
Mean CNV 76.55
Mean Conc. 0.09984%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1.940	1.940	-2.776ug	-0.00095%	291.0mg	291uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 4:04:10 PM
2	1.872	1.840	-3.253ug	-0.00110%	296.0mg	296uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 4:06:54 PM
3	4.726	4.524	16.76ug	0.00551%	304.0mg	304uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 4:10:29 PM
4	3.221	3.255	6.206ug	0.00215%	288.0mg	288uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 4:14:29 PM

Mean Area 2.940
Mean CNV 2.890
Mean Conc. 0.00140%



Sample

Sample Name: CCV
Sample ID: Soil
OrigIn: SSM-TC-IC 170523.met
Status Completed
Chk. Result

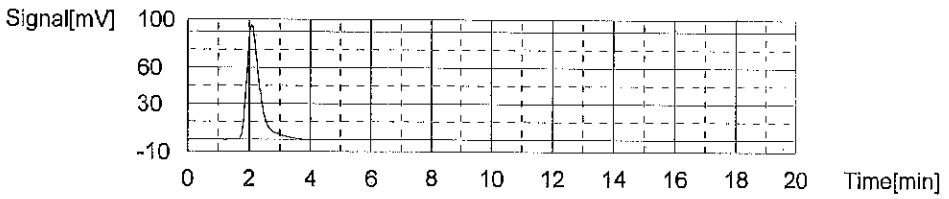
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:31.44% SSM-TC:43.46% SSM-IC:12.01%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	279.5	279.5	2173ug	43.46%	5.000mg	5uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 4:24:00 PM

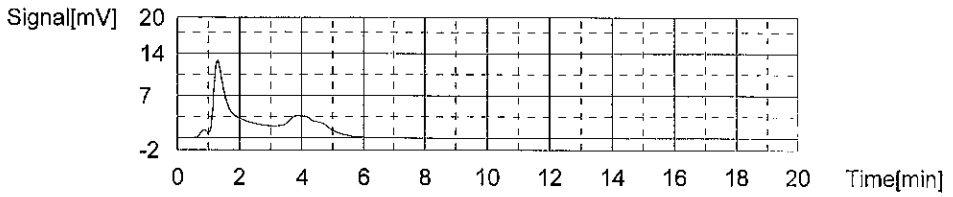
Mean Area 279.5
Mean CNV 279.5
Mean Conc. 43.46%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	88.01	88.01	600.7ug	12.01%	5.000mg	5uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/21/2018 4:32:18 PM

Mean Area 88.01
Mean CNV 88.01
Mean Conc. 12.01%



Sample

Sample Name: CCB
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

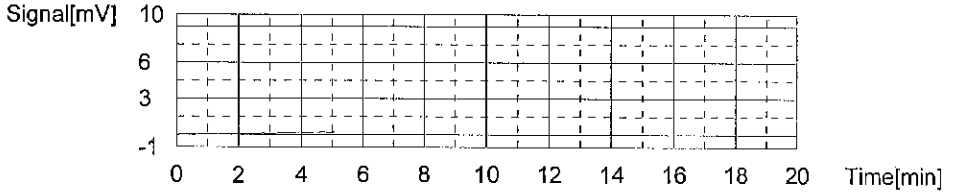
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-123.8ug	-0.02475%	500.0mg	500uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/21/2018 4:38:41 PM

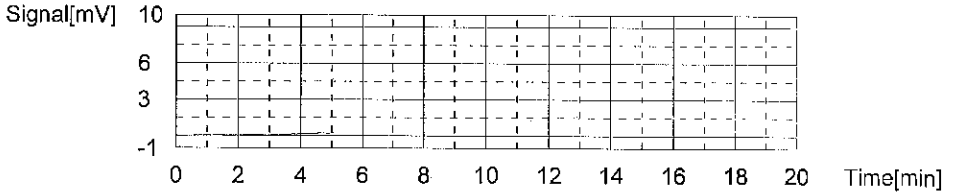
Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.02475%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-16.38ug	-0.00546%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/21/2018 4:44:03 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.00546%



Sample

Sample Name: CCV
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

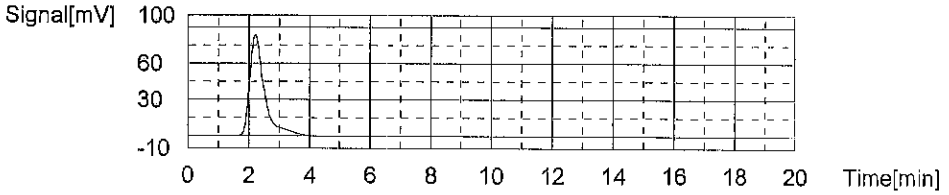
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:31.55% SSM-TC:43.75% SSM-IC:12.21%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	281.3	281.3	2188ug	43.75%	5.000mg	5uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 10:31:45 AM

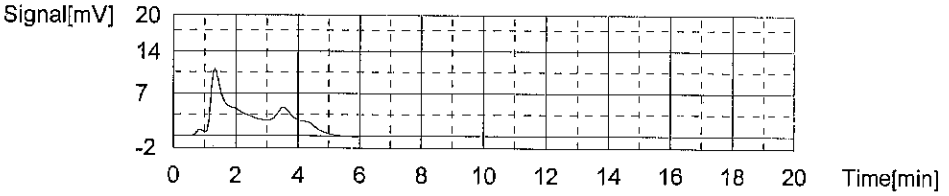
Mean Area 281.3
Mean CNV 281.3
Mean Conc. 43.75%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	89.38	89.38	610.3ug	12.21%	5.000mg	5uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/24/2018 10:39:29 AM

Mean Area 89.38
Mean CNV 89.38
Mean Conc. 12.21%



Sample

Sample Name: CCB
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

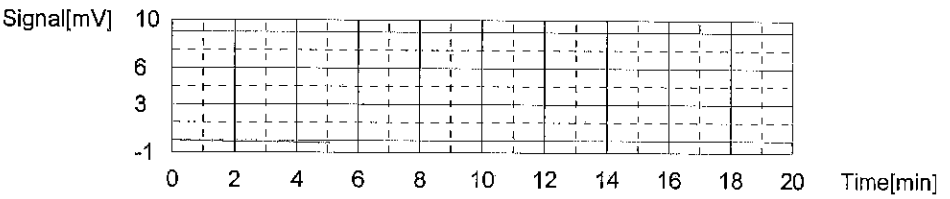
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-123.8ug	-0.02475%	500.0mg	500uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 10:45:57 AM

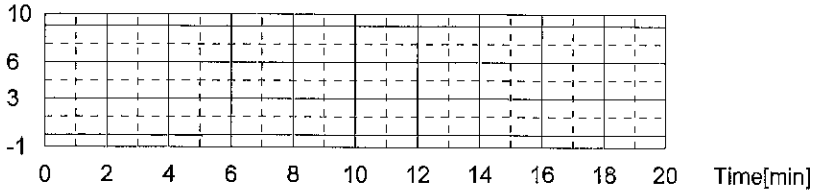
Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.02475%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-16.38ug	-0.00546%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/24/2018 10:51:24 AM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.00546%



Sample

Sample Name: 08-395-41
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

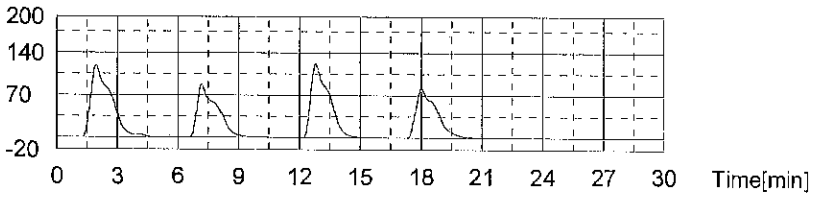
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:15.26% SSM-TC:15.26% SSM-IC:0.00128%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	811.5	811.5	6544ug	17.40%	37.60mg	37uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 11:00:44 AM
2	592.3	656.9	4743ug	13.99%	33.90mg	33uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 11:09:54 AM
3	752.4	842.0	6058ug	18.03%	33.60mg	33uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 11:18:38 AM
4	567.0	546.6	4535ug	11.63%	39.00mg	39uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 11:28:04 AM

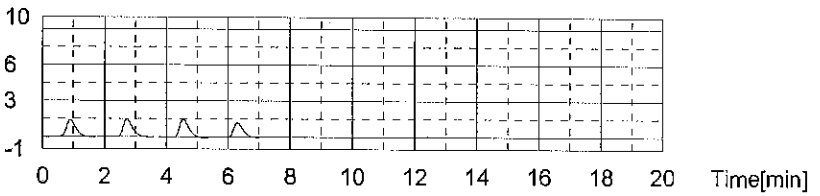
Mean Area 680.8
Mean CNV 714.3
Mean Conc. 15.26%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2.872	2.872	3.759ug	0.00128%	294.0mg	294uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 11:31:13 AM
2	3.083	3.021	5.238ug	0.00175%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 11:34:20 AM
3	3.098	3.016	5.343ug	0.00177%	302.0mg	302uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 11:38:59 AM
4	2.486	2.381	1.052ug	0.00034%	307.0mg	307uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 11:42:04 AM

Mean Area 2.885
Mean CNV 2.823
Mean Conc. 0.00128%



Sample

Sample Name: 08-395-42
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

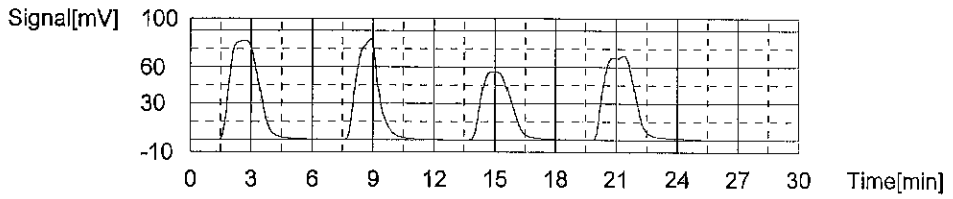
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:1.453% SSM-TC:1.453% SSM-IC:-0.00013%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	784.0	784.0	6318ug	1.515%	417.0mg	417uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 11:53:03 AM
2	618.0	725.9	4954ug	1.396%	355.0mg	355uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 12:03:30 PM
3	555.9	679.8	4444ug	1.303%	341.0mg	341uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 12:13:19 PM
4	715.8	829.1	5758ug	1.599%	360.0mg	360uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 12:24:04 PM

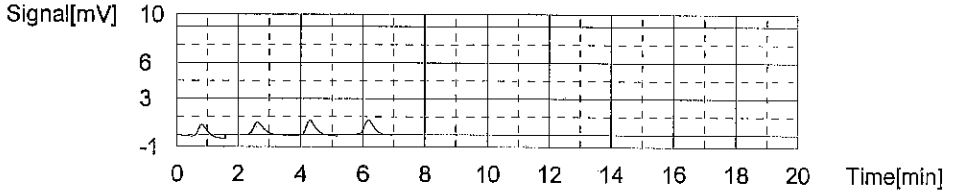
Mean Area 668.4
Mean CNV 754.7
Mean Conc. 1.453%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1.940	1.940	-2.776ug	-0.00090%	309.0mg	309uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 12:27:31 PM
2	2.147	2.241	-1.325ug	-0.00045%	296.0mg	296uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 12:31:26 PM
3	2.630	2.718	2.062ug	0.00069%	299.0mg	299uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 12:34:16 PM
4	2.388	2.510	0.3652ug	0.00012%	294.0mg	294uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 12:37:16 PM

Mean Area 2.276
Mean CNV 2.352
Mean Conc. -0.00013%



Sample

Sample Name: 08-395-47
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

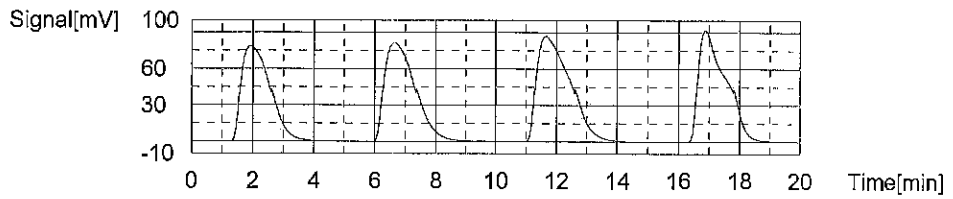
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:44.75% SSM-TC:44.75% SSM-IC:0.00591%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	511.6	511.6	4080ug	45.84%	8.900mg	8uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 12:46:13 PM
2	570.0	492.5	4560ug	44.27%	10.30mg	10uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 12:55:36 PM
3	662.6	504.0	5321ug	45.48%	11.70mg	11uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 1:04:53 PM
4	569.9	483.1	4559ug	43.42%	10.50mg	10uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 1:13:28 PM

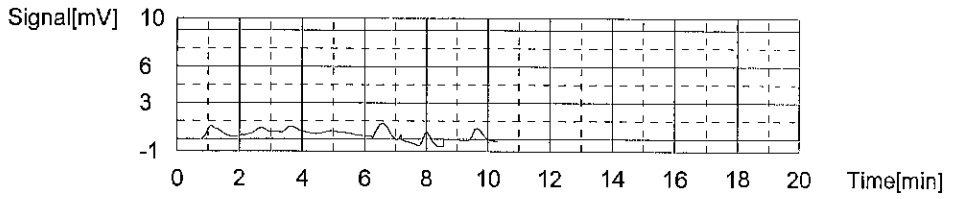
Mean Area 578.5
Mean CNV 497.8
Mean Conc. 44.75%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	14.12	14.12	82.62ug	0.02709%	305.0mg	305uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/24/2018 1:20:46 PM
2	1.503	1.533	-5.840ug	-0.00195%	299.0mg	299uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/24/2018 1:25:04 PM
3	1.786	1.763	-3.856ug	-0.00125%	309.0mg	309uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/24/2018 1:28:44 PM
4	2.235	2.351	-0.7076ug	-0.00024%	290.0mg	290uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/24/2018 1:33:15 PM

Mean Area 4.911
Mean CNV 4.942
Mean Conc. 0.00591%



Sample

Sample Name: CCV
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

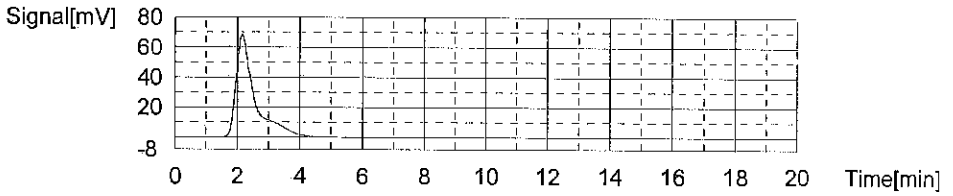
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:31.95% SSM-TC:44.38% SSM-IC:12.43%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	285.1	285.1	2219ug	44.38%	5.000mg	5uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 1:43:39 PM

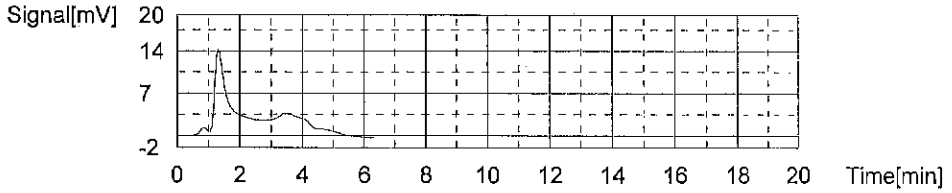
Mean Area 285.1
Mean CNV 285.1
Mean Conc. 44.38%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	90.95	90.95	621.3ug	12.43%	5.000mg	5uL		SSM Inorganic Carbon.2017_05_23_12_55_3	9/24/2018 1:51:39 PM

Mean Area 90.95
Mean CNV 90.95
Mean Conc. 12.43%



Sample

Sample Name: CCB
Sample ID: Soil
Origin: SSM-TC-IC 170523.met
Status Completed
Chk. Result

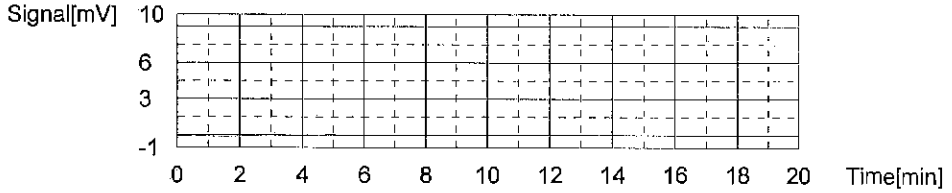
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TOC	1.000	1.000mg/uL	SSM-TOC:-0.01929% SSM-TC:-0.02475% SSM-IC:-0.00546%

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-123.8ug	-0.02475%	500.0mg	500uL		SSM Total Carbon.2017_05_23_11_14_23.ca	9/24/2018 1:58:17 PM

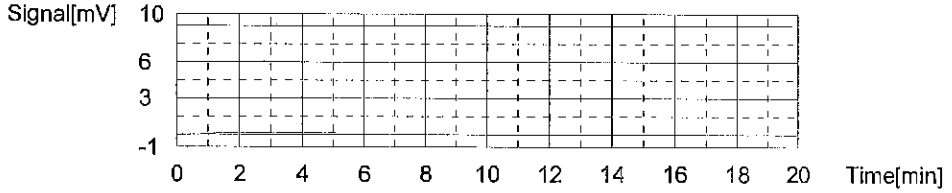
Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.02475%



Anal.: SSM-IC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	-16.38ug	-0.00546%	300.0mg	300uL		SSM Inorganic Carbon.2017_05_23_12_55_39	9/24/2018 2:03:46 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. -0.00546%



INSTRUMENT LOG

SSM

OnSite Environmental Inc.

Sucrose STANDARD#: TOC-05-08
Na_2CO_3 STANDARD#: TOC-015-009
CCV#: 092018N

ANALYST: CV

OSE MR #: 9/20/18

Analysis	INJ#	Sample ID	LIQ/SOL	TC Amt Inj	TC mg of Std	TC ug of Carbon	IC Amt Inj	IC mg of Std	IC ug of Carbon	COMMENTS
TOC	CCV			250	5		250	5		
	CCB			500	0		300	0		
	MB092051		Solid	500	0		300	0		
	SB092051			250	5		250	5		
	08-327-03			12.1			306			Replicate 1
		-03		17.2		AVG 15.5	307			2
		-03		16.7			297			3
		-03		16.0			300			4
	08-327-23			320			296			Replicate 1
		-23		318		AVG 320.75	306			2
		-23		327			310			3
		-23		318			301			4
	08-327-32			66.6			301			Replicate 1
		-32		63.8		AVG 62.45	292			2
		-32		63.4			298			3
		-32		56.0			301			4
	CCV			250	5		250	5		
	CCB			500	0		300	0		

9/24/18 CV

INSTRUMENT LOG

SSM

OnSite Environmental Inc.

Sucrose STANDARD#: TOC-015-
Na_2CO_3 STANDARD#: TOC-015-
CCV#: 092018N

ANALYST: CV

OSE MR #: 9/21/18

Analysis	INJ#	Sample ID	LIQ/SOL	TC Amt Inj	TC mg of Std	TC ug of Carbon	IC Amt Inj	IC mg of Std	IC ug of Carbon	COMMENTS
TOC	CCV			250	5		250	5		
	CCB			500	0		300	0		
	08-327-34		Solid	336			275			Replicate 1
		-34		368		AVG 345	288			2
		-34		355			297			3
		-34		341			282			4
	08-395-22			103			296			Replicate 1
		-22		99		AVG 99.5	289			2
		-22		100			302			3
		-22		96			298			4
	08-395-32			362			301			Replicate 1
		-32		447			293			2
		-32		476		AVG 427.25	303			3
		-32		424			297			4
	08-395-32 DUP			495			291			Replicate 1
		-32 DUP		414		AVG 456.75	296			2
		-32 DUP		476			304			3
		-32 DUP		442			288			4
	CCV			250	5		250	5		
	CCB			500	0		300	0		

INSTRUMENT LOG

OnSite Environmental Inc.

SSM

Sucrose STANDARD#: TOC-015-008

Na_2CO_3 STANDARD#: ↓ -009

CCV#: 092018N

ANALYST: CV

OSE MR #: 9/24/18

Analysis	INJ#	Sample ID	LIQ/SOL	TC Amt Inj	TC mg of Std	TC ug of Carbon	IC Amt Inj	IC mg of Std	IC ug of Carbon	COMMENTS
TOC	CCV			250	5		250	5		
	CCB			500	0		300	0		
		08-395-41	Solid	37.6			294			Replicate 1
		-41		38.9		AVG 36.025	300			2
		-41		33.6			302			3
		-41		39.0			307			4
		08-395-42		41.7			309			Replicate 1
		-42		35.5		AVG 36.825	296			2
		-42		34.1			299			3
		-42		36.0			294			4
		08-395-47		8.9			305			Replicate 1
		-47		10.3		AVG 10.35	299			2
		-47		11.7			309			3
		-47		10.5			290			4
	CCV			250	5		250	5		
	CCB			500	0		300	0		

9/24/18 CV

TITLE **PROJECT**

Continued from page

	STD NAME		I.D. #		SOURCE	Lot #	E.D.	NITRATE Conc	NITRATE Vol	PLANE conc ppm	PLANE Vol mL	Method	Date
	100	100	TOC-12	01	TOC-10-33	L240207	—	1000	10	100	100	Pkg	1/18/18
	10W			02	Lab Chem	F187-09	07/25/18	1000	500			Pkg	1/18/18
5		1		03	TOC-12-06			1000	0.50	5.0	100		
		2		04					5.0	50		Pkg	1/18/18
		3		05					50	500			
	0W			06	GFS	L 240207	—	2.120	68 g	1000	100		
		5.0		07	TOC-12-06			1000	0.50	5.0	1000		
10		50		08					5.0	50		Pkg	1/18/18
		500		09	GFS			1.0603	4	500			
	SUCROSE			10	FISHER	075399	—	2.000	06	20,000	100		
	Na_2CO_3			11	VWR	B405099	—	2.000	46			Pkg	1/18/18
	0W	50		12	WCI-012-06	L240207	01/24/18	10000	0.50	5.0	1000		
15		50		13					5.0	50		Pkg	1/24/18
		500		14	GFS			1.0000	—	500			
	SUCROSE			15	FISHER	075399	—	2.00 19		20000	100		
	Na_2CO_3			16	VWR	B405099	—	2.00 27				Pkg	2/15/18
	Na_2CO_3			17	VWR	B405099	—	1.997		20000	100	BCL	2-15-18
20	SUCROSE			18	FISHER	075399	—	2.0042		20000	100		
	Na_2CO_3			19	VWR	B405099	—	2.0040				Pkg	2/15/18
	SUCROSE		10AC	20	FISHER	075399	—	2.0059	5	20,000	25		
	Na_2CO_3			21	VWR	B405099	—	1.0051	5	30,000	100	Pkg	2/20/18
	Na_2CO_3			22	VWR		—	1.0035	7	20000	50	Pkg	2/20/18
25	0W	5.0		23	WCI-012-06	L240207	02/16/18	10000	0.50	5.0	1000		
		50		24					5.0	50		Pkg	3/10/18
		500		25	GFS			1.0602		500			
	SUCROSE		10AC	26	FISHER	075399	—	2.0067		20000	100		
	Na_2CO_3			27	VWR	B405099	—	2.0032				Pkg	3/24/18
30	SUCROSE			28	FISHER	075399	—	2.0038		80000	25		
	SUCROSE 1W			29	ALFA AESAR	E07S010	—	2.0030		20000	100	Pkg	5/22/18
	SUCROSE			30	FISHER	075399	—	2.6012	4	20000	100		
	Na_2CO_3			31		11G201113	—	2.0007				Pkg	6/6/18
	0W	5.0		32	WCI-012-06	L240207	07/05/18	10000	0.50	5.0	1000		
35		50		33					5.0	50		Pkg	7/6/18
		500		34	GFS			1.0602	1	500			

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

TITLE

PROJECT

Continued from page

STD NAME	ID #	SOURCE	SOURCE LOT#	EXP	INITIAL CONC	INITIAL VOL	FINAL CONC	FINAL VOL	INT	DATE
TIC STOCK	TIC-015-001	GFS	124027	—	2.1205		10,000	100	CV	8/29/18
Sucrose	002	Fisher	075399	—	1.0044	—	20,000	50	BK	9/5/18
Na_2CO_3	3	VWR	B40599	—	1.0012	—	↓	↓	↓	↓
Sucrose	TIC-015-004	Fisher	075399	—	1.0017	—	20,000	50	CV	9/14/18
Na_2CO_3	↓ -005	VWR	B40599	—	1.0012	—	↓	↓	↓	↓
Sucrose	TIC-015-006	Fisher	075399	—	1.0015	—	20,000	50	CV	9/17/18
Na_2CO_3	↓ -007	VWR	B40599	—	1.0010	—	↓	↓	↓	↓
Sucrose	TIC-015-008	Fisher	075399	—	1.0005	—	20,000	50	CV	9/24/18
Na_2CO_3	↓ -009	VWR	B40599	—	1.0007	—	↓	↓	↓	↓

Continued to page

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 7, 2018

Sydney Bronson
GeoEngineers, Inc.
1101 Fawcett Avenue South, Unit 200
Tacoma, WA 98402

Re: Analytical Data for Project 0356-114-08
Laboratory Reference No. 1808-348

Dear Sydney:

Enclosed are the analytical results and associated quality control data for samples submitted on August 30, 2018.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

Case Narrative

Samples were collected on August 29, 2018 and received by the laboratory on August 30, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
HS-MW-4-08292018	08-348-01	Water	8-29-18	8-30-18	
HS-MW-5-08292018	08-348-02	Water	8-29-18	8-30-18	
HS-MW-7-08292018	08-348-03	Water	8-29-18	8-30-18	
HS-MW-9-08292018	08-348-04	Water	8-29-18	8-30-18	
Rinseate-08292018	08-348-05	Water	8-29-18	8-30-18	

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-4-08292018**					
Laboratory ID:	08-348-01					
Diesel Range Organics	**1.1**	0.26	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**1.7**	0.42	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*65*	*50-150*				
Client ID:	**HS-MW-5-08292018**					
Laboratory ID:	08-348-02					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Client ID:	**HS-MW-7-08292018**					
Laboratory ID:	08-348-03					
Diesel Range Organics	**3.9**	0.25	NWTPH-Dx	8-31-18	9-1-18	M
Lube Oil Range Organics	**0.43**	0.41	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**HS-MW-9-08292018**					
Laboratory ID:	08-348-04					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**Rinseate-08292018**					
Laboratory ID:	08-348-05					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-4-08292018**					
Laboratory ID:	08-348-01					
Naphthalene	**0.25**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**4.2**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**11**	1.1	EPA 8270D/SIM	8-30-18	8-31-18	
Acenaphthylene	**0.59**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**2.8**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**3.2**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**4.5**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**0.36**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**0.15**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**0.69**	0.11	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**0.030**	0.011	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**0.11**	0.011	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**0.046**	0.011	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.011	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**0.027**	0.011	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**0.035**	0.011	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**0.060**	0.011	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*21 - 110*				
Pyrene-d10	*96*	*19 - 111*				
Terphenyl-d14	*85*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-5-08292018**					
Laboratory ID:	08-348-02					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*21 - 110*				
Pyrene-d10	*89*	*19 - 111*				
Terphenyl-d14	*91*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-7-08292018**					
Laboratory ID:	08-348-03					
Naphthalene	**4.5**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**240**	10	EPA 8270D/SIM	8-30-18	8-31-18	
1-Methylnaphthalene	**300**	10	EPA 8270D/SIM	8-30-18	8-31-18	
Acenaphthylene	**1.5**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**10**	5.0	EPA 8270D/SIM	8-30-18	8-31-18	
Fluorene	**7.2**	5.0	EPA 8270D/SIM	8-30-18	8-31-18	
Phenanthrene	**4.8**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**0.44**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**0.14**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**0.015**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**0.015**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*21 - 110*				
Pyrene-d10	*88*	*19 - 111*				
Terphenyl-d14	*94*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-9-08292018**					
Laboratory ID:	08-348-04					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*76*	*21 - 110*				
Pyrene-d10	*93*	*19 - 111*				
Terphenyl-d14	*95*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Rinseate-08292018**					
Laboratory ID:	08-348-05					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*59*	*21 - 110*				
Pyrene-d10	*83*	*19 - 111*				
Terphenyl-d14	*84*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-4-08292018**					
Laboratory ID:	08-348-01					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*70*	*17-94*				
Client ID:	**HS-MW-5-08292018**					
Laboratory ID:	08-348-02					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*86*	*17-94*				
Client ID:	**HS-MW-7-08292018**					
Laboratory ID:	08-348-03					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*83*	*17-94*				
Client ID:	**HS-MW-9-08292018**					
Laboratory ID:	08-348-04					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*78*	*17-94*				
Client ID:	**Rinseate-08292018**					
Laboratory ID:	08-348-05					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*57*	*17-94*				

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0831W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-31-18	9-1-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	8-31-18	9-1-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-326-03									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						*86* *91*	*50-150*			

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCV0901F-V1	100	95.6	4.4	+/-15%
CCV0901F-V2	100	103	-2.7	+/-15%
CCV0901F-V3	100	102	-2.5	+/-15%
CCV0901F-V4	100	99.3	0.7	+/-15%

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0830W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*21 - 110*				
Pyrene-d10	*87*	*19 - 111*				
Terphenyl-d14	*122*	*32 - 137*				

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-326-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.387**	**0.424**	0.530	0.537	ND	73	79	28 - 109	9	38	
Acenaphthylene	**0.440**	**0.453**	0.530	0.537	ND	83	84	37 - 111	3	26	
Acenaphthene	**0.437**	**0.478**	0.530	0.537	ND	82	89	41 - 113	9	33	
Fluorene	**0.478**	**0.505**	0.530	0.537	ND	90	94	47 - 114	5	23	
Phenanthrene	**0.437**	**0.463**	0.530	0.537	ND	82	86	50 - 113	6	18	
Anthracene	**0.456**	**0.499**	0.530	0.537	ND	86	93	50 - 117	9	18	
Fluoranthene	**0.490**	**0.525**	0.530	0.537	ND	92	98	52 - 120	7	15	
Pyrene	**0.435**	**0.482**	0.530	0.537	ND	82	90	51 - 128	10	31	
Benzo[a]anthracene	**0.491**	**0.498**	0.530	0.537	ND	93	93	57 - 127	1	15	
Chrysene	**0.472**	**0.476**	0.530	0.537	ND	89	89	51 - 120	1	15	
Benzo[b]fluoranthene	**0.477**	**0.490**	0.530	0.537	ND	90	91	54 - 124	3	17	
Benzo(j,k)fluoranthene	**0.485**	**0.480**	0.530	0.537	ND	92	89	50 - 127	1	18	
Benzo[a]pyrene	**0.489**	**0.499**	0.530	0.537	ND	92	93	50 - 120	2	16	
Indeno(1,2,3-c,d)pyrene	**0.502**	**0.505**	0.530	0.537	ND	95	94	46 - 132	1	20	
Dibenz[a,h]anthracene	**0.509**	**0.503**	0.530	0.537	ND	96	94	49 - 129	1	18	
Benzo[g,h,i]perylene	**0.490**	**0.489**	0.530	0.537	ND	92	91	45 - 130	0	19	
Surrogate:											
2-Fluorobiphenyl						*82*	*77*	*21 - 110*			
Pyrene-d10						*88*	*89*	*19 - 111*			
Terphenyl-d14						*97*	*100*	*32 - 137*			

Date of Report: September 7, 2018
Samples Submitted: August 30, 2018
Laboratory Reference: 1808-348
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0830W1					
Pentachlorophenol	**ND**	0.040	EPA 8151A	8-30-18	8-30-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*75*	*17-94*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-326-03										
	MS	MSD	MS	MSD		MS	MSD				
Pentachlorophenol	**0.139**	**0.161**	0.235	0.235	ND	**59**	**68**	40-140	15	20	
Surrogate:											
DCAA						*72*	*86*	*17-94*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

17

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 0356-114-08
Project Name: RG HALEY, PRDI UPLAND SURVEY
Project Manager: SYDNEY BRANSON
Sampled by: BRIAN ANDERSON

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-348

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A					% Moisture
1	HS-MW-4-08292018	8-29-18	1216	W	6				X					X				X									
2	HS-MW-5-08292018	8-29-18	1130	W	6				X					X				X									
3	HS-MW-7-08292018	8-29-18	1138	W	6				X					X				X									
4	HS-MW-9-08292018	8-29-18	1035	W	6				X					X				X									
5	RINSEATE-08292018	8-29-18	1600	W	6				X					X				X									

	Signature	Company	Date	Time
Relinquished	[signature]	GEOENGINEERS	8-30-18	0748
Received	[signature]	SPEEDY	8/30/18	07:48
Relinquished	[signature]	SPEEDY	8/30/18	918
Received	[signature]	OSE	8/30/18	918
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

PCP ANALYSIS BY SW 8151-SPECIAL RPT LIMITS: ONLY REPORT DOWN TO 0.04 ug/kg

PAH ANALYSIS BY SW 8270 SIM

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Sample/Cooler Receipt and Acceptance Checklist

Client: GER

Client Project Name/Number: 0356-114-08

Initiated by: KL

OnSite Project Number: 08-348

Date Initiated: 8/30/18

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	(No)	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	(N/A)	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	(N/A)	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No		1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	Temperature: 2.2		
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)			
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	(Yes)	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	(No)	N/A	1 2 3 4	
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	(N/A)	1 2 3 4	
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4	
3.8 Was method 5035A used?	Yes	No	(N/A)	1 2 3 4	
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		(N/A)	1 2 3 4	

Explain any discrepancies:

3.4 #1 and #4 each have 1 500 ml HCl amber with pH not <2.3.

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- NWTPH-Diesel
- PAHs EPA 8270D/SIM
- Pentachlorophenol by EPA 8151A

NWTPH-DIESEL Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V17.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 18:46
Operator : JT
Sample : 08-348-01
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 19:22:42 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (06-07-18)	14.515	89202130	32.415 PPM
Spiked Amount	50.000		Recovery =	64.83%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	12742513	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	218117579	83.311 PPM
5) H	Diesel Fuel #2 (06-...	14.000	297460275	124.151 PPM
6) H	Oil (06-07-18)	22.000	347383113	181.747 PPM
7) H	Oil Acid Clean (06-12...	22.000	347383113	126.578 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	251125191	107.070 PPM
9) H	Oil Combo (06-07-18)	22.000	306347236	161.536 PPM
10) H	Oil Acid Clean Combo ...	22.000	306347236	111.071 PPM
11) H	Alaska 102 DF2 ()	13.025	311297117	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	210698274	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	316295672	124.380 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	561702722	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	561702722	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	566551073	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	213566674	88.372 PPM
18) H	Oil Acid Clean MO Com...	22.000	267107375	96.926 PPM
19) H	Oil MO Combo (06-07-18)	22.000	267107375	143.436 PPM

(f)=RT Delta > 1/2 Window

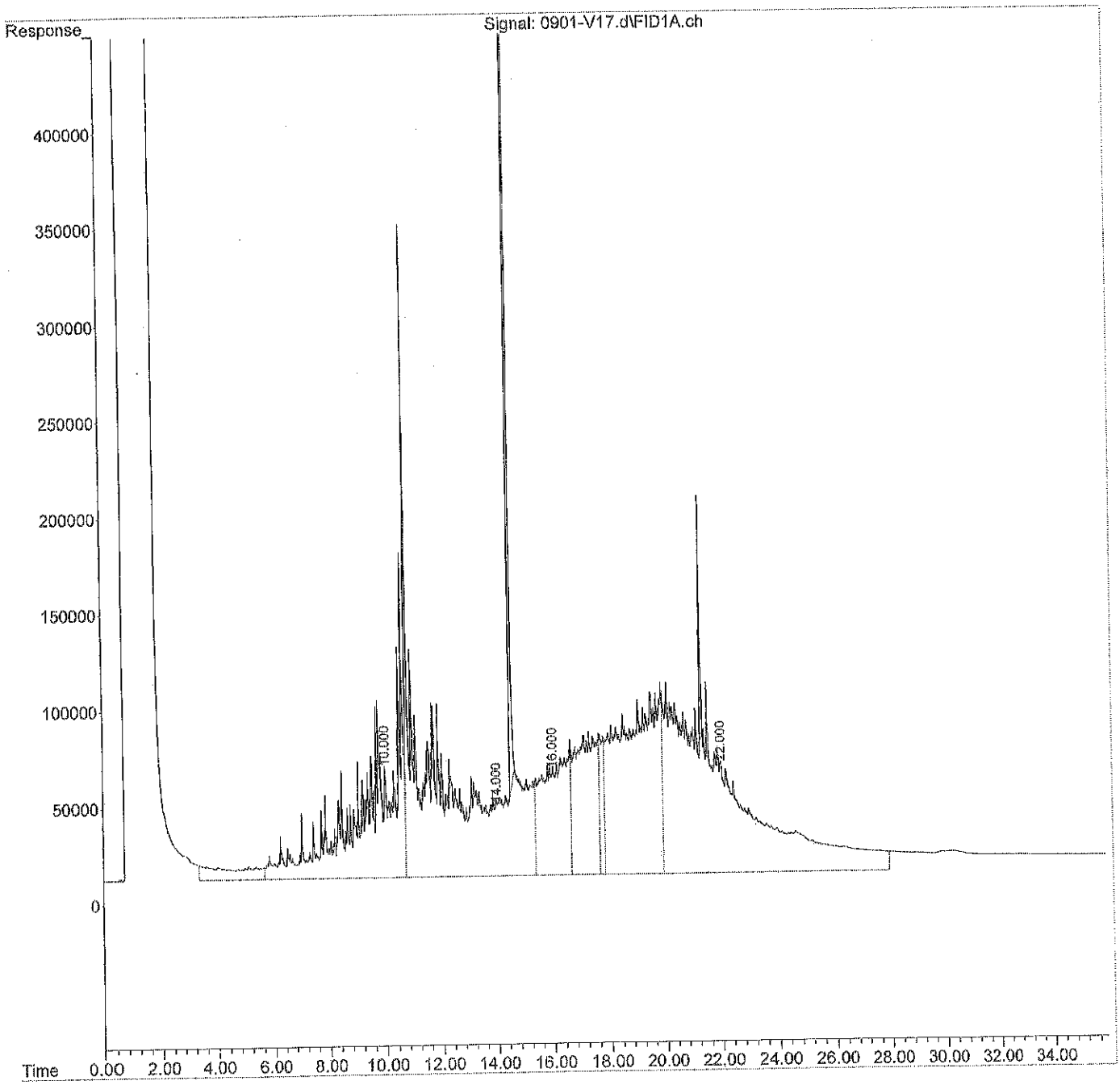
(m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V17.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 18:46
Operator : JT
Sample : 08-348-01
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 19:22:42 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V19.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 20:06
Operator : JT
Sample : 08-348-02
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 20:42:55 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.517	115743854	41.901 PPM
Spiked Amount	50.000		Recovery =	83.80%
Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	10308072	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	30023223	9.578 PPM
5) H	Diesel Fuel #2 (06-...	14.000	30004945	11.225 PPM
6) H	Oil (06-07-18)	22.000	44998343	13.239 PPM
7) H	Oil Acid Clean (06-12...	22.000	44998343	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	27209286	10.578 PPM
9) H	Oil Combo (06-07-18)	22.000	41532302	11.652 PPM
10) H	Oil Acid Clean Combo ...	22.000	41532302	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	30853009	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20544882	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	22882957	9.292 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	71953548	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	71953548	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	75489833	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	17731390	8.356 PPM
18) H	Oil Acid Clean MO Com...	22.000	39121573	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	39121573	10.730 PPM

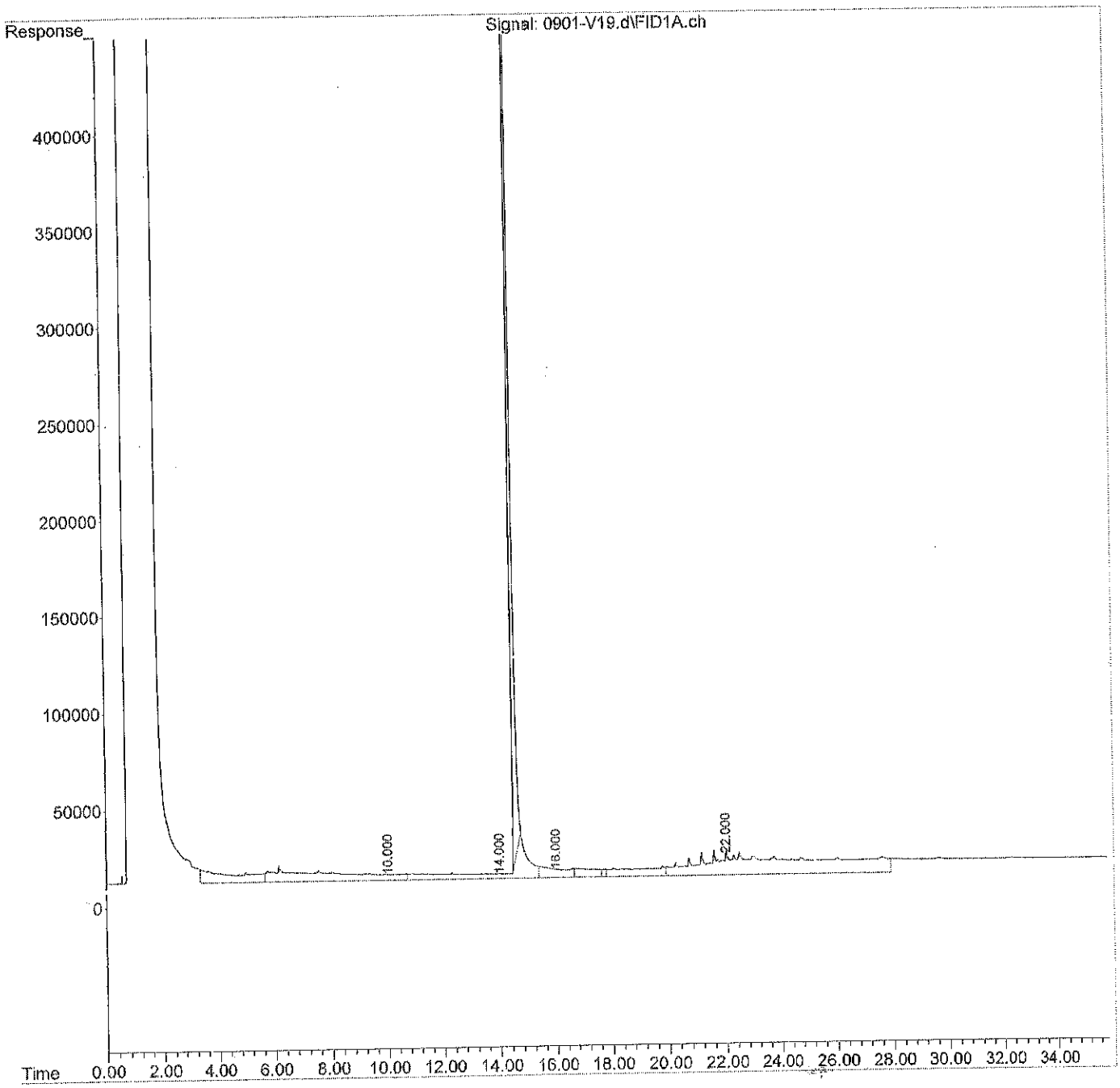
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V19.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 20:06
Operator : JT
Sample : 08-348-02
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 20:42:55 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V21.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 21:27
Operator : JT
Sample : 08-348-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 22:03:20 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S O-Terphenyl (06-07-18)	14.517	118454516	42.870 PPM
Spiked Amount	50.000		Recovery =	85.74%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	24768319	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	867258287	337.775 PPM
5) H	Diesel Fuel #2 (06-...	14.000	908558945	382.169 PPM
6) H	Oil (06-07-18)	22.000	133962634	62.816 PPM
7) H	Oil Acid Clean (06-12...	22.000	133962634	36.473 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	887118948	381.138 PPM
9) H	Oil Combo (06-07-18)	22.000	96738393	42.898 PPM
10) H	Oil Acid Clean Combo ...	22.000	96738393	21.266 PPM
11) H	Alaska 102 DF2 ()	13.025	913368069	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	49253410	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	457980998	179.954 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	985350558	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	985350558	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1001378052	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	431826020	177.550 PPM
18) H	Oil Acid Clean MO Com...	22.000	77958238	13.701 PPM
19) H	Oil MO Combo (06-07-18)	22.000	77958238	33.336 PPM

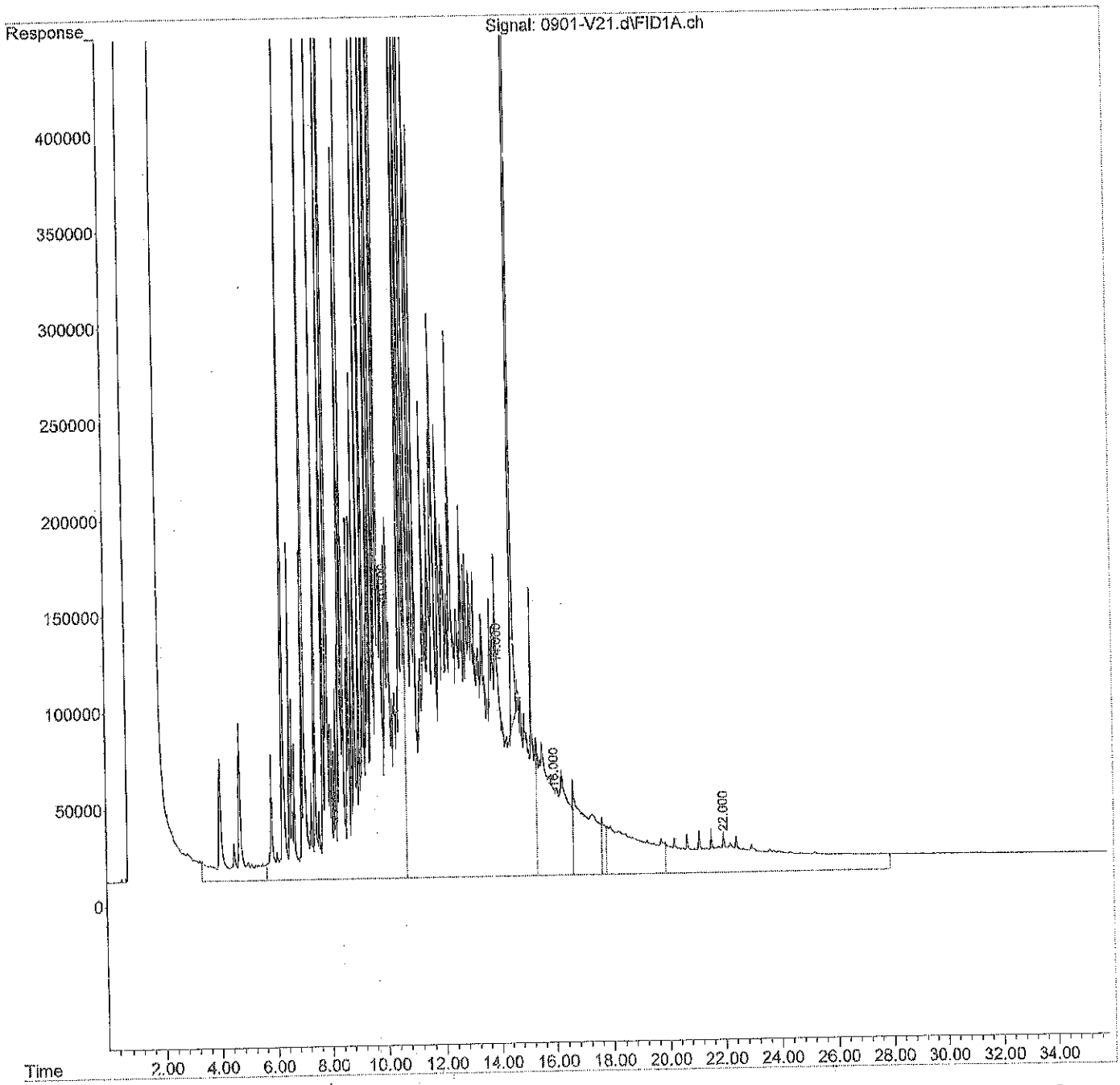
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V21.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 21:27
Operator : JT
Sample : 08-348-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 22:03:20 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V24.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 23:27
Operator : JT
Sample : 08-348-04
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 00:03:35 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.517	115166382	41.695	PPM
Spiked Amount	50.000		Recovery =	83.39%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	9490051	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	27089943	8.428	PPM
5) H	Diesel Fuel #2 (06-...	14.000	26946943	9.934	PPM
6) H	Oil (06-07-18)	22.000	43628165	12.476	PPM
7) H	Oil Acid Clean (06-12...	22.000	43628165	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	24481349	9.403	PPM
9) H	Oil Combo (06-07-18)	22.000	40452519	11.041	PPM
10) H	Oil Acid Clean Combo ...	22.000	40452519	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	27723758	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	19838797	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	20935670	8.528	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	68246436	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	68246436	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	71281190	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	16096090	7.688	PPM
18) H	Oil Acid Clean MO Com...	22.000	38337867	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	38337867	10.274	PPM

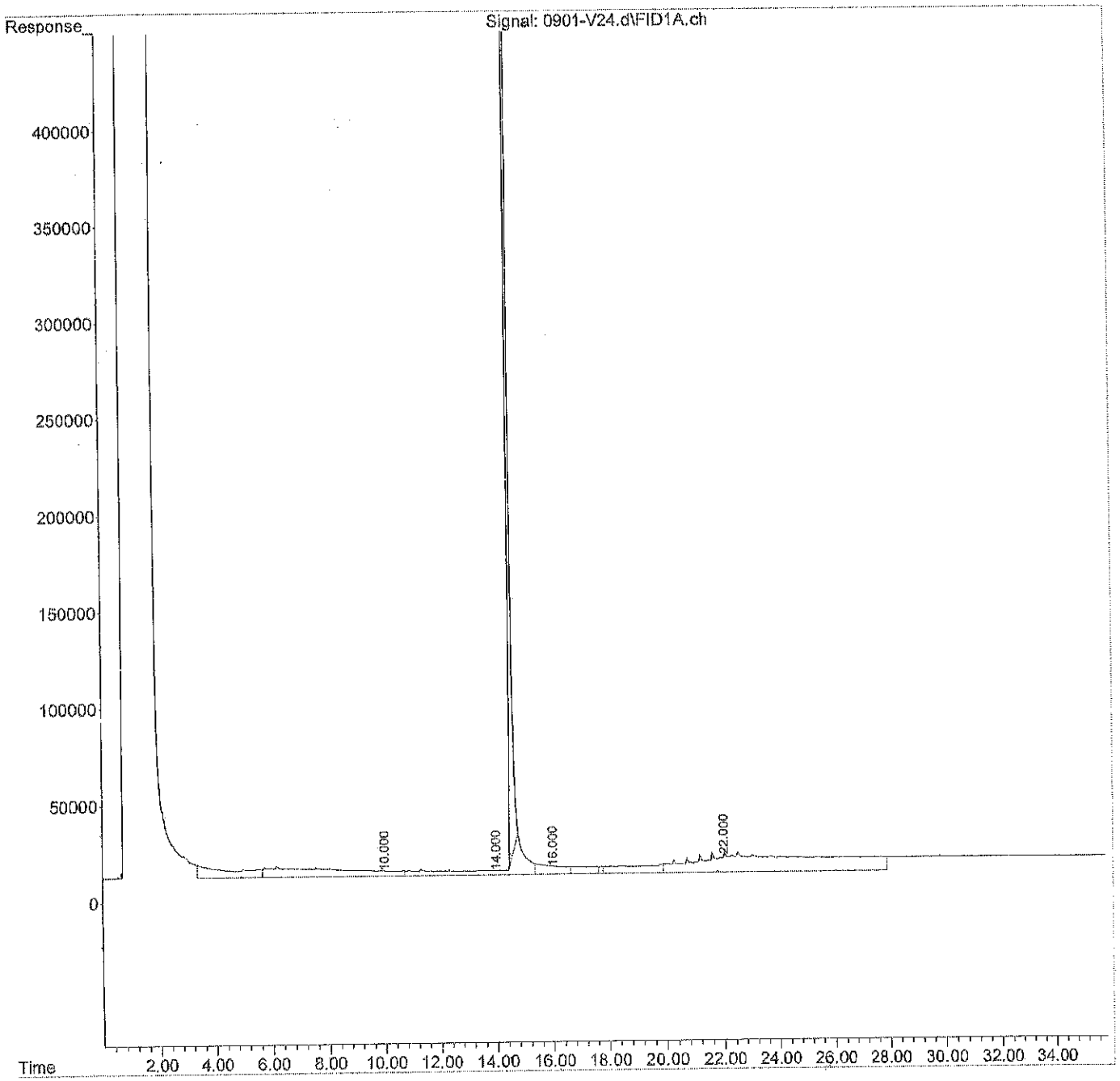
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V24.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 23:27
Operator : JT
Sample : 08-348-04
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 00:03:35 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V26.d
Signal(s) : FID1A.ch
Acq On : 2 Sep 2018 00:47
Operator : JT
Sample : 08-348-05
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 01:23:30 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.517	121007866	43.782	PPM
Spiked Amount		50.000		Recovery =	87.56%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	9577446	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	25566484	7.831	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	23737915	8.579	PPM
6)	H	Oil (06-07-18)	22.000	37539248	9.083	PPM
7)	H	Oil Acid Clean (06-12...	22.000	37539248	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	22180999	8.412	PPM
9)	H	Oil Combo (06-07-18)	22.000	35083133	8.002	PPM
10)	H	Oil Acid Clean Combo ...	22.000	35083133	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	24266772	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	16637882	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	16747440	6.885	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	60376096	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	60376096	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	63519889	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	13512171	6.632	PPM
18)	H	Oil Acid Clean MO Com...	22.000	33750026	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	33750026	7.603	PPM

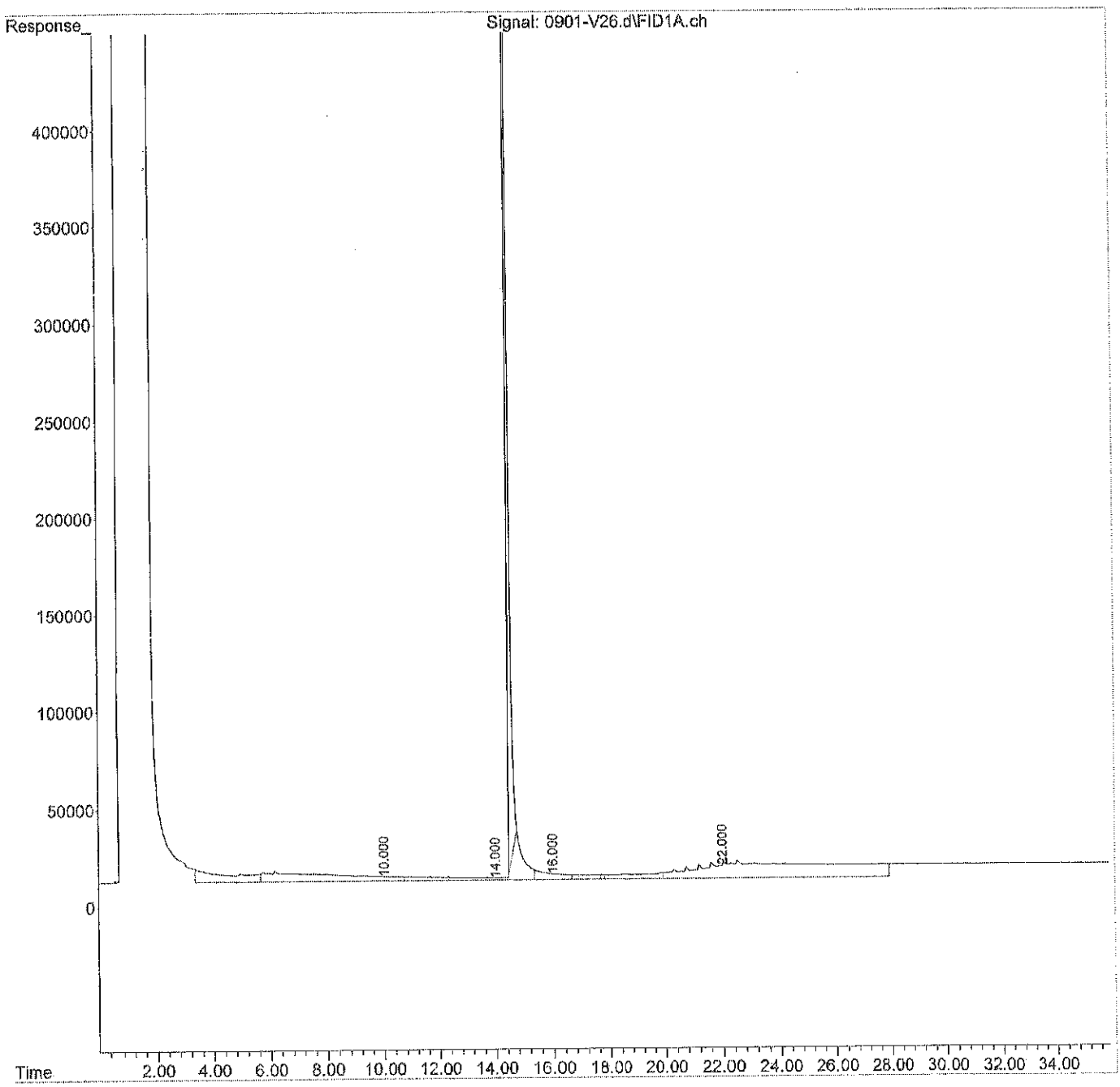
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V26.d
Signal(s) : FID1A.ch
Acq On : 2 Sep 2018 00:47
Operator : JT
Sample : 08-348-05
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 01:23:30 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V03.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 9:09
Operator : JT
Sample : MB0831W1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 09:45:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.516	105872129	38.373	PPM
Spiked Amount	50.000		Recovery =	76.75%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	8862574	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	23344268	6.960	PPM
5) H	Diesel Fuel #2 (06-...	14.000	21983013	7.838	PPM
6) H	Oil (06-07-18)	22.000	51469497	16.845	PPM
7) H	Oil Acid Clean (06-12...	22.000	51469497	1.645	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	20467301	7.673	PPM
9) H	Oil Combo (06-07-18)	22.000	48942781	15.846	PPM
10) H	Oil Acid Clean Combo ...	22.000	48942781	0.788	PPM
11) H	Alaska 102 DF2 ()	13.025	22520384	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	24552785	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	17129535	7.035	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	73542394	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	73542394	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	75896312	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	13168517	6.492	PPM
18) H	Oil Acid Clean MO Com...	22.000	47648759	0.365	PPM
19) H	Oil MO Combo (06-07-18)	22.000	47648759	15.694	PPM

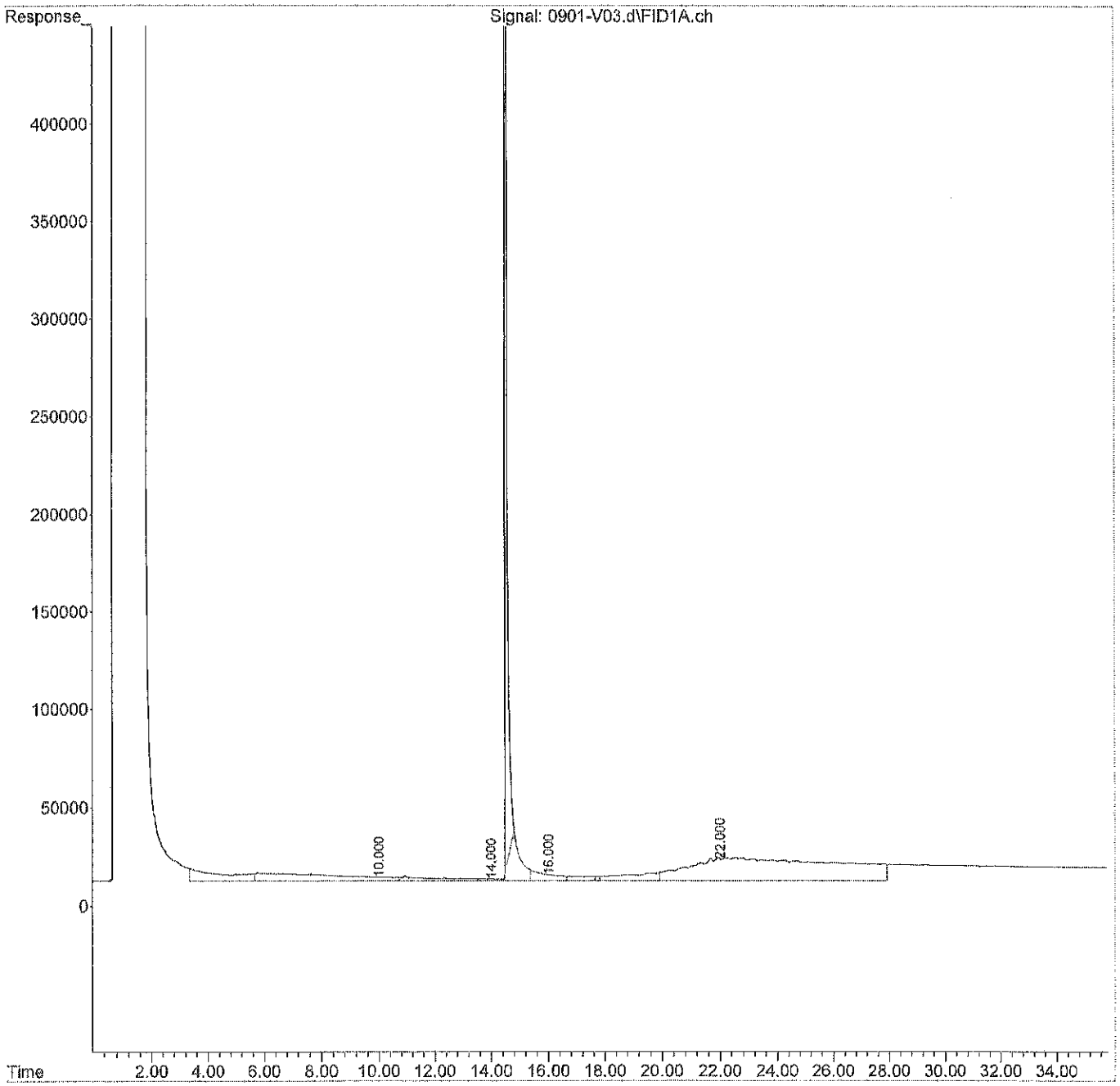
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V03.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 9:09
Operator : JT
Sample : MB0831W1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 09:45:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V11.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 14:45
Operator : JT
Sample : 08-326-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 15:21:50 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.518	118518767	42.893 PPM
Spiked Amount	50.000		Recovery =	85.79%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	9811869	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	31201800	10.040 PPM
5) H	Diesel Fuel #2 (06-...	14.000	33464580	12.686 PPM
6) H	Oil (06-07-18)	22.000	49898079	15.970 PPM
7) H	Oil Acid Clean (06-12...	22.000	49898079	0.981 PPM
8) H	Diesel Fuel #2 Combo ...	14.000	29653472	11.632 PPM
9) H	Oil Combo (06-07-18)	22.000	45436659	13.862 PPM
10) H	Oil Acid Clean Combo ...	22.000	45436659	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	34599920	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	23564173	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	28444085	11.473 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	78138520	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	78138520	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	81441449	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	21404726	9.857 PPM
18) H	Oil Acid Clean MO Com...	22.000	42159580	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	42159580	12.498 PPM

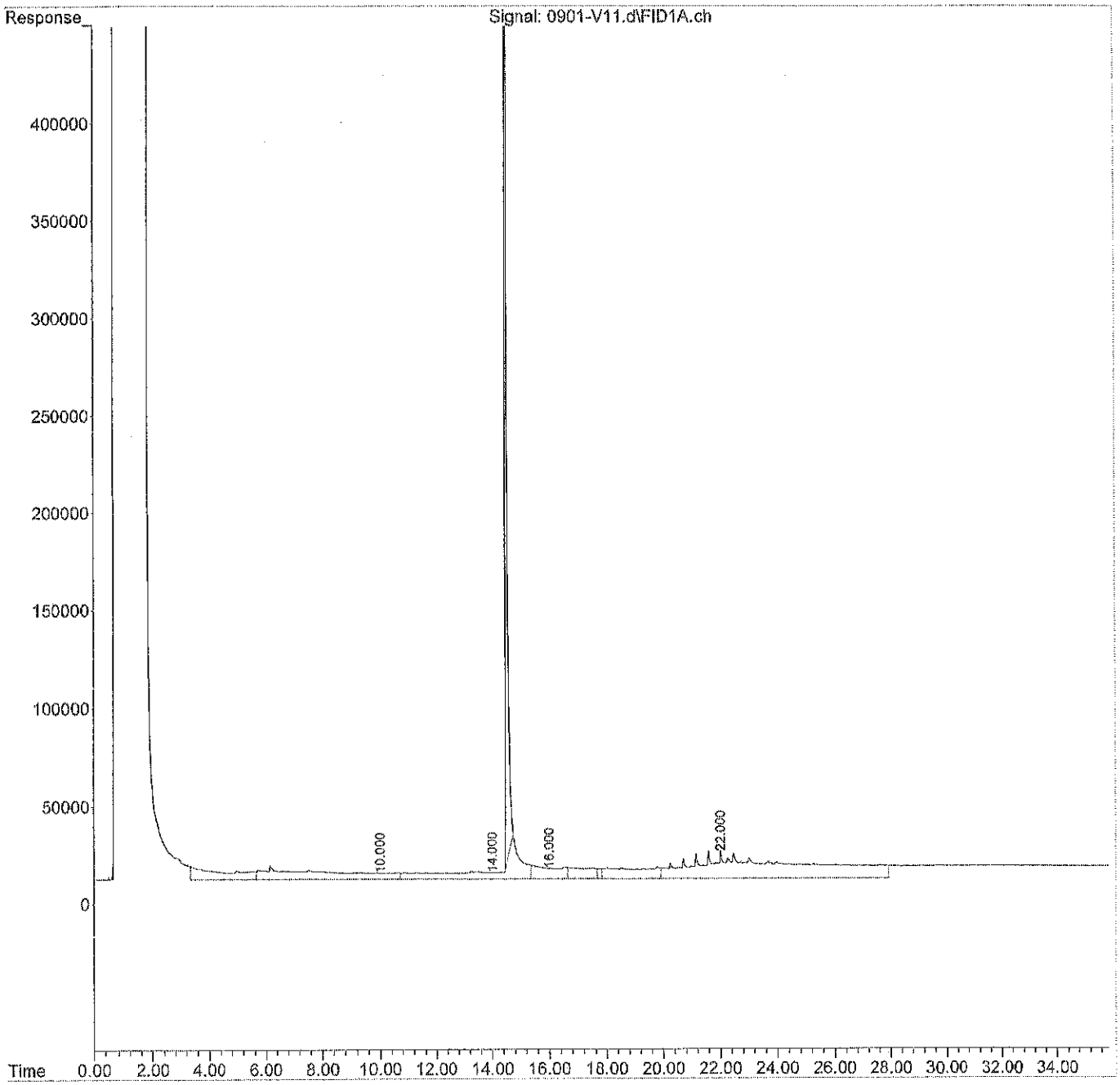
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V11.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 14:45
Operator : JT
Sample : 08-326-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 15:21:50 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V12.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 15:25
Operator : JT
Sample : 08-326-03 DUP
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 16:02:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.519	125192765	45.278	PPM
Spiked Amount	50.000		Recovery =	90.56%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	9627861	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	31055098	9.982	PPM
5) H	Diesel Fuel #2 (06-...	14.000	33991451	12.909	PPM
6) H	Oil (06-07-18)	22.000	49306318	15.640	PPM
7) H	Oil Acid Clean (06-12...	22.000	49306318	0.732	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	29946336	11.758	PPM
9) H	Oil Combo (06-07-18)	22.000	44504825	13.334	PPM
10) H	Oil Acid Clean Combo ...	22.000	44504825	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	35179147	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	23264794	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	30028391	12.095	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	77377456	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	77377456	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	80626552	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	22452207	10.285	PPM
18) H	Oil Acid Clean MO Com...	22.000	41023860	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	41023860	11.837	PPM

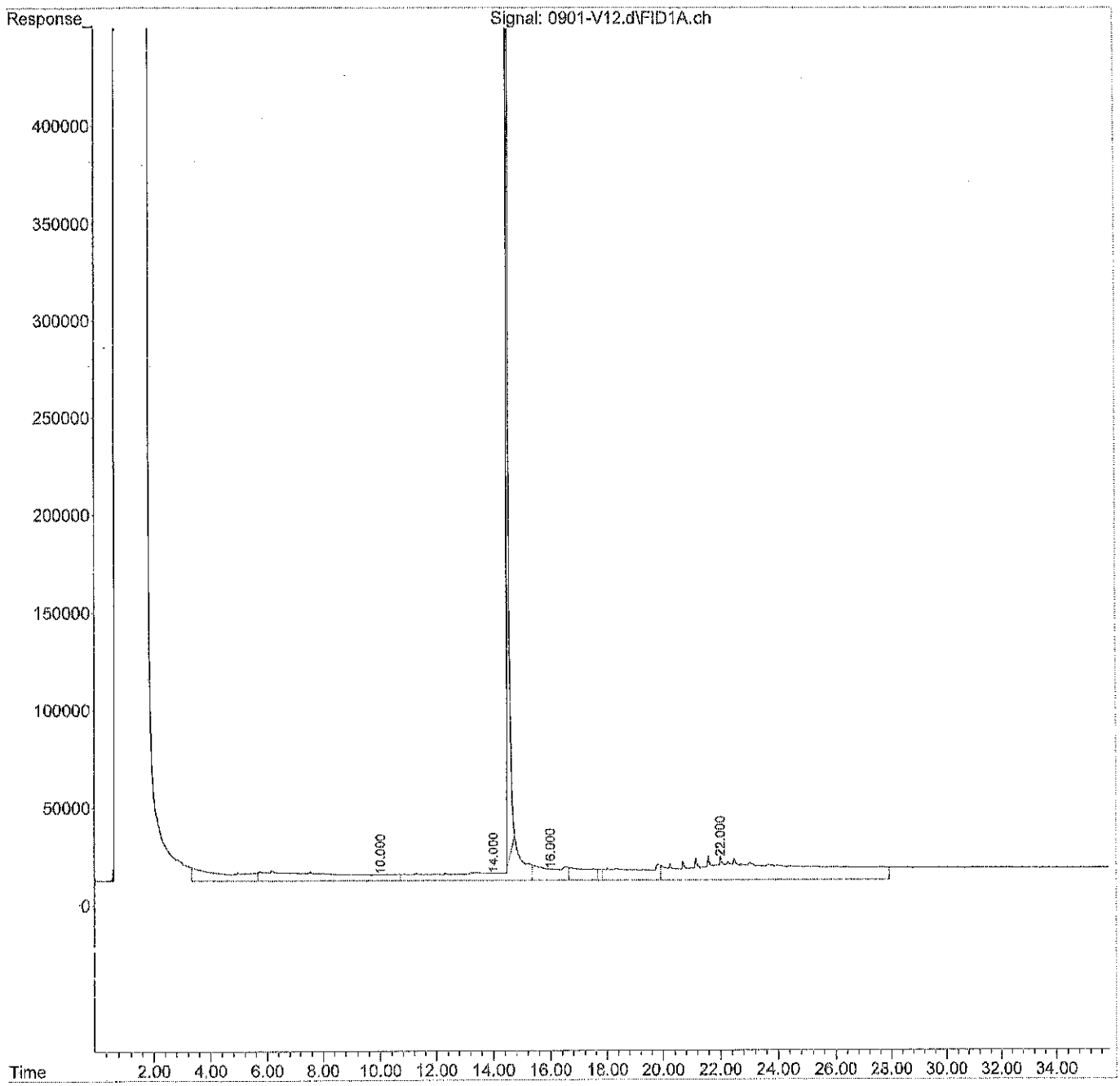
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V12.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 15:25
Operator : JT
Sample : 08-326-03 DUP
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 16:02:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0831-V01.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 7:46
Operator : JT
Sample : CCV0901F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 08:22:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	27582426	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	230526264	88.175	PPM
5) H	Diesel Fuel #2 (06-...	14.000	229939929	95.642	PPM
6) H	Oil (06-07-18)	22.000	48154619	14.998	PPM
7) H	Oil Acid Clean (06-12...	22.000	48154619	0.245	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	224173620	95.456	PPM
9) H	Oil Combo (06-07-18)	22.000	35374006	8.166	PPM
10) H	Oil Acid Clean Combo ...	22.000	35374006	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	231446738	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14811589	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	148038457	58.383	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	260511908	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	260511908	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	276908474	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	143020940	59.548	PPM
18) H	Oil Acid Clean MO Com...	22.000	30198171	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	30198171	5.536	PPM

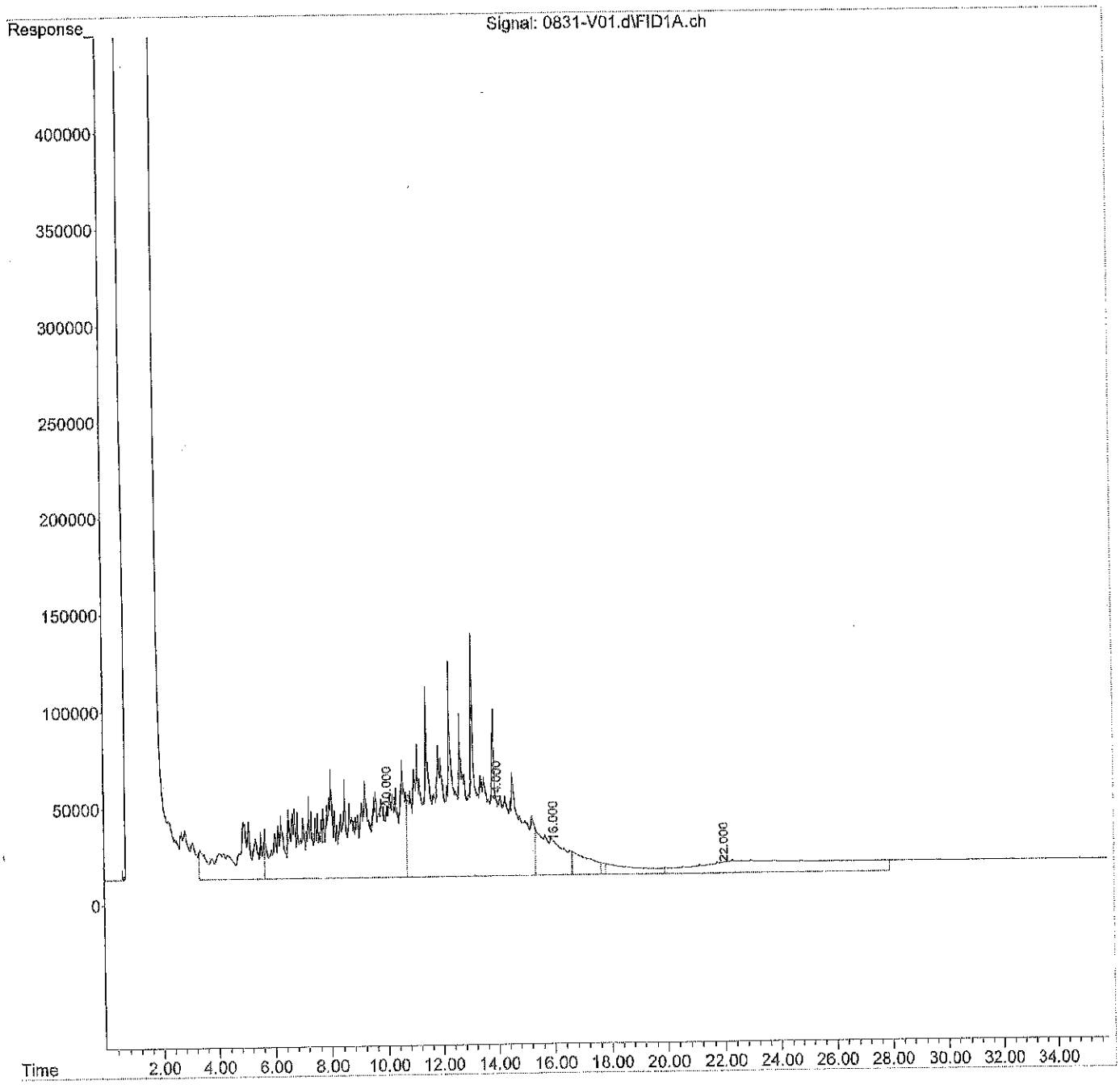
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0831-V01.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 7:46
Operator : JT
Sample : CCV0901F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 08:22:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V14.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 16:46
Operator : JT
Sample : CCV0901F-V2
Misc : SV3-29-03
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 17:22:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29509819	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	246343595	94.376	PPM
5) H	Diesel Fuel #2 (06-...	14.000	246661708	102.702	PPM
6) H	Oil (06-07-18)	22.000	54909065	18.762	PPM
7) H	Oil Acid Clean (06-12...	22.000	54909065	3.097	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	240065048	102.304	PPM
9) H	Oil Combo (06-07-18)	22.000	40736884	11.202	PPM
10) H	Oil Acid Clean Combo ...	22.000	40736884	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	248366824	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	17459637	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	159830839	63.008	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	281971653	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	281971653	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	299430410	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153849070	63.972	PPM
18) H	Oil Acid Clean MO Com...	22.000	34865972	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	34865972	8.253	PPM

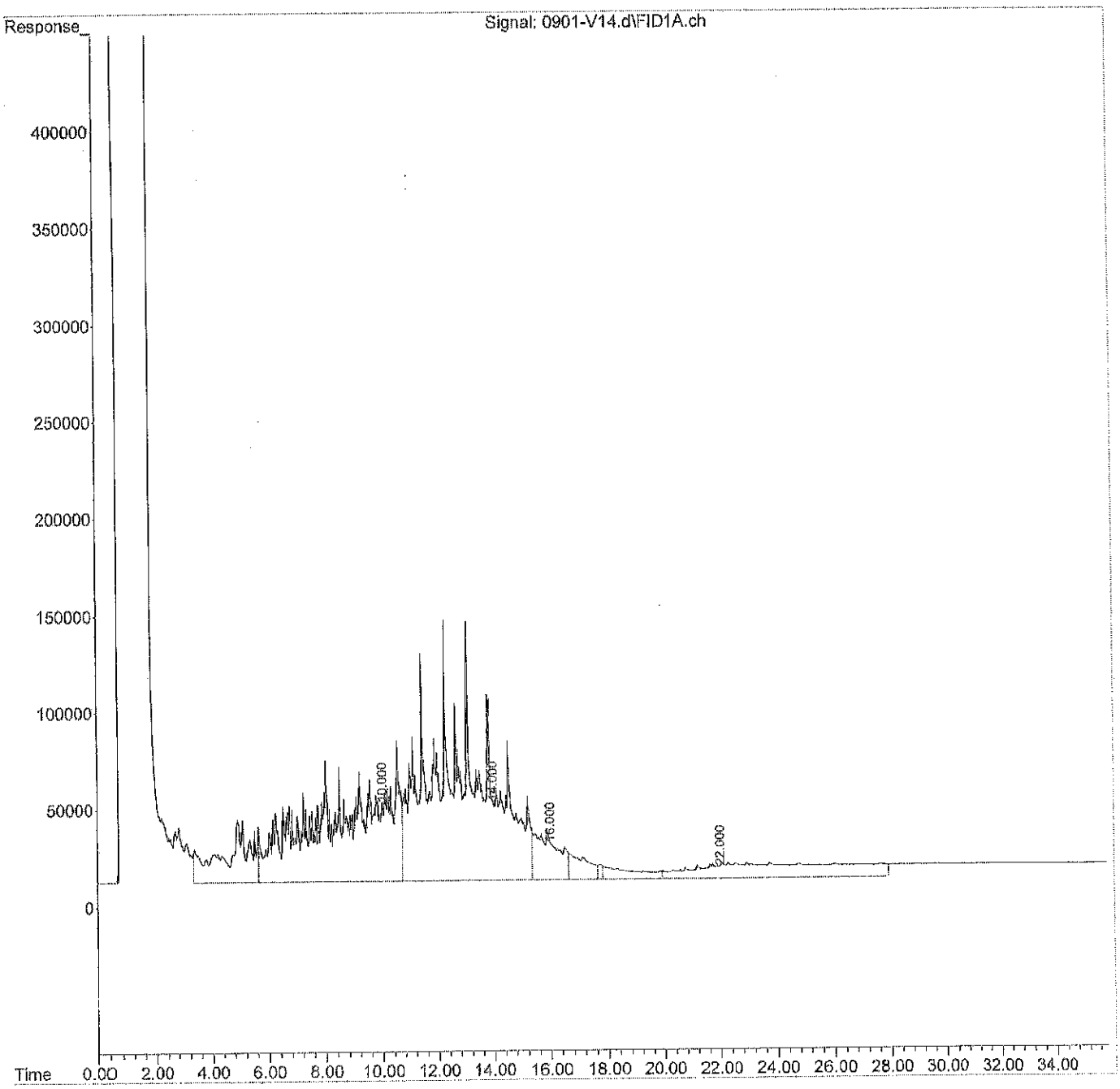
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V14.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 16:46
Operator : JT
Sample : CCV0901F-V2
Misc : SV3-29-03
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 17:22:15 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V23.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 22:47
Operator : JT
Sample : CCV0901F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 23:23:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	29344988	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	245836872	94.177	PPM
5) H	Diesel Fuel #2 (06-...	14.000	246137923	102.481	PPM
6) H	Oil (06-07-18)	22.000	57957141	20.461	PPM
7) H	Oil Acid Clean (06-12...	22.000	57957141	4.384	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	239607017	102.107	PPM
9) H	Oil Combo (06-07-18)	22.000	43864387	12.972	PPM
10) H	Oil Acid Clean Combo ...	22.000	43864387	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	247838405	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	18422778	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	159454072	62.860	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	285165134	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	285165134	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	302334501	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153454697	63.811	PPM
18) H	Oil Acid Clean MO Com...	22.000	38049869	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	38049869	10.106	PPM

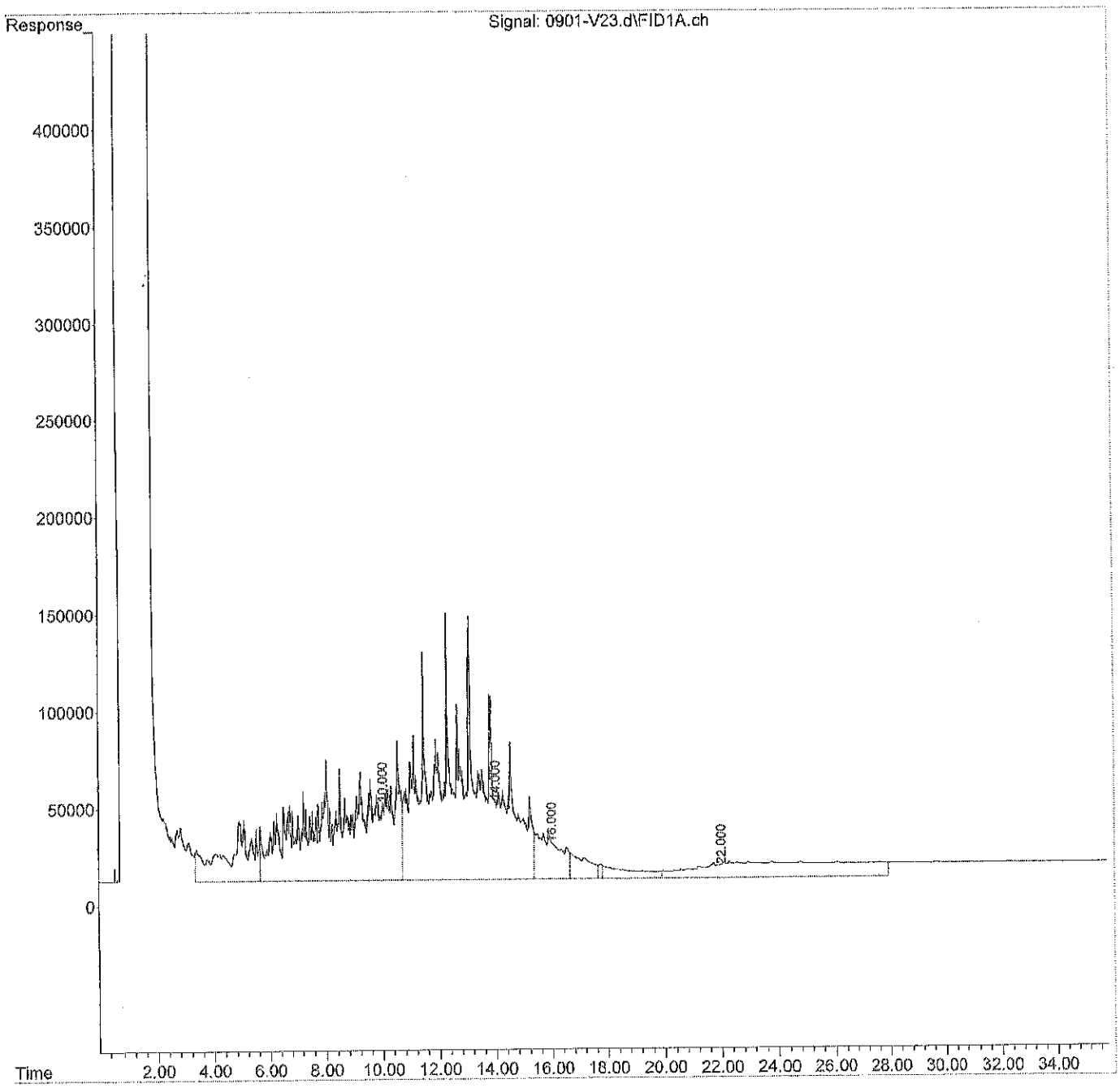
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V23.d
Signal(s) : FID1A.ch
Acq On : 1 Sep 2018 22:47
Operator : JT
Sample : CCV0901F-V3
Misc : SV3-29-03
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 01 23:23:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V29.d
Signal(s) : FID1A.ch
Acq On : 2 Sep 2018 2:47
Operator : JT
Sample : CCV0901F-V4
Misc : SV3-29-03
ALS Vial : 29 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 03:23:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

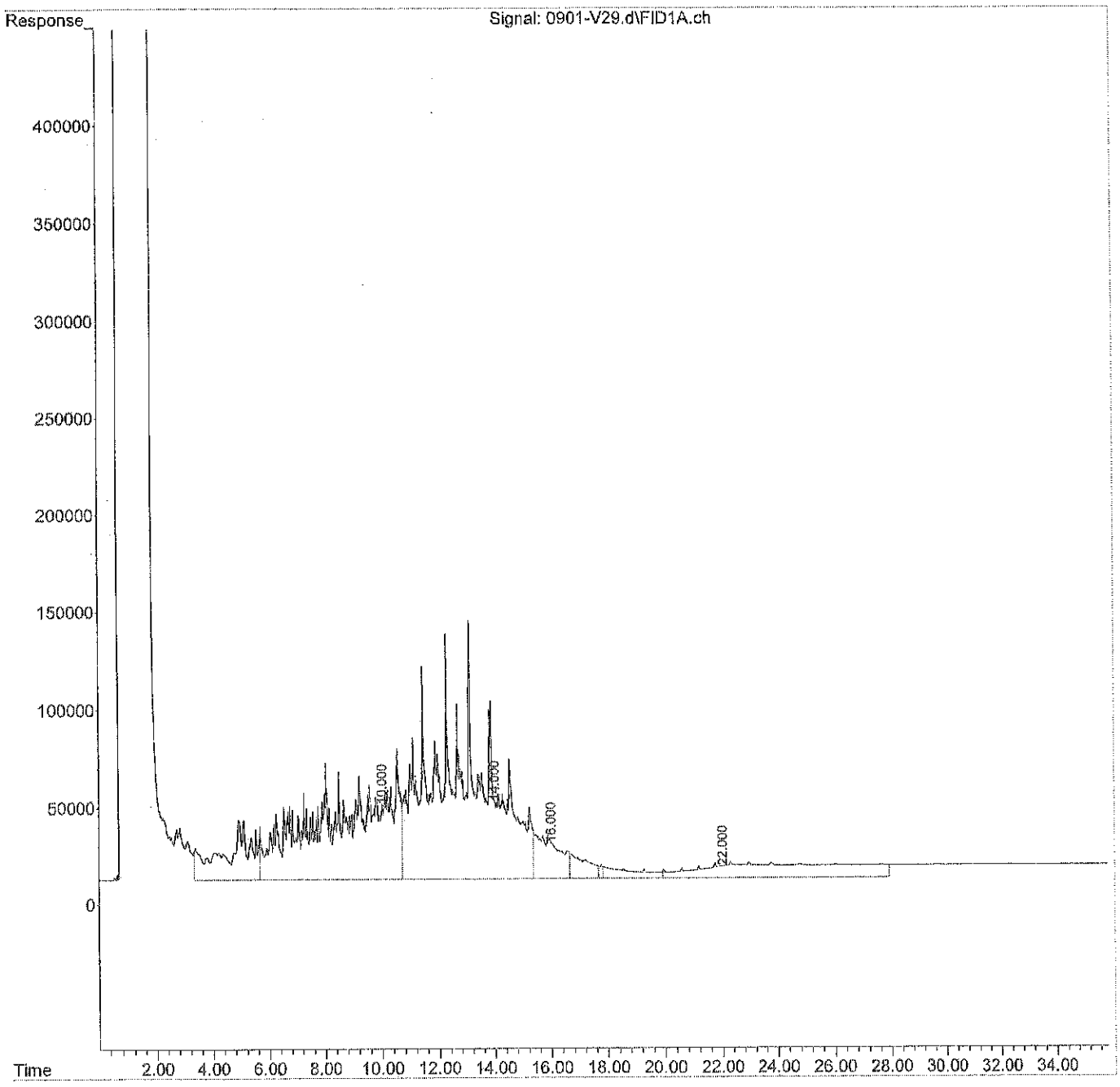
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	28968051	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	239145837	91.554	PPM
5) H	Diesel Fuel #2 (06-...	14.000	238555002	99.280	PPM
6) H	Oil (06-07-18)	22.000	52672199	17.516	PPM
7) H	Oil Acid Clean (06-12...	22.000	52672199	2.153	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	232451980	99.023	PPM
9) H	Oil Combo (06-07-18)	22.000	39268706	10.371	PPM
10) H	Oil Acid Clean Combo ...	22.000	39268706	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	240157006	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16451454	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	153849008	60.662	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	273010751	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	273010751	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	290086891	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	148388531	61.741	PPM
18) H	Oil Acid Clean MO Com...	22.000	33812753	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	33812753	7.640	PPM

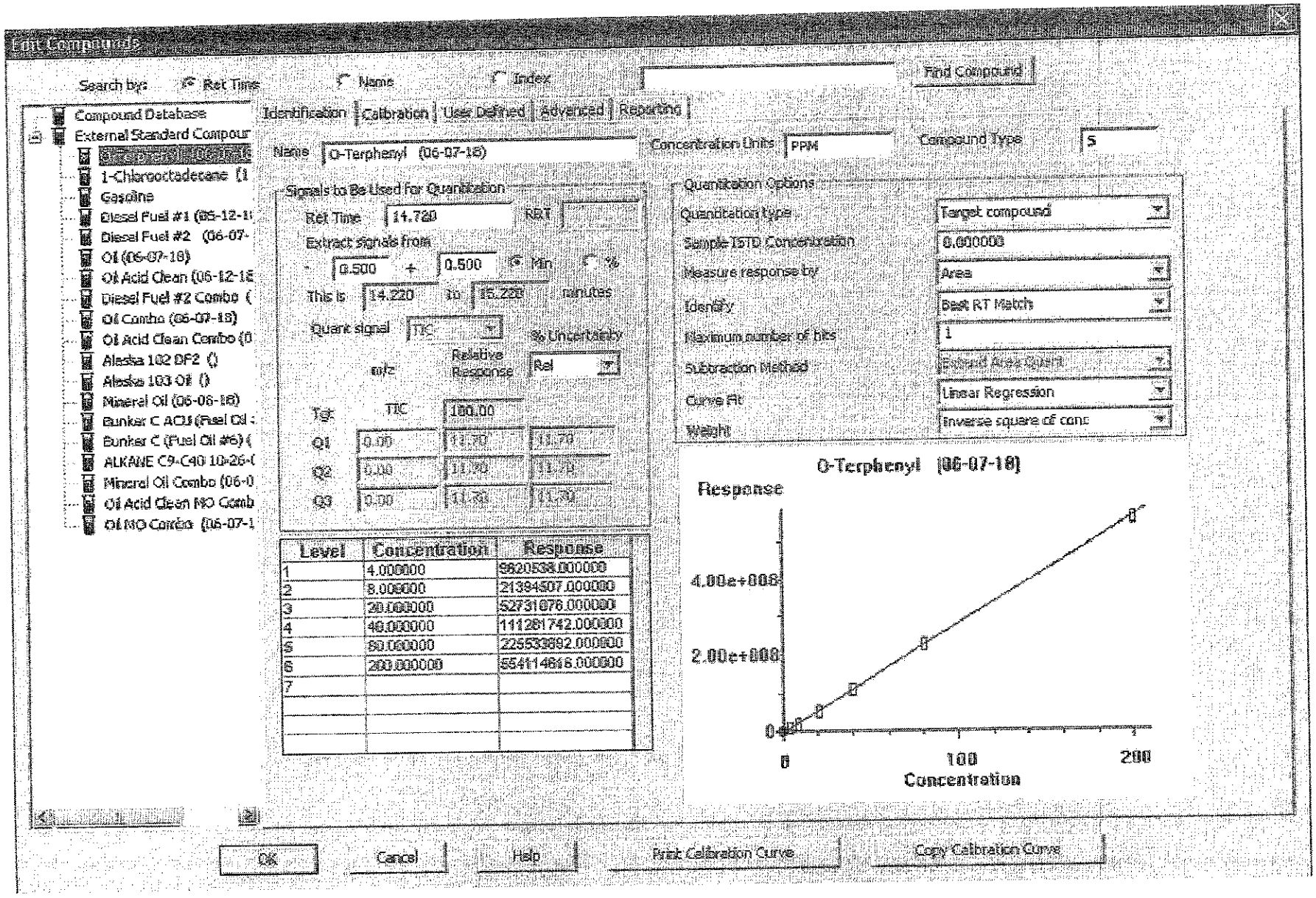
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\DATA\V180901\
Data File : 0901-V29.d
Signal(s) : FID1A.ch
Acq On : 2 Sep 2018 2:47
Operator : JT
Sample : CCV0901F-V4
Misc : SV3-29-03
ALS Vial : 29 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 02 03:23:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18)
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (05-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-1
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACO (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean NO Comb
Oil NO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
O-Terphenyl (06-07-18)
Concentration Units
PPM
Compound Type
S
Signals to Be Used For Quantitation
Ret Time
14.720
RRT
Extract signals from
0.500
0.500
Min
%
This is
14.220
to
15.220
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
External Area Quant
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
4.000000
9820538.000000
2
8.000000
21394507.000000
3
20.000000
52731076.000000
4
40.000000
111281742.000000
5
80.000000
225533892.000000
6
200.000000
554114616.000000
7
O-Terphenyl (06-07-18)
Response
4.00e+008
2.00e+008
0
0
100
200
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.582	9620538	3.974 PPM
Spiked Amount	50.000		Recovery =	7.95%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2918914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7973112	0.934 PPM
5) H	Diesel Fuel #2 (06-...	14.000	8067167	1.963 PPM
6) H	Oil (06-07-18)	22.000	41478047	11.278 PPM
7) H	Oil Acid Clean (06-12...	22.000	41478047	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	7057774	1.895 PPM
9) H	Oil Combo (06-07-18)	22.000	40647380	11.151 PPM
10) H	Oil Acid Clean Combo ...	22.000	40647380	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	8402084	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20317087	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	7057262	3.084 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	51378922	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	51378922	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	51452820	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	4092445	2.783 PPM
18) H	Oil Acid Clean MO Com...	22.000	39796223	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	39796223	11.123 PPM

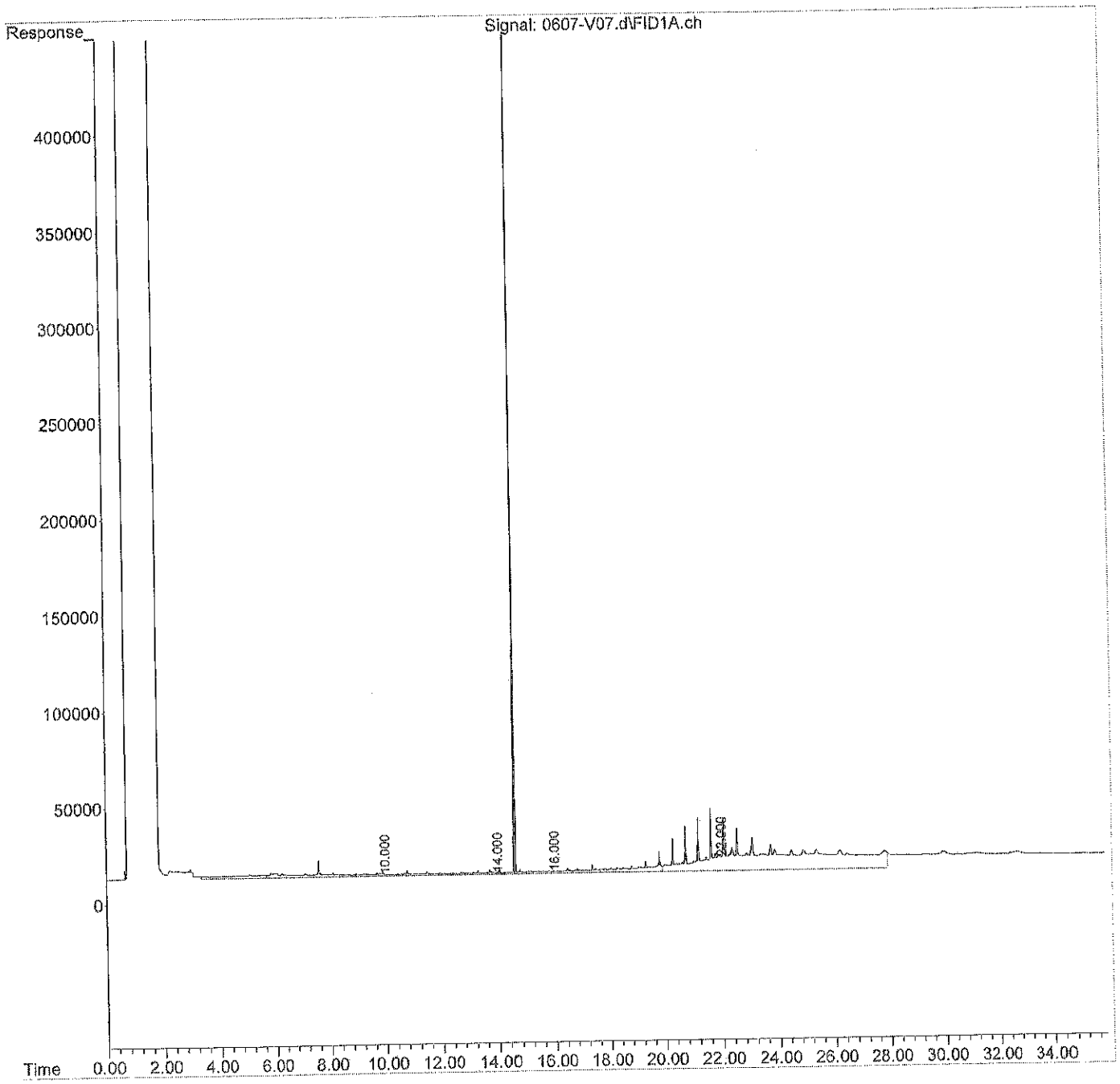
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.583	21394507	8.182 PPM
Spiked Amount	50.000		Recovery =	16.36%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2578709	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6568002	0.383 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6442554	1.277 PPM
6) H	Oil (06-07-18)	22.000	38834383	9.804 PPM
7) H	Oil Acid Clean (06-12...	22.000	38834383	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5650075	1.288 PPM
9) H	Oil Combo (06-07-18)	22.000	38215738	9.775 PPM
10) H	Oil Acid Clean Combo ...	22.000	38215738	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	6700816	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20412619	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5601139	2.513 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	47152459	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	47152459	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	47173180	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3086112	2.372 PPM
18) H	Oil Acid Clean MO Com...	22.000	37547444	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	37547444	9.814 PPM

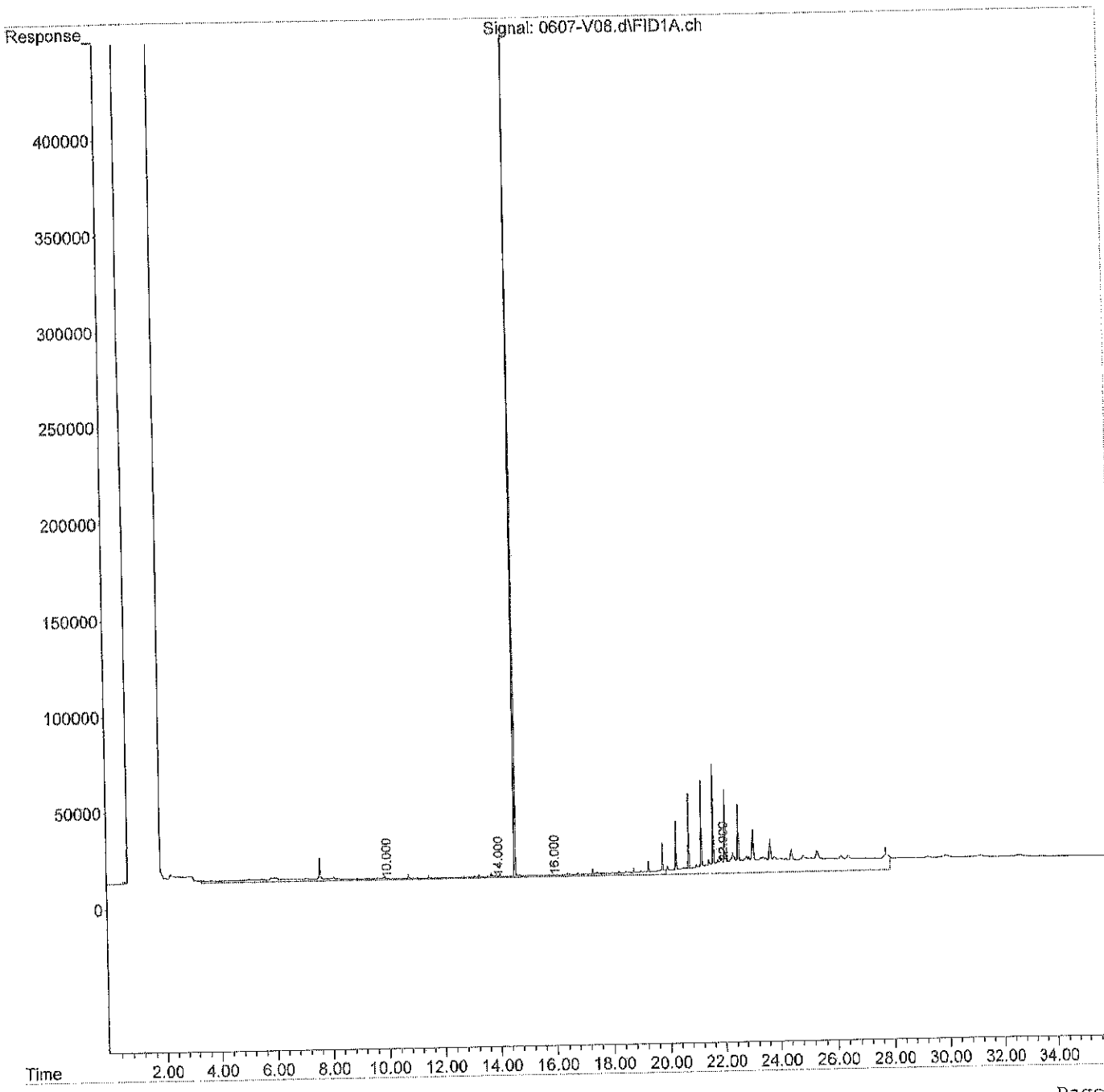
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.588	52731076	19.381	PPM
Spiked Amount		50.000		Recovery =	38.76%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	2265067	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	5081733	N.D.	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	4905010	0.628	PPM
6)	H	Oil (06-07-18)	22.000	32732210	6.404	PPM
7)	H	Oil Acid Clean (06-12...	22.000	32732210	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	4219849	0.672	PPM
9)	H	Oil Combo (06-07-18)	22.000	32242464	6.394	PPM
10)	H	Oil Acid Clean Combo ...	22.000	32242464	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	5118955	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	16586145	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	4326333	2.013	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	39478225	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	39478225	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	39423416	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	2320552	2.059	PPM
18)	H	Oil Acid Clean MO Com...	22.000	31663541	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	31663541	6.389	PPM

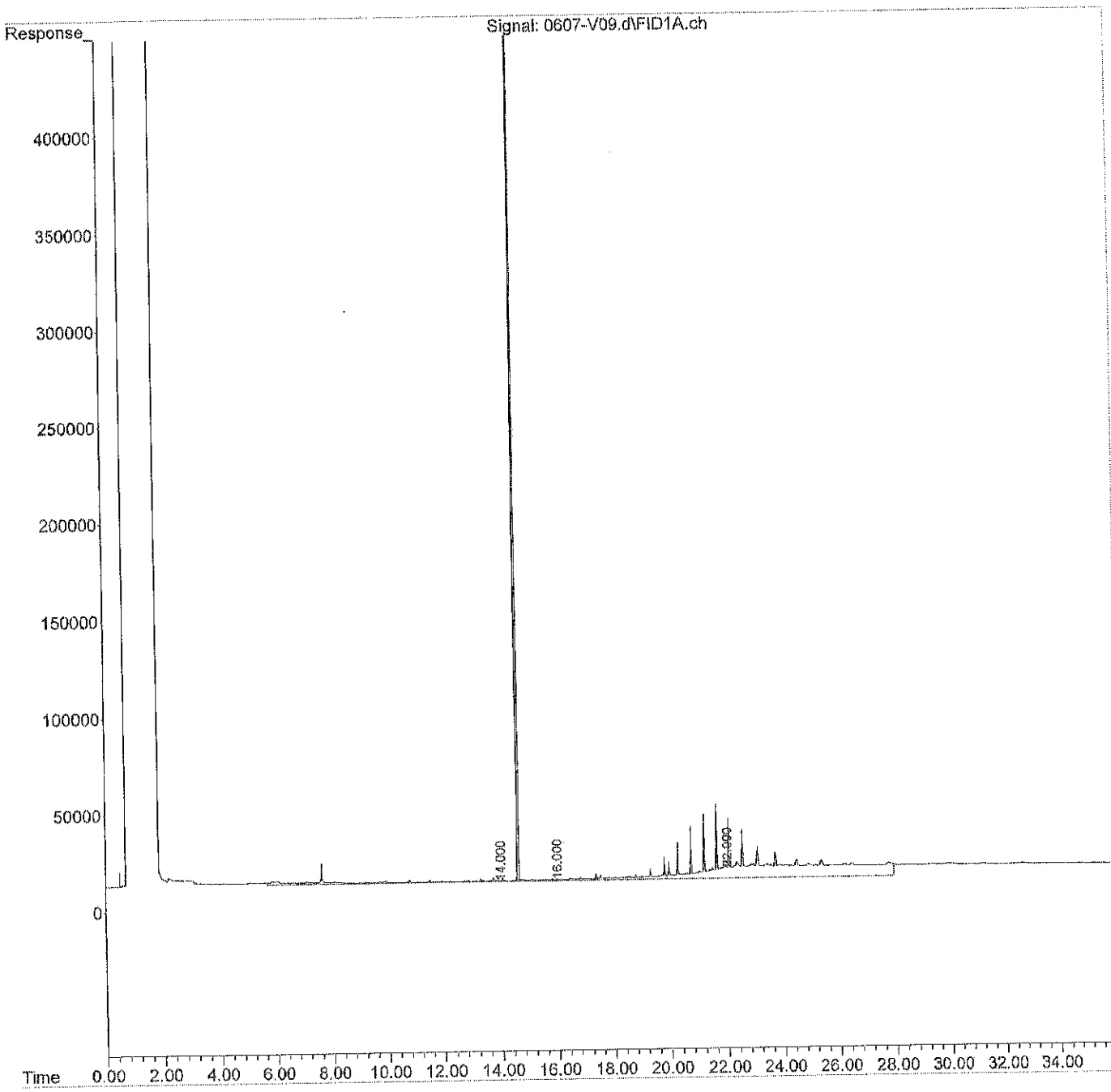
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.595	111281742	40.306 PPM
Spiked Amount	50.000		Recovery =	80.61%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2340566	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4714319	N.D. PPM
5) H	Diesel Fuel #2 (06-...	14.000	4271422	0.360 PPM
6) H	Oil (06-07-18)	22.000	31921729	5.952 PPM
7) H	Oil Acid Clean (06-12...	22.000	31921729	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	3720497	0.456 PPM
9) H	Oil Combo (06-07-18)	22.000	31518020	5.984 PPM
10) H	Oil Acid Clean Combo ...	22.000	31518020	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	4457580	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	16644658	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	3770307	1.795 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	38132311	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	38132311	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	38147075	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	1868960	1.875 PPM
18) H	Oil Acid Clean MO Com...	22.000	31056856	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	31056856	6.036 PPM

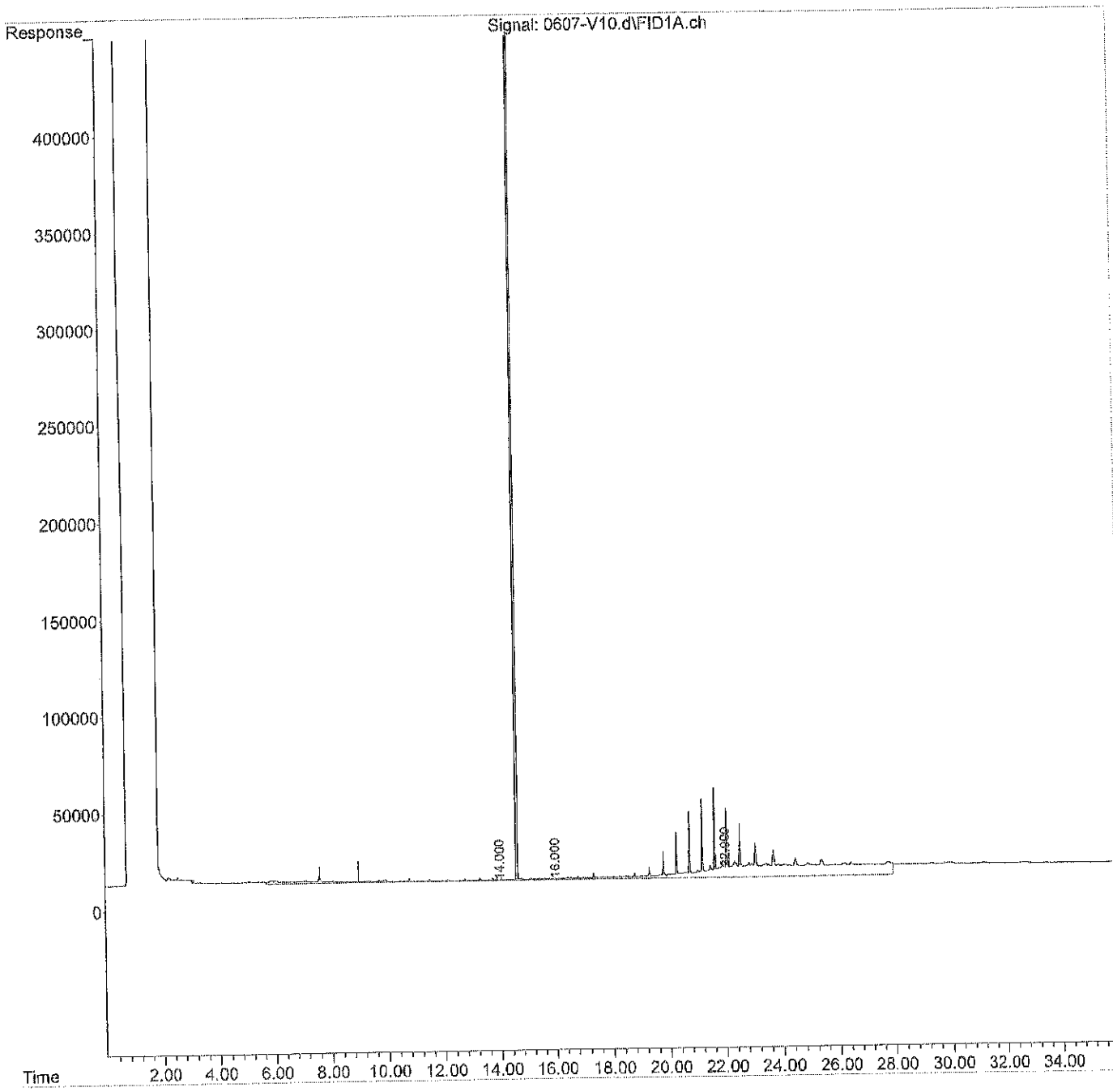
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.608	225533892	81.138 PPM
Spiked Amount	50.000		Recovery =	162.28%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2825914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7127070	0.603 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6794365	1.426 PPM
6) H	Oil (06-07-18)	22.000	35914188	8.177 PPM
7) H	Oil Acid Clean (06-12...	22.000	35914188	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6032453	1.453 PPM
9) H	Oil Combo (06-07-18)	22.000	35297875	8.123 PPM
10) H	Oil Acid Clean Combo ...	22.000	35297875	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	7031240	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	19426371	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5449526	2.454 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	44200935	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	44200935	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	44502128	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3154382	2.400 PPM
18) H	Oil Acid Clean MO Com...	22.000	34654159	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	34654159	8.130 PPM

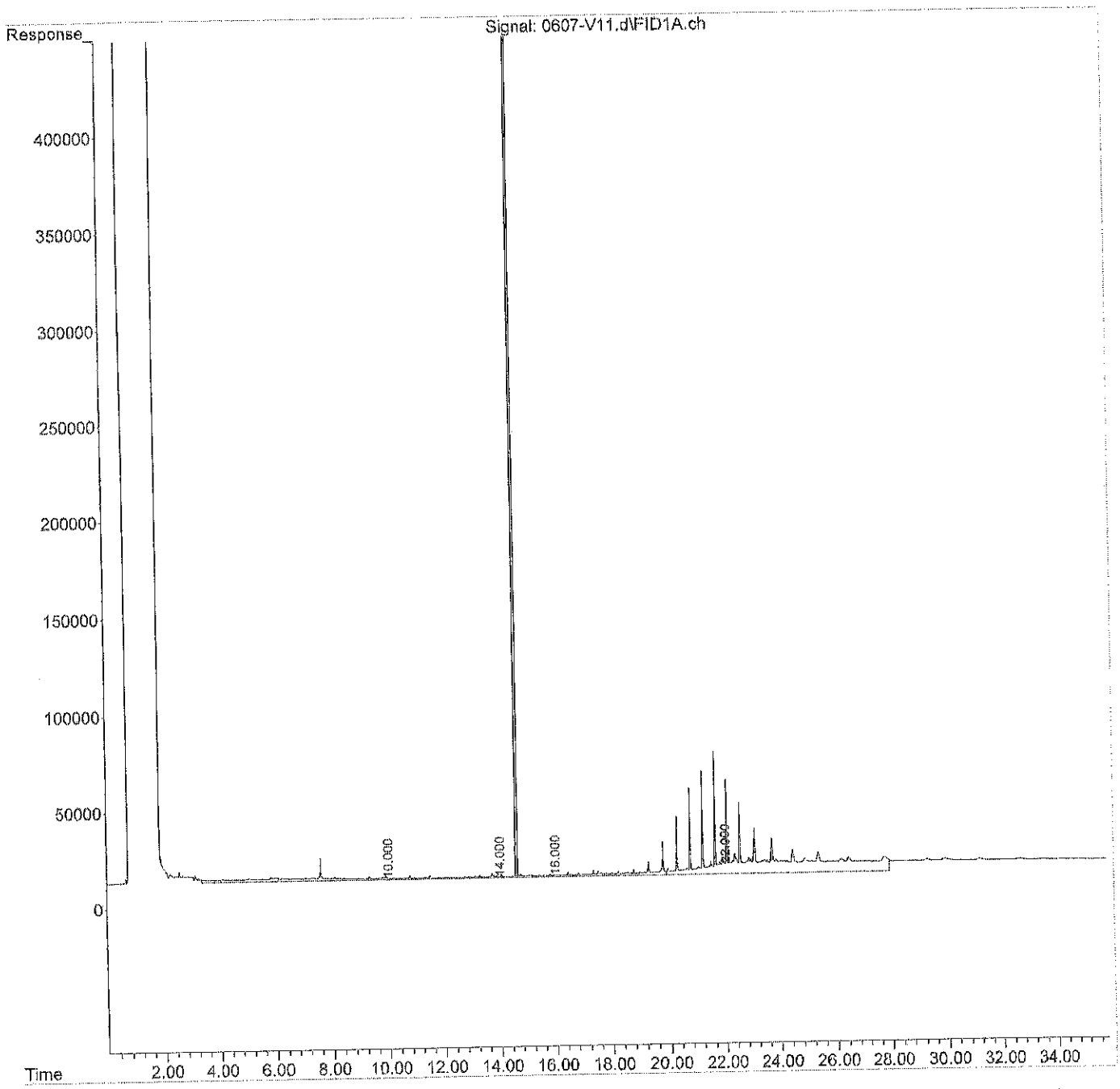
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.633	554114616	198.568	PPM
Spiked Amount	50.000		Recovery =	397.14%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	2480847	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5332885	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	4955156	0.649	PPM
6) H	Oil (06-07-18)	22.000	29536918	4.623	PPM
7) H	Oil Acid Clean (06-12...	22.000	29536918	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4340875	0.724	PPM
9) H	Oil Combo (06-07-18)	22.000	29073821	4.600	PPM
10) H	Oil Acid Clean Combo ...	22.000	29073821	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	5149935	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14577866	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	4166131	1.950	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	36280871	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	36280871	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	36345279	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2350636	2.072	PPM
18) H	Oil Acid Clean MO Com...	22.000	28553677	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28553677	4.579	PPM

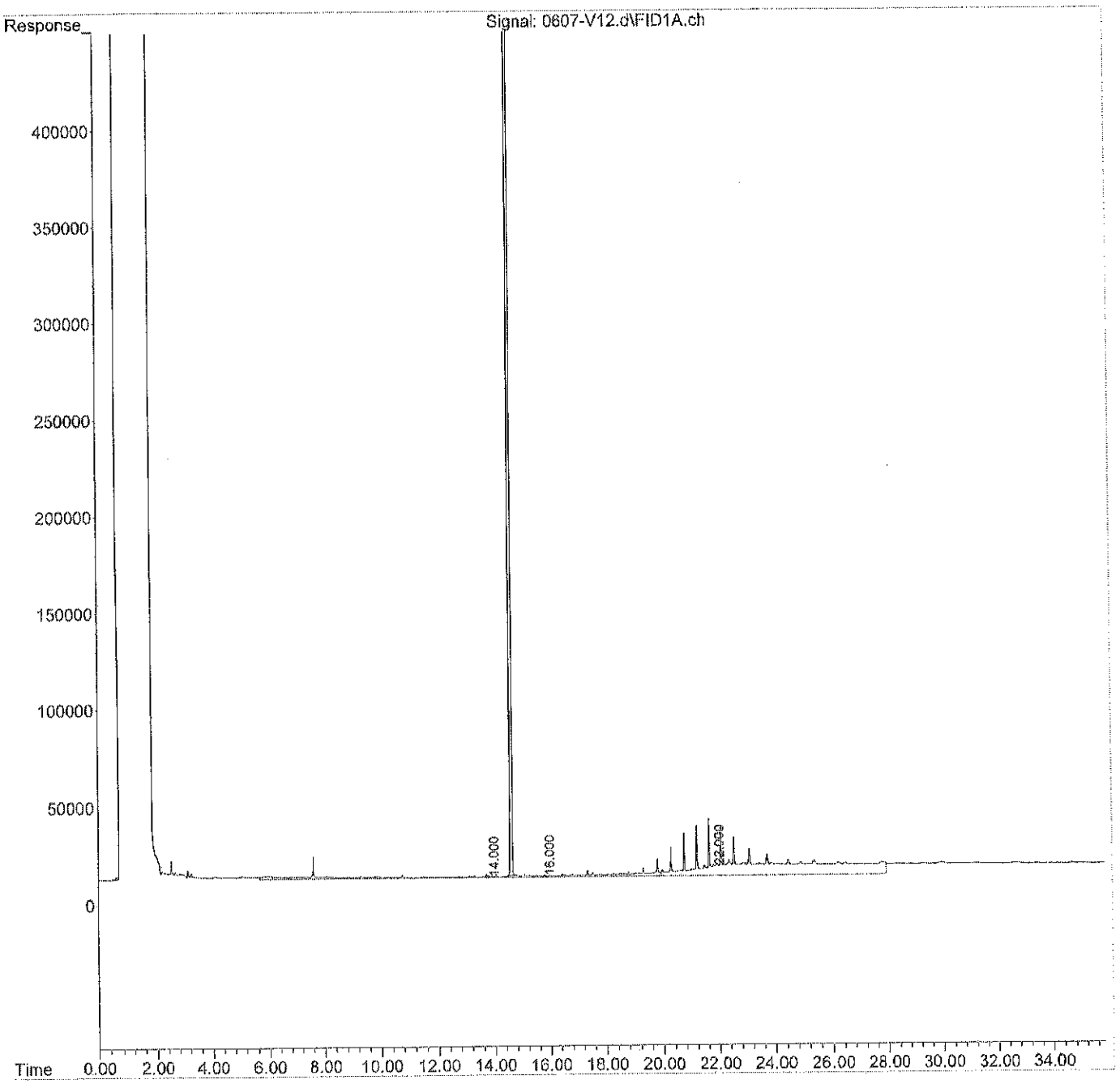
(f)=RT Delta > 1/2 Window (m)=manual int.

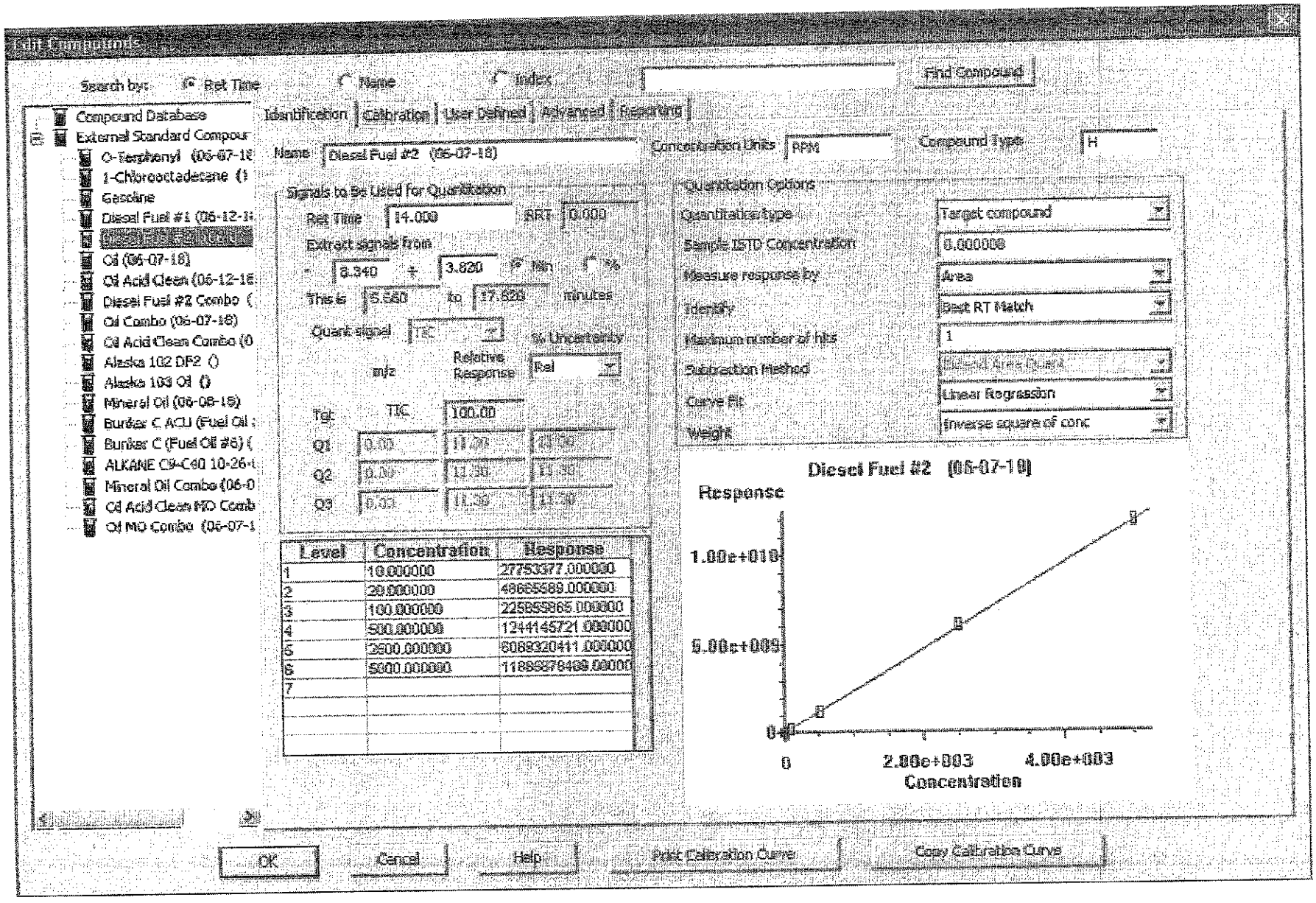
Quantitation Report (Not Reviewed)

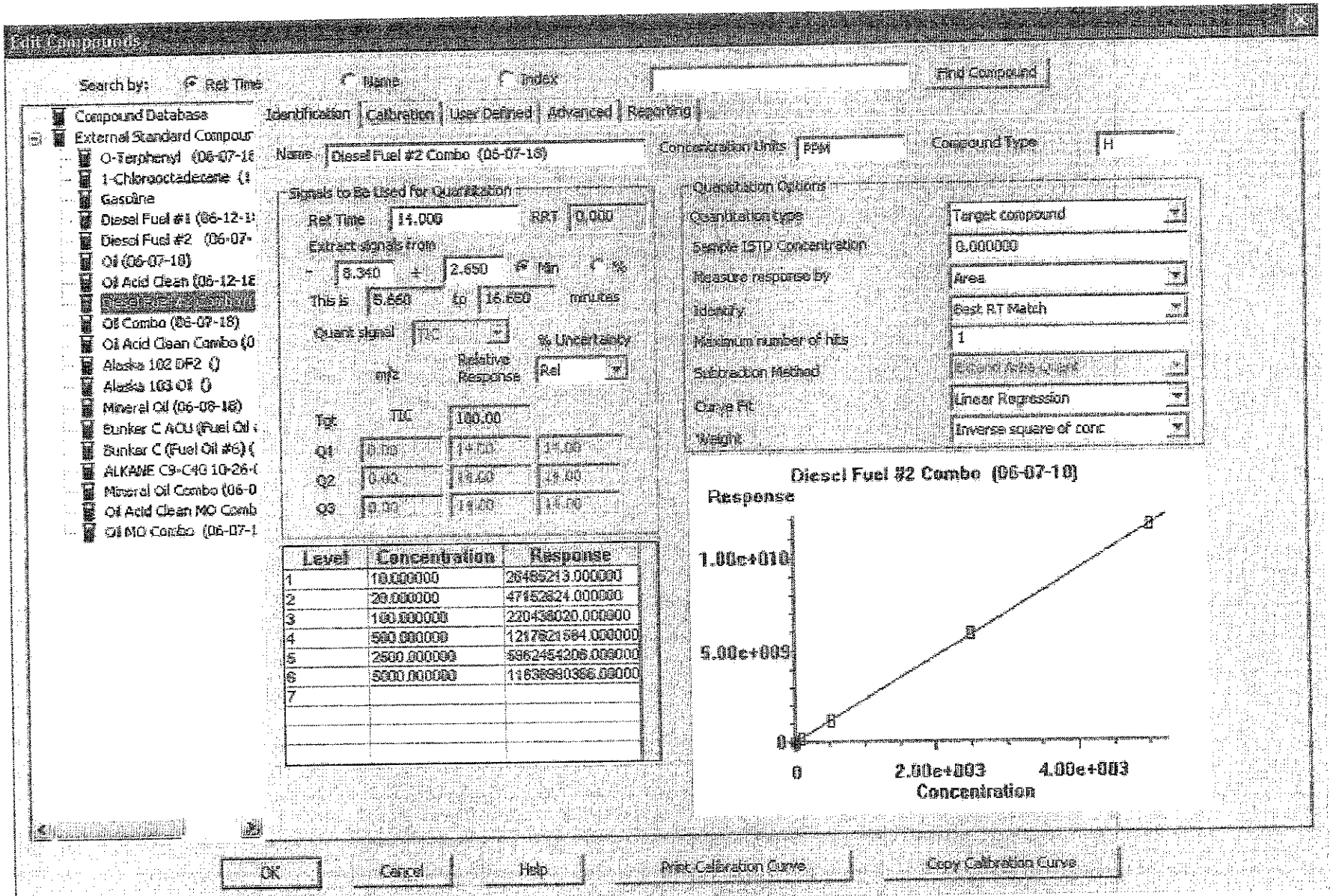
Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by: Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane ()
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-18)
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 (06-07-18)
Concentration Units
RPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
14.000
RRT
0.000
Extract signals from
8.340
3.820
Min
%
This is
5.560
to
17.520
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
0.00
Q2
Q3
Quantitation Options
Quantitation Type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
10.000000
27753377.000000
2
20.000000
48665589.000001
3
100.000000
225859365.000000
4
500.000000
1244145721.000000
5
2500.000000
6088320411.000000
6
5000.000000
11886878408.000000
7
Diesel Fuel #2 (06-07-18)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-06-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 Combo (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
14.000
RRT
0.000
Extract signals from
8.340
2.650
Min
%
This is
5.650
to
16.650
minutes
Quant signal
TIC
% Uncertainty
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
External Area Quant
Curve Fit
Linear Regression
Weight
Inverse square of conc
Diesel Fuel #2 Combo (06-07-18)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
Level
Concentration
Response
1
10.000000
26486213.000000
2
20.000000
47152824.000000
3
100.000000
220436020.000000
4
500.000000
1217821584.000000
5
2500.000000
5862454206.000000
6
5000.000000
11638880386.000000
7
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.579	1768524	1.168	PPM
Spiked Amount	50.000		Recovery =	2.34%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	4133777	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	27269128	8.498	PPM
5) H	Diesel Fuel #2 (06-...	14.000	27753377	10.275	PPM
6) H	Oil (06-07-18)	22.000	31915458	5.949	PPM
7) H	Oil Acid Clean (06-12...	22.000	31915458	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	26465213	10.258	PPM
9) H	Oil Combo (06-07-18)	22.000	30005900	5.128	PPM
10) H	Oil Acid Clean Combo ...	22.000	30005900	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	28080594	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14809319	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	19317557	7.893	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	59083420	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	59083420	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	60452306	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	17051878	8.078	PPM
18) H	Oil Acid Clean MO Com...	22.000	28888187	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28888187	4.774	PPM

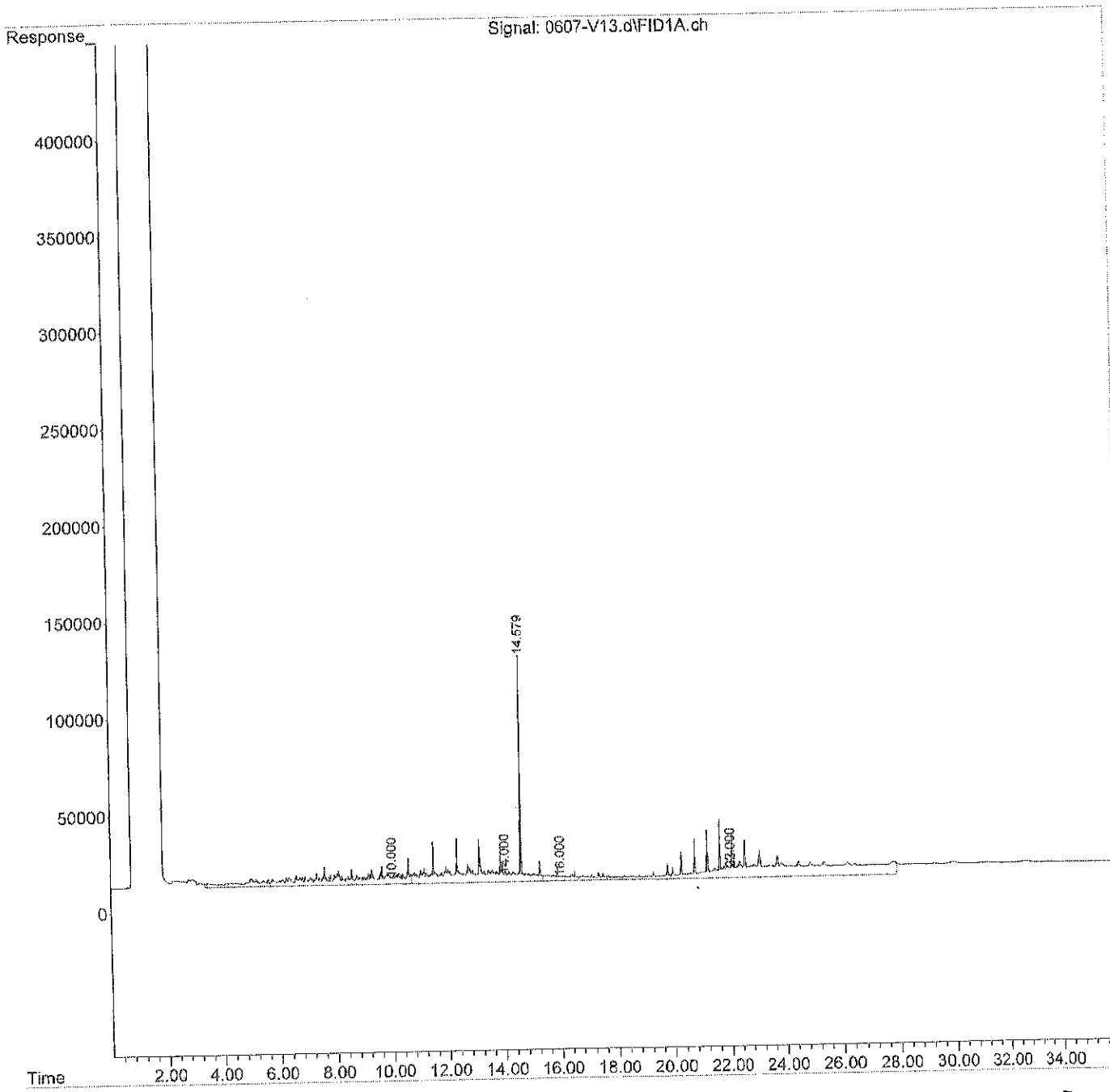
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5646580	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	48040088	16.641	PPM
5) H	Diesel Fuel #2 (06-...	14.000	48665589	19.104	PPM
6) H	Oil (06-07-18)	22.000	33762580	6.978	PPM
7) H	Oil Acid Clean (06-12...	22.000	33762580	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	47152624	19.173	PPM
9) H	Oil Combo (06-07-18)	22.000	30844064	5.602	PPM
10) H	Oil Acid Clean Combo ...	22.000	30844064	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	48992912	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15851618	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	32931233	13.233	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	80349703	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	80349703	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	82875651	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	30717015	13.662	PPM
18) H	Oil Acid Clean MO Com...	22.000	29519570	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	29519570	5.141	PPM

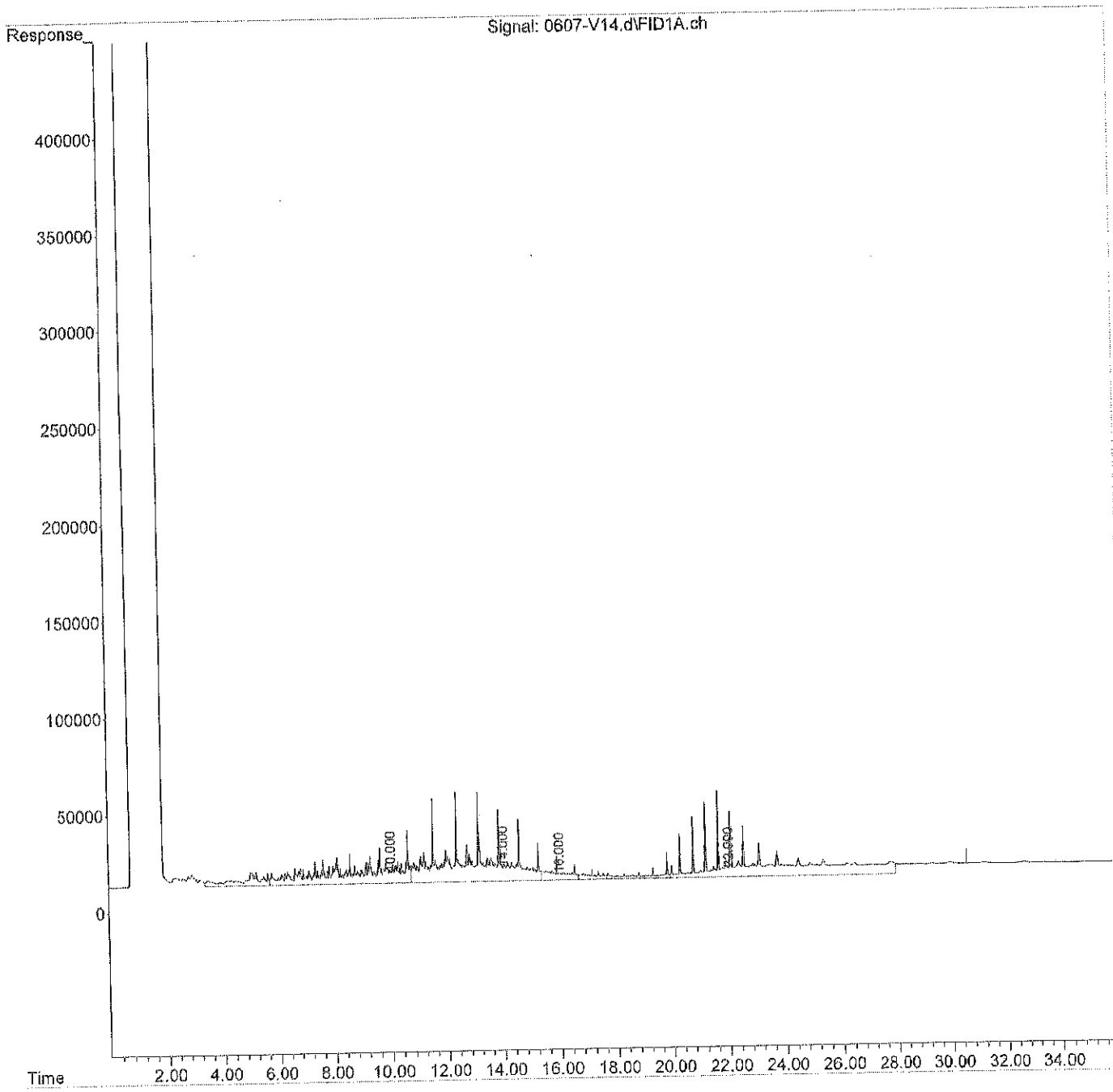
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.568	1827597	1.189	PPM
Spiked Amount		50.000		Recovery =	2.38%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	20974403	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	222453979	85.011	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	225655865	93.833	PPM
6)	H	Oil (06-07-18)	22.000	47759430	14.778	PPM
7)	H	Oil Acid Clean (06-12...	22.000	47759430	0.079	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	220436020	93.845	PPM
9)	H	Oil Combo (06-07-18)	22.000	34923076	7.911	PPM
10)	H	Oil Acid Clean Combo ...	22.000	34923076	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	226627792	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	16006487	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	147049004	57.995	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	256196607	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	256196607	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	269640605	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	143067779	59.567	PPM
18)	H	Oil Acid Clean MO Com...	22.000	30286616	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	30286616	5.588	PPM

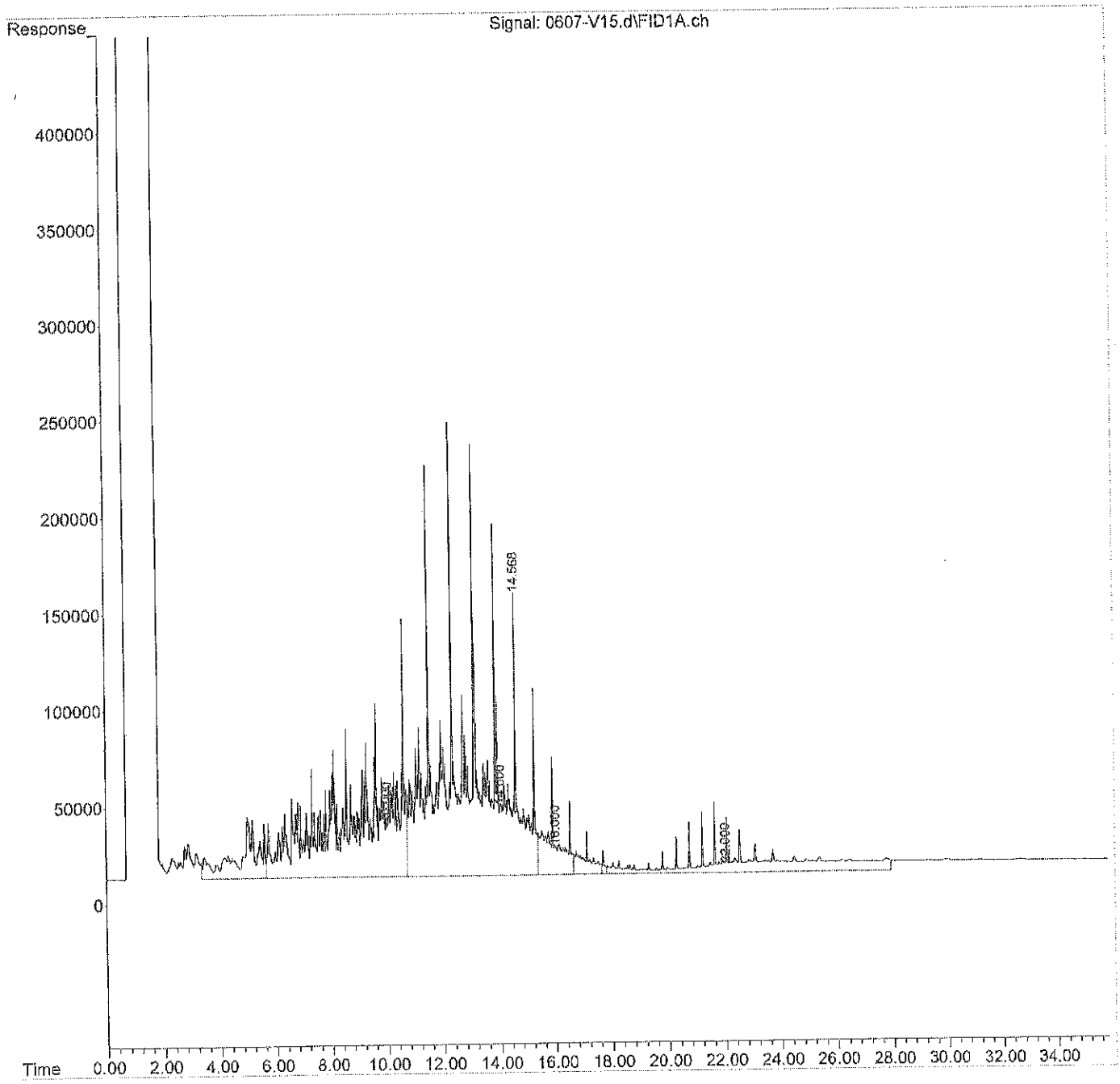
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.570	10094442	4.143	PPM
Spiked Amount	50.000		Recovery =	8.29%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.902	4101806	NoCal	PPM
3) H	Gasoline	3.500	107804991	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	1225065784	478.036	PPM
5) H	Diesel Fuel #2 (06-...	14.000	1244145721	523.861	PPM
6) H	Oil (06-07-18)	22.000	134868745	63.321	PPM
7) H	Oil Acid Clean (06-12...	22.000	134868745	36.856	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	1217621584	523.561	PPM
9) H	Oil Combo (06-07-18)	22.000	64913475	24.886	PPM
10) H	Oil Acid Clean Combo ...	22.000	64913475	7.630	PPM
11) H	Alaska 102 DF2 ()	13.025	1248540939	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	22045480	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	806013642	316.466	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1274842144	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1274842144	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1350137154	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	792702049	324.999	PPM
18) H	Oil Acid Clean MO Com...	22.000	41221857	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	41221857	11.953	PPM

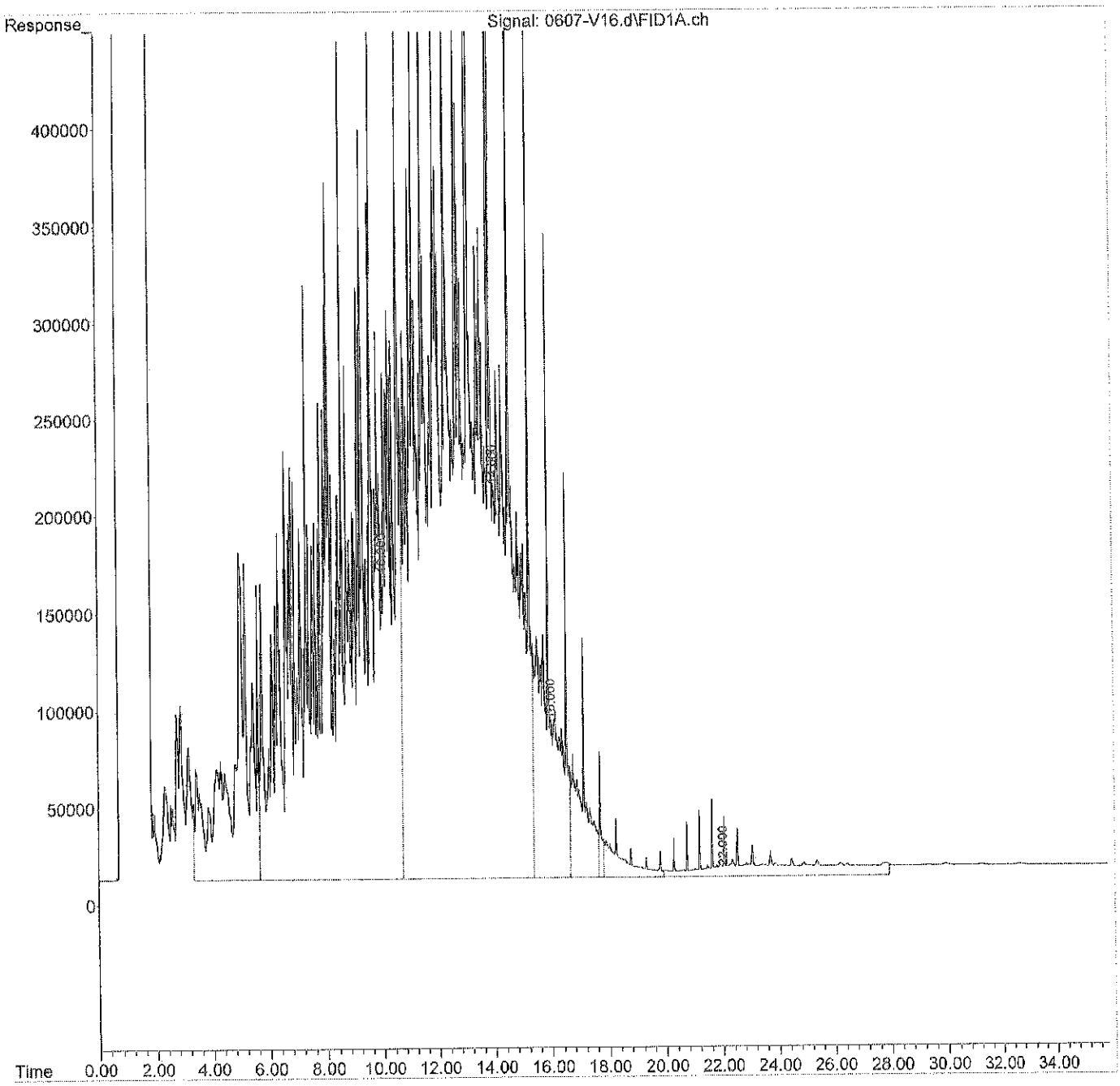
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.859	6943936	3.017	PPM
Spiked Amount	50.000		Recovery =	6.03%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.907	20022644	NoCal	PPM
3) H	Gasoline	3.500	514070408	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5991992203	2346.675	PPM
5) H	Diesel Fuel #2 (06-...	14.000	6089320411	2569.593	PPM
6) H	Oil (06-07-18)	22.000	546017303	292.438	PPM
7) H	Oil Acid Clean (06-12...	22.000	546017303	210.441	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5962454206	2568.245	PPM
9) H	Oil Combo (06-07-18)	22.000	205322242	104.356	PPM
10) H	Oil Acid Clean Combo ...	22.000	205322242	67.787	PPM
11) H	Alaska 102 DF2 ()	13.025	6110405818	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	49953834	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	3963830817	1555.086	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	6120193046	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	6120193046	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	6484678415	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	3906186074	1597.126	PPM
18) H	Oil Acid Clean MO Com...	22.000	91750432	19.770	PPM
19) H	Oil MO Combo (06-07-18)	22.000	91750432	41.364	PPM

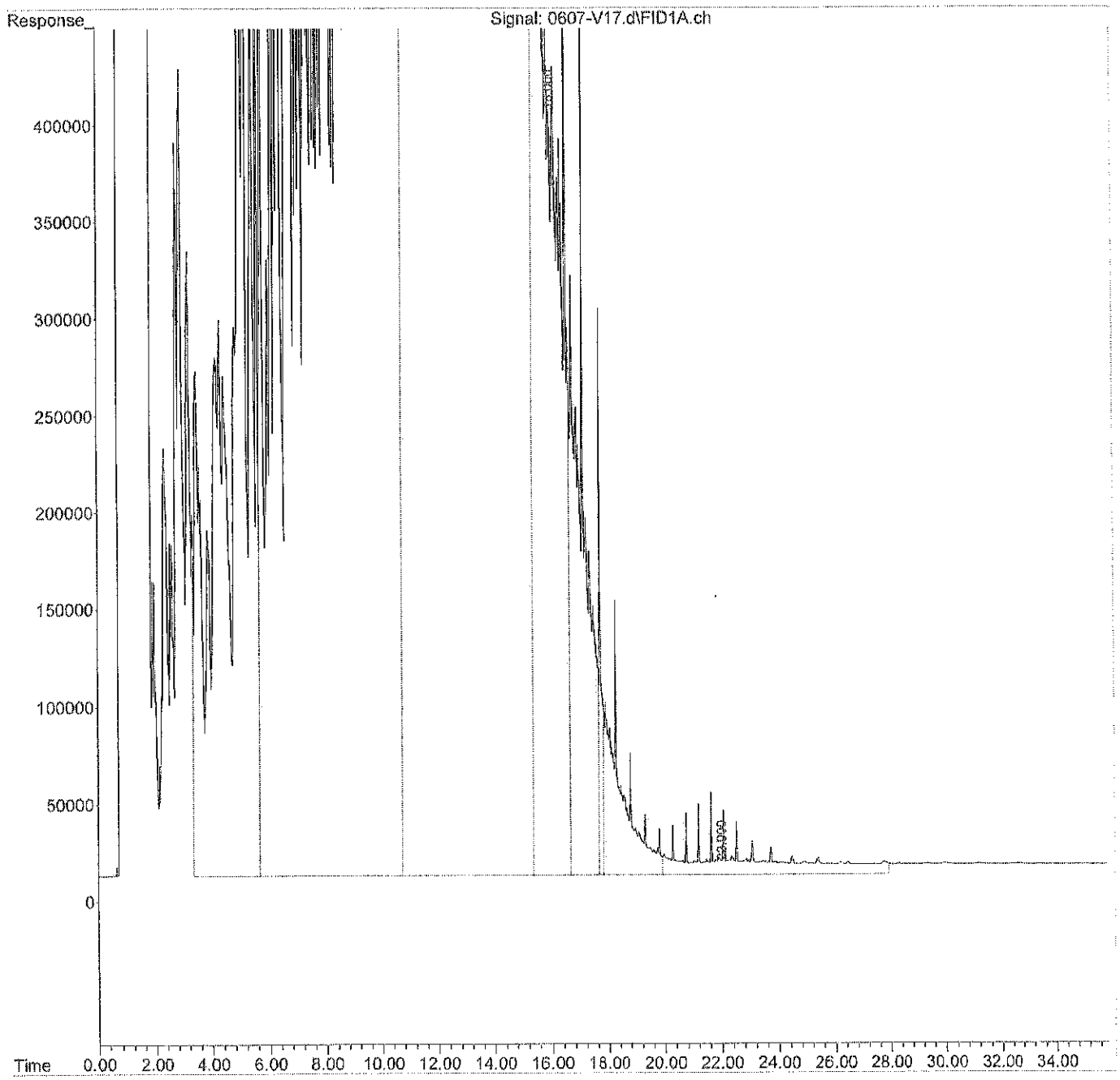
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

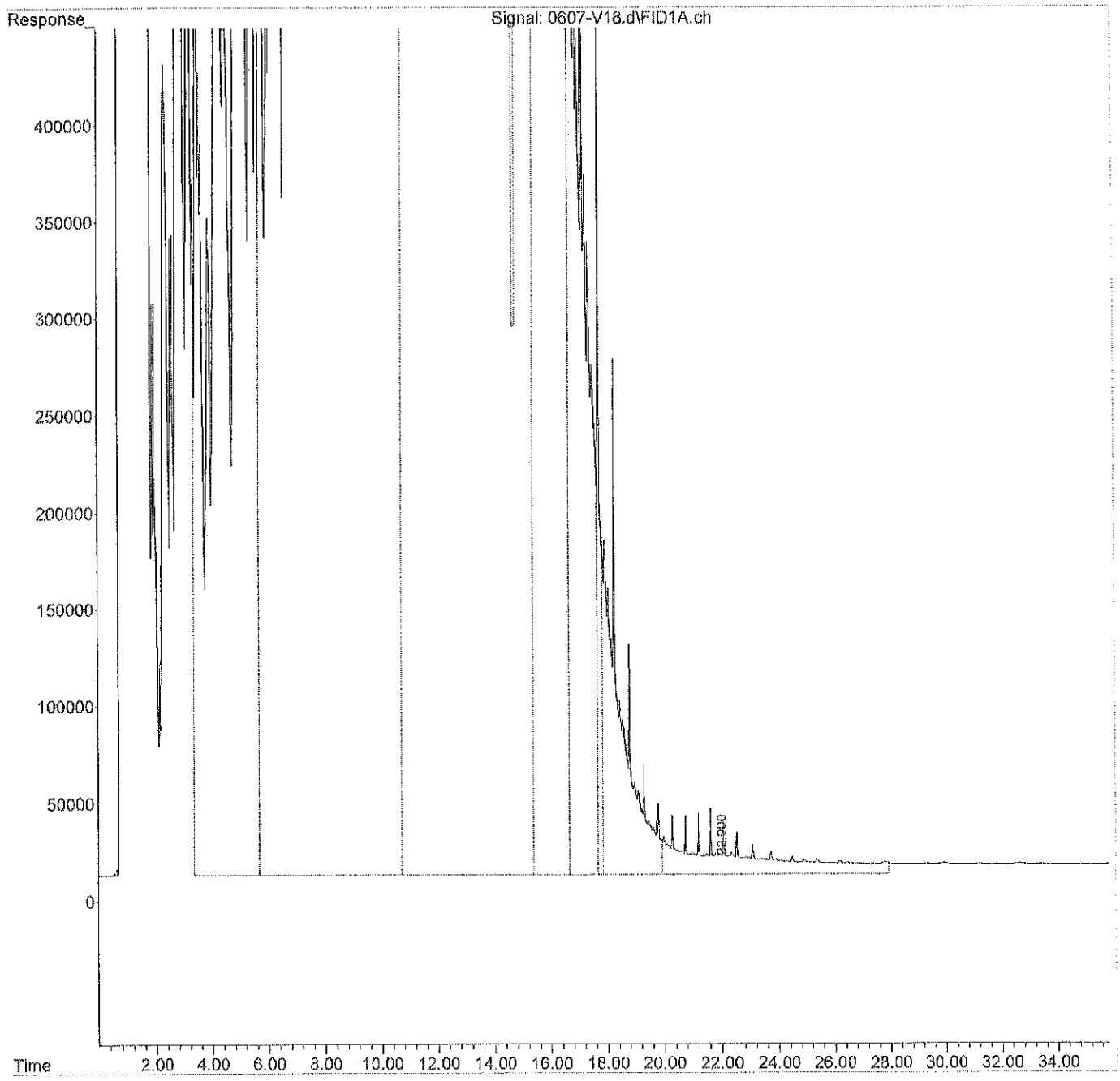
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.663	76998678	28.054	PPM
Spiked Amount	50.000		Recovery =	56.11%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.751	42430766	NoCal	PPM
3) H	Gasoline	3.500	998815431	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	11682128479	4577.214	PPM
5) H	Diesel Fuel #2 (06-...	14.000	11885878409	5017.019	PPM
6) H	Oil (06-07-18)	22.000	1050282128	573.445	PPM
7) H	Oil Acid Clean (06-12...	22.000	1050282128	423.340	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	11636990366	5013.565	PPM
9) H	Oil Combo (06-07-18)	22.000	375558313	200.709	PPM
10) H	Oil Acid Clean Combo ...	22.000	375558313	140.724	PPM
11) H	Alaska 102 DF2 ()	13.025	11928301203	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	83451915	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	7745644585	3038.462	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	11917323247	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	11917323247	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	12626887751	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	7634286594	3120.377	PPM
18) H	Oil Acid Clean MO Com...	22.000	152380955	46.447	PPM
19) H	Oil MO Combo (06-07-18)	22.000	152380955	76.656	PPM

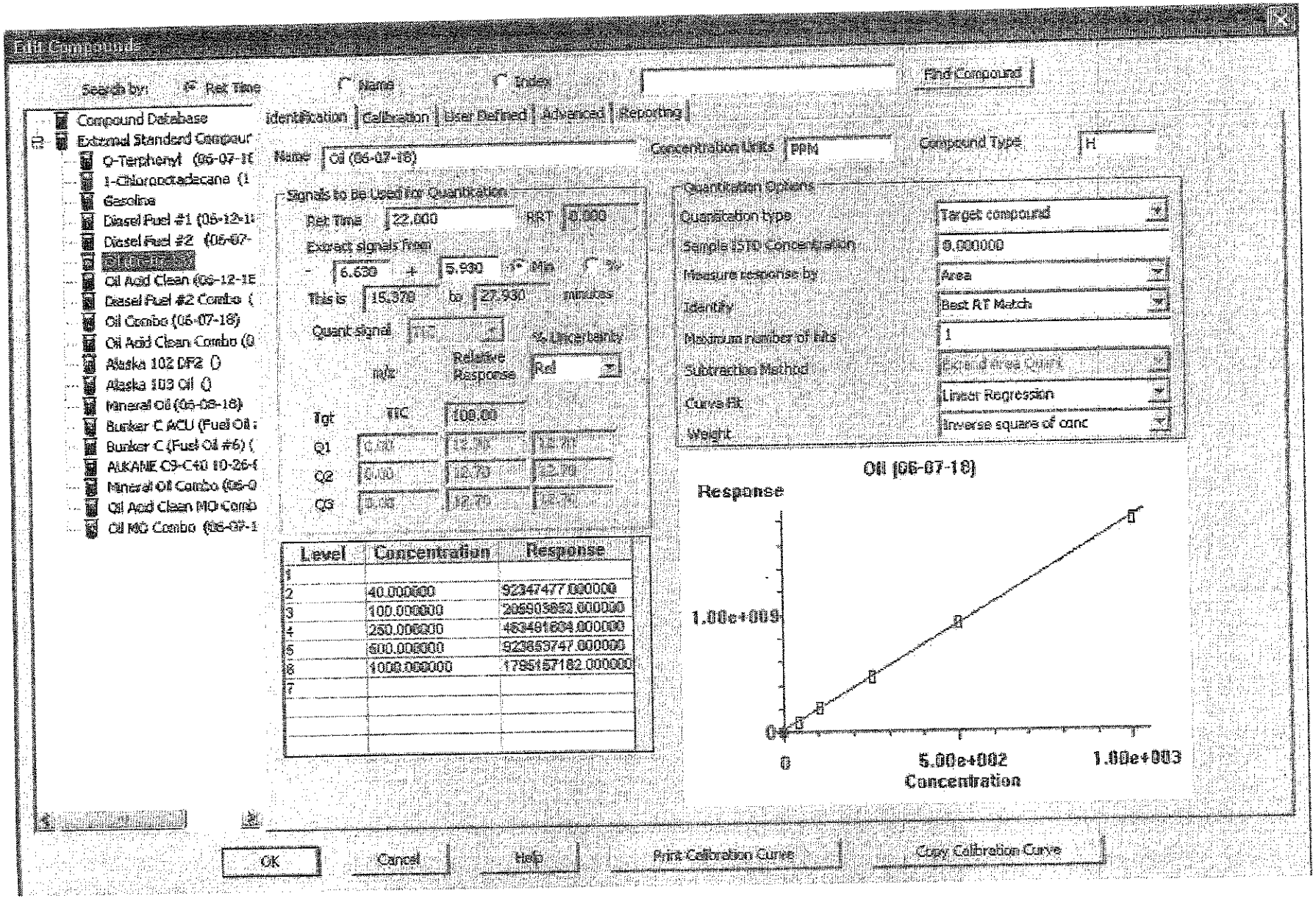
(f)=RT Delta > 1/2 Window (m)=manual int.

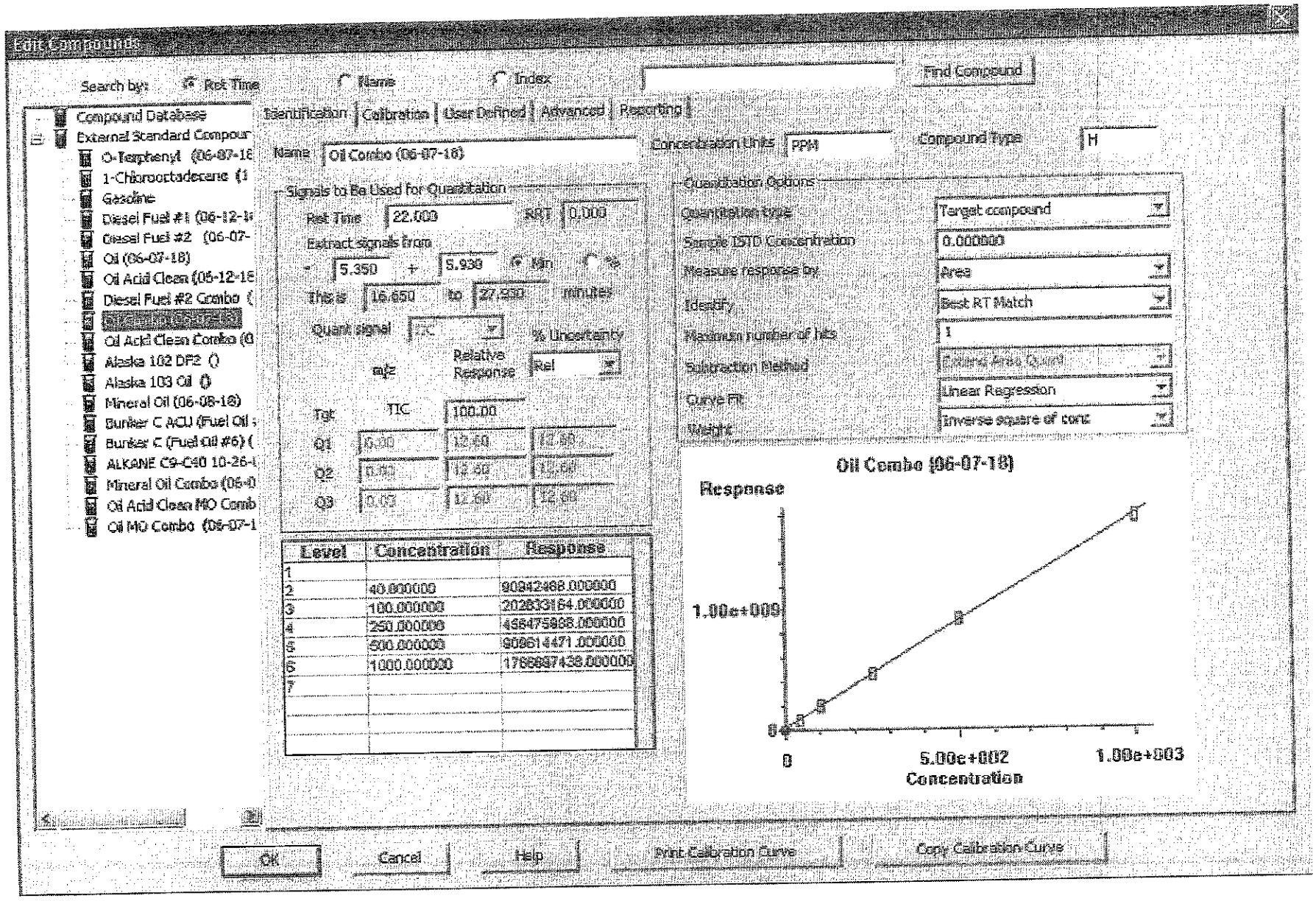
Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil (06-07-18)
Concentration Units
PPM
Compound Type
Signals to be Used for Quantitation
Ret Time
22.000
RRT
Extract signals from
6.630
5.930
Min
This is
15.378
to
27.930
minutes
Quant signal
Relative Response
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
2
40.000000
92347477.000000
3
100.000000
205905892.000000
4
250.000000
463481604.000000
5
500.000000
923653747.000000
6
1000.000000
1795157162.000000
7
Oil (06-07-18)
Response
1.00e+009
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by: Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil Combo (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
22.000
RRT
0.000
Extract signals from
5.350
5.930
Min
%
Thru
16.650
to
27.500
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
2
40.000000
90942468.000000
3
100.000000
202863164.000000
4
250.000000
496475886.000000
5
500.000000
908614471.000000
6
1000.000000
1768887438.000000
7
Oil Combo (06-07-18)
Response
1.00e+009
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1674771	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4349802	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	7464800	1.709	PPM
6) H	Oil (06-07-18)	22.000	92347477	39.625	PPM
7) H	Oil Acid Clean (06-12...	22.000	92347477	18.903	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4780848	0.913	PPM
9) H	Oil Combo (06-07-18)	22.000	90942488	39.618	PPM
10) H	Oil Acid Clean Combo ...	22.000	90942488	18.782	PPM
11) H	Alaska 102 DF2 ()	13.025	8451878	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	53467548	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	14998011	6.199	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	101163084	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	101163084	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	99848035	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	5450356	3.338	PPM
18) H	Oil Acid Clean MO Com...	22.000	88735126	18.443	PPM
19) H	Oil MO Combo (06-07-18)	22.000	88735126	39.609	PPM

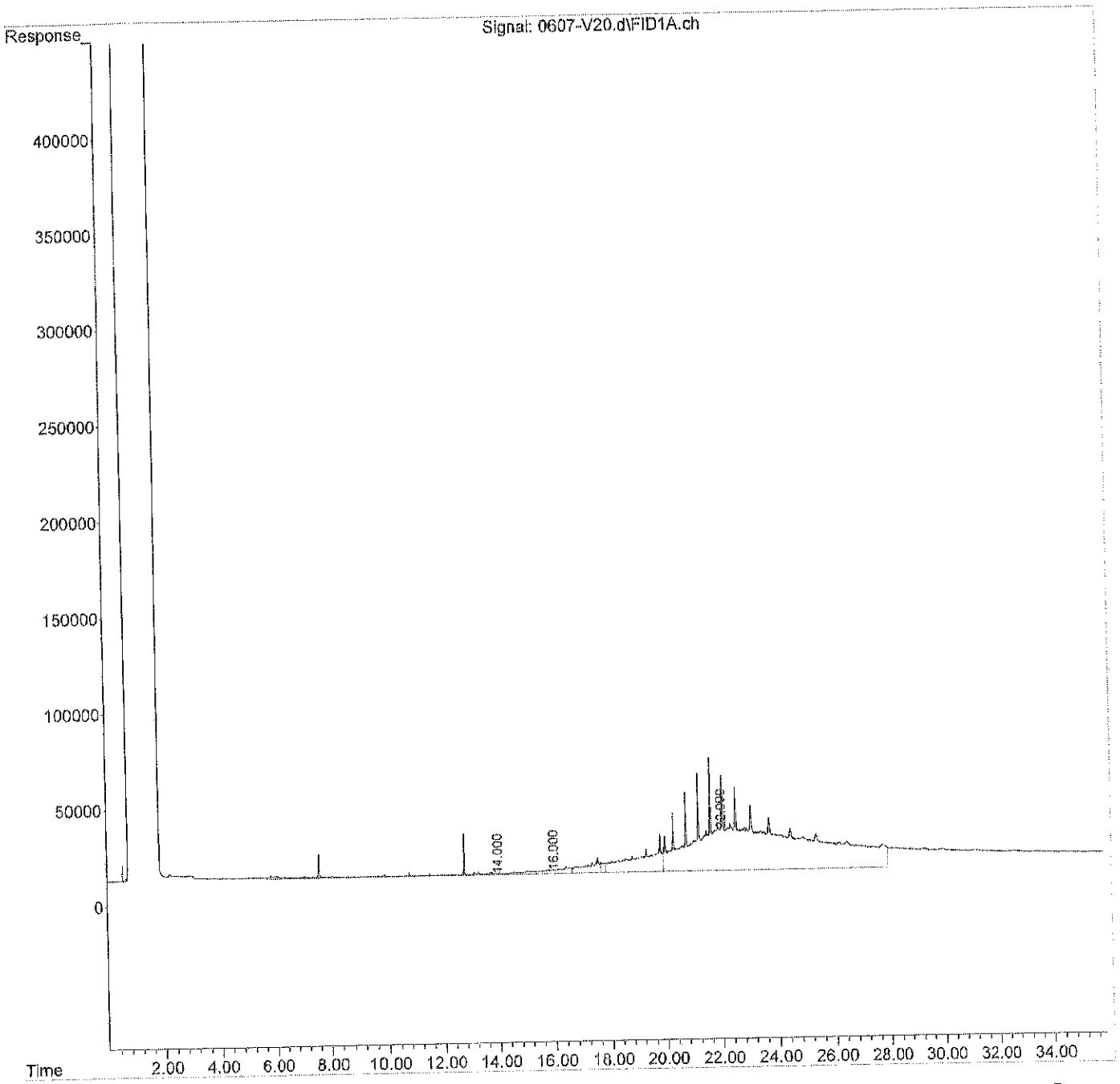
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1598184	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4418396	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	12922642	4.013	PPM
6) H	Oil (06-07-18)	22.000	205903852	102.906	PPM
7) H	Oil Acid Clean (06-12...	22.000	205903852	66.846	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6563765	1.682	PPM
9) H	Oil Combo (06-07-18)	22.000	202833164	102.947	PPM
10) H	Oil Acid Clean Combo ...	22.000	202833164	66.721	PPM
11) H	Alaska 102 DF2 ()	13.025	15328573	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	121718874	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	33706367	13.537	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	220233304	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	220233304	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	216825077	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	10255046	5.301	PPM
18) H	Oil Acid Clean MO Com...	22.000	197632815	66.358	PPM
19) H	Oil MO Combo (06-07-18)	22.000	197632815	102.996	PPM

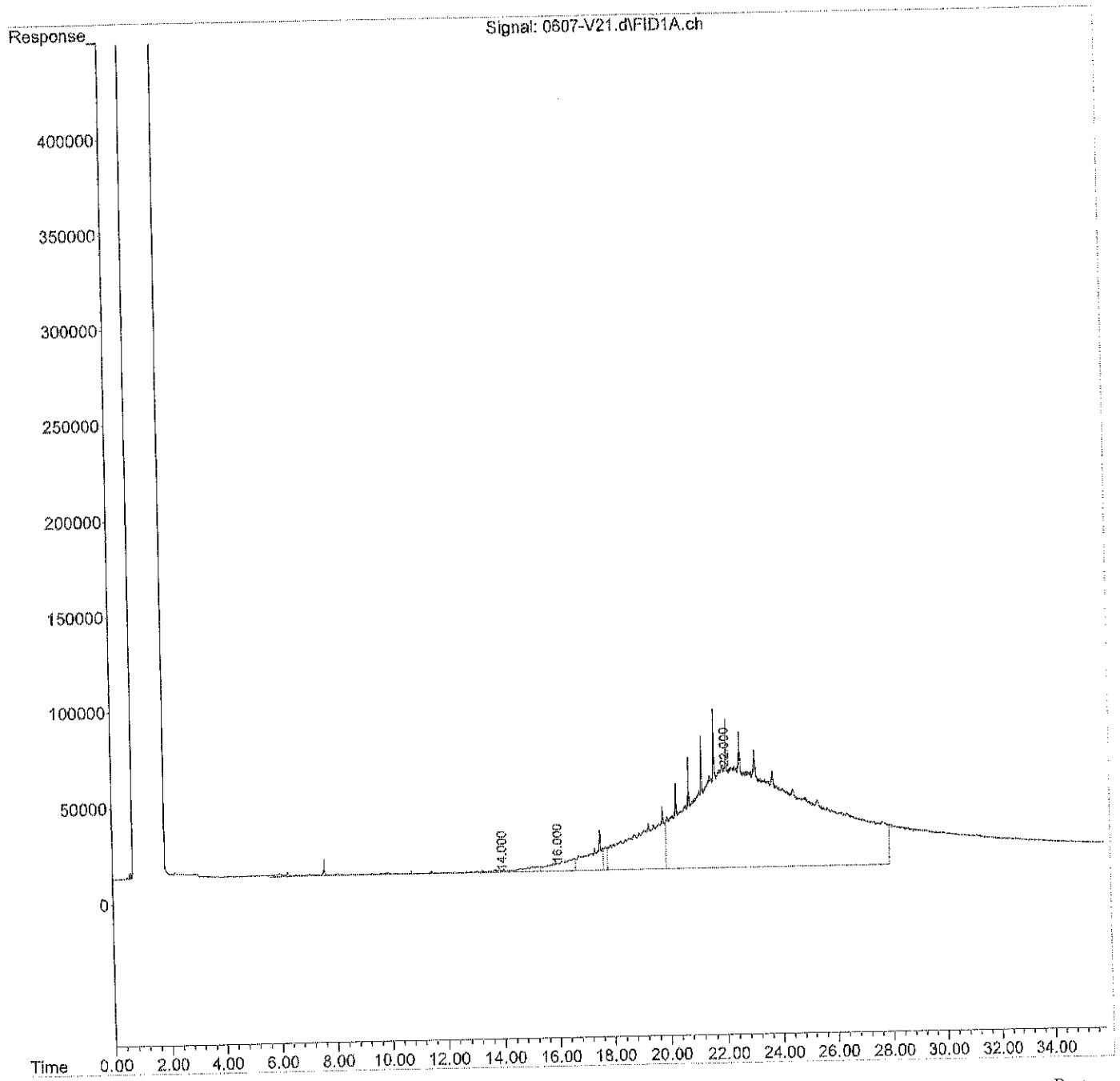
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1546027	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6218526	0.246	PPM
5) H	Diesel Fuel #2 (06-...	14.000	27255505	10.065	PPM
6) H	Oil (06-07-18)	22.000	463491604	246.449	PPM
7) H	Oil Acid Clean (06-12...	22.000	463491604	175.599	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	12350051	4.175	PPM
9) H	Oil Combo (06-07-18)	22.000	456475988	246.508	PPM
10) H	Oil Acid Clean Combo ...	22.000	456475988	175.392	PPM
11) H	Alaska 102 DF2 ()	13.025	32953847	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	276476057	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	77875662	30.862	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	491752125	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	491752125	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	483732259	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	22789674	10.423	PPM
18) H	Oil Acid Clean MO Com...	22.000	444309472	174.894	PPM
19) H	Oil MO Combo (06-07-18)	22.000	444309472	246.581	PPM

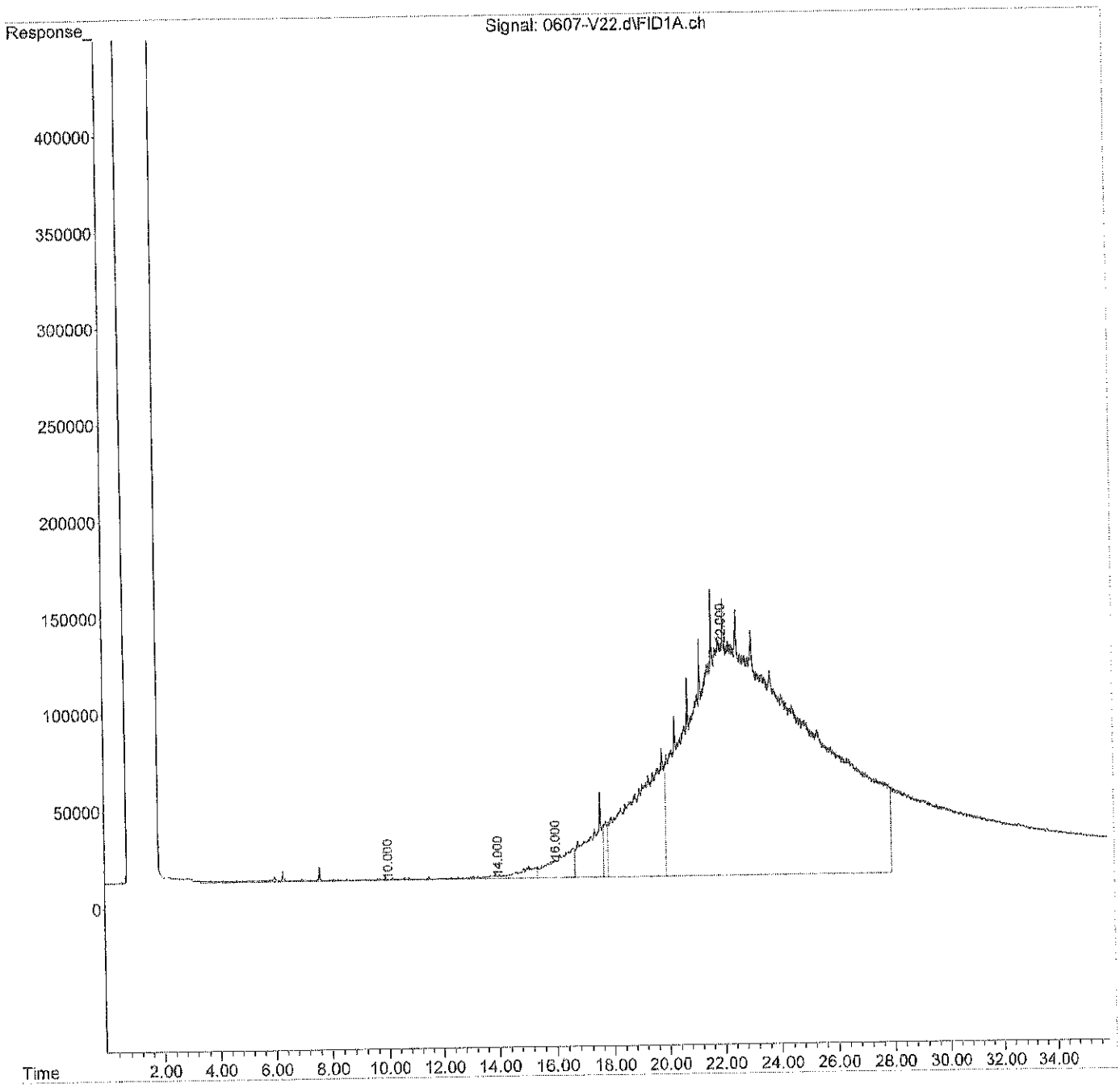
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1940705	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	10844457	2.060	PPM
5) H	Diesel Fuel #2 (06-...	14.000	54401051	21.526	PPM
6) H	Oil (06-07-18)	22.000	923853747	502.991	PPM
7) H	Oil Acid Clean (06-12...	22.000	923853747	369.962	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	23981577	9.188	PPM
9) H	Oil Combo (06-07-18)	22.000	909614471	502.982	PPM
10) H	Oil Acid Clean Combo ...	22.000	909614471	369.535	PPM
11) H	Alaska 102 DF2 ()	13.025	66004621	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	552071448	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	157156060	61.959	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	978412766	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	978412766	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	962198704	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	45999762	19.906	PPM
18) H	Oil Acid Clean MO Com...	22.000	884778027	368.698	PPM
19) H	Oil MO Combo (06-07-18)	22.000	884778027	502.968	PPM

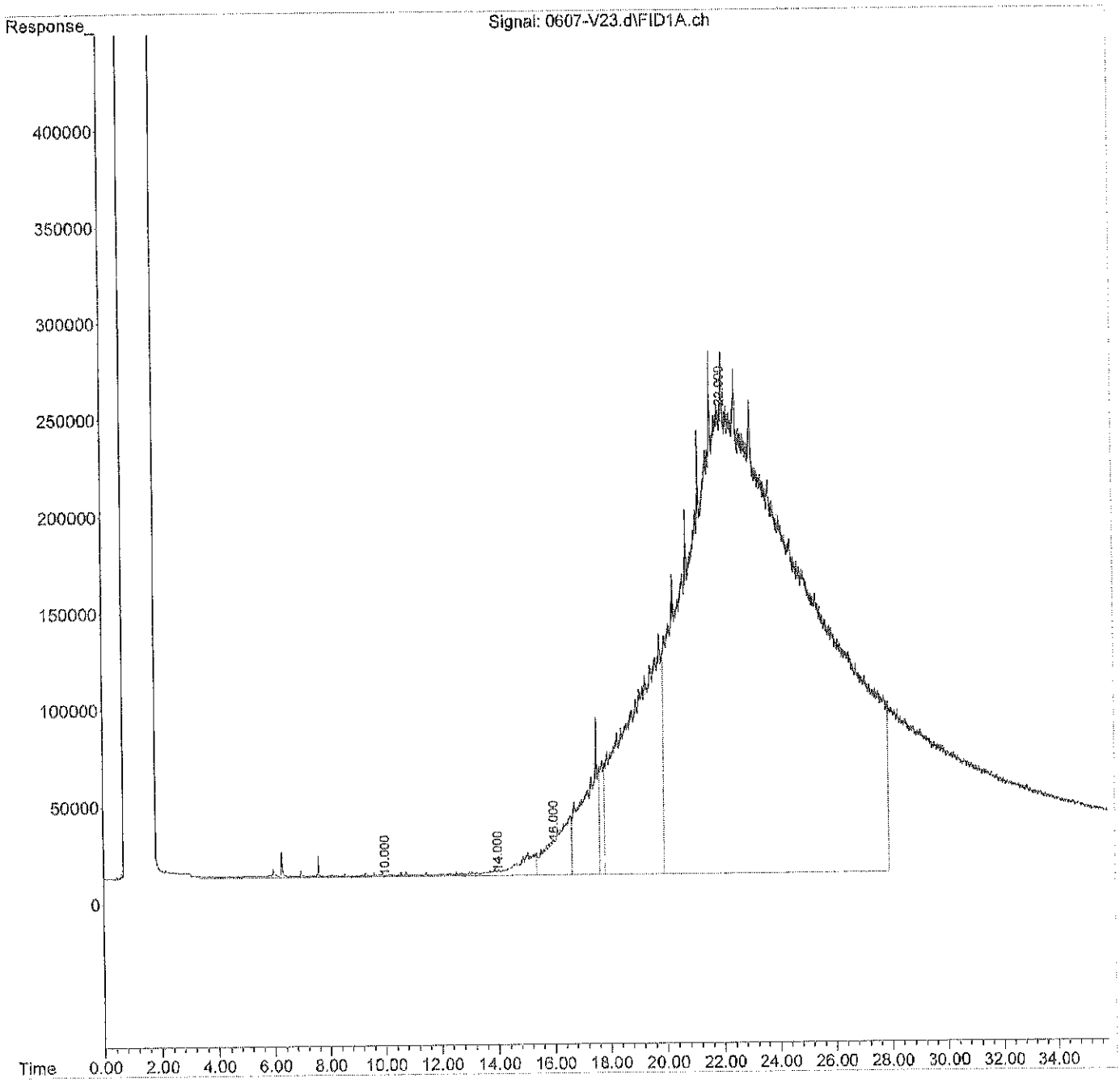
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1782145	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	17398055	4.629	PPM
5) H	Diesel Fuel #2 (06-...	14.000	105304585	43.019	PPM
6) H	Oil (06-07-18)	22.000	1795157182	988.534	PPM
7) H	Oil Acid Clean (06-12...	22.000	1795157182	737.823	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	44853790	18.182	PPM
9) H	Oil Combo (06-07-18)	22.000	1766697438	988.086	PPM
10) H	Oil Acid Clean Combo ...	22.000	1766697438	736.745	PPM
11) H	Alaska 102 DF2 ()	13.025	128211822	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	1072600956	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	308958277	121.502	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1897916566	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1897916566	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1865896028	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	90565974	38.115	PPM
18) H	Oil Acid Clean MO Com...	22.000	1717287209	734.997	PPM
19) H	Oil MO Combo (06-07-18)	22.000	1717287209	987.553	PPM

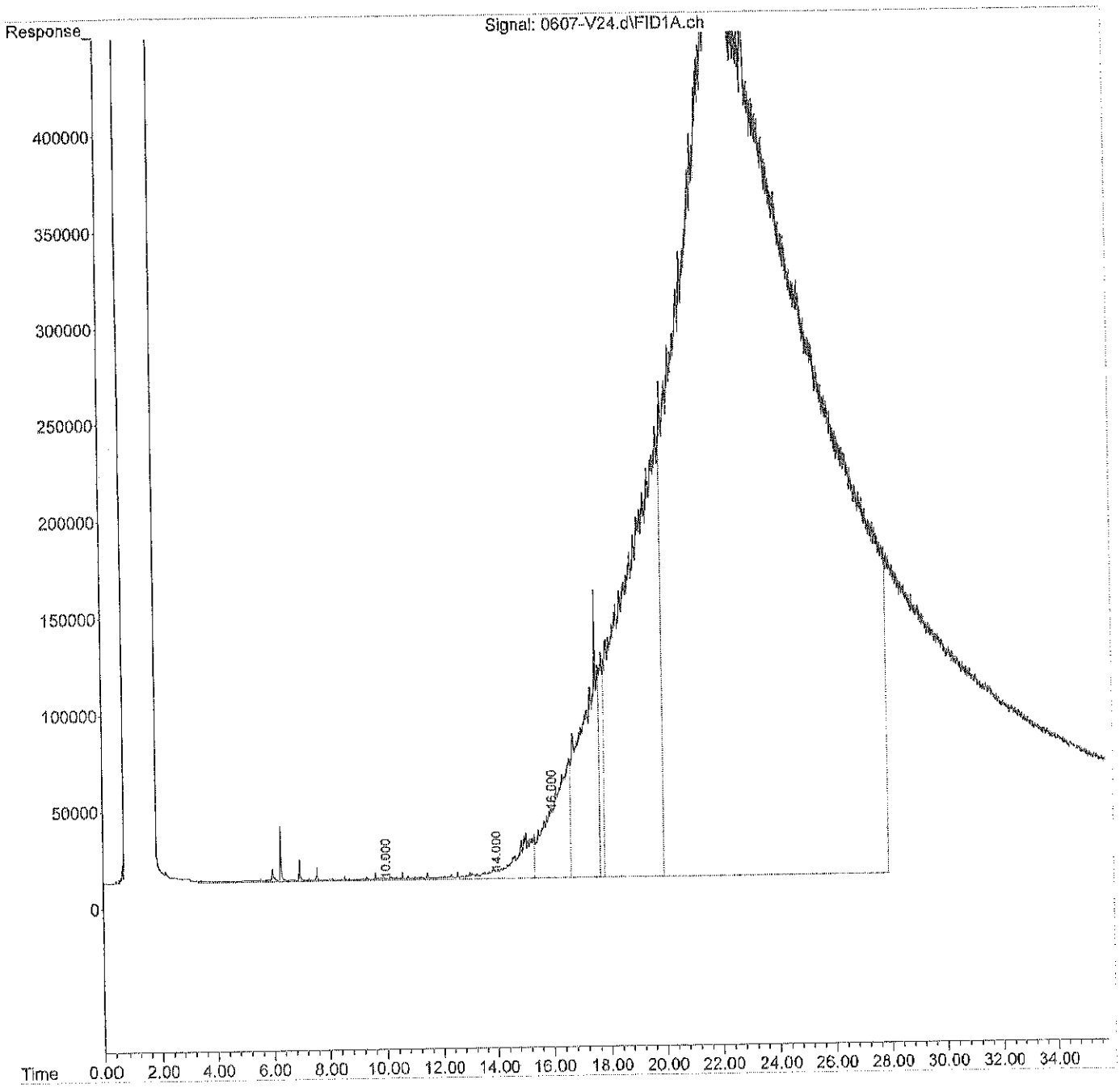
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

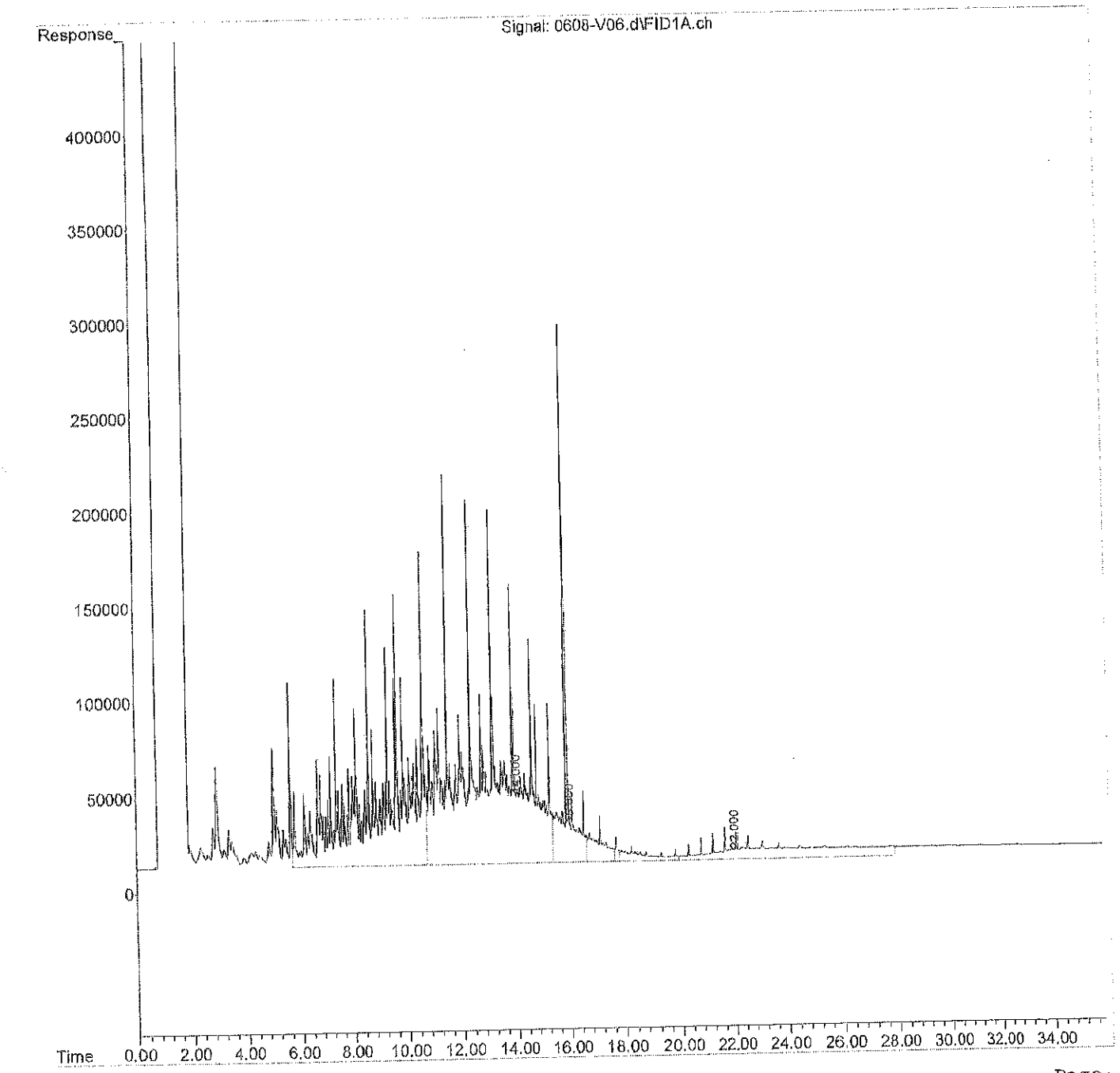
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
	Spiked Amount 50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.890	4592544	NoCal	PPM
3) H	Gasoline	3.500	23135296	NoCal	PPM
4) H	Diesel Fuel #1 (03-14...	10.000	228603455	NoCal	PPM
5) H	Diesel Fuel #2 (06-...	14.000	242935381	101.129	PPM
6) H	Oil (06-07-18)	22.000	57884255	20.420	PPM
7) H	Oil Acid Clean (03-13...	22.000	57884255	NoCal	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	236032700	100.566	PPM
9) H	Oil Combo (06-07-18)	22.000	34848739	7.869	PPM
10) H	Oil Acid Clean Combo ...	22.000	34848739	NoCal	PPM
11) H	Alaska 102 DF2 ()	13.025	244345227	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14426576	NoCal	PPM
13) H	Mineral Oil (06-01-18)	16.000	158574203	61.224	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271566231	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271566231	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	285842892	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153670430	61.811	PPM
18) H	Oil Acid Clean MO Com...	22.000	28691923	NoCal	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28691923	4.659	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Sequence Name: C:\msdchem\2\sequence\V180901.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180901\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info		
1)	Unlinked			
2)	RearSamp	51	0901-V51	V171204R CCV0901R-V1
3)	Sample	1	0901-V01	V180601F CCV0901F-V1
4)	RearSamp	52	0901-V52	V171204R LOCCV0901R-V1
5)	Sample	2	0901-V02	V180601F LOCCV0901F-V1
6)	RearSamp	53	0901-V53	V171204R SPCCV0901R-V1
7)	Sample	3	0901-V03	V180601F MB0831W1
8)	RearSamp	54	0901-V54	V171204R MB0901W1
9)	Sample	4	0901-V04	V180601F SB0831W1
10)	RearSamp	55	0901-V55	V171204R SB0901W1
11)	Sample	5	0901-V05	V180601F 08-309-01
12)	RearSamp	56	0901-V56	V171204R 08-350-04
13)	Sample	6	0901-V06	V180601F 08-309-02
14)	RearSamp	57	0901-V57	V171204R 08-350-04 DUP
15)	Sample	7	0901-V07	V180601F 08-309-03
16)	RearSamp	58	0901-V58	V171204R 08-372-01
17)	Sample	8	0901-V08	V180601F 08-326-01
18)	RearSamp	59	0901-V59	V171204R 08-350-02
19)	Sample	9	0901-V09	V180601F 08-326-01 DUP
20)	RearSamp	60	0901-V60	V171204R 08-350-01
21)	Sample	10	0901-V10	V180601F 08-326-02
22)	RearSamp	61	0901-V61	V171204R 08-350-03
23)	Sample	11	0901-V11	V180601F 08-326-03
24)	RearSamp	62	0901-V62	V171204R 08-366-13
25)	Sample	12	0901-V12	V180601F 08-326-03 DUP
26)	RearSamp	63	0901-V63	V171204R M
27)	Sample	13	0901-V13	V180601F M
28)	RearSamp	64	0901-V64	V171204R CCV0901R-V2
29)	Sample	14	0901-V14	V180601F CCV0901F-V2
30)	RearSamp	65	0901-V65	V171204R 08-345-01
31)	Sample	15	0901-V15	V180601F 08-326-04
32)	RearSamp	66	0901-V66	V171204R 08-345-01 DUP
33)	Sample	16	0901-V16	V180601F 08-326-05
34)	RearSamp	67	0901-V67	V171204R 08-345-02
35)	Sample	17	0901-V17	V180601F 08-348-01
36)	RearSamp	68	0901-V68	V171204R 08-345-03
37)	Sample	18	0901-V18	V180601F M
38)	RearSamp	69	0901-V69	V171204R 08-345-04
39)	Sample	19	0901-V19	V180601F 08-348-02
40)	RearSamp	70	0901-V70	V171204R 08-345-05
41)	Sample	20	0901-V20	V180601F M
42)	RearSamp	71	0901-V71	V171204R 08-345-06
43)	Sample	21	0901-V21	V180601F 08-348-03

Sequence Name: C:\msdchem\2\sequence\V180901.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	72	0901-V72	V171204R	M
45)		Sample	22	0901-V22	V180601F	M
46)		RearSamp	73	0901-V73	V171204R	CCV0901R-V3
47)		Sample	23	0901-V23	V180601F	CCV0901F-V3
48)		RearSamp	74	0901-V74	V171204R	08-383-03
49)		Sample	24	0901-V24	V180601F	08-348-04
50)		RearSamp	75	0901-V75	V171204R	08-383-02
51)		Sample	25	0901-V25	V180601F	M
52)		RearSamp	76	0901-V76	V171204R	08-383-01
53)		Sample	26	0901-V26	V180601F	08-348-05
54)		RearSamp	77	0901-V77	V171204R	M
55)		Sample	27	0901-V27	V180601F	M
56)		RearSamp	78	0901-V78	V171204R	M
57)		Sample	28	0901-V28	V180601F	M
58)		RearSamp	79	0901-V79	V171204R	CCV0901R-V4
59)		Sample	29	0901-V29	V180601F	CCV0901F-V4
60)		RearSamp	80	0901-V80	V171204R	
61)		Sample	30	0901-V30	V180601F	
62)		RearSamp	81	0901-V81	V171204R	
63)		Sample	31	0901-V31	V180601F	
64)		RearSamp	82	0901-V82	V171204R	
65)		Sample	32	0901-V32	V180601F	
66)		RearSamp	83	0901-V83	V171204R	
67)		Sample	33	0901-V33	V180601F	
68)		RearSamp	84	0901-V84	V171204R	
69)		Sample	34	0901-V34	V180601F	
70)		RearSamp	85	0901-V85	V171204R	
71)		Sample	35	0901-V35	V180601F	
72)		RearSamp	86	0901-V86	V171204R	
73)		Sample	36	0901-V36	V180601F	
74)		RearSamp	87	0901-V87	V171204R	
75)		Sample	37	0901-V37	V180601F	
76)		RearSamp	88	0901-V88	V171204R	
77)		Sample	38	0901-V38	V180601F	
78)		RearSamp	89	0901-V89	V171204R	
79)		Sample	39	0901-V39	V180601F	
80)		RearSamp	90	0901-V90	V171204R	
81)		Sample	40	0901-V40	V180601F	
82)		RearSamp	91	0901-V91	V171204R	
83)		Sample	41	0901-V41	V180601F	
84)		RearSamp	92	0901-V92	V171204R	
85)		Sample	42	0901-V42	V180601F	
86)		RearSamp	93	0901-V93	V171204R	
87)		Sample	43	0901-V43	V180601F	
88)		RearSamp	94	0901-V94	V171204R	
89)		Sample	44	0901-V44	V180601F	
90)		RearSamp	95	0901-V95	V171204R	
91)		Sample	45	0901-V45	V180601F	
92)		RearSamp	96	0901-V96	V171204R	
93)		Sample	46	0901-V46	V180601F	
94)		RearSamp	97	0901-V97	V171204R	
95)		Sample	47	0901-V47	V180601F	
96)		RearSamp	98	0901-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180901.s

	Line	Type	Vial	DataFile	Method	Sample Name
97)		Sample	48	0901-V48	V180601F	
98)		RearSamp	99	0901-V99	V171204R	
99)		Sample	49	0901-V49	V180601F	
100)		RearSamp	100			
		Datafile		0901-V100		
		Method		V171204R		
101)		Sample	50	0901-V50	V180601F	

Sequence Name: C:\msdchem\2\sequence\V180607.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180607\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Unlinked		
2)	RearSamp	51	0607-V51 V171204R LOCCV0607R-V1
3)	Sample	1	0607-V01 V180601F M
4)	RearSamp	52	0607-V52 V171204R LOCCV0607R-V1
5)	Sample	2	0607-V02 V180601F M
6)	RearSamp	53	0607-V53 V171204R CCV0607R-V1
7)	Sample	3	0607-V03 V180601F 100 PPM DF2 ICV
8)	RearSamp	54	0607-V54 V171204R M
9)	Sample	4	0607-V04 V180601F CCV0607F-V1
10)	RearSamp	55	0607-V55 V171204R
11)	Sample	5	0607-V05 V180601F LOCCV0607F-V1
12)	RearSamp	56	0607-V56 V171204R DF2
13)	Sample	6	0607-V06 V180601F M
14)	RearSamp	57	0607-V57 V171204R OIL
15)	Sample	7	0607-V07 V180601F 4 PPM SURR ICAL
16)	RearSamp	58	0607-V58 V171204R M
17)	Sample	8	0607-V08 V180601F 8 PPM SURR ICAL
18)	RearSamp	59	0607-V59 V171204R M
19)	Sample	9	0607-V09 V180601F 20 PPM SURR ICAL
20)	RearSamp	60	0607-V60 V171204R M
21)	Sample	10	0607-V10 V180601F 40 PPM SURR ICAL
22)	RearSamp	61	0607-V61 V171204R M
23)	Sample	11	0607-V11 V180601F 80 PPM SURR ICAL
24)	RearSamp	62	0607-V62 V171204R M
25)	Sample	12	0607-V12 V180601F 200 PPM SURR ICAL
26)	RearSamp	63	0607-V63 V171204R M
27)	Sample	13	0607-V13 V180601F 10 PPM DF2 ICAL
28)	RearSamp	64	0607-V64 V171204R M
29)	Sample	14	0607-V14 V180601F 20 PPM DF2 ICAL
30)	RearSamp	65	0607-V65 V171204R M
31)	Sample	15	0607-V15 V180601F 100 PPM DF2 ICAL
32)	RearSamp	66	0607-V66 V171204R M
33)	Sample	16	0607-V16 V180601F 500 PPM DF2 ICAL
34)	RearSamp	67	0607-V67 V171204R M
35)	Sample	17	0607-V17 V180601F 2500 PPM DF2 ICAL
36)	RearSamp	68	0607-V68 V171204R M
37)	Sample	18	0607-V18 V180601F 5000 PPM DF2 ICAL
38)	RearSamp	69	0607-V69 V171204R M
39)	Sample	19	0607-V19 V180601F M
40)	RearSamp	70	0607-V70 V171204R M
41)	Sample	20	0607-V20 V180601F 40 PPM LO ICAL
42)	RearSamp	71	0607-V71 V171204R M
43)	Sample	21	0607-V21 V180601F 100 PPM LO ICAL

Sequence Name: C:\msdchem\2\sequence\V180607.s

	Line Type	Vial	DataFile	Method	Sample Name
44)	RearSamp	72	0607-V72	V171204R	M
45)	Sample	22	0607-V22	V180601F	250 PPM LO ICAL
46)	RearSamp	73	0607-V73	V171204R	M
47)	Sample	23	0607-V23	V180601F	500 PPM LO ICAL
48)	RearSamp	74	0607-V74	V171204R	M
49)	Sample	24	0607-V24	V180601F	1000 PPM LO ICAL
50)	RearSamp	75	0607-V75	V171204R	M
51)	Sample	25	0607-V25	V180601F	M
52)	RearSamp	76	0607-V76	V171204R	M
53)	Sample	26	0607-V26	V180601F	M
54)	RearSamp	77	0607-V77	V171204R	
55)	Sample	27	0607-V27	V180601F	
56)	RearSamp	78	0607-V78	V171204R	
57)	Sample	28	0607-V28	V180601F	
58)	RearSamp	79	0607-V79	V171204R	
59)	Sample	29	0607-V29	V180601F	
60)	RearSamp	80	0607-V80	V171204R	
61)	Sample	30	0607-V30	V180601F	
62)	RearSamp	81	0607-V81	V171204R	
63)	Sample	31	0607-V31	V180601F	
64)	RearSamp	82	0607-V82	V171204R	
65)	Sample	32	0607-V32	V180601F	
66)	RearSamp	83	0607-V83	V171204R	
67)	Sample	33	0607-V33	V180601F	
68)	RearSamp	84	0607-V84	V171204R	
69)	Sample	34	0607-V34	V180601F	
70)	RearSamp	85	0607-V85	V171204R	
71)	Sample	35	0607-V35	V180601F	
72)	RearSamp	86	0607-V86	V171204R	
73)	Sample	36	0607-V36	V180601F	
74)	RearSamp	87	0607-V87	V171204R	
75)	Sample	37	0607-V37	V180601F	
76)	RearSamp	88	0607-V88	V171204R	
77)	Sample	38	0607-V38	V180601F	
78)	RearSamp	89	0607-V89	V171204R	
79)	Sample	39	0607-V39	V180601F	
80)	RearSamp	90	0607-V90	V171204R	
81)	Sample	40	0607-V40	V180601F	
82)	RearSamp	91	0607-V91	V171204R	
83)	Sample	41	0607-V41	V180601F	
84)	RearSamp	92	0607-V92	V171204R	
85)	Sample	42	0607-V42	V180601F	
86)	RearSamp	93	0607-V93	V171204R	
87)	Sample	43	0607-V43	V180601F	
88)	RearSamp	94	0607-V94	V171204R	
89)	Sample	44	0607-V44	V180601F	
90)	RearSamp	95	0607-V95	V171204R	
91)	Sample	45	0607-V45	V180601F	
92)	RearSamp	96	0607-V96	V171204R	
93)	Sample	46	0607-V46	V180601F	
94)	RearSamp	97	0607-V97	V171204R	
95)	Sample	47	0607-V47	V180601F	
96)	RearSamp	98	0607-V98	V171204R	

Analysis: D

Matrix: water

OSE Traveler #	pH	SAMPLE W/V	PRE CONC VOLUME	SUB ALIQUOT TAKEN	SUB ALIQUOT FIN. VOL.	CONC SAMPLE FIN. VOL.	AMT SUR	AMT SPIKE	CLEAN UP	Analyst	Comments Batch QA/QC
MB0831(W)	12	500ml	10.0ml	20 mL	1.0ml	5.0mL	25-ul	NO	NO	RD	
LCS 0831 W		500ml						50ul			
08-309-01		793 297						NO			
-02		791 299									
-03		795 304									
08-326-01		790 300									
01 DUP		790 302									
-02		795 298									
-03		797 304									
-04		799 304									
-05		789 305									
08-348-01		799 307									
08-326-03 DUP		796 297									
08-348-02		796 303									Emulsion Heavy
-03		794 300									Emulsion Heavy
-04		797 300									Emulsion Heavy
-05		791 298									

Clean-up (A)Acid cleanup (S)Silica gel cleanup

PROJECT

Continued From Page

Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Prep Date
AK 103 Ical								
40 ppm	SV2-93-01	SV2-92-23	10000 ppm	40 µl	10 ml	40 ppm	$MeCl_2$	8-4-10
100 ppm	-02			100 µl		100 ppm		
500 ppm	-03			500 µl		500 ppm		
1000 ppm	-04			1 ml		1000 ppm		
2500 ppm	-05			2.5 ml		2500 ppm		
AK103 Mix #1	SV2-93-06	SV2-66-18 SV2-66-19	Neat	5g / 5g	10 g	Neat	—	8/5/10
Lube Oil Stock (Non-Acid Cleaned)	SV2-93-07	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	
AK103 Spike	SV2-93-08	↓	↓	↓	↓	↓	↓	
AK 103 Ical								
40 ppm	SV2-93-09	SV2-93-07	10,000 ppm	40 µl	10 ml	40 ppm		
100 ppm	-10			100 µl		100 ppm		
500 ppm	-11			500 µl		500 ppm		
1000 ppm	-12			1 ml		1000 ppm		
2500 ppm	-13			2.5 ml		2500 ppm		
Lube Oil Stock (Acid cleaned)	SV2-93-14	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	8-16-10
Lube Oil ICV	SV2-93-15	SV2-93-14	10,000 ppm	0.5 ml	50 ml	100 ppm	$MeCl_2$	↓
LO Ical								
40 ppm	SV2-93-16	SV2-89-24	40 µl → 10,000 ppm		10 ml	40 ppm	$MeCl_2$	8-18-10
100 ppm	-17		100 µl →			100 ppm		
500 ppm	-18		500 µl →			500 ppm		
1000 ppm	-19		1000 µl →			1000 ppm		
2500 ppm	-20		2500 µl →			2500 ppm		
DF2 CCV	SV2-93-21	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	8-18-10
DF2 Surr.	SV2-93-22	04403 JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-2-10
DF2 Spike	SV2-93-23	SV2-86-01	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-7-10
TOIL CCV	SV2-93-24	SV2-90-18	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	9-9-10
DF2 CCV	SV2-93-25	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	9-22-10
DF2 Surr.	SV2-93-26	~~SV2~~ 04403JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	10-01-10
1664 Spike	SV2-93-27	Lot #	163959	exp	9/21/2013		Acetone	
DF2 MDL 1000 ppm	SV2-93-28	SV2-93-23	10,000 ppm	1 ml	10 ml	1000 ppm	Acetone	10-14-10
LO MDL 1000 ppm	SV2-93-29	SV2-89-24	10,000 ppm	1 ml	10 ml	1,000 ppm	1	1

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Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Date	Int.
Surrogate Ical									
4 ppm	SV3-03-01	SV3-02-06	10,000 ppm	10 µl	25 ml	4 ppm	$MeCl_2$	11-28-12	ZT
8 ppm	SV3-03-02			20 µl		8 ppm			
20 ppm	SV3-03-03			50 µl		20 ppm			
40 ppm	SV3-03-04			100 µl		40 ppm			
80 ppm	SV3-03-05			200 µl		80 ppm			
200 ppm	SV3-03-06			500 µl		200 ppm			
FTRPH Calibration	SV3-03-07							11-30-12	ZT
DF2 Neat	SV3-03-08	Union 76	Neat					Purchase	ZT
DF2 Neat	SV3-03-09	Chevron	Neat					11/30/12	ZT
DF2 Stock	SV3-03-10	SV3-03-08	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	11-30-12	ZT
DF2 Stock	SV3-03-11	SV3-03-09	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	11-30-12	ZT
DF2 Ical									
10 ppm	SV3-03-12	SV3-03-10	10 µl	10,000 ppm	10 ml	10 ppm	$MeCl_2$	11-30-12	ZT
20 ppm	SV3-03-13		20 µl			20 ppm			
100 ppm	SV3-03-14		100 µl			100 ppm			
500 ppm	SV3-03-15		500 µl			500 ppm			
1000 ppm	SV3-03-16		1.0 ml			1000 ppm			
2500 ppm	SV3-03-17		2.5 ml			2500 ppm			
5000 ppm	SV3-03-18		5.0 ml			5000 ppm			
DF2 ICV	SV3-03-19	SV3-03-09	10,000 ppm	0.5 ml	50 ml	100 ppm	$MeCl_2$	11-30-12	ZT
Dx Surr Micro	SV3-03-20	04403JH	Neat	0.25 g	100 ml	2500 ppm	Acetone	12-10-12	ZT
DF2 CCV	SV3-03-21	SV3-03-10	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	12-13-12	ZT
Lube oil Stock (Acid cleaned)	SV3-03-22	SV2-66-21	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	1-7-13	ZT
Gasoline Stock	SV3-03-23	V2-17-9	Neat	0.1 g	10 ml	10,000 ppm	$MeCl_2$	1-7-13	ZT
Single Pt. Cal.	SV3-03-24	SV3-03-22	10,000 ppm	500 µl	100 ml	50 ppm	$MeCl_2$		
		SV3-03-23	〃	100 µl	〃	10 ppm	〃	〃	〃

AccuStandard® 125 Market St. • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

FOR LABORATORY USE ONLY

DRH-FTRPH 1 mL

FTRPH Calibration/ Window Defining Standard

500 µg/mL in Hexane

Lot: 211111267 17 comps.

Exp: Nov 22,2021

HIGHLY FLAMMABLE

STORAGE Ambient

Work continued to Page

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ANALYTE	LAB ID #	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT
1000 ppm MO	SV3-25-01	SV3-24-27	10,000 ppm	2.5 ml	25 ml	1000 ppm	MeCl2	10.5.17	KM
5000 ppm MO	SV3-25-02	↓	↓	12.5 ml	↓	5000 ppm	↓	↓	↓
Micro Oil Stock	SV32503	SV3-17-02	NEAT	.50g	50 ml	10,000 ppm	MeCl2	10.7.17	KM
20 MO ICAL	SV3-25-04	SV3-25-3	10,000 ppm	.050 ml	25 ml	20 ppm			
100	05			.25 ml		100			
500	06			1.25 ml		500			
1000	07			2.5 ml		1000			
5000	08			12.5 ml		5000			
40 ppm LO ICAL	SV3-25-09	SV3-22-09	10,000 ppm	.100 ml	25 ml	40 ppm	MeCl2	10.9.17	KM
100 ppm LO ICAL	-10			.250 ml		100			
250 ppm LO ICAL	-11			.625 ml		250			
500 ppm LO ICAL	-12			1.25 ml		500			
1000 ppm LO ICAL	-13			2.50 ml		1000			
NOVAMS STOCK	SV3-25-14	36-10A	NEAT	10 ml	10 ml	1000 ppm	MeCl2	10.18.17	KM
RT STD	PRH-PRPH	500 ppm	1 ml	1 ml	50 ppm				
	SV3-25-14	1000 ppm	1.25 ml	↓	↓	ml	10-16-17		
RT STD	SV3-25-15	DRH-FRPH	500 ppm	.1 ml	1 ml	50 ppm	10-16-17	MeCl2	KM
		SV3-25-14	1000 ppm	.050 ml	↓	2	↓	↓	↓
DPZ STOCK	SV3-25-16	SV3-03-08	NEAT	.50 gram	50 ml	10,000 ppm	MeCl2	KM 10.18.17	KM
VFZ CCV	SV3-25-17	SV3-25-16	10,000 ppm	1 ml	100 ml	100 ppm	MeCl2	KM 10-18-17	KM
10 ppm DPZ ICAL	SV3-25-18	SV3-25-16		25 µl	25 ml	10			
20	-19			50 µl		20			
100	-20			250 µl		100			
250	-21	KM 10-18-17		625 µl		250			
500	-22			1.0 ml 1.25 ml		500			
2500	-23			2.5 ml 2.5 ml 6.25 ml		2500			
5000	-24			12.5 ml		5000			
Dx Micro Surv	SV3-25-25	687V	NEAT	.250g	100 ml	2500 ppm	Acetone	10.19.17	KM
1664 Spike	SV3-25-26	LOT #	315504				Acetone	10-26-17	RP
1664 Spike	SV3-25-27	Lot #	325812				Acetone	11/29/17	CS
Dx Micro Surv	SV3-25-28	687 V	NEAT				Acetone	12/04/17	JT
DPZ ICV	SV3-25-29	SV3-~~21-18~~	10000 ppm	500 µL	50 mL	100 ppm	MeCl2	12-6-17	JT
DPZ Spike	SV3-25-30	SV3-03-08	NEAT	0.50 g	50 mL	10,000 ppm	Acetone	12-15-17	JT

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
~~1664 Spike~~	SV3-26-01	Lot #	041717				~~Acetone~~	12-15-17	JT
DX Surr	SV3-26-02	687-V	NEAT	1.0 g	100 mL	10,000 ppm	Acetone	12-20-17	JT
LO CCV	SV3-26-03	SV3-23-04	10,000 ppm	2.0 mL	100 mL	200 ppm	$MeCl_2$	1-3-18	JT
TOL NEAT	SV3-26-04	NA	NEAT					1-4-18	JT
DF2 CCV	SV3-26-05	SV3-25-16	10,000 ppm	1 mL	100 mL	100 ppm	$MeCl_2$	1-8-18	JT
4 ppm Surr	SV3-26-06	SV3-26-02	10,000 ppm	10 mL	25 mL	4 ppm	$MeCl_2$	1-9-18	JT
8 ppm Surr		07		20 mL		8 ppm			
20 ppm Surr		08		50 mL		20 ppm			
40 ppm Surr		09		100 mL		40 ppm			
80 ppm Surr		10		200 mL		80 ppm			
200 ppm Surr		11		500 mL		200 ppm			
LO MDL Spike	SV3-26-12	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-10-18	JT
DF2 MDL Spike	SV3-26-13	SV3-25-16	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-16-18	JT
LO MDL Spike	SV3-26-14	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-17-18	JT
LO MDL Spike	SV3-26-15	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-23-18	JT
1664 Spike	SV3 26 28	STOCK ID 041717		10 mL			ACETONE	1-31-18	RD
Gasoline Stock	SV3-26-16	V2-17-21	Neat	.1 g	10mL	10,000 ppm	$MeCl_2$	2-6-18	VL
Single Point Cal	SV3-26-17	SV3-26-16 SV3-23-04	10,000 ppm 10,000 ppm	100uL 500uL	100mL 100mL	10 ppm 50 ppm	$MeCl_2$	2-6-18	TC
DX Micro Surr	SV3-26-18	687-V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	2-9-18	JT
DF2 CCV	SV3-26-19	SV3-25-16	10,000 ppm	1mL	100 mL	100 ppm	$MeCl_2$	2-20-18	JT
1664 Spike	SV3 26 20	STOCK 041717		10mL			ACETONE	3-2-18	RD
~~10 ppm DF1 ICV~~	~~SV3-26-21~~	~~SV3-24-06~~	~~2,000 ppm~~	~~25 mL~~	~~5 mL~~	~~10 ppm~~	~~$MeCl_2$~~	~~3-13-18~~	~~JT~~
20		22	2,000 ppm	~~50~~ 25 mL		20			
100		23	21809022 20,000 ppm	~~100~~ 50 mL		100			
500		24	20000 ppm	~~50~~ 125 mL		500			
1000		25		~~250~~ 250 mL		1000			
2000		26		~~500~~ 500 mL		2000			
5000		27	20,000 ppm	1000 250 mL		5000			

JT 3-13-18

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
10 ppm DFB ICal	SV3-27-01	SV3-27-03	100 ppm	100 uL	1 mL	10 ppm	$MeCl_2$	3-14-18	JT
50 ppm	02	SV3-27-04	500 ppm	100 uL		50 ppm			
100 ppm	03	SV3-27-06	2,000 ppm	50 uL		100 ppm			
500 ppm	04	216091622	20,000 ppm	25 uL		500 ppm			
1000 ppm	05			50 uL		1000 ppm			
2000 ppm	06			100 uL		2000 ppm			
5000 ppm	07	216091022		250 uL		5000 ppm			
DB Micro Surr	SV3-27-08	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	3-27-18	JT
DF2 CCV	SV3-27-09	SV3-25-16	10,000 ppm	1.0 mL	100 mL	100 ppm	$MeCl_2$	3-29-18	JT
DF2 CCV	SV3-27-10	SV3-25-16	10000 ppm	1.0 mL	100 mL	100 ppm	$MeCl_2$	4-30-18	JT
LO CCV	SV3-27-11	SV3-23-04	10,000 ppm	2.0 mL	200 mL	200 ppm	$MeCl_2$	4-30-18	JT
DX Surr	SV3-27-12	687V	NEAT	1.0 mL	100 mL	10000 ppm	Acetone	5-3-18	JT
DX Micro Surr	SV3-27-13	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	5-8-17	JT
LO Stock	SV3-27-14	SV2-93-06	NEAT	0.50 g	50 mL	10,000 ppm	$MeCl_2$	5-31-18	JT
LO CCV	SV3-27-15	SV3-27-14	10000 ppm	2.0 mL	100 mL	200 ppm	$MeCl_2$	5-31-18	JT
10 ppm DF2 ICal	SV3-27-16	SV3-25-16	10,000 ppm	25 uL	25 mL	10 ppm	$MeCl_2$	6-1-18	JT
20	17			50 uL		20			
100	18			250		100			
500	19			1.25 mL		500			
2500	20			2.5 6.25 mL		2500			
5000	21			12.5 mL		5000			
DF2 CCV	SV3-27-22	SV3-25-16	10,000 ppm	1.0 mL	100 mL	100 ppm	$MeCl_2$		JT
40 ppm LO ICal	SV3-27-23	SV3-27-14	10,000 ppm	40 uL	40 ppm	10 mL			
100	24			100 uL	100				
250	25			250 uL	250				
500	26			500 uL	500	JT			
1000	27			1.0 mL	1000	6-1-18			
20 ppm MO Ecal	SV3-27-28	SV3-25-03	10,000 ppm	20 uL	10 mL	20 ppm	$MeCl_2$		
100 ppm	29			100 uL		100			
500 ppm	30			500 uL		500			
1000 ppm	31			1.0 mL	10 mL	1000			
5000 ppm	32			5.0 mL	2	5000			

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	Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
	DF2 Stock 2nd	SV3-28-01	SV3-03-09	NEAT	0.5 g	50 mL	10000 ppm	MeCl2	6-4-18	JT
5	DF2 ICV	SV3-28-02	SV3-28-01	10,000 PPM	Stock	Stock	100 PPM	L	L	L
	DF1 5x 1mL vials	SV3-28-03							6-12-18	JT
10	DF 1 ICal									
	5000 PPM	SV3-28CM	SV3-28-03	20,000 PPM	2.5 mL	10 mL	5000 PPM	MeCl2	6-12-18	JT
	2000	05			1.0 mL		2000			
15	1000	06			0.5 mL		1000			
	500	07			0.25 mL		500			
	100	08			0.05 mL		100			
	20	09	SV3-28-05	2000 PPM	0.1 mL		20			
	10	10	L	L	0.05 mL		10			
20	DF2 Spike	SV3-28-11	SV3-03-08	NEAT	0.50 g	50 mL	10,000 PPM	Acetone	6-18-18	JT
	DF2 Mid 2nd	SV3-28-12	SV3-03-07	NEAT	0.25 g	100 mL	2500 PPM	Acetone	6-18-18	JT
	DF2 Stock	SV3-28-13	SV3-03-06	NEAT	0.5 g	50 mL	10,000 PPM	MeCl2	L	L
	DF2 CCV	SV3-28-14	SV3-28-13	10,000 PPM	1 mL	100 mL	100 PPM	MeCl2		
	4 PPM Surr Ical	SV3-28-15	SV3-27-12	10,000 PPM	10 mL	25 mL	4 PPM	MeCl2	7-3-18	JT
25	8	16			20		8			
	20	17			50		20			
	40	18			100		40			
	80	19			200		80			
	200	20			500		200			
30	1664 Spike	SV3 30-21	Stock 04-17-17		10 mL			Acetone	8-1-18	RD
	Single PT Cal	SV3-28-22	SV3-27-14	10,000 PPM	500 mL	100 mL	500 PPM	MeCl2	8-7-18	JT
			SV3-26-16		100 mL		100 PPM			
	Mineral oil VBLT	SV3 28-23	NA	NEAT					8-7-18	JT
35	Kerosene Blend									

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	ANALYTE	LAB ID	STOCK ID	Stock Conc.	Stock Vol	Final Vol	Final ~~Solvent~~ Conc	Solvent ~~Date~~	Date	Init
	~~Mineral oil Neat~~	~~SV3-029-01~~ JT Acquired								
5	Mineral Oil Neat Seattle City Light	SV3-029-01	Acquired From SCL	NEAT	—	—	—	~~8-8-18~~	8-8-18	JT
10	Transformer Oil / High Performance Dielectric Fluid	SV3029 -02	—	NEAT	Acquired From Sales	Expanded Services Inc.			8-9-18	JT
15	DF2 CCV	SV3-029-03	SV3-256-13	10,000 ppm	1 mL	100 mL	100 PPM	Methanol	8-9-18	JT
	DF Surr	SV3-029-04	687V	NEAT	1.0 g	100 mL	10,000 ppm	Acetone	8-17-18	JT
	DF Matrix Spike	SV3-029-05	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	8-27-18	JT
20										
25										
30										
35										

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PAHs by EPA 8270D Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830030.D
Acq On : 30 Aug 2018 7:56 pm
Operator :
Sample : 08-348-01
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Aug 30 20:10:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.774	136	106995	2000.00 ppb	0.00
6) Acenaphthene-d10	5.020	164	60990	2000.00 ppb	0.00
10) Phenanthrene-d10	6.032	188	111661	2000.00 ppb	0.02
17) Chrysene-d12	8.060	240	109776	2000.00 ppb	0.04
21) Perylene-d12	9.494	264	113052	2000.00 ppb	0.07
System Monitoring Compounds					
2) Nitrobenzene-d5	3.258	82	3684	72.47 ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery =	7.25%#	
7) 2-Fluorobiphenyl	4.568	172	36538	736.82 ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	73.68%	
11) Pyrene-d10	7.005	212	49553	963.46 ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery =	96.35%	
18) Terphenyl-d14	7.167	244	42732	847.67 ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery =	84.77%	
Target Compounds					Qvalue
3) Naphthalene	3.780	128	36809	~~664.00~~ ppb	100
4) 2-Methylnaphthalene	4.294	142	144683	3925.68 ppb	100
5) 1-Methylnaphthalene	4.365	142	384017	11048.91 ppb	100
8) Acenaphthylene	4.928	152	35388	549.68 ppb	100
9) Acenaphthene	5.043	153	105033	2611.68 ppb	100
12) Fluorene	5.406	166	137800	2992.51 ppb	100
13) Phenanthrene	6.048	178	281085	4200.94 ppb	100
14) Anthracene	6.079	178	22084	332.85 ppb	100
15) Fluoranthene	6.860	202	10017	137.26 ppb	100
16) Pyrene	7.016	202	48869	647.34 ppb	100
19) Benzo[a]anthracene	8.052	228	2365	28.16 ppb	100
20) Chrysene	8.071	228	7277	105.00 ppb	100
22) Benzo[b]fluoranthene	9.115	252	3369	~~48.20~~ ppb	100
23) Benzo(j,k)fluoranthene	9.115	252	3369	~~48.13~~ ppb	100
24) Benzo[a]pyrene	9.431	252	1671	25.43 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.484	276	1947	32.80 ppb	100
26) Dibenz[a,h]anthracene	0.000		0	N.D.	100
27) Benzo[g,h,i]perylene	10.706	276	3692	56.13 ppb	100

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

Needs 10x D/I.

232.25

ZT

8-31-18

42.73

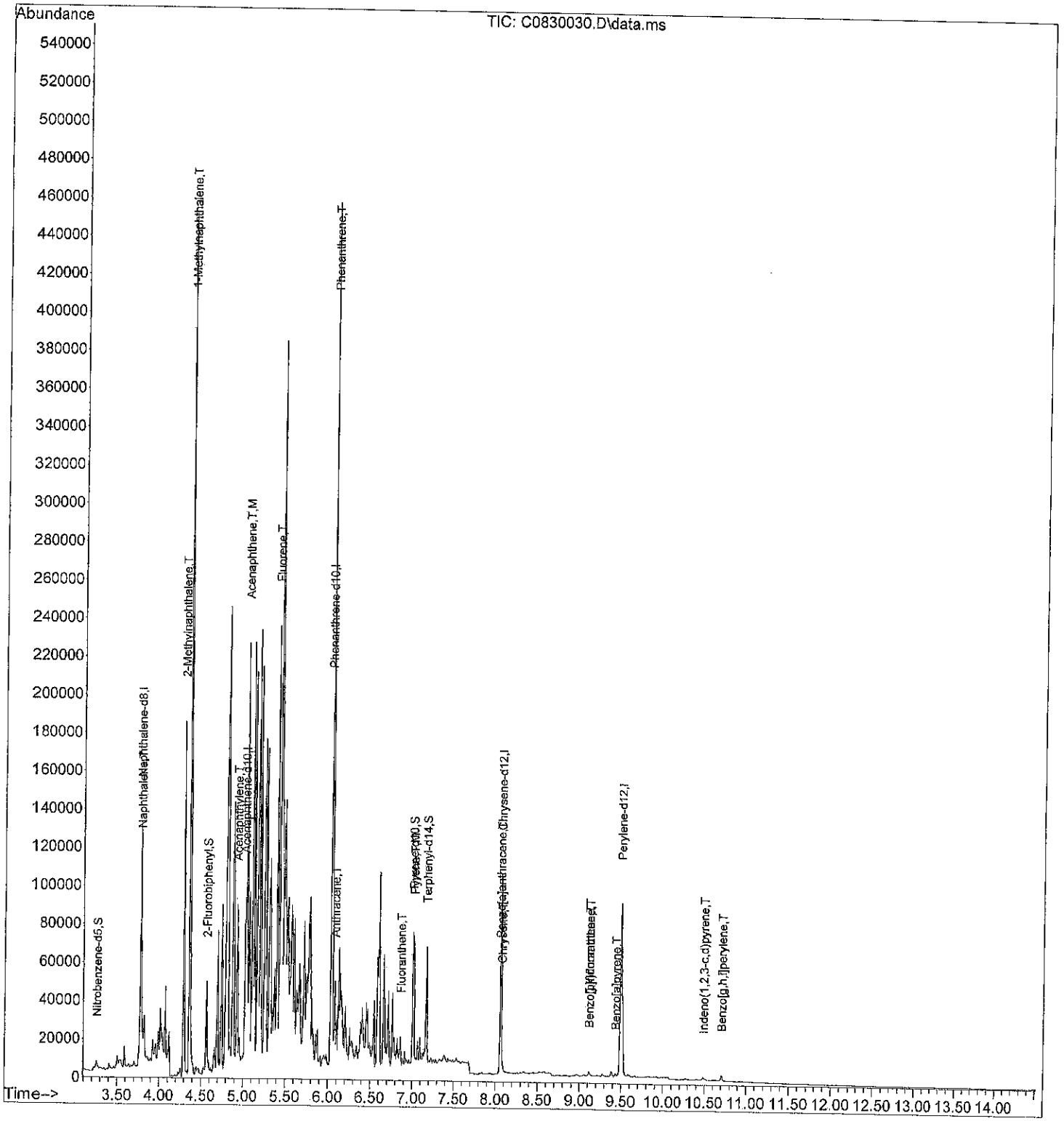
7.69

7.35

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830030.D
Acq On : 30 Aug 2018 7:56 pm
Operator :
Sample : 08-348-01
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Aug 30 20:10:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831006.D
Acq On : 31 Aug 2018 10:47 am
Operator :
Sample : 08-348-01 10X
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 31 11:02:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.709	136	112590	2000.00	ppb	-0.06
6) Acenaphthene-d10	4.954	164	56018	2000.00	ppb	-0.06
10) Phenanthrene-d10	5.966	188	105686	2000.00	ppb	-0.05
17) Chrysene-d12	7.952	240	98659	2000.00	ppb	-0.07
21) Perylene-d12	9.342	264	102074	2000.00	ppb	-0.08
System Monitoring Compounds						
2) Nitrobenzene-d5	3.187	82	433	8.09	ppb	-0.06
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.81%#			
7) 2-Fluorobiphenyl	4.506	172	3537	77.66	ppb	-0.05
Spiked Amount 1000.000	Range 25 - 89		Recovery = 7.77%#			
11) Pyrene-d10	6.926	212	4401	90.41	ppb	-0.06
Spiked Amount 1000.000	Range 40 - 110		Recovery = 9.04%#			
18) Terphenyl-d14	7.089	244	4064	89.70	ppb	-0.06
Spiked Amount 1000.000	Range 39 - 92		Recovery = 8.97%#			
Target Compounds						Qvalue
3) Naphthalene	3.721	128	4114	70.52	ppb	100
4) 2-Methylnaphthalene	4.229	142	14314	369.08	ppb	100
5) 1-Methylnaphthalene	4.296	142	38668	1057.27	ppb	100
8) Acenaphthylene	4.861	152	3894	65.85	ppb	100
9) Acenaphthene	4.977	153	9614	260.27	ppb	100
12) Fluorene	5.339	166	12724	291.94	ppb	100
13) Phenanthrene	5.978	178	26122	412.48	ppb	100
14) Anthracene	6.013	178	1522	24.24	ppb	100
15) Fluoranthene	6.787	202	835	12.09	ppb	100
16) Pyrene	6.938	202	4068	56.93	ppb	100
19) Benzo[a]anthracene	7.960	228	1009	9.96	ppb	100
20) Chrysene	7.960	228	1009	16.20	ppb	100
22) Benzo[b]fluoranthene	8.972	252	236	3.74	ppb	100
23) Benzo(j,k)fluoranthene	8.972	252	236	3.73	ppb	100
24) Benzo[a]pyrene	9.280	252	158	2.66	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.322	276	223	4.16	ppb	100
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	10.541	276	325	5.47	ppb	100

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

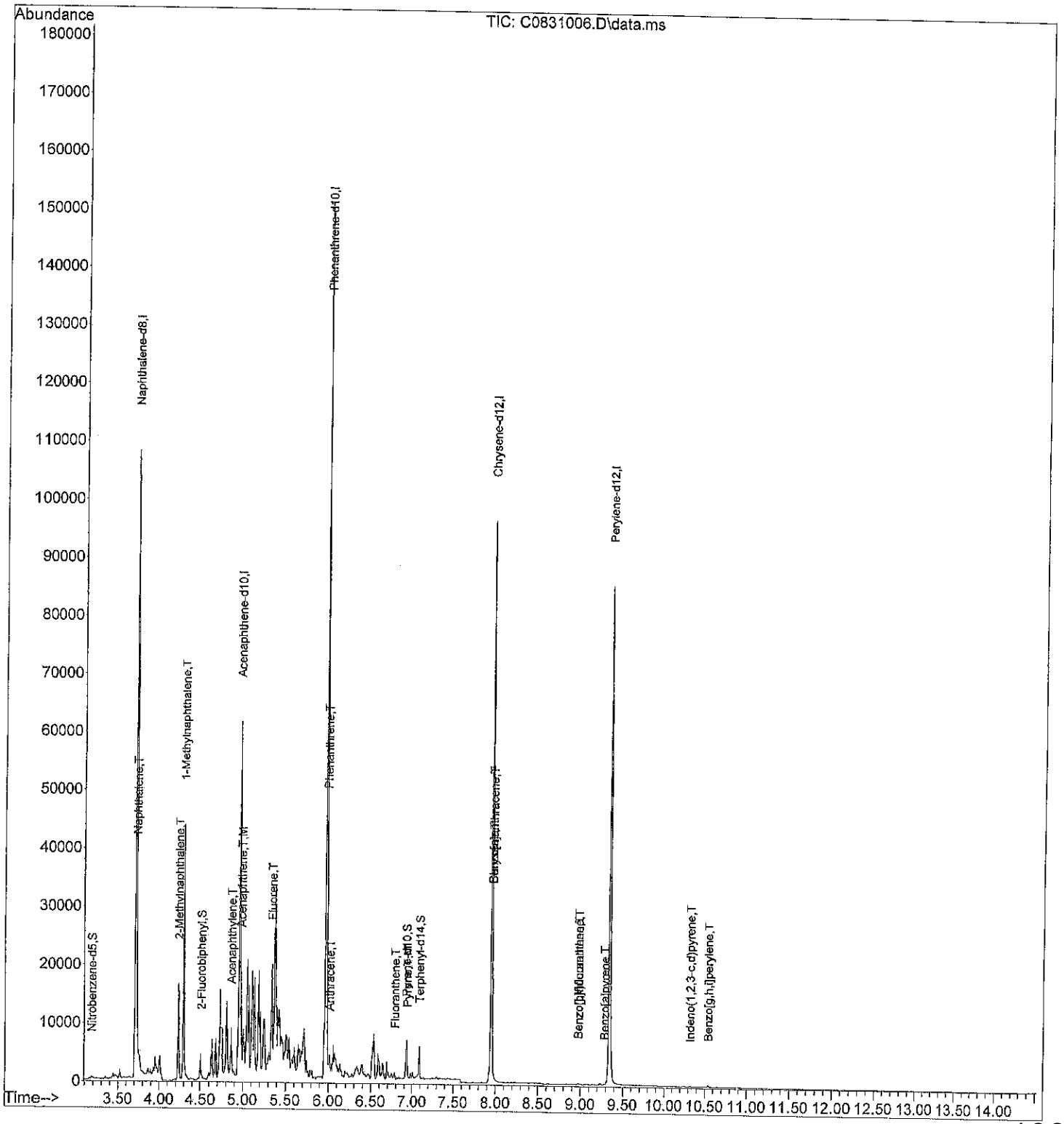
USE

ET
8-31-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831006.D
Acq On : 31 Aug 2018 10:47 am
Operator :
Sample : 08-348-01 10X
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 31 11:02:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830031.D
Acq On : 30 Aug 2018 8:18 pm
Operator :
Sample : 08-348-02
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Aug 30 20:33:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.774	136	102577	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	53273	2000.00	ppb	0.00
10) Phenanthrene-d10	6.024	188	104991	2000.00	ppb	0.00
17) Chrysene-d12	8.032	240	92703	2000.00	ppb	0.01
21) Perylene-d12	9.435	264	93260	2000.00	ppb	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.251	82	3018	61.93	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	6.19%#		
7) 2-Fluorobiphenyl	4.559	172	30496	704.06	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	70.41%		
11) Pyrene-d10	6.989	212	43183	892.95	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	89.30%		
18) Terphenyl-d14	7.151	244	38711	909.33	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	90.93%		
Target Compounds						Qvalue
3) Naphthalene	3.780	128	1237	23.28	ppb	100
4) 2-Methylnaphthalene	4.290	142	2605	73.73	ppb	100
5) 1-Methylnaphthalene	4.357	142	2835	85.08	ppb	100
8) Acenaphthylene	4.920	152	192	3.41	ppb	100
9) Acenaphthene	5.036	153	3480	99.07	ppb	100
12) Fluorene	5.398	166	2404	55.52	ppb	100
13) Phenanthrene	6.036	178	187	2.97	ppb	100
14) Anthracene	6.075	178	577	9.25	ppb	100
15) Fluoranthene	6.849	202	341	4.97	ppb	100
16) Pyrene	7.000	202	382	5.38	ppb	100
19) Benzo[a]anthracene	8.028	228	378	0.07	ppb	100
20) Chrysene	8.052	228	137	2.34	ppb	100
22) Benzo[b]fluoranthene	9.064	252	176	3.05	ppb	100
23) Benzo(j,k)fluoranthene	9.064	252	176	~~3.05~~	ppb	100
24) Benzo[a]pyrene	9.372	252	117	2.16	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.425	276	144	2.94	ppb	100
26) Dibenz[a,h]anthracene	10.457	278	95	1.89	ppb	100
27) Benzo[g,h,i]perylene	10.644	276	181	3.34	ppb	100

1.99

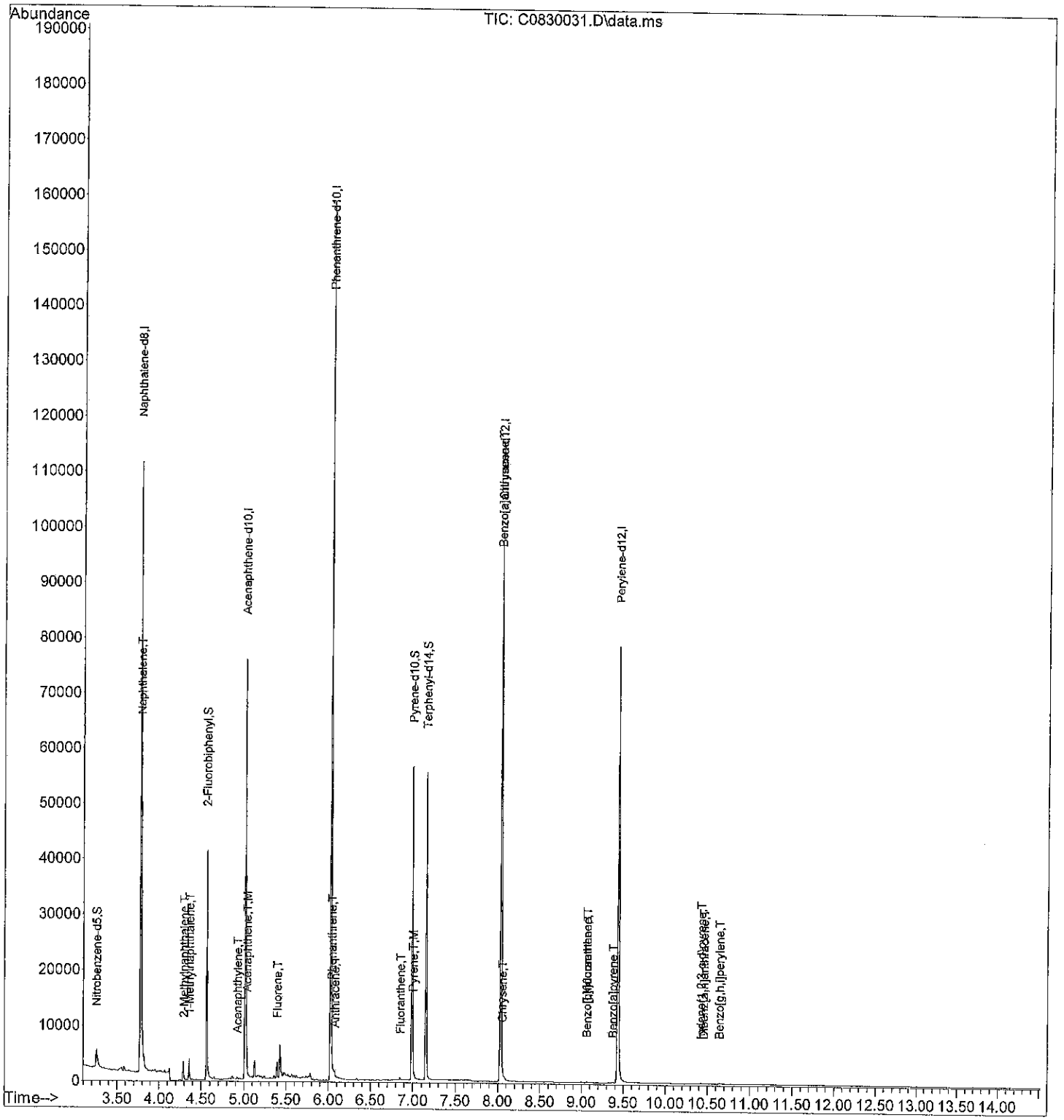
ZT
8-31-18

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830031.D
Acq On : 30 Aug 2018 8:18 pm
Operator :
Sample : 08-348-02
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Aug 30 20:33:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830032.D
Acq On : 30 Aug 2018 8:40 pm
Operator :
Sample : 08-348-03
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Aug 30 20:55:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.781	136	117415	2000.00	ppb	0.01
6) Acenaphthene-d10	5.029	164	66500	2000.00	ppb	0.02
10) Phenanthrene-d10	6.041	188	114526	2000.00	ppb	0.02
17) Chrysene-d12	8.060	240	93117	2000.00	ppb	0.04
21) Perylene-d12	9.471	264	91977	2000.00	ppb	0.05
System Monitoring Compounds						
2) Nitrobenzene-d5	3.258	82	2993	53.65	ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 5.36%#			
7) 2-Fluorobiphenyl	4.571	172	37331	690.44	ppb	0.01
Spiked Amount 1000.000	Range 25 - 89		Recovery = 69.04%			
11) Pyrene-d10	7.016	212	46259	876.92	ppb	0.03
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.69%			
18) Terphenyl-d14	7.173	244	40378	944.27	ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 94.43%#			
Target Compounds						Qvalue
3) Naphthalene	3.786	128	277308	4558.43	ppb	100
4) 2-Methylnaphthalene	4.337	142	6132410	151624.30	ppb	100
5) 1-Methylnaphthalene	4.337	142	6132410	~~160782.95~~	ppb	100
8) Acenaphthylene	4.898	152	245782	~~3501.40~~	ppb	100
9) Acenaphthene	5.052	153	428006	9760.70	ppb	100
12) Fluorene	5.414	166	339760	7193.76	ppb	100
13) Phenanthrene	6.056	178	329382	4799.61	ppb	100
14) Anthracene	6.088	178	30292	445.13	ppb	100
15) Fluoranthene	6.865	202	10373	138.58	ppb	100
16) Pyrene	7.022	202	6886	88.93	ppb	100
19) Benzo[a]anthracene	8.052	228	613	~~4.10~~	ppb	100
20) Chrysene	8.052	228	613	~~10.43~~	ppb	100
22) Benzo[b]fluoranthene	0.000		0	~~N.D.~~		
23) Benzo(j,k)fluoranthene	0.000		0	~~N.D.~~		
24) Benzo[a]pyrene	9.409	252	351	6.56	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	~~N.D.~~		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	10.676	276	259	4.84	ppb	100

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

needs 50x 100x Dilutions

168610

1520.00

15.09

15.24

8.51

3.95

4.74

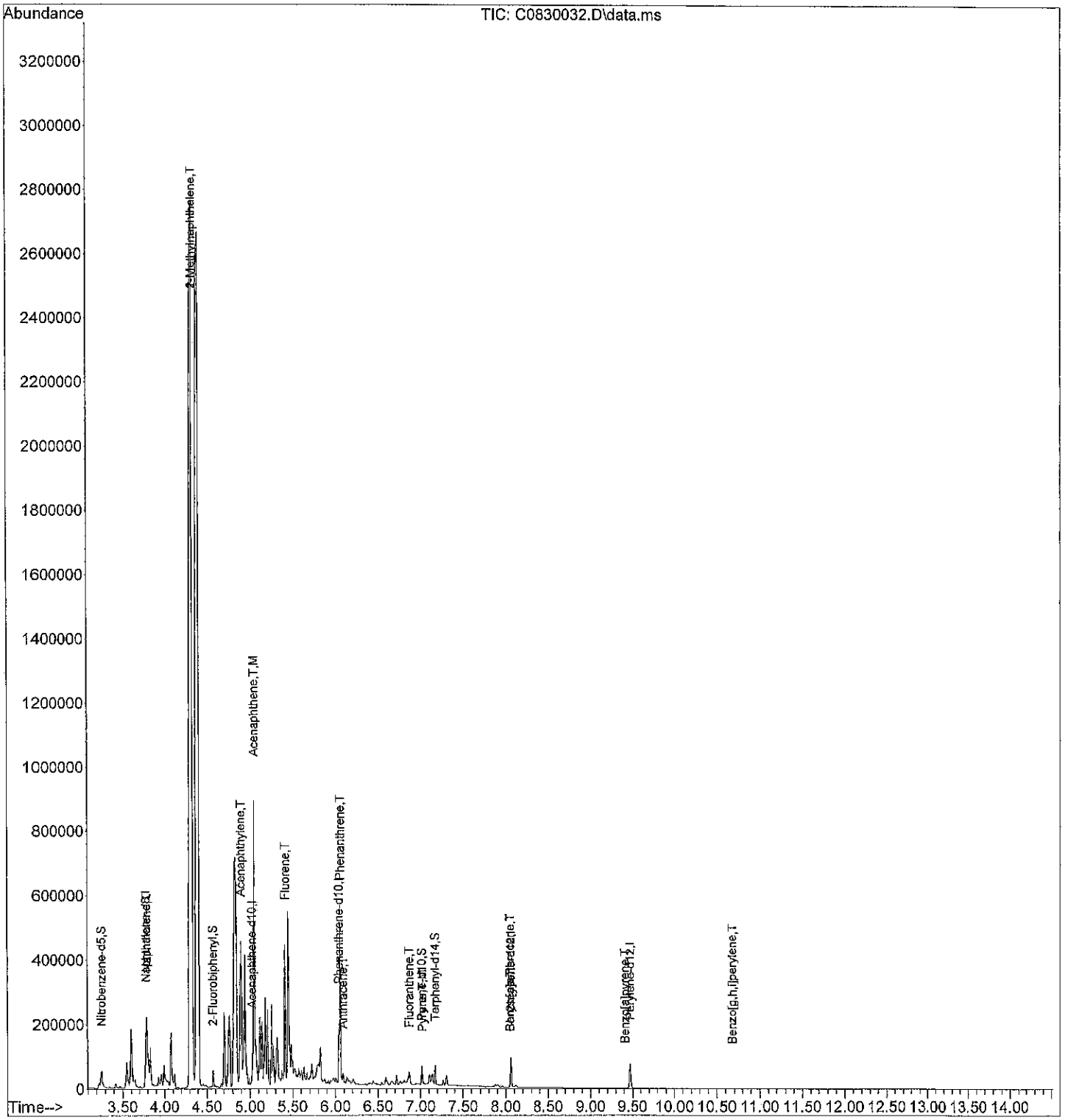
2T

8-31-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830032.D
Acq On : 30 Aug 2018 8:40 pm
Operator :
Sample : 08-348-03
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Aug 30 20:55:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831008.D
Acq On : 31 Aug 2018 11:30 am
Operator :
Sample : 08-348-03 100X
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 31 11:45:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.709	136	119851	2000.00	ppb	-0.06
6) Acenaphthene-d10	4.954	164	61774	2000.00	ppb	-0.06
10) Phenanthrene-d10	5.966	188	121221	2000.00	ppb	-0.05
17) Chrysene-d12	7.945	240	112410	2000.00	ppb	-0.08
21) Perylene-d12	9.335	264	114502	2000.00	ppb	-0.09
System Monitoring Compounds						
2) Nitrobenzene-d5	3.192	82	37	0.65	ppb	-0.05
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.07%#		
7) 2-Fluorobiphenyl	4.503	172	387	7.71	ppb	-0.06
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.77%#		
11) Pyrene-d10	6.921	212	472	8.45	ppb	-0.07
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.84%#		
18) Terphenyl-d14	7.089	244	504	9.76	ppb	-0.06
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.98%#		
Target Compounds						Qvalue
3) Naphthalene	3.721	128	2755	44.37	ppb	100
4) 2-Methylnaphthalene	4.230	142	99386	2407.38	ppb	100
5) 1-Methylnaphthalene	4.296	142	118407	3041.36	ppb	100
8) Acenaphthylene	4.862	152	1197	18.36	ppb	100
9) Acenaphthene	4.978	153	4426	~~108.66~~	ppb	100
12) Fluorene	5.340	166	3264	65.29	ppb	100
13) Phenanthrene	5.978	178	3421	47.10	ppb	100
14) Anthracene	6.013	178	174	2.42	ppb	100
15) Fluoranthene	6.781	202	78	0.98	ppb	100
16) Pyrene	6.932	202	105	1.28	ppb	100
19) Benzo[a]anthracene	7.945	228	356	Below Cal		100
20) Chrysene	7.945	228	356	5.02	ppb	100
22) Benzo[b]fluoranthene	8.968	252	21	0.30	ppb	100
23) Benzo(j,k)fluoranthene	8.968	252	21	0.30	ppb	100
24) Benzo[a]pyrene	9.272	252	24	0.36	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	10.537	276	24	0.36	ppb	100

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

USE (4) (5)

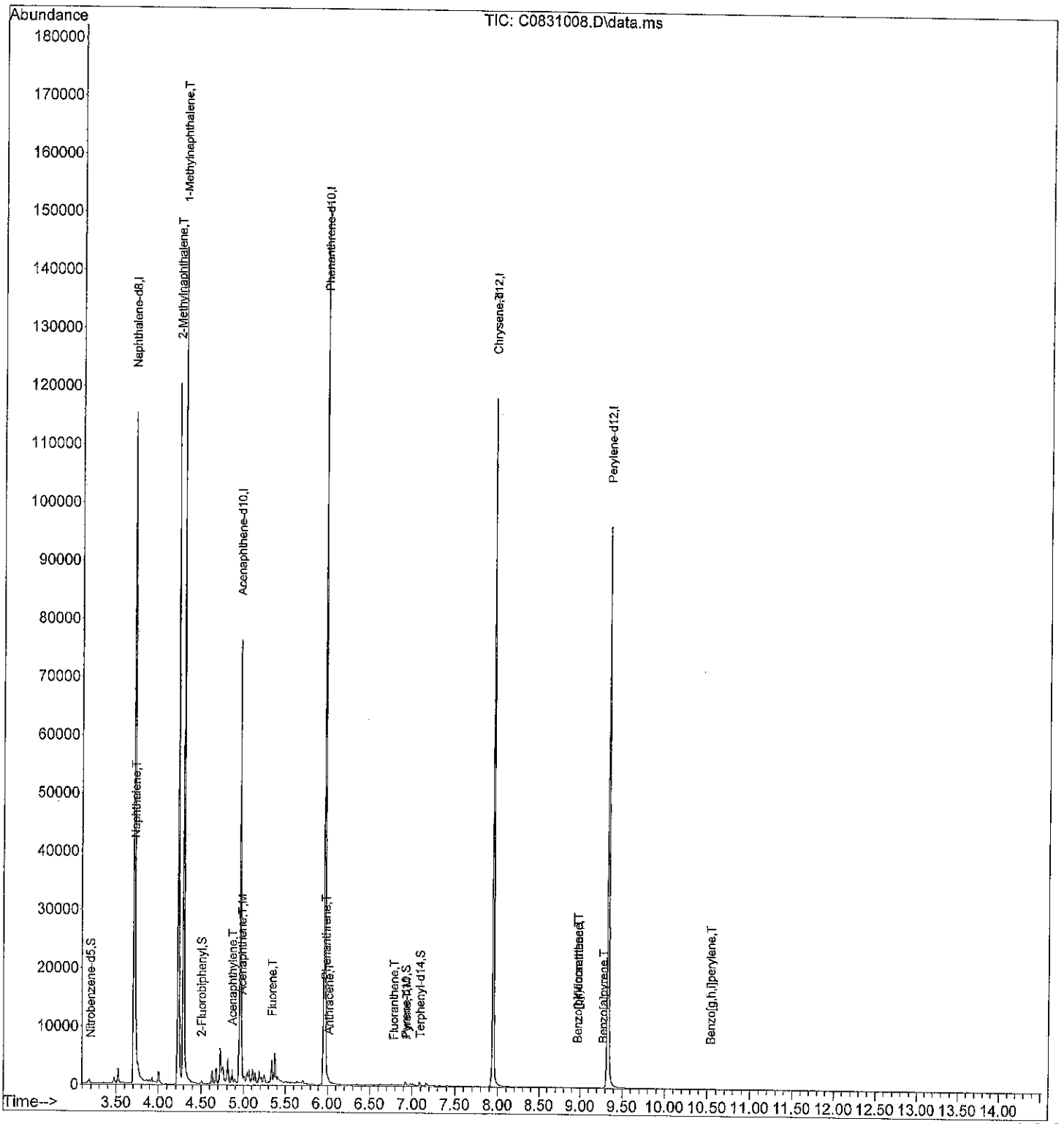
90.93

ZT
8-31-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831008.D
Acq On : 31 Aug 2018 11:30 am
Operator :
Sample : 08-348-03 100X
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 31 11:45:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831009.D
Acq On : 31 Aug 2018 11:52 am
Operator :
Sample : 08-348-03 50X
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 12:07:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.710	136	108716	2000.00	ppb	-0.06
6) Acenaphthene-d10	4.954	164	54444	2000.00	ppb	-0.06
10) Phenanthrene-d10	5.966	188	106993	2000.00	ppb	-0.05
17) Chrysene-d12	7.947	240	100535	2000.00	ppb	-0.07
21) Perylene-d12	9.334	264	102651	2000.00	ppb	-0.09
System Monitoring Compounds						
2) Nitrobenzene-d5	3.188	82	41	0.79	ppb	-0.05
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.08%#		
7) 2-Fluorobiphenyl	4.504	172	768	17.35	ppb	-0.05
Spiked Amount 1000.000	Range 25 - 89		Recovery =	1.74%#		
11) Pyrene-d10	6.922	212	952	19.32	ppb	-0.07
Spiked Amount 1000.000	Range 40 - 110		Recovery =	1.93%#		
18) Terphenyl-d14	7.084	244	893	19.34	ppb	-0.07
Spiked Amount 1000.000	Range 39 - 92		Recovery =	1.93%#		
Target Compounds						Qvalue
3) Naphthalene	3.722	128	5565	98.80	ppb	100
4) 2-Methylnaphthalene	4.230	142	195490	5220.26	ppb	100
5) 1-Methylnaphthalene	4.297	142	231822	6564.38	ppb	100
8) Acenaphthylene	4.861	152	2170	37.76	ppb	100
9) Acenaphthene	4.977	153	8556	~~238.33~~	ppb	100
12) Fluorene	5.339	166	6344	143.78	ppb	100
13) Phenanthrene	5.977	178	6586	102.73	ppb	100
14) Anthracene	6.013	178	345	5.43	ppb	100
15) Fluoranthene	6.782	202	107	1.53	ppb	100
16) Pyrene	6.933	202	135	1.87	ppb	100
19) Benzo[a]anthracene	7.943	228	289	Below Cal		100
20) Chrysene	7.943	228	289	4.55	ppb	100
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	9.275	252	16	0.27	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	10.540	276	16	0.27	ppb	100

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

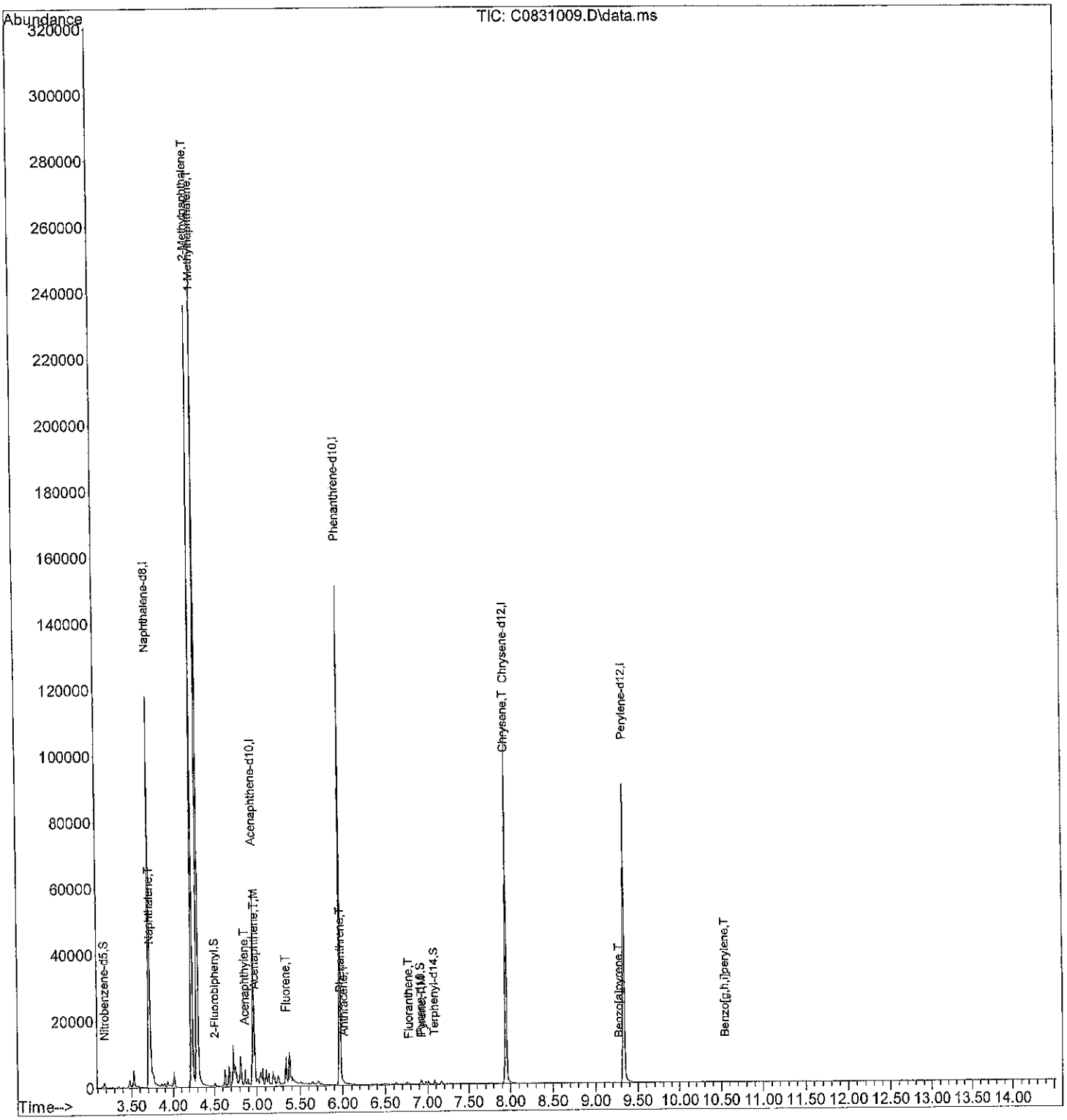
ZT 8-31-18

Use 203.79

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831009.D
Acq On : 31 Aug 2018 11:52 am
Operator :
Sample : 08-348-03 50X
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 12:07:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830033.D
Acq On : 30 Aug 2018 9:03 pm
Operator :
Sample : 08-348-04
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Aug 30 21:17:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.774	136	102653	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	55318	2000.00	ppb	0.00
10) Phenanthrene-d10	6.025	188	106363	2000.00	ppb	0.00
17) Chrysene-d12	8.036	240	96143	2000.00	ppb	0.02
21) Perylene-d12	9.443	264	95202	2000.00	ppb	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	3.257	82	3390	69.51	ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 6.95%#			
7) 2-Fluorobiphenyl	4.560	172	34238	761.23	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 76.12%			
11) Pyrene-d10	6.994	212	45651	931.81	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 93.18%			
18) Terphenyl-d14	7.157	244	42132	954.27	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 95.43%#			
Target Compounds						Qvalue
3) Naphthalene	3.786	128	208	3.91	ppb	100
4) 2-Methylnaphthalene	4.290	142	467	13.21	ppb	100
5) 1-Methylnaphthalene	4.357	142	598	17.93	ppb	100
8) Acenaphthylene	4.912	152	138	2.36	ppb	100
9) Acenaphthene	5.035	153	221	6.06	ppb	100
12) Fluorene	5.398	166	141	3.21	ppb	100
13) Phenanthrene	6.040	178	660	10.36	ppb	100
14) Anthracene	6.075	178	2120	33.54	ppb	100
15) Fluoranthene	6.843	202	1424	20.48	ppb	100
16) Pyrene	7.006	202	1487	20.68	ppb	100
19) Benzo[a]anthracene	8.028	228	643	4.27	ppb	100
20) Chrysene	8.028	228	643	~~10.59~~	ppb	100
22) Benzo[b]fluoranthene	9.072	252	284	4.82	ppb	100
23) Benzo(j,k)fluoranthene	9.072	252	284	~~4.82~~	ppb	100
24) Benzo[a]pyrene	9.380	252	132	2.39	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	~~N.D.~~		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	10.656	276	126	2.27	ppb	100

ZT 8-31-18

7.18

3.17

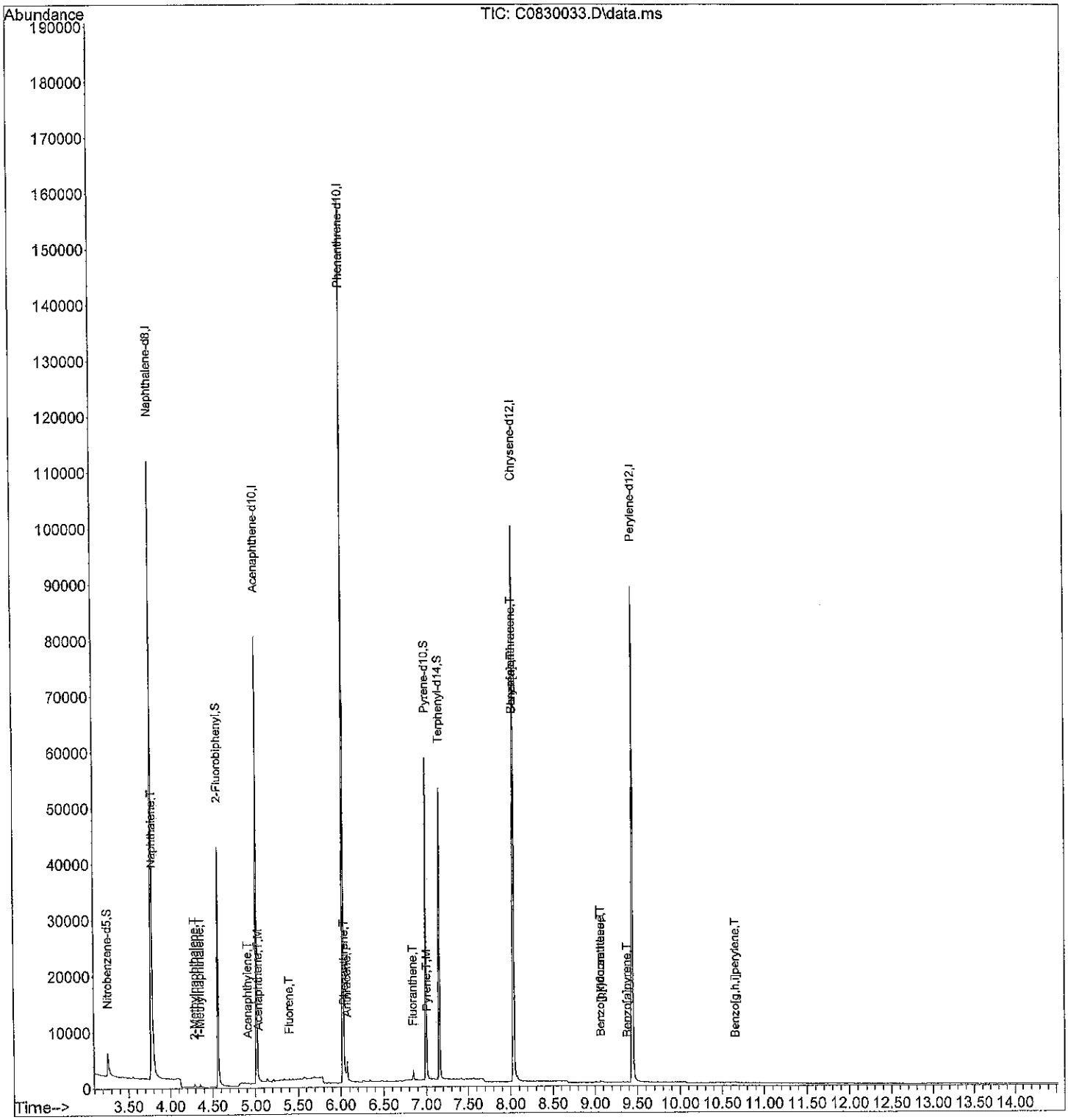
3.32

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830033.D
Acq On : 30 Aug 2018 9:03 pm
Operator :
Sample : 08-348-04
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Aug 30 21:17:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830034.D
Acq On : 30 Aug 2018 9:25 pm
Operator :
Sample : 08-348-05
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Aug 30 21:40:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

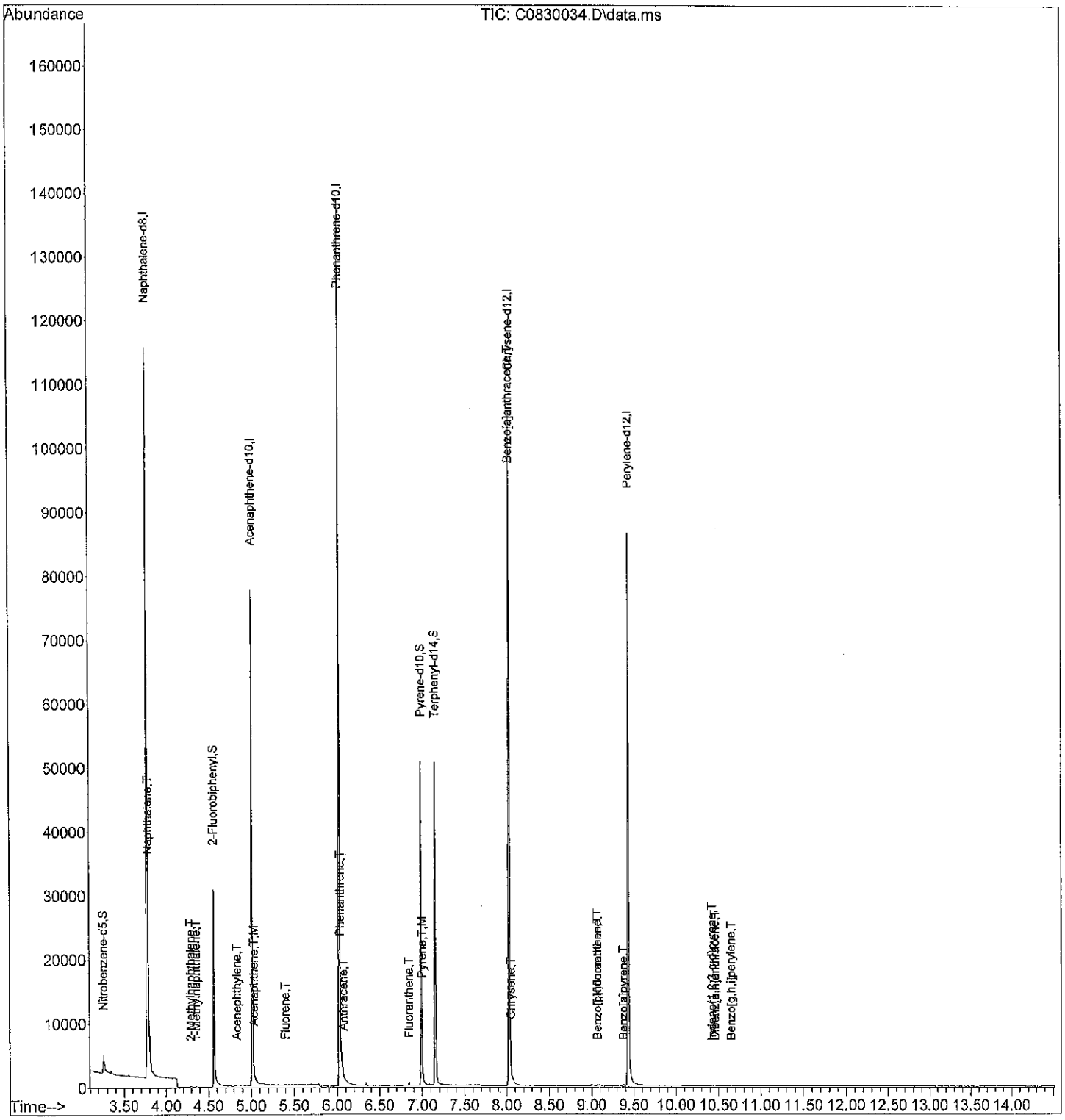
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.774	136	103304	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	56299	2000.00	ppb	0.00
10) Phenanthrene-d10	6.024	188	107518	2000.00	ppb	0.00
17) Chrysene-d12	8.032	240	97538	2000.00	ppb	0.01
21) Perylene-d12	9.435	264	97305	2000.00	ppb	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.257	82	2743	55.89	ppb	0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery =	5.59%#		
7) 2-Fluorobiphenyl	4.559	172	27216	594.57	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	59.46%		
11) Pyrene-d10	6.988	212	41247	832.87	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	83.29%		
18) Terphenyl-d14	7.151	244	37816	844.27	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	84.43%		
Target Compounds						Qvalue
3) Naphthalene	3.785	128	440	8.22	ppb	100
4) 2-Methylnaphthalene	4.290	142	131	3.68	ppb	100
5) 1-Methylnaphthalene	4.357	142	124	3.70	ppb	100
8) Acenaphthylene	4.835	152	972	16.36	ppb	100
9) Acenaphthene	5.035	153	110	2.96	ppb	100
12) Fluorene	5.398	166	63	1.42	ppb	100
13) Phenanthrene	6.036	178	364	5.65	ppb	100
14) Anthracene	6.075	178	122	1.91	ppb	100
15) Fluoranthene	6.843	202	324	4.61	ppb	100
16) Pyrene	7.000	202	465	6.40	ppb	100
19) Benzo[a]anthracene	8.028	228	447	0.89	ppb	100
20) Chrysene	8.051	228	187	3.04	ppb	100
22) Benzo[b]fluoranthene	9.064	252	212	3.52	ppb	100
23) Benzo(j,k)fluoranthene	9.064	252	212	~~3.52~~ 2.67	ppb	100
24) Benzo[a]pyrene	9.373	252	144	2.55	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.425	276	159	3.11	ppb	100
26) Dibenz[a,h]anthracene	10.457	278	95	1.81	ppb	100
27) Benzo[g,h,i]perylene	10.648	276	194	3.43	ppb	100

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

ZT
8-31-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830034.D
Acq On : 30 Aug 2018 9:25 pm
Operator :
Sample : 08-348-05
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Aug 30 21:40:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830018.D
Acq On : 30 Aug 2018 3:25 pm
Operator :
Sample : MB0830W1 RR
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 30 15:40:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

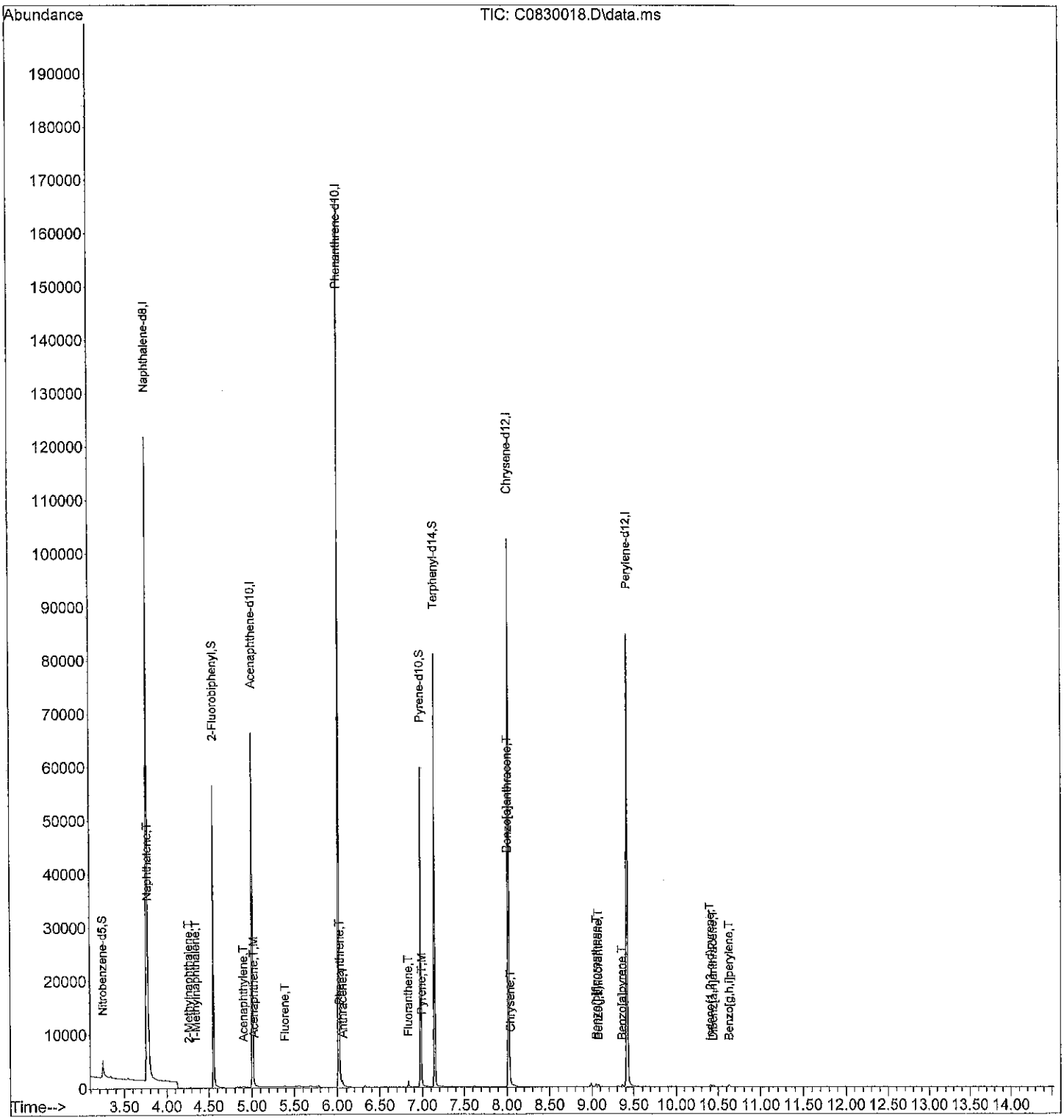
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	108426	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.006	164	55177	2000.00	ppb	-0.11
10) Phenanthrene-d10	6.017	188	103760	2000.00	ppb	-0.11
17) Chrysene-d12	8.017	240	95224	2000.00	ppb	-0.15
21) Perylene-d12	9.422	264	94472	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	2754	53.46	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 5.35%#			
7) 2-Fluorobiphenyl	4.555	172	37715	840.68	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 84.07%			
11) Pyrene-d10	6.982	212	41611	870.65	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.06%			
18) Terphenyl-d14	7.144	244	53518	1223.86	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 122.39%#			
Target Compounds						Qvalue
3) Naphthalene	3.779	128	152	2.71	ppb	100
4) 2-Methylnaphthalene	4.266	142	13	0.35	ppb	100
5) 1-Methylnaphthalene	4.352	142	43	1.22	ppb	100
8) Acenaphthylene	4.905	152	386	6.63	ppb	100
9) Acenaphthene	5.029	153	100	2.75	ppb	100
12) Fluorene	5.391	166	115	2.69	ppb	100
13) Phenanthrene	6.029	178	654	10.52	ppb	100
14) Anthracene	6.064	178	174	2.82	ppb	100
15) Fluoranthene	6.837	202	745	10.99	ppb	100
16) Pyrene	6.993	202	913	13.01	ppb	100
19) Benzo[a]anthracene	8.009	228	720	5.67	ppb	100
20) Chrysene	8.041	228	540	8.98	ppb	100
22) Benzo[b]fluoranthene	9.051	252	548	9.38	ppb	100
23) Benzo(j,k)fluoranthene	9.079	252	401	6.85	ppb	100
24) Benzo[a]pyrene	9.360	252	354	6.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	368	7.42	ppb	100
26) Dibenz[a,h]anthracene	10.442	278	325	6.40	ppb	100
27) Benzo[g,h,i]perylene	10.629	276	419	7.62	ppb	100

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

ZT
8-30-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830018.D
Acq On : 30 Aug 2018 3:25 pm
Operator :
Sample : MB0830W1 RR
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 30 15:40:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830021.D
Acq On : 30 Aug 2018 4:37 pm
Operator :
Sample : 08-326-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 30 16:52:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

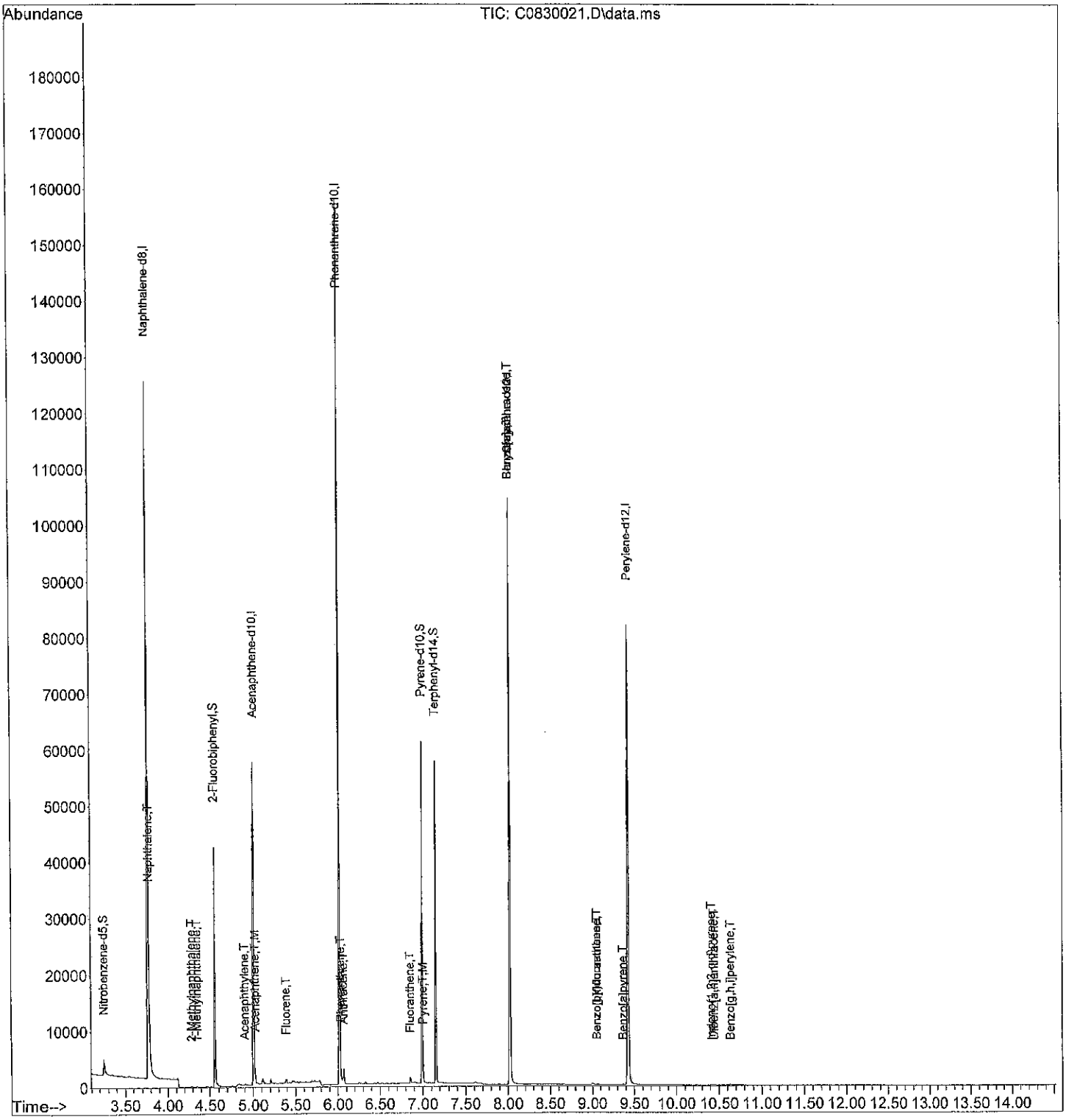
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	109039	2000.00	ppb	0.00
6) Acenaphthene-d10	5.013	164	54476	2000.00	ppb	0.00
10) Phenanthrene-d10	6.017	188	104563	2000.00	ppb	0.00
17) Chrysene-d12	8.025	240	95999	2000.00	ppb	0.00
21) Perylene-d12	9.424	264	93580	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	2245	43.33	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 4.33%#			
7) 2-Fluorobiphenyl	4.555	172	29881	674.63	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 67.46%			
11) Pyrene-d10	6.993	212	40687	844.78	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 84.48%			
18) Terphenyl-d14	7.149	244	38198	866.47	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 86.65%			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	245	4.34	ppb	100
4) 2-Methylnaphthalene	4.285	142	129	3.43	ppb	100
5) 1-Methylnaphthalene	4.352	142	70	1.98	ppb	100
8) Acenaphthylene	4.905	152	150	2.61	ppb	100
9) Acenaphthene	5.029	153	451	12.56	ppb	100
12) Fluorene	5.391	166	386	8.95	ppb	100
13) Phenanthrene	6.032	178	324	5.17	ppb	100
14) Anthracene	6.068	178	1551	24.96	ppb	100
15) Fluoranthene	6.853	202	854	12.50	ppb	100
16) Pyrene	7.004	202	896	12.67	ppb	100
19) Benzo[a]anthracene	8.021	228	408	0.35	ppb	100
20) Chrysene	8.021	228	408	~~6.73~~	ppb	1.52 100
22) Benzo[b]fluoranthene	9.053	252	87	1.50	ppb	100
23) Benzo(j,k)fluoranthene	9.053	252	87	~~1.50~~	ppb	100 1.66
24) Benzo[a]pyrene	9.365	252	100	1.84	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	114	2.32	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	150	2.98	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	125	2.30	ppb	100

ZT
8-31-18

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

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830021.D
Acq On : 30 Aug 2018 4:37 pm
Operator :
Sample : 08-326-03
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 30 16:52:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830022.D
Acq On : 30 Aug 2018 4:59 pm
Operator :
Sample : 08-326-03 MS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 30 17:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

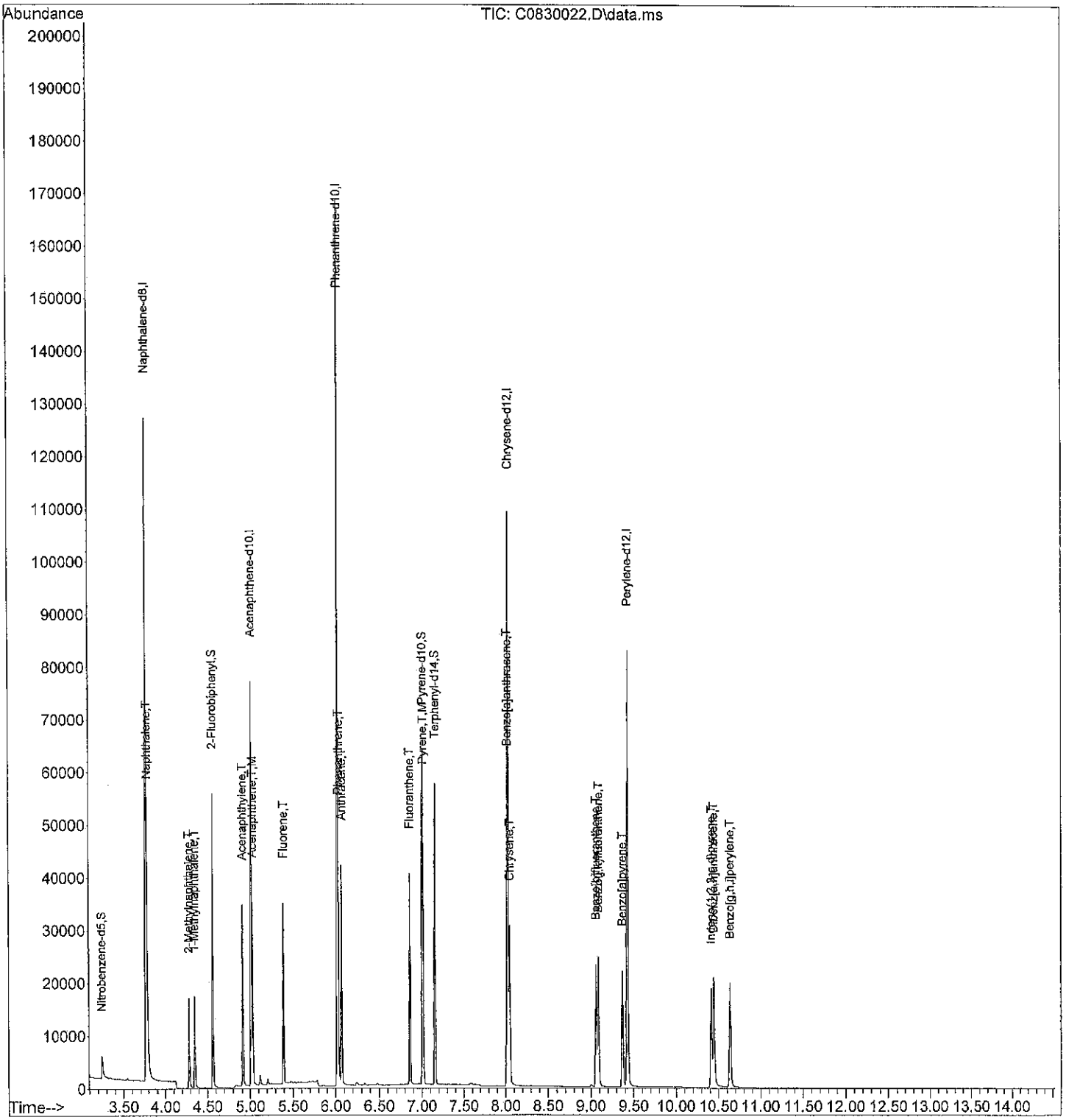
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	107315	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	55704	2000.00	ppb	0.00
10) Phenanthrene-d10	6.021	188	105332	2000.00	ppb	0.00
17) Chrysene-d12	8.028	240	95594	2000.00	ppb	0.00
21) Perylene-d12	9.427	264	92082	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	3596	70.53	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 7.05%#			
7) 2-Fluorobiphenyl	4.556	172	37284	823.21	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 82.32%			
11) Pyrene-d10	7.006	212	42497	875.92	ppb	0.02
Spiked Amount 1000.000	Range 40 - 110		Recovery = 87.59%			
18) Terphenyl-d14	7.157	244	42619	970.85	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 97.08%#			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	20281	364.76	ppb	100
4) 2-Methylnaphthalene	4.283	142	13129	355.17	ppb	100
5) 1-Methylnaphthalene	4.349	142	12633	362.39	ppb	100
8) Acenaphthylene	4.904	152	24386	414.73	ppb	100
9) Acenaphthene	5.028	153	15150	412.46	ppb	100
12) Fluorene	5.390	166	19566	450.43	ppb	100
13) Phenanthrene	6.032	178	26025	412.33	ppb	100
14) Anthracene	6.068	178	26941	430.45	ppb	100
15) Fluoranthene	6.855	202	31790	461.77	ppb	100
16) Pyrene	7.012	202	29241	410.61	ppb	100
19) Benzo[a]anthracene	8.016	228	27938	463.47	ppb	100
20) Chrysene	8.047	228	26847	444.85	ppb	100
22) Benzo[b]fluoranthene	9.056	252	25634	450.25	ppb	100
23) Benzo(j,k)fluoranthene	9.088	252	26082	457.42	ppb	100
24) Benzo[a]pyrene	9.369	252	24701	461.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.414	276	22865	472.94	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	23784	480.16	ppb	100
27) Benzo[g,h,i]perylene	10.636	276	24748	461.92	ppb	100

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

ZT
8-31-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830022.D
Acq On : 30 Aug 2018 4:59 pm
Operator :
Sample : 08-326-03 MS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 30 17:14:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830023.D
Acq On : 30 Aug 2018 5:21 pm
Operator :
Sample : 08-326-03 MSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 30 17:36:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

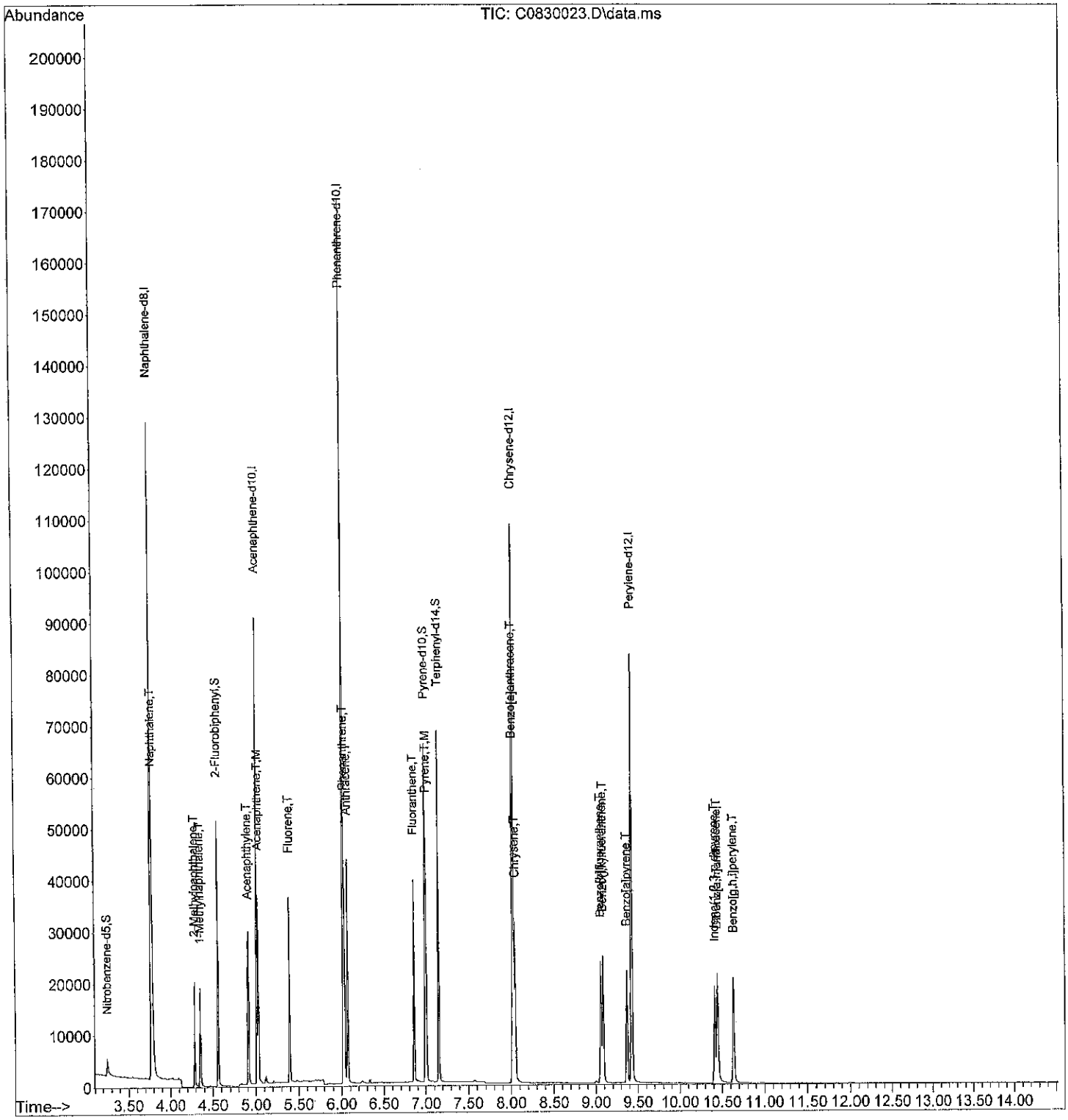
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	106899	2000.00	ppb	0.00
6) Acenaphthene-d10	5.012	164	56517	2000.00	ppb	0.00
10) Phenanthrene-d10	6.020	188	104342	2000.00	ppb	0.00
17) Chrysene-d12	8.028	240	94834	2000.00	ppb	0.00
21) Perylene-d12	9.427	264	91698	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	2797	55.07	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 5.51%#			
7) 2-Fluorobiphenyl	4.555	172	35428	770.98	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 77.10%			
11) Pyrene-d10	6.993	212	42535	885.02	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 88.50%			
18) Terphenyl-d14	7.150	244	43413	996.86	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 99.69%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	21859	394.67	ppb	100
4) 2-Methylnaphthalene	4.286	142	15398	418.17	ppb	100
5) 1-Methylnaphthalene	4.352	142	14349	413.22	ppb	100
8) Acenaphthylene	4.904	152	25184	422.14	ppb	100
9) Acenaphthene	5.027	153	16578	444.84	ppb	100
12) Fluorene	5.389	166	20227	470.07	ppb	100
13) Phenanthrene	6.032	178	26931	430.73	ppb	100
14) Anthracene	6.067	178	28780	464.19	ppb	100
15) Fluoranthene	6.854	202	33325	488.66	ppb	100
16) Pyrene	7.005	202	31684	449.14	ppb	100
19) Benzo[a]anthracene	8.016	228	27712	463.41	ppb	100
20) Chrysene	8.047	228	26520	442.96	ppb	100
22) Benzo[b]fluoranthene	9.056	252	25869	456.28	ppb	100
23) Benzo(j,k)fluoranthene	9.083	252	25361	446.64	ppb	100
24) Benzo[a]pyrene	9.368	252	24743	464.17	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.413	276	22640	470.25	ppb	100
26) Dibenz[a,h]anthracene	10.444	278	23098	468.27	ppb	100
27) Benzo[g,h,i]perylene	10.635	276	24286	455.19	ppb	100

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

ZT
8-31-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830023.D
Acq On : 30 Aug 2018 5:21 pm
Operator :
Sample : 08-326-03 MSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 30 17:36:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	93	0.00
2	S	Nitrobenzene-d5	500.000	385.568	22.9#	101	0.00
3	T	Naphthalene	500.000	510.997	-2.2	95	0.00
4	T	2-Methylnaphthalene	500.000	494.756	1.0	92	0.00
5	T	1-Methylnaphthalene	500.000	523.905	-4.8	97	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	93	0.00
7	S	2-Fluorobiphenyl	500.000	561.866	-12.4	106	0.00
8	T	Acenaphthylene	500.000	502.317	-0.5	95	0.00
9	T,M	Acenaphthene	500.000	498.060	0.4	93	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11	S	Pyrene-d10	500.000	521.177	-4.2	97	0.00
12	T	Fluorene	500.000	511.134	-2.2	96	0.00
13	T	Phenanthrene	500.000	484.729	3.1	93	0.00
14	T	Anthracene	500.000	489.372	2.1	91	0.00
15	T	Fluoranthene	500.000	498.236	0.4	94	0.00
16	T,M	Pyrene	500.000	526.531	-5.3	99	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	95	0.00
18	S	Terphenyl-d14	500.000	509.840	-2.0	99	0.00
19	T	Benzo[a]anthracene	500.000	502.185	-0.4	93	0.00
20	T	Chrysene	500.000	478.109	4.4	90	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	96	0.00
22	T	Benzo[b]fluoranthene	500.000	486.610	2.7	90	0.00
23	T	Benzo(j,k)fluoranthene	500.000	507.827	-1.6	99	0.00
24	T	Benzo[a]pyrene	500.000	466.208	6.8	88	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	491.991	1.6	93	0.00
26	T	Dibenz[a,h]anthracene	500.000	504.959	-1.0	95	0.00
27	T	Benzo[g,h,i]perylene	500.000	500.739	-0.1	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

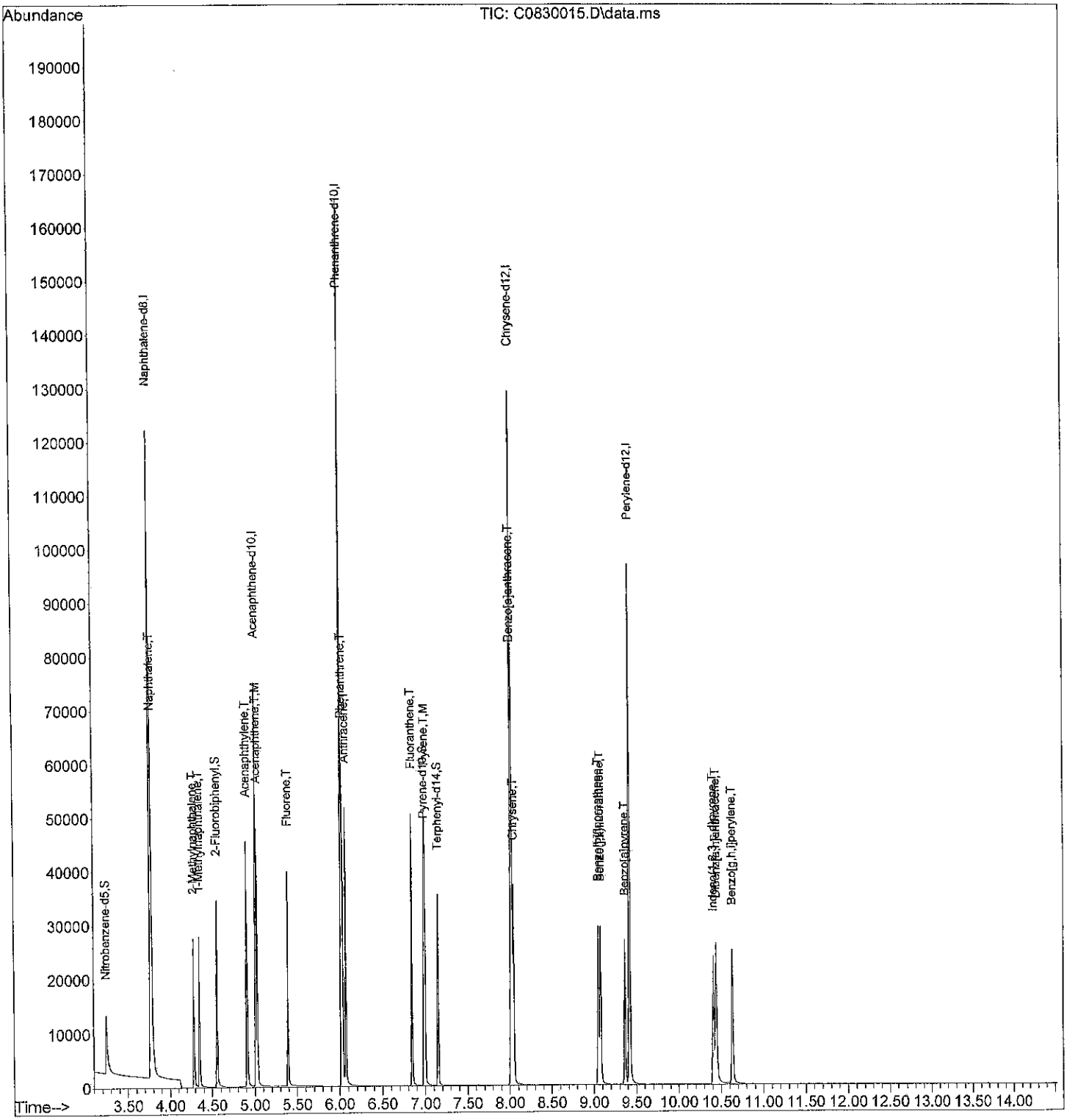
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	121192	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	60983	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.017	188	114380	2000.00	ppb	-0.11
17) Chrysene-d12	8.021	240	108137	2000.00	ppb	-0.15
21) Perylene-d12	9.424	264	107919	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.242	82	22201	385.57	ppb	-0.11
Spiked Amount 1000.000	Range 24 - 92		Recovery = 38.56%			
7) 2-Fluorobiphenyl	4.558	172	27859	561.87	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 56.19%			
11) Pyrene-d10	6.987	212	27458	521.18	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 52.12%			
18) Terphenyl-d14	7.150	244	25318	509.84	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 50.98%			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	32086	511.00	ppb	100
4) 2-Methylnaphthalene	4.285	142	20654	494.76	ppb	100
5) 1-Methylnaphthalene	4.352	142	20625	523.90	ppb	100
8) Acenaphthylene	4.905	152	32335	502.32	ppb	100
9) Acenaphthene	5.028	153	20028	498.06	ppb	100
12) Fluorene	5.391	166	24110	511.13	ppb	100
13) Phenanthrene	6.033	178	33223	484.73	ppb	100
14) Anthracene	6.068	178	33260	489.37	ppb	100
15) Fluoranthene	6.842	202	37247	498.24	ppb	100
16) Pyrene	6.999	202	40717	526.53	ppb	100
19) Benzo[a]anthracene	8.014	228	34207	502.19	ppb	100
20) Chrysene	8.045	228	32640	478.11	ppb	100
22) Benzo[b]fluoranthene	9.053	252	32469	486.61	ppb	100
23) Benzo(j,k)fluoranthene	9.081	252	33936	507.83	ppb	100
24) Benzo[a]pyrene	9.362	252	29248	466.21	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.407	276	27877	491.99	ppb	100
26) Dibenz[a,h]anthracene	10.442	278	29314	504.96	ppb	100
27) Benzo[g,h,i]perylene	10.629	276	31442	500.74	ppb	100

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

ZT
8-30-18

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C180831\
Data File : C0831004.D
Acq On : 31 Aug 2018 9:32 am
Operator :
Sample : PAH CCV0831-2
Misc : SV5-052-28
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	91	-0.06
2	S	Nitrobenzene-d5	500.000	146.307	70.7#	37	-0.05
3	T	Naphthalene	500.000	499.159	0.2	90	-0.05
4	T	2-Methylnaphthalene	500.000	480.247	4.0	87	-0.05
5	T	1-Methylnaphthalene	500.000	530.506	-6.1	95	-0.05
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	90	-0.06
7	S	2-Fluorobiphenyl	500.000	561.944	-12.4	103	-0.05
8	T	Acenaphthylene	500.000	502.116	-0.4	92	-0.05
9	T,M	Acenaphthene	500.000	515.105	-3.0	93	-0.05
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	95	-0.05
11	S	Pyrene-d10	500.000	500.761	-0.2	94	-0.07
12	T	Fluorene	500.000	481.649	3.7	91	-0.05
13	T	Phenanthrene	500.000	473.856	5.2	92	-0.06
14	T	Anthracene	500.000	495.828	0.8	93	-0.06
15	T	Fluoranthene	500.000	488.584	2.3	93	-0.06
16	T,M	Pyrene	500.000	491.112	1.8	93	-0.07
17	I	Chrysene-d12	2000.000	2000.000	0.0	95	-0.07
18	S	Terphenyl-d14	500.000	481.202	3.8	93	-0.07
19	T	Benzo[a]anthracene	500.000	497.622	0.5	92	-0.08
20	T	Chrysene	500.000	502.163	-0.4	94	-0.08
21	I	Perylene-d12	2000.000	2000.000	0.0	97	-0.09
22	T	Benzo[b]fluoranthene	500.000	469.701	6.1	88	-0.09
23	T	Benzo(j,k)fluoranthene	500.000	520.695	-4.1	102	-0.09
24	T	Benzo[a]pyrene	500.000	484.274	3.1	93	-0.09
25	T	Indeno(1,2,3-c,d)pyrene	500.000	474.618	5.1	91	-0.09
26	T	Dibenz[a,h]anthracene	500.000	507.878	-1.6	97	-0.09
27	T	Benzo[g,h,i]perylene	500.000	490.786	1.8	95	-0.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831004.D
Acq On : 31 Aug 2018 9:32 am
Operator :
Sample : PAH CCV0831-2
Misc : SV5-052-28
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.710	136	118065	2000.00	ppb	-0.06
6) Acenaphthene-d10	4.953	164	58915	2000.00	ppb	-0.06
10) Phenanthrene-d10	5.966	188	115124	2000.00	ppb	-0.05
17) Chrysene-d12	7.948	240	107572	2000.00	ppb	-0.07
21) Perylene-d12	9.334	264	109008	2000.00	ppb	-0.09
System Monitoring Compounds						
2) Nitrobenzene-d5	3.188	82	8207	146.31	ppb	-0.05
Spiked Amount 1000.000	Range 24 - 92		Recovery = 14.63%#			
7) 2-Fluorobiphenyl	4.504	172	26918	561.94	ppb	-0.05
Spiked Amount 1000.000	Range 25 - 89		Recovery = 56.19%			
11) Pyrene-d10	6.922	212	26554	500.76	ppb	-0.07
Spiked Amount 1000.000	Range 40 - 110		Recovery = 50.08%			
18) Terphenyl-d14	7.084	244	23771	481.20	ppb	-0.07
Spiked Amount 1000.000	Range 39 - 92		Recovery = 48.12%			
Target Compounds						Qvalue
3) Naphthalene	3.727	128	30534	499.16	ppb	100
4) 2-Methylnaphthalene	4.231	142	19531	480.25	ppb	100
5) 1-Methylnaphthalene	4.297	142	20346	530.51	ppb	100
8) Acenaphthylene	4.853	152	31226	502.12	ppb	100
9) Acenaphthene	4.977	153	20011	515.10	ppb	100
12) Fluorene	5.339	166	22867	481.65	ppb	100
13) Phenanthrene	5.977	178	32689	473.86	ppb	100
14) Anthracene	6.012	178	33918	495.83	ppb	100
15) Fluoranthene	6.782	202	36763	488.58	ppb	100
16) Pyrene	6.933	202	38225	491.11	ppb	100
19) Benzo[a]anthracene	7.936	228	33723	497.62	ppb	100
20) Chrysene	7.967	228	34103	502.16	ppb	100
22) Benzo[b]fluoranthene	8.967	252	31657	469.70	ppb	100
23) Benzo(j,k)fluoranthene	8.995	252	35147	520.69	ppb	100
24) Benzo[a]pyrene	9.272	252	30688	484.27	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.314	276	27164	474.62	ppb	100
26) Dibenz[a,h]anthracene	10.349	278	29781	507.88	ppb	100
27) Benzo[g,h,i]perylene	10.532	276	31128	490.79	ppb	100

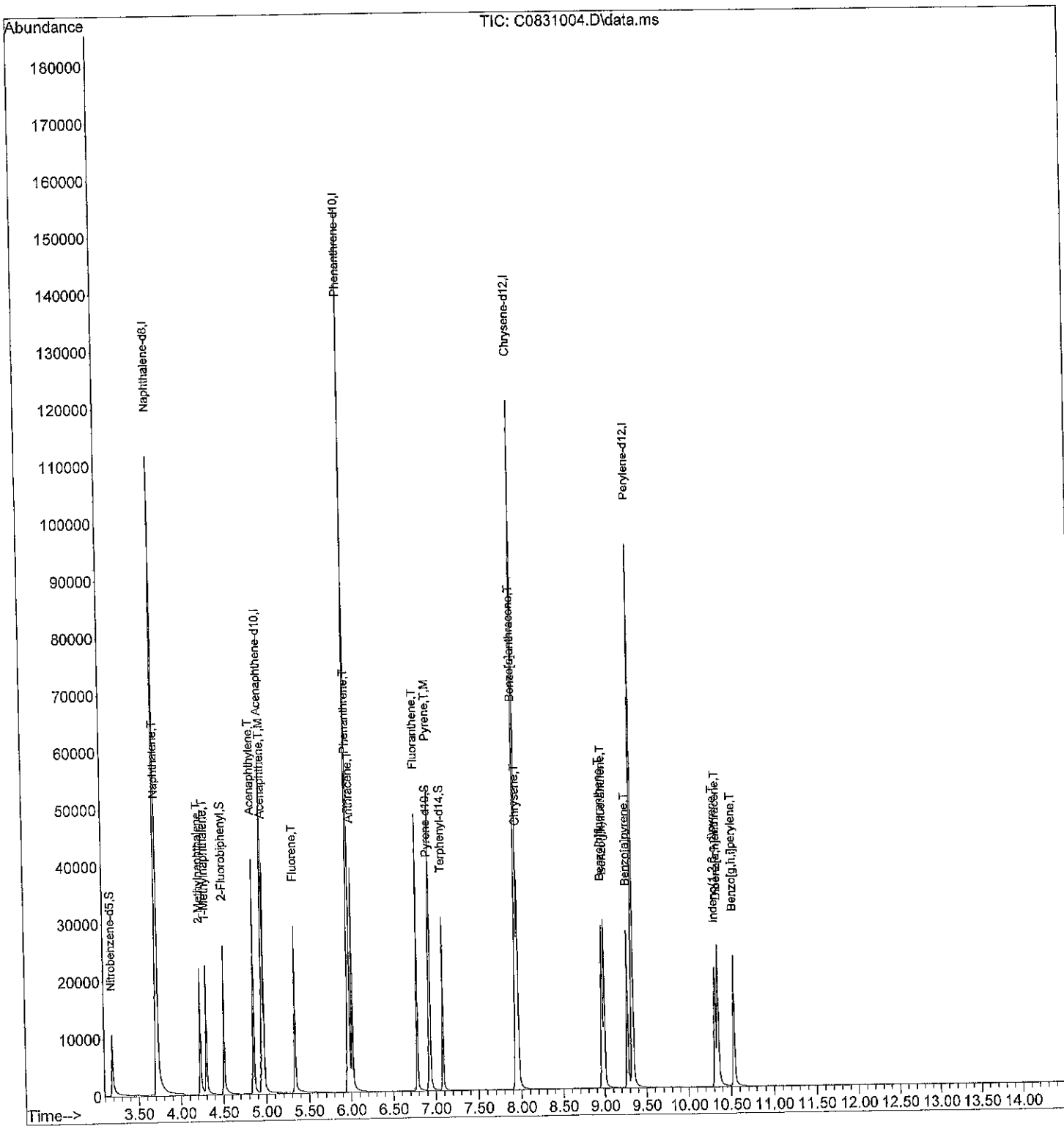
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-31-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831004.D
Acq On : 31 Aug 2018 9:32 am
Operator :
Sample : PAH CCV0831-2
Misc : SV5-052-28
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:47:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 16:14:45 2018
Response via : Initial Calibration



Response Factor Report Corey

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Thu Aug 30 16:14:45 2018
Response Via : Initial Calibration

Calibration Files
10 =C0830007.D 20 =C0830008.D 50 =C0830009.D 100 =C0830010.D 200 =C0830011.D 500 =C0830012.D 1000=C0830013.D
5000=C0830014.D

		Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1)	I	Naphthalene-d8	----------ISTD----------									
2)	S	Nitrobenzene-d5	0.424	2.951	0.747	1.216	0.675	0.325	0.313	0.950		98.58
3)	T	Naphthalene	1.038	1.035	1.069	1.028	1.041	1.036	1.033	1.009	1.036	1.61
4)	T	2-Methylnaphth...	0.704	0.671	0.718	0.691	0.699	0.687	0.664	0.678	0.689	2.59
5)	T	1-Methylnaphth...	0.645	0.646	0.682	0.658	0.657	0.655	0.625	0.629	0.650	2.76
6)	I	Acenaphthene-d10	----------ISTD----------									
7)	S	2-Fluorobiphenyl	1.670	1.646	1.696	1.569	1.611	1.606	1.545	1.665	1.626	3.22
8)	T	Acenaphthylene	2.175	2.338	2.181	2.000	2.118	2.088	2.009	1.980	2.111	5.69
9)	T,M	Acenaphthene	1.347	1.488	1.370	1.240	1.296	1.318	1.274	1.216	1.319	6.50
10)	I	Phenanthrene-d10	----------ISTD----------									
11)	S	Pyrene-d10	0.934	0.913	0.954	0.919	0.913	0.933	0.905	0.900	0.921	1.95
12)	T	Fluorene	0.875	0.845	0.878	0.843	0.810	0.827	0.783	0.739	0.825	5.69
13)	T	Phenanthrene	1.327	1.230	1.264	1.190	1.176	1.171	1.125	1.104	1.198	6.11
14)	T	Anthracene	1.211	1.193	1.240	1.183	1.183	1.201	1.152	1.145	1.188	2.58
15)	T	Fluoranthene	1.382	1.292	1.370	1.301	1.300	1.306	1.273	1.233	1.307	3.71
16)	T,M	Pyrene	1.442	1.338	1.404	1.341	1.339	1.359	1.309	1.286	1.352	3.70
17)	I	Chrysene-d12	----------ISTD----------									
18)	S	Terphenyl-d14	1.123	0.905	0.955	0.877	0.885	0.897	0.875	0.830	0.918	9.76
19)	T	Benzo[a]anthra...	1.976	1.589	1.479	1.341	1.310	1.294	1.237	1.243	1.433	17.46
20)	T	Chrysene	1.344	1.254	1.321	1.246	1.264	1.281	1.210	1.181	1.263	4.25
21)	I	Perylene-d12	----------ISTD----------									
22)	T	Benzo[b]fluora...	1.311	1.212	1.261	1.218	1.187	1.280	1.199	1.225	1.237	3.49
23)	T	Benzo(j,k)fluo...	1.281	1.223	1.296	1.197	1.254	1.216	1.217	1.222	1.238	2.83
24)	T	Benzo[a]pyrene	1.218	1.141	1.189	1.130	1.132	1.172	1.138	1.182	1.163	2.76
25)	T	Indeno(1,2,3-c...	1.132	1.010	1.062	1.000	1.020	1.059	1.023	1.095	1.050	4.37
26)	T	Dibenz[a,h]ant...	1.109	1.044	1.098	1.007	1.057	1.093	1.072	1.127	1.076	3.62
27)	T	Benzo[g,h,i]pe...	1.251	1.154	1.200	1.126	1.137	1.164	1.132	1.146	1.164	3.63

(#) = Out of Range

Compound List Report Corey

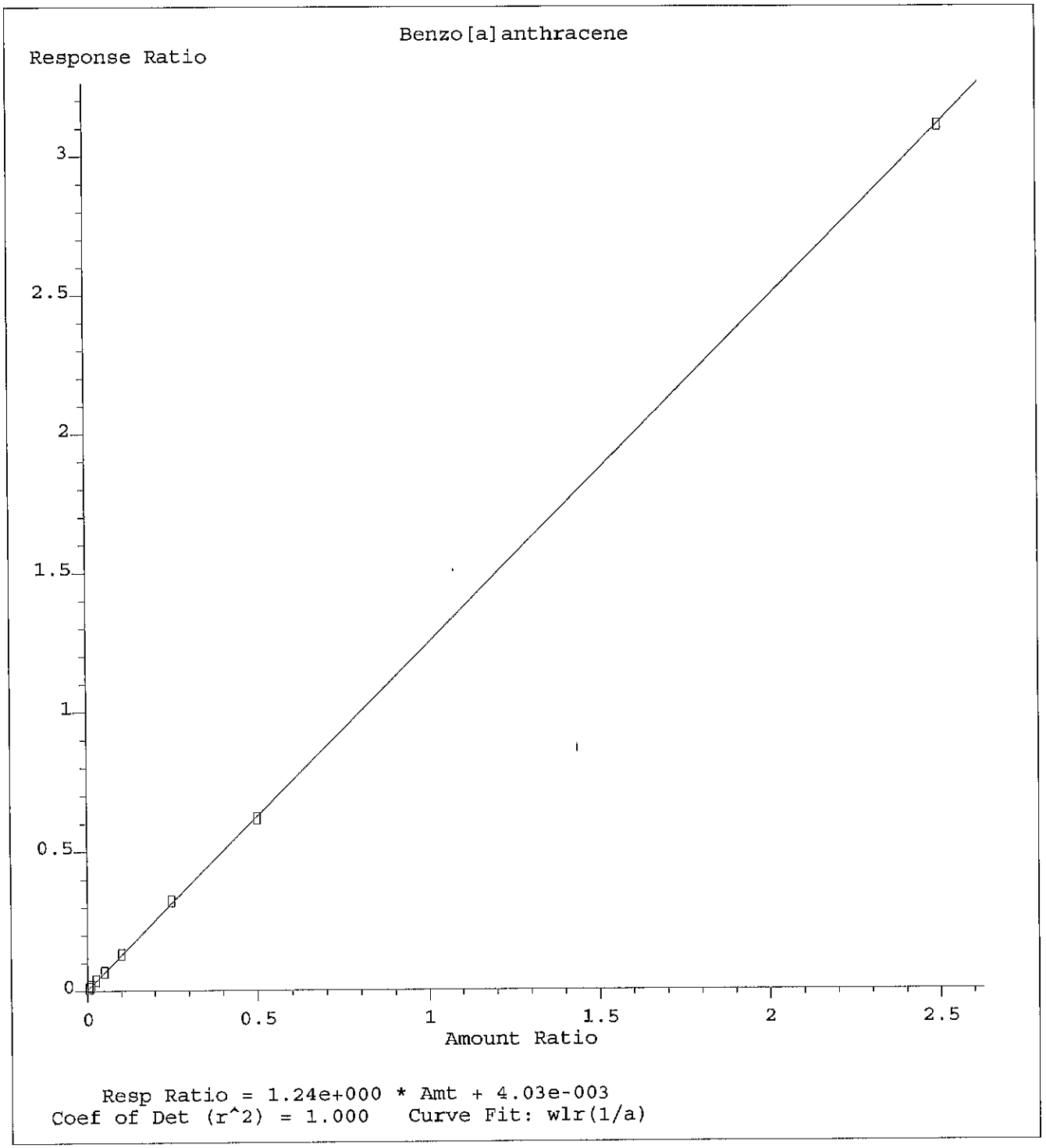
Method Path : C:\MSDCHEM\1\METHODS\
Method File : CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Thu Aug 30 16:14:45 2018
Response Via : Initial Calibration

Total Cpnds : 27

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	3.770	1.000	A	0	A	R
2	S	Nitrobenzene-d5	82	3.242	0.860	A	0	A	R
3	T	Naphthalene	128	3.781	1.003	A	0	A	R
4	T	2-Methylnaphthalene	142	4.285	1.137	A	0	A	R
5	T	1-Methylnaphthalene	142	4.352	1.154	A	0	A	R
6	I	Acenaphthene-d10	164	5.013	1.000	A	0	A	R
7	S	2-Fluorobiphenyl	172	4.558	0.909	A	0	A	R
8	T	Acenaphthylene	152	4.905	0.978	A	0	A	R
9	T	Acenaphthene	153	5.028	1.003	A	0	A	R
10	I	Phenanthrene-d10	188	6.017	1.000	A	0	A	R
11	S	Pyrene-d10	212	6.987	1.161	A	0	A	R
12	T	Fluorene	166	5.391	0.896	A	0	A	R
13	T	Phenanthrene	178	6.033	1.003	A	0	A	R
14	T	Anthracene	178	6.068	1.008	A	0	A	R
15	T	Fluoranthene	202	6.842	1.137	A	0	A	R
16	T	Pyrene	202	6.999	1.163	A	0	A	R
17	I	Chrysene-d12	240	8.021	1.000	A	0	A	R
18	S	Terphenyl-d14	244	7.150	0.891	A	0	A	R
19	T	Benzo[a]anthracene	228	8.014	0.999	L	0	A	R
20	T	Chrysene	228	8.045	1.003	A	0	A	R
21	I	Perylene-d12	264	9.424	1.000	A	0	A	R
22	T	Benzo[b]fluoranthene	252	9.053	0.961	A	0	A	R
23	T	Benzo(j,k)fluoranthene	252	9.081	0.964	A	0	A	R
24	T	Benzo[a]pyrene	252	9.362	0.993	A	0	A	R
25	T	Indeno(1,2,3-c,d)pyrene	276	10.407	1.104	A	0	A	R
26	T	Dibenz[a,h]anthracene	278	10.442	1.108	A	0	A	R
27	T	Benzo[g,h,i]perylene	276	10.629	1.128	A	0	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

CSIM0830.M Sat Sep 01 12:39:56 2018



Method Name: C:\MSDCHEM\1\METHODS\CSIM0830.M
Calibration Table Last Updated: Thu Aug 30 16:14:45 2018

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830007.D
Acq On : 30 Aug 2018 11:02 am
Operator :
Sample : 10 PPB
Misc : SV5-047-29
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 30 11:16:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	143494	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	71270	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	131245	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	119153	2000.00	ppb	-0.14
21) Perylene-d12	9.428	264	119411	2000.00	ppb	-0.16
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	4.556	172	595	9.32	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.93%#		
11) Pyrene-d10	6.983	212	613	9.66	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.97%#		
18) Terphenyl-d14	7.146	244	669	11.77	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery =	1.18%#		
Target Compounds						Qvalue
3) Naphthalene	3.780	128	745	9.82	ppb	100
4) 2-Methylnaphthalene	4.287	142	505	9.58	ppb	100
5) 1-Methylnaphthalene	4.353	142	463	9.23	ppb	100
8) Acenaphthylene	4.912	152	775	9.14	ppb	100
9) Acenaphthene	5.028	153	480	9.19	ppb	100
12) Fluorene	5.390	166	574	9.80	ppb	100
13) Phenanthrene	6.033	178	871	10.16	ppb	100
14) Anthracene	6.068	178	795	9.28	ppb	100
15) Fluoranthene	6.838	202	907	9.67	ppb	100
16) Pyrene	6.995	202	946	9.80	ppb	100
19) Benzo[a]anthracene	8.017	228	1177	7.06	ppb	100
20) Chrysene	8.044	228	801	9.63	ppb	100
22) Benzo[b]fluoranthene	9.053	252	783	9.27	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	765	9.29	ppb	100
24) Benzo[a]pyrene	9.365	252	727	9.11	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	676	9.08	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	662	8.78	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	747	9.36	ppb	100

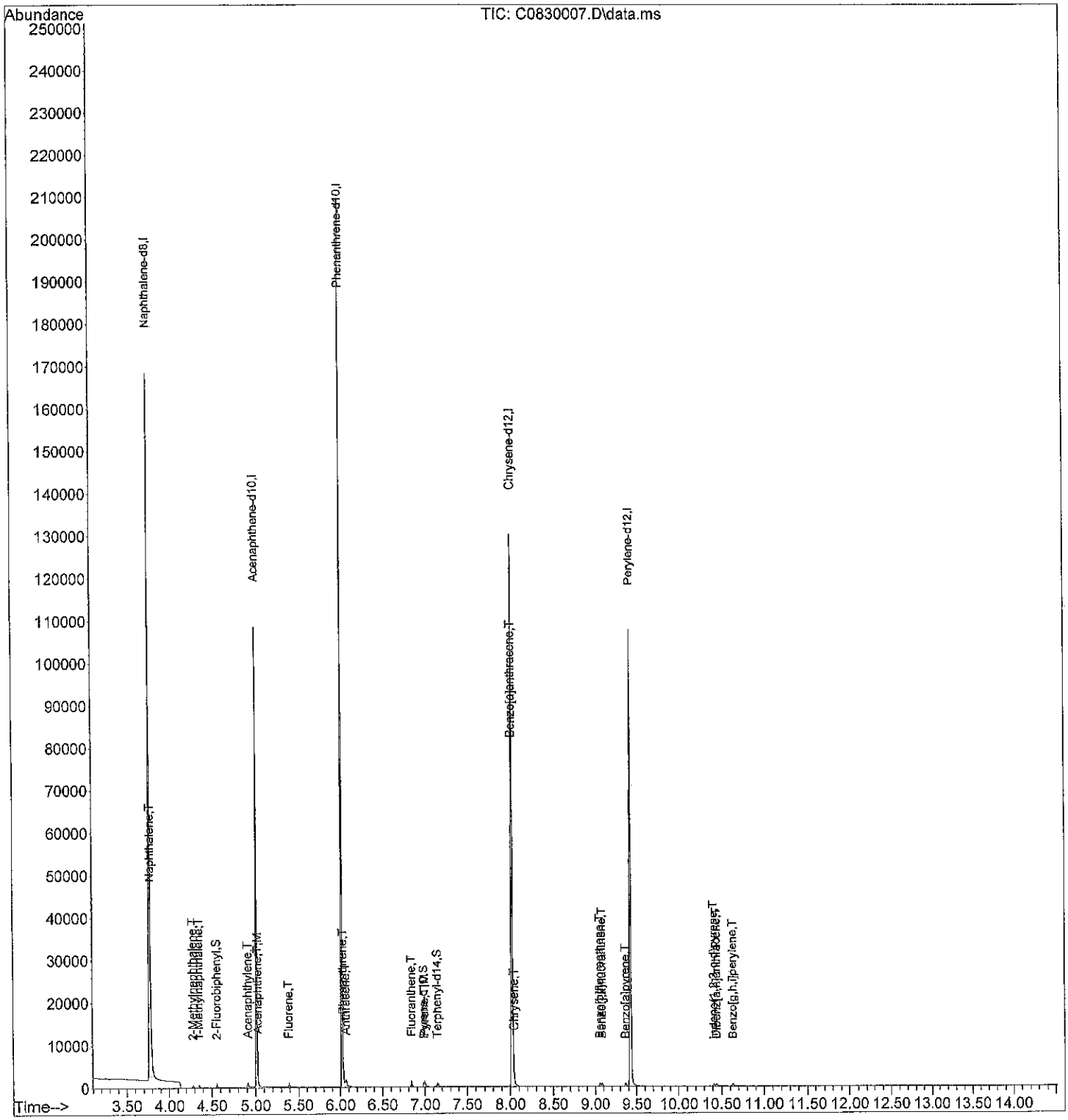
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830007.D
Acq On : 30 Aug 2018 11:02 am
Operator :
Sample : 10 PPB
Misc : SV5-047-29
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 30 11:16:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830008.D
Acq On : 30 Aug 2018 11:23 am
Operator :
Sample : 20 PPB
Misc : SV5-047-28
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 30 11:38:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	143234	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.014	164	68528	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	130385	2000.00	ppb	-0.10
17) Chrysene-d12	8.025	240	119131	2000.00	ppb	-0.14
21) Perylene-d12	9.424	264	118529	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	608	29.74	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 2.97%#			
7) 2-Fluorobiphenyl	4.558	172	1128	18.39	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 1.84%#			
11) Pyrene-d10	6.987	212	1190	18.87	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 1.89%#			
18) Terphenyl-d14	7.150	244	1078	18.98	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 1.90%#			
Target Compounds						Qvalue
3) Naphthalene	3.782	128	1482	19.57	ppb	100
4) 2-Methylnaphthalene	4.285	142	961	18.26	ppb	100
5) 1-Methylnaphthalene	4.352	142	925	18.48	ppb	100
8) Acenaphthylene	4.906	152	1602 ~~2182~~	26.77	ppb	100
9) Acenaphthene	5.029	153	1020	20.30	ppb	100
12) Fluorene	5.391	166	1102	18.94	ppb	100
13) Phenanthrene	6.033	178	1604	18.83	ppb	100
14) Anthracene	6.068	178	1555	18.27	ppb	100
15) Fluoranthene	6.842	202	1684	18.07	ppb	100
16) Pyrene	6.999	202	1744	18.19	ppb	100
19) Benzo[a]anthracene	8.017	228	1893	15.70	ppb	100
20) Chrysene	8.044	228	1494	17.96	ppb	100
22) Benzo[b]fluoranthene	9.057	252	1437	17.13	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	1450	17.73	ppb	100
24) Benzo[a]pyrene	9.365	252	1352	17.08	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	1197	16.20	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	1237	16.53	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	1368	17.27	ppb	100

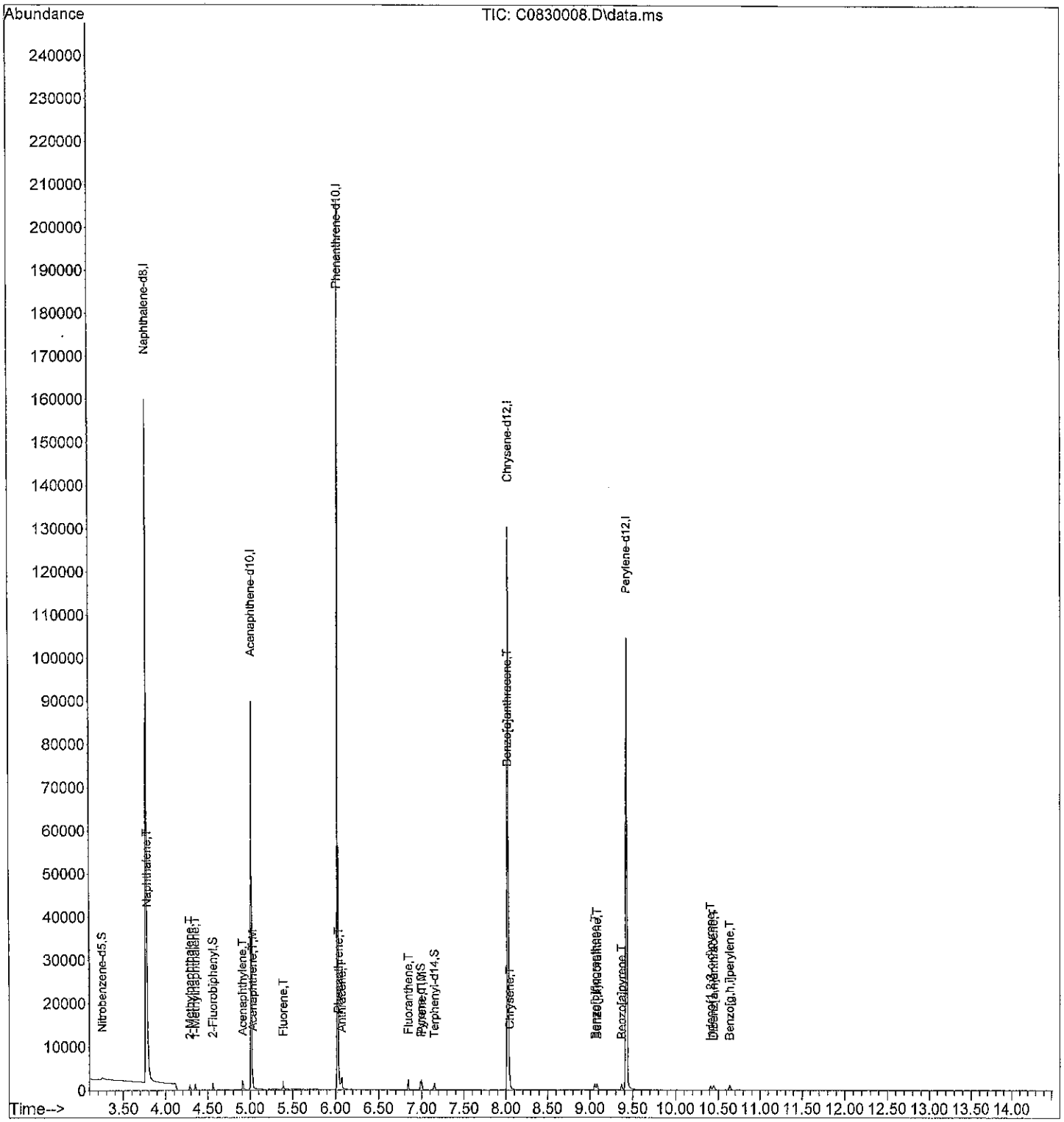
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830008.D
Acq On : 30 Aug 2018 11:23 am
Operator :
Sample : 20 PPB
Misc : SV5-047-28
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 30 11:38:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830009.D
Acq On : 30 Aug 2018 11:45 am
Operator :
Sample : 50 PPB
Misc : SV5-047-27
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 30 12:00:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	138246	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	69005	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	127889	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	117749	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	117571	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	10200	516.90	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 51.69%			
7) 2-Fluorobiphenyl	4.556	172	2926	47.36	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 4.74%#			
11) Pyrene-d10	6.988	212	3050	49.32	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 4.93%#			
18) Terphenyl-d14	7.150	244	2811	50.06	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 5.01%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	3696	50.57	ppb	100
4) 2-Methylnaphthalene	4.287	142	2482	48.87	ppb	100
5) 1-Methylnaphthalene	4.353	142	2357	48.79	ppb	100
8) Acenaphthylene	4.904	152	3763	45.84	ppb	100
9) Acenaphthene	5.028	153	2364	46.73	ppb	100
12) Fluorene	5.390	166	2807	49.20	ppb	100
13) Phenanthrene	6.032	178	4042	48.38	ppb	100
14) Anthracene	6.067	178	3964	47.48	ppb	100
15) Fluoranthene	6.843	202	4380	47.91	ppb	100
16) Pyrene	6.999	202	4490	47.74	ppb	100
19) Benzo[a]anthracene	8.016	228	4353	46.00	ppb	100
20) Chrysene	8.044	228	3888	47.30	ppb	100
22) Benzo[b]fluoranthene	9.056	252	3705	44.53	ppb	100
23) Benzo(j,k)fluoranthene	9.084	252	3810	46.98	ppb	100
24) Benzo[a]pyrene	9.364	252	3494	44.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.409	276	3121	42.60	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	3227	43.48	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	3526	44.87	ppb	100

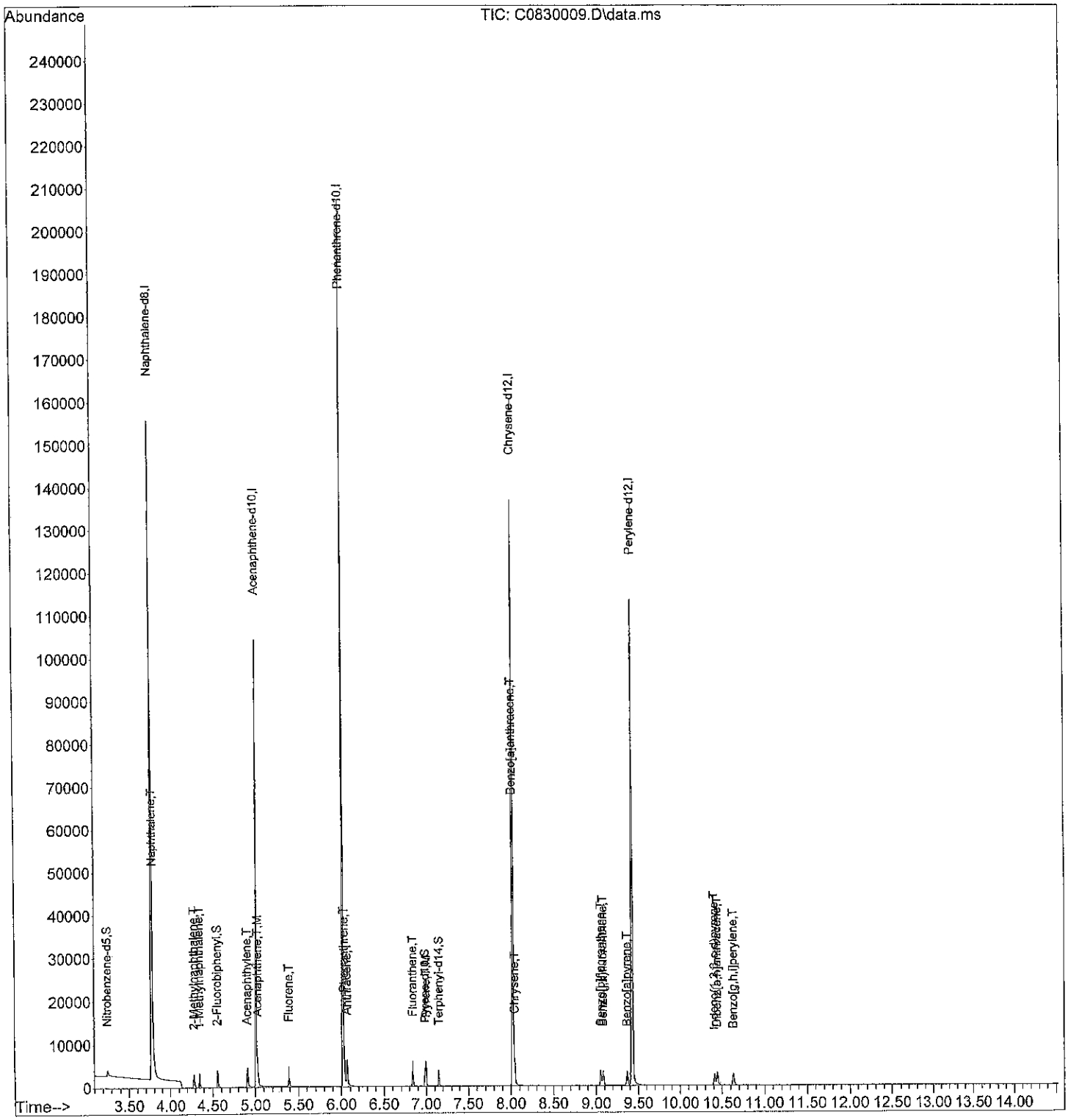
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830009.D
Acq On : 30 Aug 2018 11:45 am
Operator :
Sample : 50 PPB
Misc : SV5-047-27
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 30 12:00:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830010.D
Acq On : 30 Aug 2018 12:07 pm
Operator :
Sample : 100 PPB
Misc : SV5-047-26
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 30 12:22:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	135124	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	70294	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.020	188	127515	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	118297	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	117723	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	5045	261.57	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 26.16%			
7) 2-Fluorobiphenyl	4.556	172	5515	87.63	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 8.76%#			
11) Pyrene-d10	6.982	212	5857	94.98	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 9.50%#			
18) Terphenyl-d14	7.145	244	5188	91.97	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 9.20%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	6944	97.20	ppb	100
4) 2-Methylnaphthalene	4.287	142	4667	94.02	ppb	100
5) 1-Methylnaphthalene	4.353	142	4445	94.14	ppb	100
8) Acenaphthylene	4.905	152	7031	84.08	ppb	100
9) Acenaphthene	5.028	153	4359	84.59	ppb	100
12) Fluorene	5.390	166	5372	94.43	ppb	100
13) Phenanthrene	6.032	178	7585	91.05	ppb	100
14) Anthracene	6.067	178	7540	90.58	ppb	100
15) Fluoranthene	6.837	202	8296	91.01	ppb	100
16) Pyrene	6.994	202	8551	91.18	ppb	100
19) Benzo[a]anthracene	8.012	228	7930	89.21	ppb	100
20) Chrysene	8.044	228	7368	89.21	ppb	100
22) Benzo[b]fluoranthene	9.052	252	7170	86.07	ppb	100
23) Benzo(j,k)fluoranthene	9.079	252	7044	86.74	ppb	100
24) Benzo[a]pyrene	9.364	252	6654	84.62	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	5887	80.24	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	5930	79.80	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	6626	84.22	ppb	100

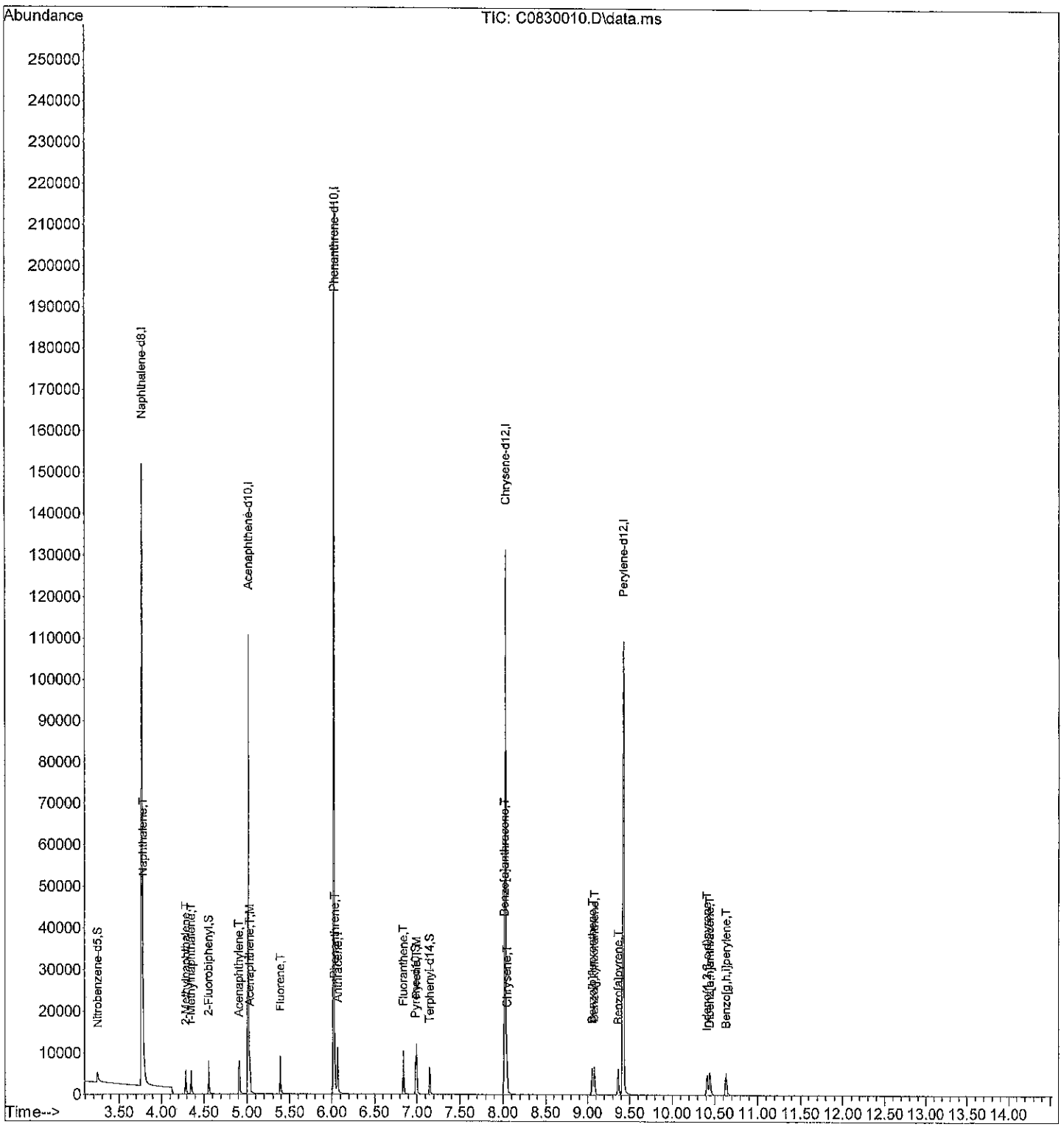
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830010.D
Acq On : 30 Aug 2018 12:07 pm
Operator :
Sample : 100 PPB
Misc : SV5-047-26
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 30 12:22:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830011.D
Acq On : 30 Aug 2018 12:29 pm
Operator :
Sample : 200 PPB
Misc : SV5-047-25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 30 12:43:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	132200	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.014	164	67339	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	125973	2000.00	ppb	-0.10
17) Chrysene-d12	8.022	240	116882	2000.00	ppb	-0.15
21) Perylene-d12	9.424	264	116674	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	16073	851.78	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 85.18%			
7) 2-Fluorobiphenyl	4.559	172	10851	179.99	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 18.00%#			
11) Pyrene-d10	6.982	212	11496	188.71	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 18.87%#			
18) Terphenyl-d14	7.150	244	10348	185.66	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 18.57%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	13762	196.90	ppb	100
4) 2-Methylnaphthalene	4.286	142	9235	190.17	ppb	100
5) 1-Methylnaphthalene	4.352	142	8690	188.12	ppb	100
8) Acenaphthylene	4.906	152	14265	178.08	ppb	100
9) Acenaphthene	5.029	153	8726	176.76	ppb	100
12) Fluorene	5.391	166	10198	181.45	ppb	100
13) Phenanthrene	6.033	178	14813	179.98	ppb	100
14) Anthracene	6.068	178	14898	181.16	ppb	100
15) Fluoranthene	6.843	202	16374	181.83	ppb	100
16) Pyrene	6.993	202	16866	182.04	ppb	100
19) Benzo[a]anthracene	8.014	228	15307	181.09	ppb	100
20) Chrysene	8.045	228	14771	181.02	ppb	100
22) Benzo[b]fluoranthene	9.054	252	13845	167.70	ppb	100
23) Benzo(j,k)fluoranthene	9.081	252	14636	181.86	ppb	100
24) Benzo[a]pyrene	9.362	252	13209	169.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	11896	163.60	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	12332	167.45	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	13262	170.08	ppb	100

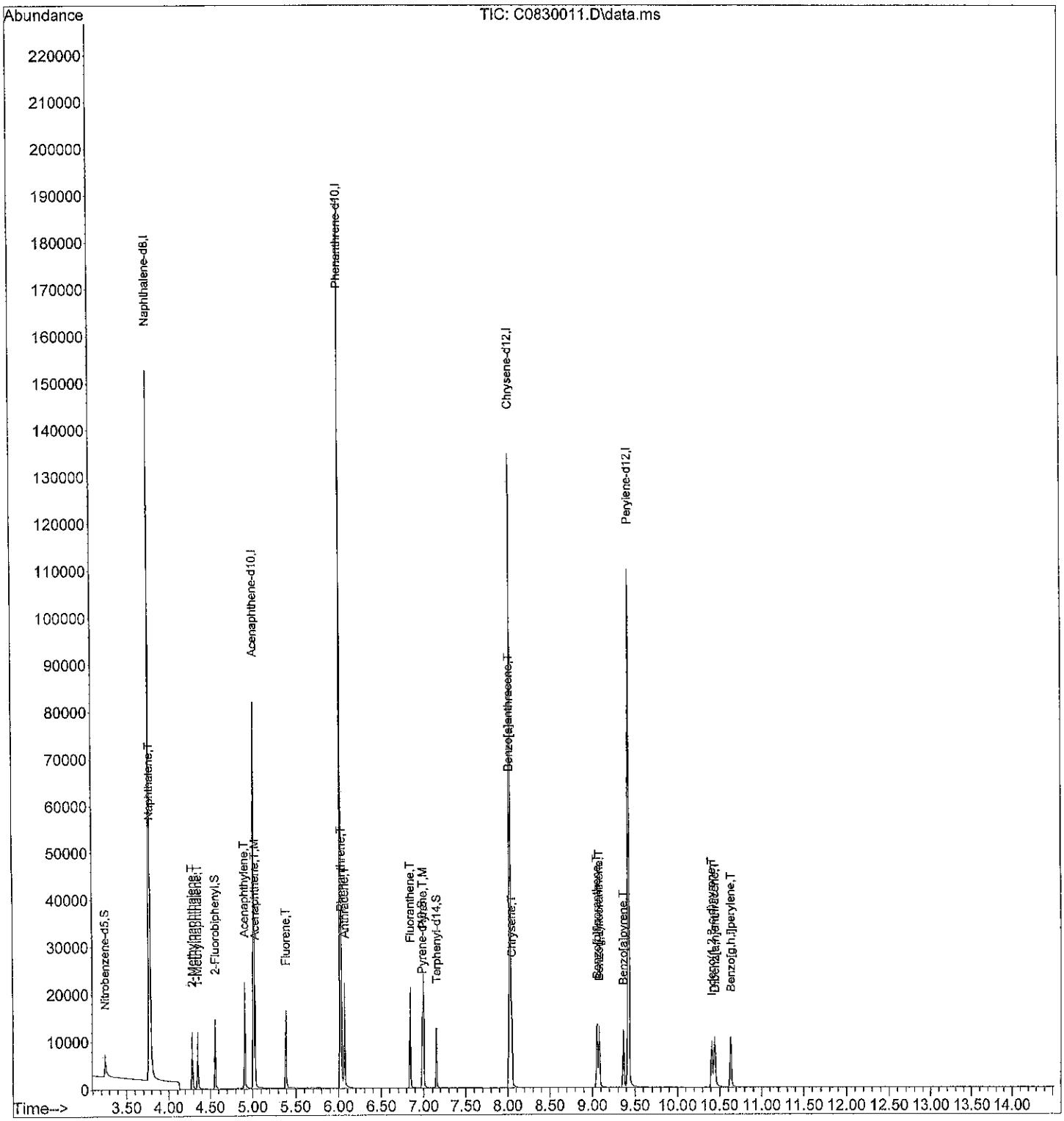
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830011.D
Acq On : 30 Aug 2018 12:29 pm
Operator :
Sample : 200 PPB
Misc : SV5-047-25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 30 12:43:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830012.D
Acq On : 30 Aug 2018 12:51 pm
Operator :
Sample : 500 PPB
Misc : SV5-047-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 30 13:05:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	130439	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	65226	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	121626	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	113679	2000.00	ppb	-0.14
21) Perylene-d12	9.423	264	112904	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	22027	1183.07	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 118.31%#			
7) 2-Fluorobiphenyl	4.556	172	26186	448.42	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 44.84%			
11) Pyrene-d10	6.982	212	28370	482.35	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 48.23%			
18) Terphenyl-d14	7.145	244	25502	470.45	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 47.04%			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	33788	489.94	ppb	100
4) 2-Methylnaphthalene	4.286	142	22400	467.49	ppb	100
5) 1-Methylnaphthalene	4.353	142	21356	468.55	ppb	100
8) Acenaphthylene	4.905	152	34044	438.77	ppb	100
9) Acenaphthene	5.029	153	21490	449.42	ppb	100
12) Fluorene	5.391	166	25138	463.26	ppb	100
13) Phenanthrene	6.032	178	35602	448.03	ppb	100
14) Anthracene	6.068	178	36505	459.77	ppb	100
15) Fluoranthene	6.837	202	39718	456.83	ppb	100
16) Pyrene	6.994	202	41312	461.83	ppb	100
19) Benzo[a]anthracene	8.012	228	36775	457.80	ppb	100
20) Chrysene	8.044	228	36399	458.63	ppb	100
22) Benzo[b]fluoranthene	9.053	252	36118	452.08	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	34331	440.82	ppb	100
24) Benzo[a]pyrene	9.365	252	33067	438.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	29897	424.90	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	30851	432.90	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	32845	435.28	ppb	100

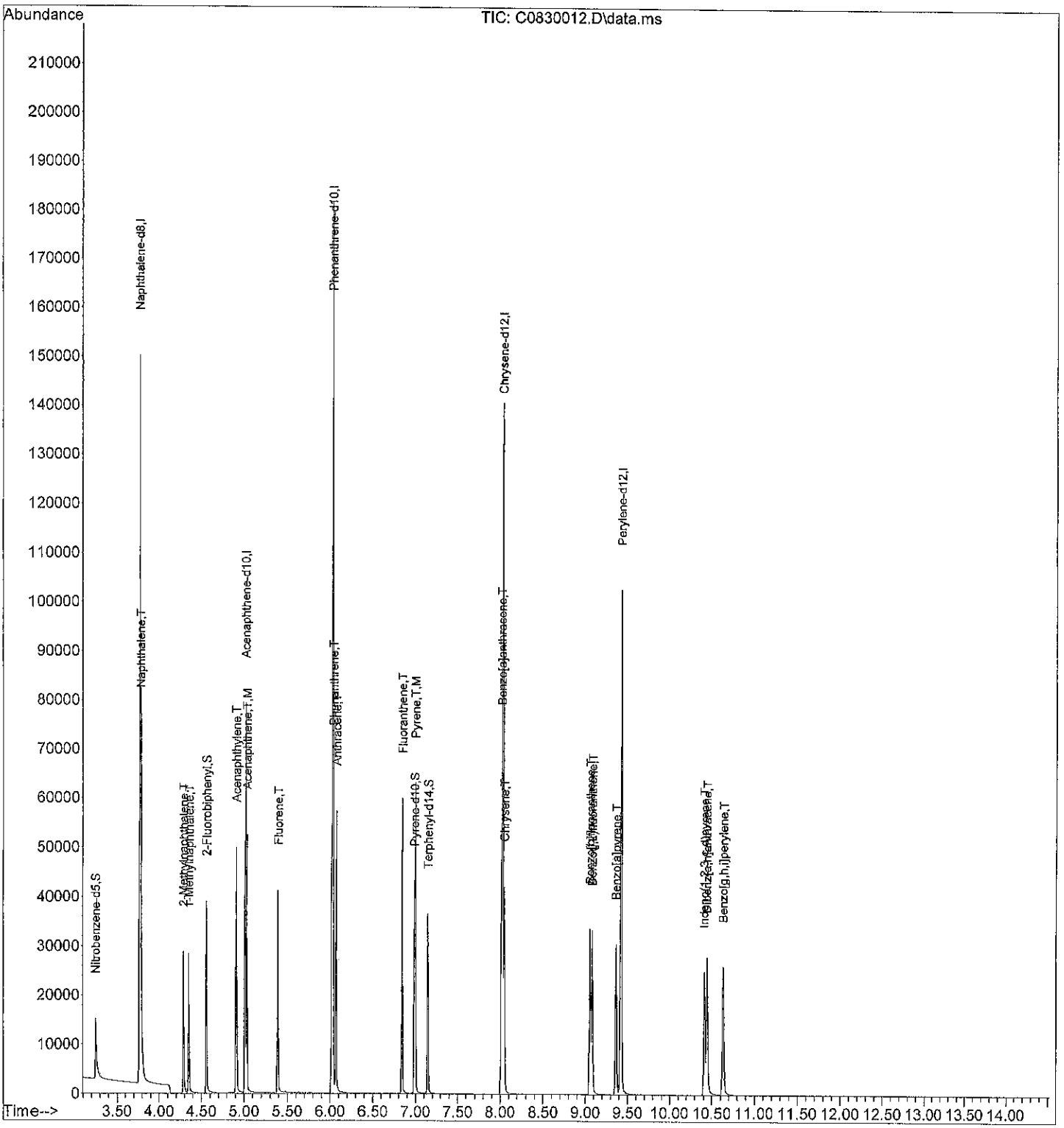
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830012.D
Acq On : 30 Aug 2018 12:51 pm
Operator :
Sample : 500 PPB
Misc : SV5-047-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 30 13:05:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830013.D
Acq On : 30 Aug 2018 1:12 pm
Operator :
Sample : 1000 PPB
Misc : SV5-047-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 30 13:27:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

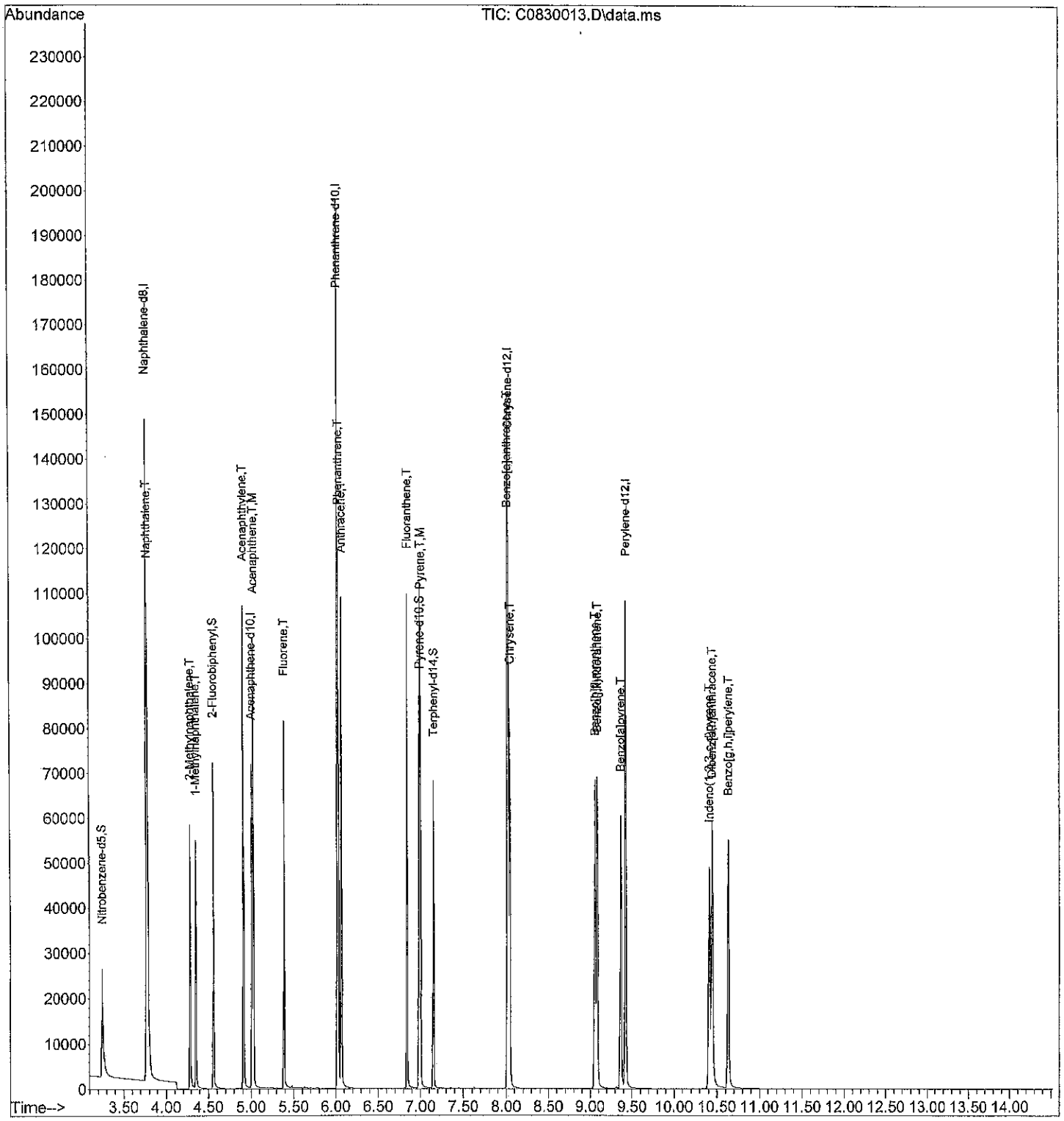
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	132708	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.006	164	66236	2000.00	ppb	-0.11
10) Phenanthrene-d10	6.018	188	125299	2000.00	ppb	-0.11
17) Chrysene-d12	8.025	240	120159	2000.00	ppb	-0.14
21) Perylene-d12	9.426	264	119904	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	21534	1136.81	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 113.68%#			
7) 2-Fluorobiphenyl	4.555	172	51176	862.99	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 86.30%			
11) Pyrene-d10	6.988	212	56678	935.40	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 93.54%			
18) Terphenyl-d14	7.150	244	52571	917.51	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 91.75%			
Target Compounds						Qvalue
3) Naphthalene	3.779	128	68555	977.08	ppb	100
4) 2-Methylnaphthalene	4.286	142	44071	904.04	ppb	100
5) 1-Methylnaphthalene	4.352	142	41504	895.03	ppb	100
8) Acenaphthylene	4.906	152	66528	844.35	ppb	100
9) Acenaphthene	5.029	153	42206	869.20	ppb	100
12) Fluorene	5.391	166	49043	877.30	ppb	100
13) Phenanthrene	6.033	178	70504	861.25	ppb	100
14) Anthracene	6.068	178	72184	882.48	ppb	100
15) Fluoranthene	6.842	202	79763	890.52	ppb	100
16) Pyrene	6.999	202	82000	889.82	ppb	100
19) Benzo[a]anthracene	8.014	228	74306	881.63	ppb	100
20) Chrysene	8.045	228	72713	866.78	ppb	100
22) Benzo[b]fluoranthene	9.055	252	71862	846.97	ppb	100
23) Benzo(j,k)fluoranthene	9.083	252	72961	882.15	ppb	100
24) Benzo[a]pyrene	9.364	252	68252	852.16	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.409	276	61324	820.66	ppb	100
26) Dibenz[a,h]anthracene	10.444	278	64245	848.85	ppb	100
27) Benzo[g,h,i]perylene	10.635	276	67895	847.26	ppb	100

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

ZT
8-30-18

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830013.D
Acq On : 30 Aug 2018 1:12 pm
Operator :
Sample : 1000 PPB
Misc : SV5-047-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 30 13:27:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830014.D
Acq On : 30 Aug 2018 1:34 pm
Operator :
Sample : 5000 PPB
Misc : SV5-047-22
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 30 13:49:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

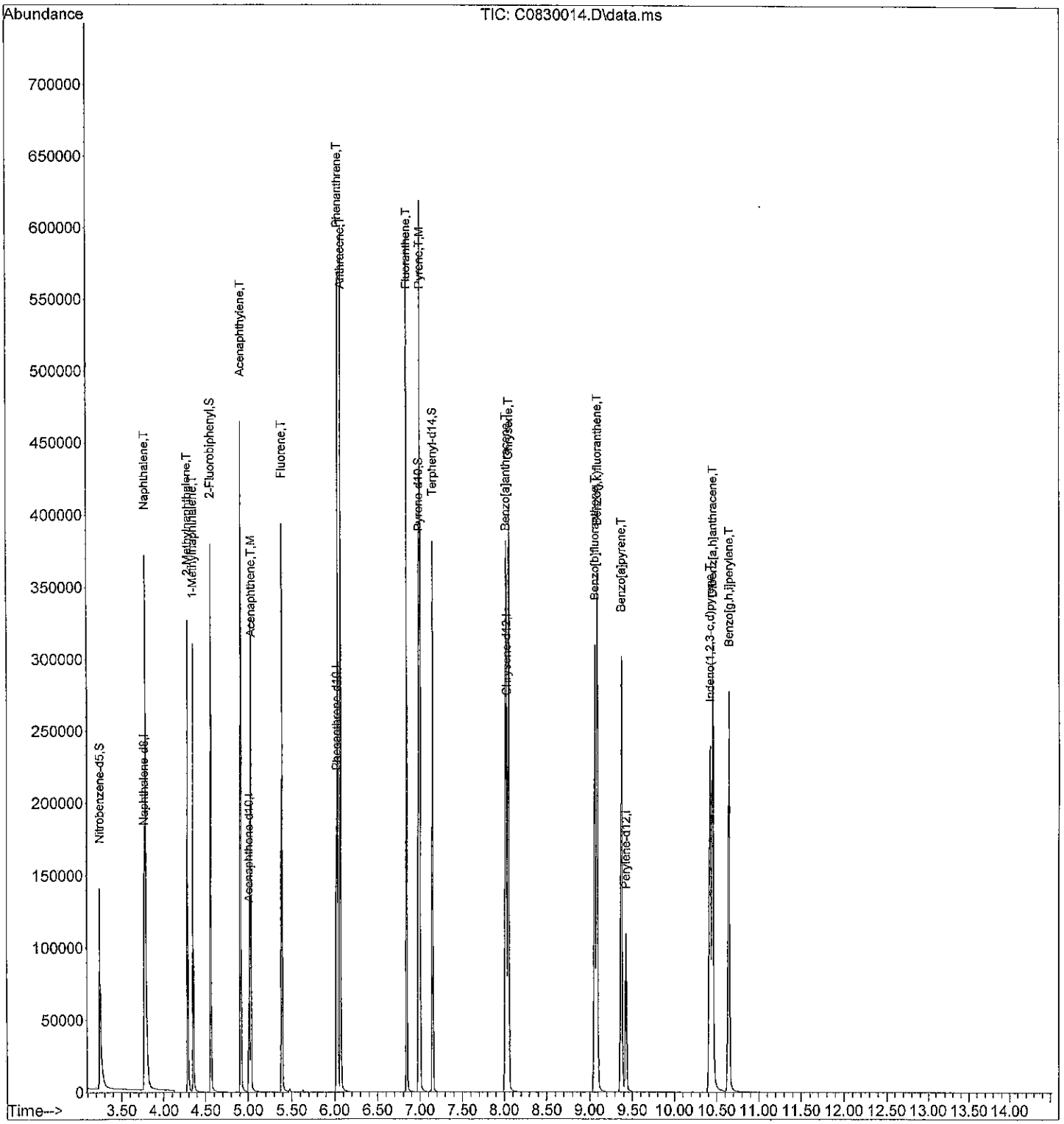
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	131768	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	66604	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	125823	2000.00	ppb	-0.10
17) Chrysene-d12	8.028	240	121605	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	120485	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.246	82	103211	5487.55	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 548.76%#			
7) 2-Fluorobiphenyl	4.559	172	277320	4650.68	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 465.07%#			
11) Pyrene-d10	6.988	212	283127	4653.19	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 465.32%#			
18) Terphenyl-d14	7.151	244	252328	4351.44	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 435.14%#			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	332467	4772.28	ppb	100
4) 2-Methylnaphthalene	4.286	142	223347	4614.25	ppb	100
5) 1-Methylnaphthalene	4.353	142	207101	4497.97	ppb	100
8) Acenaphthylene	4.912	152	329663	4160.87	ppb	100
9) Acenaphthene	5.035	153	202518	4147.67	ppb	100
12) Fluorene	5.390	166	232399	4139.92	ppb	100
13) Phenanthrene	6.036	178	347300	4224.80	ppb	100
14) Anthracene	6.071	178	360262	4386.03	ppb	100
15) Fluoranthene	6.843	202	387985	4313.64	ppb	100
16) Pyrene	7.000	202	404617	4372.40	ppb	100
19) Benzo[a]anthracene	8.016	228	377967	4459.92	ppb	100
20) Chrysene	8.051	228	359123	4230.05	ppb	100
22) Benzo[b]fluoranthene	9.064	252	369064	4328.86	ppb	100
23) Benzo(j,k)fluoranthene	9.091	252	368166	4429.91	ppb	100
24) Benzo[a]pyrene	9.372	252	355926	4422.47	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.425	276	329785	4392.02	ppb	100
26) Dibenz[a,h]anthracene	10.456	278	339612	4465.53	ppb	100
27) Benzo[g,h,i]perylene	10.651	276	345182	4286.76	ppb	100

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

ZT
8-30-18

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830014.D
Acq On : 30 Aug 2018 1:34 pm
Operator :
Sample : 5000 PPB
Misc : SV5-047-22
ALS Vial : 14 Sample Multiplier: 1

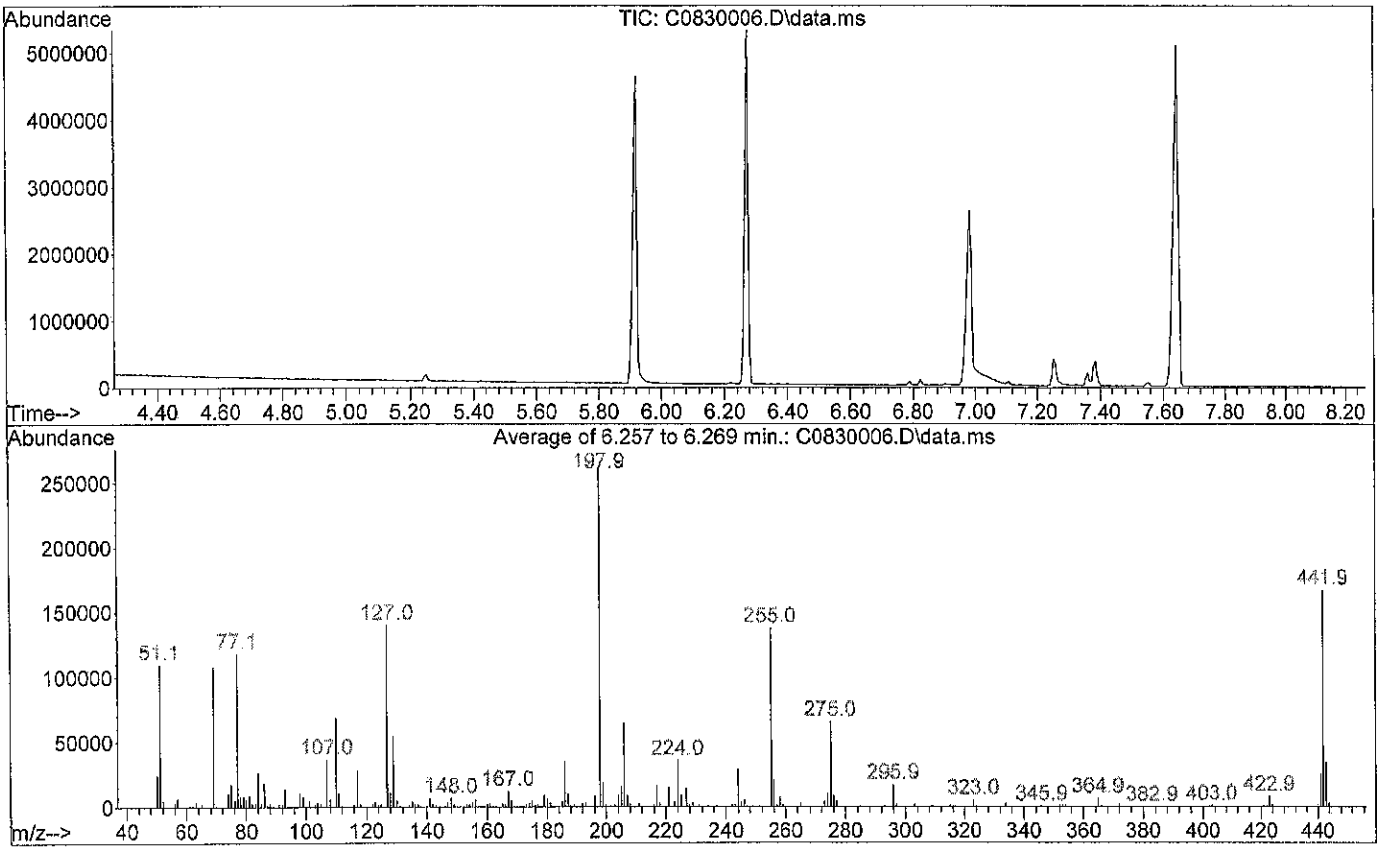
Quant Time: Aug 30 13:49:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Wed Aug 22 14:19:05 2018



Spectrum Information: Average of 6.257 to 6.269 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	41.9	110317	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.3	108584	PASS
70	69	0.00	2	0.8	877	PASS
127	198	10	80	53.4	140594	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	263077	PASS
199	198	5	9	7.0	18361	PASS
275	198	10	60	25.1	66002	PASS
365	198	0.10	100	2.7	7080	PASS
441	443	0.01	100	73.9	25438	PASS
442	198	40	110	63.8	167853	PASS
443	442	15	24	20.5	34413	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 30 10:55:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

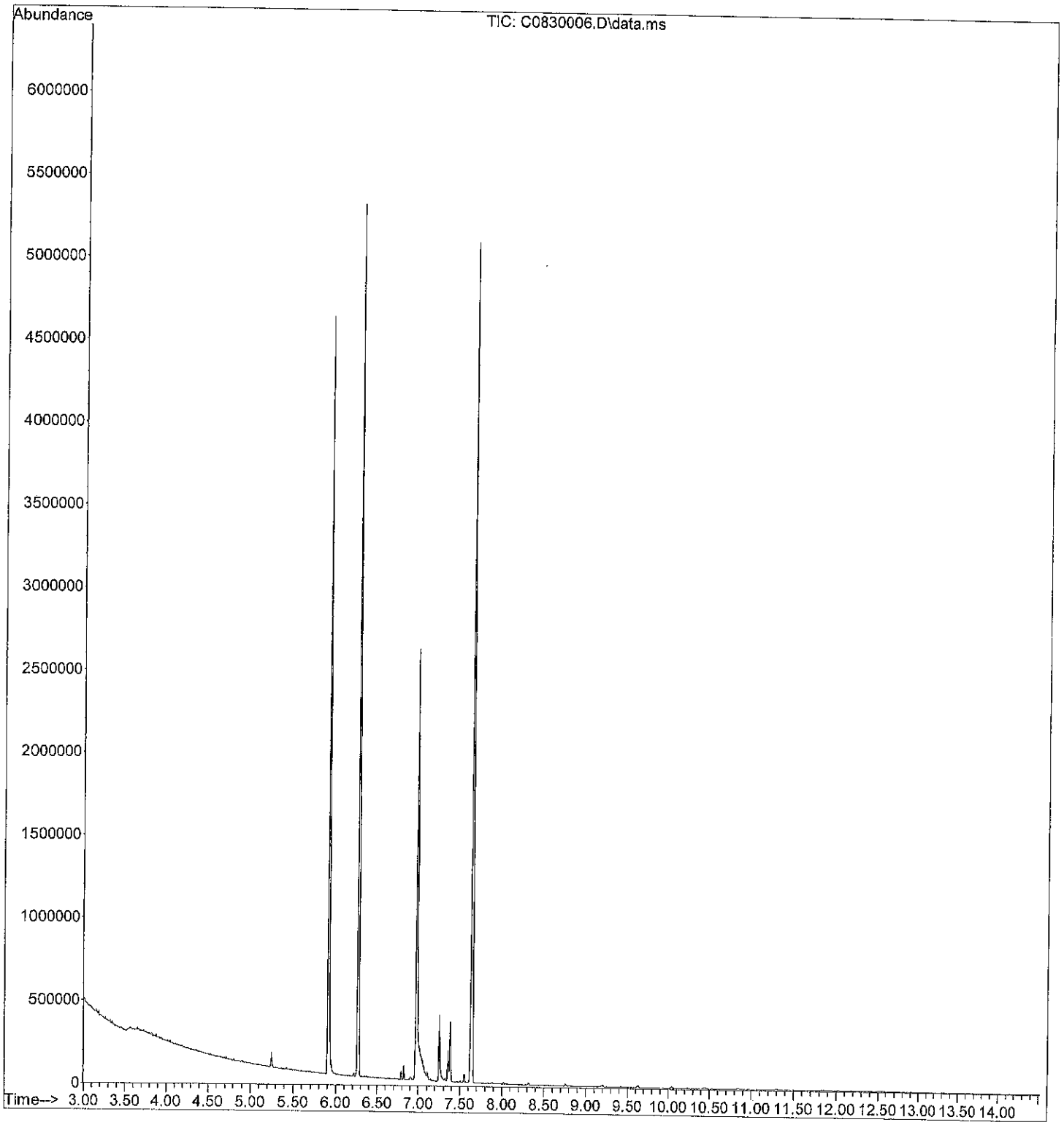
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	0.000	136	0	0.00 ppb	-4.61
6) Acenaphthene-d10	0.000	164	0	0.00 ppb	-5.84
10) Phenanthrene-d10	0.000	188	0	0.00 ppb	-6.87
17) Chrysene-d12	0.000	240	0	0.00 ppb	-9.11
21) Perylene-d12	0.000	264	0	0.00 ppb	-10.62
System Monitoring Compounds					
2) Nitrobenzene-d5	4.091	82	482	0.00 ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#	
7) 2-Fluorobiphenyl	0.000	172	0	0.00 ppb	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.00%#	
11) Pyrene-d10	0.000	212	0	0.00 ppb	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.00%#	
18) Terphenyl-d14	0.000	244	0	0.00 ppb	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.00%#	
Target Compounds					Qvalue
3) Naphthalene	0.000		0	N.D.	
4) 2-Methylnaphthalene	0.000		0	N.D.	
5) 1-Methylnaphthalene	0.000		0	N.D.	
8) Acenaphthylene	0.000		0	N.D.	
9) Acenaphthene	5.920	153	1484	Below MDL	
12) Fluorene	6.274	166	3428	Below MDL	
13) Phenanthrene	0.000		0	N.D.	
14) Anthracene	0.000		0	N.D.	
15) Fluoranthene	7.646	202	22700	Below MDL	
16) Pyrene	0.000		0	N.D.	
19) Benzo[a]anthracene	0.000		0	N.D.	
20) Chrysene	0.000		0	N.D.	
22) Benzo[b]fluoranthene	0.000		0	N.D.	
23) Benzo(j,k)fluoranthene	0.000		0	N.D.	
24) Benzo[a]pyrene	0.000		0	N.D.	
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.	
26) Dibenz[a,h]anthracene	0.000		0	N.D.	
27) Benzo[g,h,i]perylene	0.000		0	N.D.	
28) Pentachlorophenol	0.000		0	N.D.	
29) Benzidine	0.000		0	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

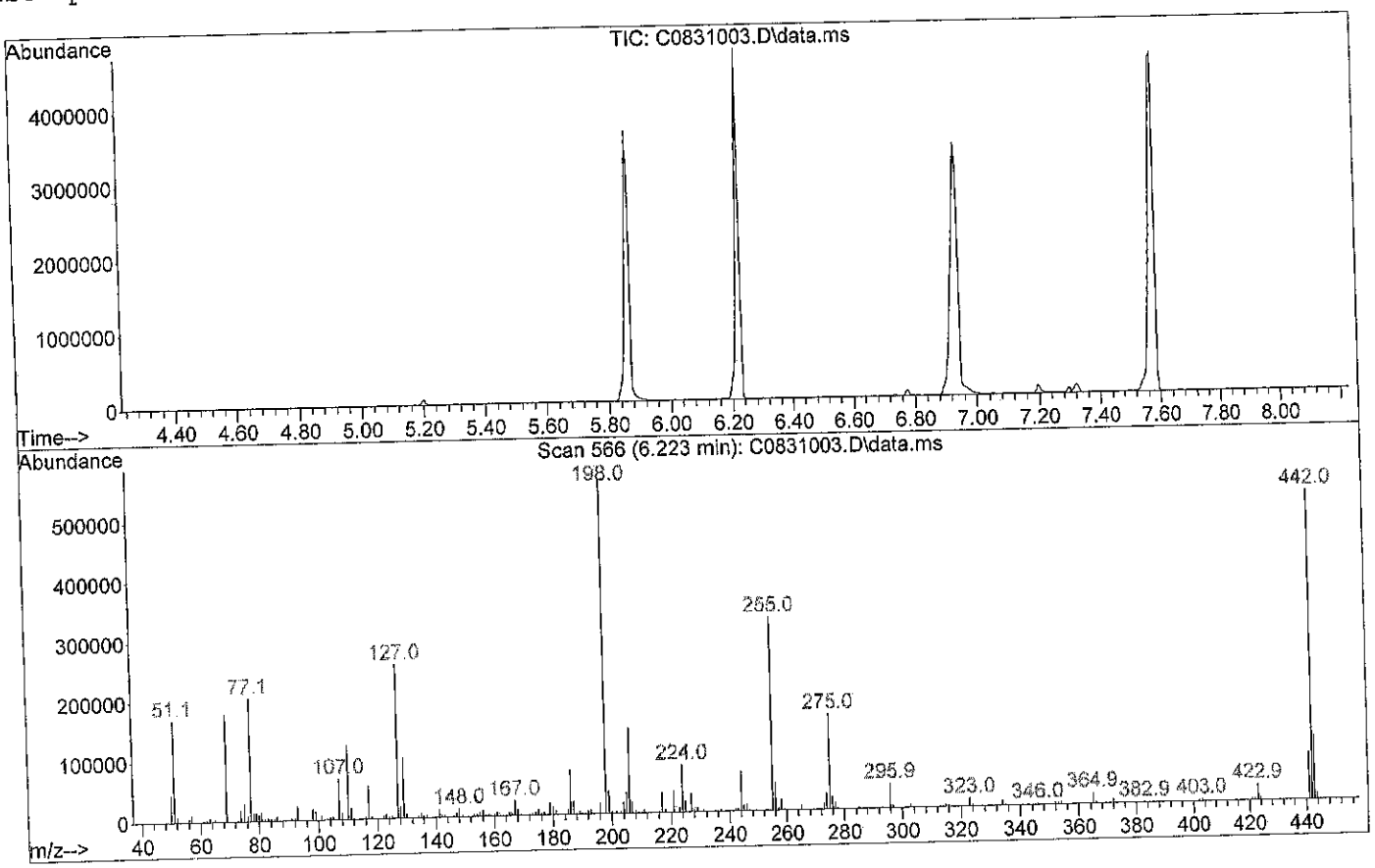
Quant Time: Aug 30 10:55:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C180831\
Data File : C0831003.D
Acq On : 31 Aug 2018 9:10 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 3 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Title : PAH'S BY SIMS
Last Update : Wed May 02 13:33:26 2012



Spectrum Information: Scan 566

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	30.3	170304	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	32.2	180928	PASS
70	69	0.00	2	0.6	1047	PASS
127	198	25	75	45.9	257664	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	561792	PASS
199	198	5	9	6.8	38080	PASS
275	198	10	30	28.6	160768	PASS
365	198	0.75	100	3.4	19104	PASS
441	443	0.01	100	72.9	78632	PASS
442	198	40	110	92.6	520128	PASS
443	442	15	24	20.7	107920	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831003.D
Acq On : 31 Aug 2018 9:10 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 09:25:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

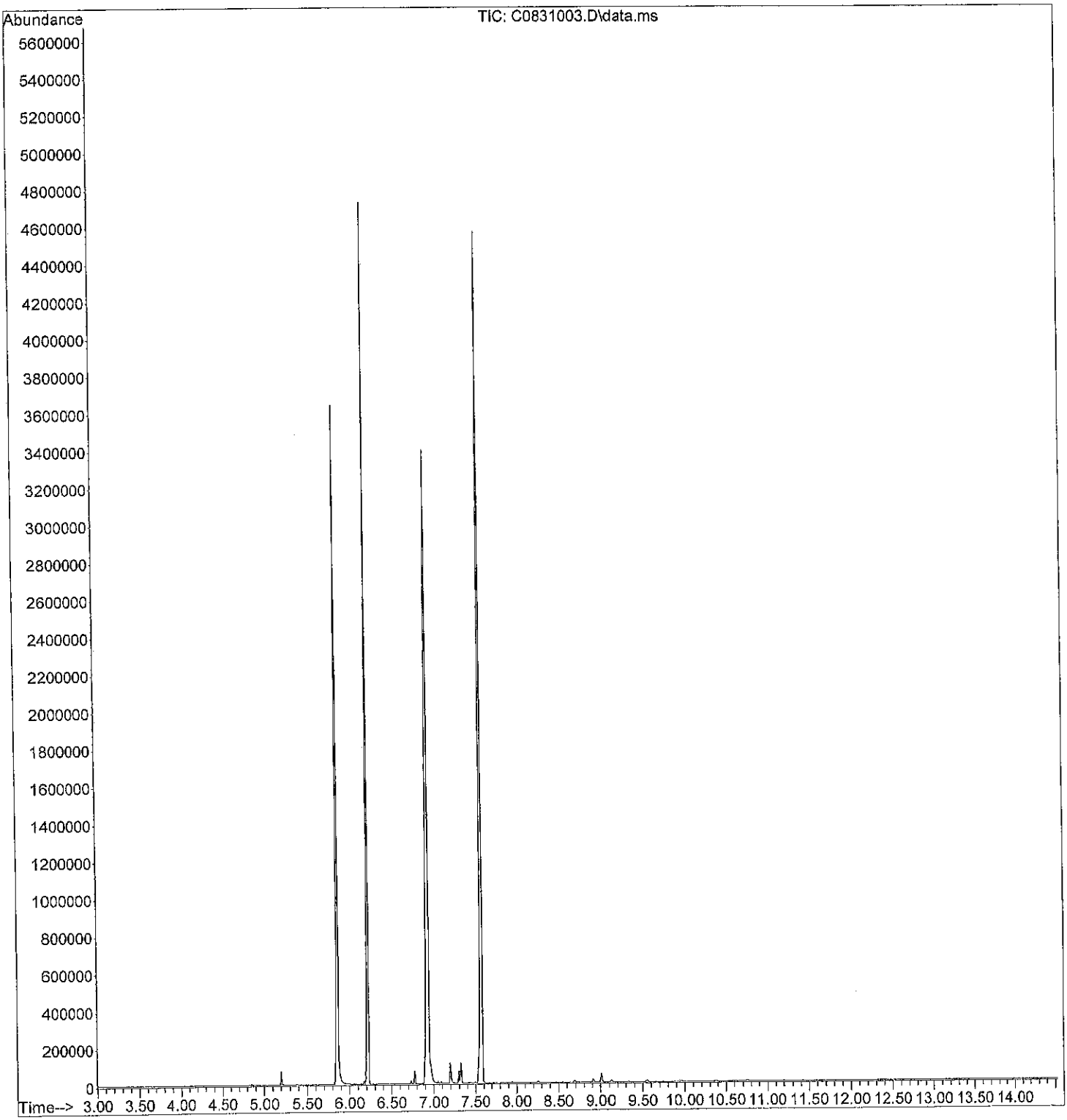
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	0.000	136	0	0.00 ppb	-4.61
6) Acenaphthene-d10	0.000	164	0	0.00 ppb	-5.84
10) Phenanthrene-d10	0.000	188	0	0.00 ppb	-6.87
17) Chrysene-d12	0.000	240	0	0.00 ppb	-9.11
21) Perylene-d12	0.000	264	0	0.00 ppb	-10.62
System Monitoring Compounds					
2) Nitrobenzene-d5	0.000	82	0	0.00 ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#	
7) 2-Fluorobiphenyl	0.000	172	0	0.00 ppb	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.00%#	
11) Pyrene-d10	0.000	212	0	0.00 ppb	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.00%#	
18) Terphenyl-d14	0.000	244	0	0.00 ppb	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.00%#	
Target Compounds					Qvalue
3) Naphthalene	0.000		0	N.D.	
4) 2-Methylnaphthalene	0.000		0	N.D.	
5) 1-Methylnaphthalene	0.000		0	N.D.	
8) Acenaphthylene	0.000		0	N.D.	
9) Acenaphthene	5.863	153	1558	Below MDL	
12) Fluorene	6.223	166	3089	Below MDL	
13) Phenanthrene	0.000		0	N.D.	
14) Anthracene	0.000		0	N.D.	
15) Fluoranthene	7.583	202	23658	Below MDL	
16) Pyrene	0.000		0	N.D.	
19) Benzo[a]anthracene	0.000		0	N.D.	
20) Chrysene	0.000		0	N.D.	
22) Benzo[b]fluoranthene	0.000		0	N.D.	
23) Benzo(j,k)fluoranthene	0.000		0	N.D.	
24) Benzo[a]pyrene	0.000		0	N.D.	
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.	
26) Dibenz[a,h]anthracene	0.000		0	N.D.	
27) Benzo[g,h,i]perylene	0.000		0	N.D.	
28) Pentachlorophenol	0.000		0	N.D.	
29) Benzidine	0.000		0	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180831\
Data File : C0831003.D
Acq On : 31 Aug 2018 9:10 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 09:25:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration



GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C180830\C0830006.D
Tune Time : 30 Aug 2018 10:40 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C180830\C0830015.D

				(PRY)		(NPT)	(ACE)	(PHN)	
						121192	60983	114380	
						(CRY)	(PRY)		
						108137	107919		
File	Sample	Surrogate Recovery %				Internal Standard Responses			
C0830007.D									
	10 PPB	0*	1*	1*	1*	143494	71270	131245	
				119153		119411			
C0830008.D									
	20 PPB	3*	2*	2*	2*	143234	68528	130385	
				119131		118529			
C0830009.D									
	50 PPB	52	5*	5*	5*	138246	69005	127889	
				117749		117571			
C0830010.D									
	100 PPB	26	9*	9*	9*	135124	70294	127515	
				118297		117723			
C0830011.D									
	200 PPB	85	18*	19*	19*	132200	67339	125973	
				116882		116674			
C0830012.D									
	500 PPB	118*	45	48	47	130439	65226	121626	
				113679		112904			
C0830013.D									
	1000 PPB	114*	86	94	92	132708	66236	125299	
				120159		119904			
C0830014.D									
	5000 PPB	549*	465*	465*	435*	131768	66604	125823	
				121605		120485			
C0830015.D									
	PAH ICV	39	56	52	51	121192	60983	114380	
				108137		107919			
C0830016.D									
	MB0828S1	53	103*	103	101*	107959	53726	101445	
				95211		95310			
C0830017.D									
	MB0830W1	6*	83	88	120*	106146	54709	101553	
				93775		92888			
C0830018.D									
	MB0830W1 R	5*	84	87	122*	108426	55177	103760	
				95224		94472			
C0830019.D									
	SB0830W1	2*	51	84	83	109744	57343	105297	
				97562		96490			
C0830020.D									

SB0830W1 D	4*	87	100	99*	108891	54183	101848
			93880		93749		
C0830021.D							
08-326-03	4*	67	84	87	109039	54476	104563
			95999		93580		
C0830022.D							
08-326-03	7*	82	88	97*	107315	55704	105332
			95594		92082		
C0830023.D							
08-326-03	6*	77	89	100*	106899	56517	104342
			94834		91698		
C0830024.D							
08-309-01	4*	53	85	87	100263	50866	96942
			90293		90810		
C0830025.D							
08-309-02	4*	42	86	83	101871	88226	101787
			93978		93939		
C0830026.D							
08-309-03	5*	43	94	90	106302	97373	106634
			97950		99247		
C0830027.D							
08-326-01	6*	30	96	100*	113703	132308*	111615
			98196		98039		
C0830028.D							
08-326-02	5*	69	86	95*	105371	58111	109904
			97201		94417		
C0830029.D							
08-326-05	7*	70	86	87	100873	54644	104033
			94541		93609		
C0830030.D							
08-348-01	7*	74	96	85	106995	60990	111661
			109776		113052		
C0830031.D							
08-348-02	6*	70	89	91	102577	53273	104991
			92703		93260		
C0830032.D							
08-348-03	5*	69	88	94*	117415	66500	114526
			93117		91977		
C0830033.D							
08-348-04	7*	76	93	95*	102653	55318	106363
			96143		95202		
C0830034.D							
08-348-05	6*	59	83	84	103304	56299	107518
			97538		97305		
C0830035.D							
08-326-04	7*	50	72	88	91338	75692	95256
			84384		82318		

(fails) - fails 12hr time check * - fails criteria

Created: Fri Aug 31 14:46:26 2018 Corey

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C180831\C0831003.D
Tune Time : 31 Aug 2018 9:10 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C180831\C0831004.D

	(PRY)	(NPT)	(ACE)	(PHN)
		118065	58915	115124
		(CRY)	(PRY)	
		107572	109008	

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0831005.D								
	08-326-01	1*	7*	10*	11*	110820	54898	106122
			101686		103189			
C0831006.D								
	08-348-01	1*	8*	9*	9*	112590	56018	105686
			98659		102074			
C0831007.D								
	08-344-01	945*	3147*	248*	2931*	106192	55659	101190
			93767		92871			
C0831008.D								
	08-348-03	0*	1*	1*	1*	119851	61774	121221
			112410		114502			
C0831009.D								
	08-348-03	0*	2*	2*	2*	108716	54444	106993
			100535		102651			
C0831010.D								
	08-292-02	390*	1300*	88	1152*	115742	59910	111264
			101669		101424			
C0831011.D								
	MB0831W1	1082*	3220*	255*	3009*	105466	56640	102034
			94451		94962			
C0831012.D								
	08-344-01	1033*	3415*	246*	2737*	113906	59946	111161
			100587		101411			
C0831013.D								
	08-324-01	1167*	3701*	277*	3159*	101475	54208	97949
			89052		88935			
C0831014.D								
	08-324-02	663*	2545*	76	2178*	108764	57188	106522
			97377		100182			
C0831015.D								
	08-143-02	6*	7*	11*	9*	123541	64258	114445
			107463		113804			

(fails) - fails 12hr time check * - fails criteria

Created: Sat Sep 01 12:02:51 2018 Corey

Sequence Name: C:\msdchem\1\sequence\C180830.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\C180830\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	C0830001 SIMSCAN DFTPP
2)	Sample 2	C0830002 CSIM0822 PAH CCV0830-1
3)	Sample 3	C0830003 CSIM0822 SB0830W1
4)	Sample 4	C0830004 CSIM0822 SBD0830W1
5)	Sample 5	C0830005 CSIM0822 PAH CCV0830-2
6)	Sample 6	C0830006 SIMSCAN DFTPP
7)	Sample 7	C0830007 CSIM0830 10 PPB
8)	Sample 8	C0830008 CSIM0830 20 PPB
9)	Sample 9	C0830009 CSIM0830 50 PPB
10)	Sample 10	C0830010 CSIM0830 100 PPB
11)	Sample 11	C0830011 CSIM0830 200 PPB
12)	Sample 12	C0830012 CSIM0830 500 PPB
13)	Sample 13	C0830013 CSIM0830 1000 PPB
14)	Sample 14	C0830014 CSIM0830 5000 PPB
15)	Sample 15	C0830015 CSIM0830 PAH ICV
16)	Sample 16	C0830016 CSIM0830 MB0828S1
17)	Sample 17	C0830017 CSIM0830 MB0830W1
18)	Sample 18	C0830018 CSIM0830 MB0830W1 RR
19)	Sample 19	C0830019 CSIM0830 SB0830W1
20)	Sample 20	C0830020 CSIM0830 SB0830W1 DUP
21)	Sample 21	C0830021 CSIM0830 08-326-03
22)	Sample 22	C0830022 CSIM0830 08-326-03 MS
23)	Sample 23	C0830023 CSIM0830 08-326-03 MSD
24)	Sample 24	C0830024 CSIM0830 08-309-01
25)	Sample 25	C0830025 CSIM0830 08-309-02
26)	Sample 26	C0830026 CSIM0830 08-309-03
27)	Sample 27	C0830027 CSIM0830 08-326-01
28)	Sample 28	C0830028 CSIM0830 08-326-02
29)	Sample 29	C0830029 CSIM0830 08-326-05
30)	Sample 30	C0830030 CSIM0830 08-348-01
31)	Sample 31	C0830031 CSIM0830 08-348-02
32)	Sample 32	C0830032 CSIM0830 08-348-03
33)	Sample 33	C0830033 CSIM0830 08-348-04
34)	Sample 34	C0830034 CSIM0830 08-348-05
35)	Sample 35	C0830035 CSIM0830 08-326-04
36)	Sample 36	C0830036 CSIM0830 BLANK TEST
37)	Sample 37	C0830037 CSIM0830 BLANK TEST
38)	Sample 38	C0830038 CSIM0830 BLANK TEST
39)	Sample 39	C0830039 CSIM0830 BLANK TEST
40)	Sample 40	C0830040 CSIM0830 BLANK TEST
41)	Sample 41	C0830041 CSIM0830 BLANK TEST
42)	Sample 42	C0830042 CSIM0830 BLANK TEST
43)	Sample 43	C0830043 CSIM0830 BLANK TEST

	Line	Type	Vial	DataFile	Method	Sample Name
44)		Sample	44	C0830044	CSIM0830	BLANK TEST
45)		Sample	45	C0830045	CSIM0830	BLANK TEST
46)		Sample	46	C0830046	CSIM0830	CCV TEST

Sequence Name: C:\msdchem\1\sequence\C180831.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\C180831\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	C0831001 SIMSCAN DFTPP
2)	Sample 2	C0831002 CSIM0830 PAH CCV0831-1
3)	Sample 3	C0831003 SIMSCAN DFTPP
4)	Sample 4	C0831004 CSIM0830 PAH CCV0831-2
5)	Sample 5	C0831005 CSIM0830 08-326-01 10X
6)	Sample 6	C0831006 CSIM0830 08-348-01 10X
7)	Sample 7	C0831007 CSIM0830 08-344-01
8)	Sample 8	C0831008 CSIM0830 08-348-03 100X
9)	Sample 9	C0831009 CSIM0830 08-348-03 50X
10)	Sample 10	C0831010 CSIM0830 08-292-02 5X
11)	Sample 11	C0831011 CSIM0830 MB0831W1
12)	Sample 12	C0831012 CSIM0830 08-344-01
13)	Sample 13	C0831013 CSIM0830 08-324-01
14)	Sample 14	C0831014 CSIM0830 08-324-02
15)	Sample 15	C0831015 CSIM0830 08-143-02 5X
16)	Sample 16	C0831016 CSIM0830 M

OnSite Environmental Inc.

EPA 8270 EXTRACTION LOG SHEET

Date Extracted: 8/30/18 Time Ext. _____ am/pm

Surrogate Std. ID: SVS-050-23

Analysis: PAH

Spike Std. ID: SVS-050-02

Matrix: H_2O

OSE TRAVELER #	pH	SAMPLE W/V	INTER VOLUME	SAMPLE FIN VOL	AMT SUR	AMT SPIKE	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
MB 0830w1	<2	1000mL	50mL	1mL	1mL	—	No	TL	
SB 0830w1						1mL			
SBD 0830w1						"			
08-309-01c		1571-515				"			
02c		1583-598				"			
03c		1568-585				"			
08-326-01a		1580-587				"			
02b		1585-589				"			
03c		1575-619				"			
03b MSD		1580-649				1mL			
03a MS		1564-621				"			
04b		1571-572				"			
05b		1575-538				"			
08-342-01e		1571-627				"			
02e		1576-609				"			
03e		1580-618				"			
04e		1572-616				"			
05e		1570-601				"			
06e		1581-559				"			
08-348-01b		1580-647				"			
02b		1578-592				"			
03b		1574-571				"			
04b		1581-601				"			
05b		1580-581				"			

Clean-up (L)Alumina

Work continued from Page										
Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
BNA CCV	SV501901	SV5018 19/12	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	12-14-17
1,4 Dioxane	SV501902	SV417401	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SV501903	SV501009	10 ppm	10 ul	200 ul	500 ppb			
PAH CCV	SV501904	SV501009	10 ppm	1		1			12-15-17
BNA CCV	SV501905	SV5018 19/12	200 ppm	20/20 ul		20 ppm			1
PAH CCV	SV501906	SV501009	10 ppm	10 ul		500 ppb			12-19-17
PAH CCV	SV501907	SV501009	1	1		1			12-20-17
BNA CCV	SV501908	SV5018 19/12	200 ppm	20/20 ul		20 ppm			1
PAH CCV	SV501909	SV501009	10 ppm	10 ul		500 ppb			12-21-17
PAH CCV	SV501910	SV501009	10 ppm	10 ul		500 ppb			12-28-17
PAH CCV	SV501911	SV501009	10 ppm	10 ul		500 ppb			12-29-17
DFTPP	SV501912	SV420404	1000 ppm	50 ul	1.0 mL	50 ppm		ZT	1-2-18
Cal Mix #5	SV501913	31995 Recieved 2/24/17 8270 Calibration Mix #5, Revised Lot# A0121340 Expire: 08/2022 Store: 10°C or colder 1 mL ZT 2000 µg/mL each in Methylene Chloride RESTEK Sonication required. Mix is photosensitive.						ZT	1-2-18
PAH Stock	SV501914	SV501903	2000 ppm	1.0 mL	20 mL	100 ppm	MeCl2	ZT	1-2-18
PAH Matrix Spike	SV501915	SV501914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone		
PAH CCV	SV501916	SV501009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	1-2-18
BNA CCV	SV501917	SV5018 19/12	200 ppm	20/20 ul		20 ppm			
BNA CCV	SV501918	SV5018 19/12	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	01-3-18
PAH CCV	SV501919	SV501009	10 ppm	10 ul	200 ul	500 ppb			1-3-18
PAH CCV	SV501920	SV501009	10 ppm						1-4-18
PAH CCV	SV501921	SV501009	10 ppm						1-5-18
PAH ICV	SV501922	SV501010	10 ppm						1
PAH CCV	SV501923	SV501009	10 ppm						11-8-18
PAH CCV	SV501924								
PAH CCV	SV501925								11-9-18
PAH CCV	SV501926								11-10-18
BNA CCV	SV501927	SV5018 19/12	200 ppm	20/20 ul	200 ul	20 ppm			1

Work continued to Page

SIGNATURE DATE

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Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
BNA 60	SV502001	SV5018 10/12	200 ppm	60/60 ul	200 ul	60 ppm	MeCl2	ZT	1-10-18
50	02			50/50		50			
35	03			35/35		35			
20	04			40/40	400 ul	20			
10	05			10/10	200 ul	10			
5	06	SV502004	20 ppm	50		5			
2	07			20		2			
1	08			10		1			
BNA ICV	SV502009	SV5 009-17 0075	200 ppm	20/20		20			
BNA CCV	SV502010	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm			1-11-18
BNA CCV	SV502011	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm			1-15-18
PAH CCV	SV502012	SV501009	10 ppm	10 ul	200 ul	500 ppb			1
PAH CCV	SV502013	SV501009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	1-16-18
BNA CCV	SV502014	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm	1	1	1
8270 Surr. Stock	SV502015							ZT	1-17-18
8270 Surr.	SV502016	SV502015	4000 ppm	2 mL	100 mL	80 ppm	Acetone	ZT	1-17-18
PAH INST.	SV502017	SV501719	4000 ppm	40 ul	4 mL	40 ppm	MeCl2	ZT	1
PAH ICV	SV502018	SV501010	10 ppm	10 ul	200 ul	500 ppb	MeCl2	1	1
BNA CCV	SV502019	SV5018 10/12	200 ppm	20/20 ul	200 ul	20 ppm	1		
Revised B/N Surr.	SV502020							ZT	1-17-18
PAH MDL Surr.	SV502021	SV502020	1000 ppm	5 ul	10 mL	0.5 ppm	Acetone	ZT	1-17-18

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280

Signal Word: Warning

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280

Signal Word: Warning

31887
Revised B/N Surrogate Mix
Lot# A0124675
Expire: 01/2023 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Sonication required. Mix is photosensitive

Recieved 9-21-17

Work continued to Page

SIGNATURE DATE

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ANALYTE	LAB ID	STOCK ID	STOCK CONC.	STOCK VOL.	FINAL VOL.	FINAL CONC.	SOLVENT	ANALYST	DATE
Cal Mix #5 PAH	SV502301	31995 8270 Calibration Mix #5, Revised Lot# A0122625 Expire: 10/2022 Store: 10°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK Sonication required. Mix is photosensitive. Recieved 2-24-17 ZT						ZT	2-2-18
PAH CCV Mix	SV502302	SV502301	2000 ppm	50 µl	10 mL	10 ppm	$MeCl_2$	ZT	2-2-18
		SV502020	1000 ppm	100 µl	〃	〃	〃	〃	〃
PAH INST.	SV502303	SV501719	4000 ppm	40 µl	4 mL	40 ppm	$MeCl_2$	ZT	〃
PAH Ical									
5000	SV502304	SV502302	10 ppm	500 µl	10 mL	5000 ppb	$MeCl_2$	ZT	2-2-18
1000	05	〃	〃	100	〃	1000	〃	〃	〃
500	06	〃	〃	50	〃	500	〃	〃	〃
200	07	〃	〃	20	〃	200	〃	〃	〃
100	08	〃	〃	10	〃	100	〃	〃	〃
50	09	SV502305	1000 ppb	50	〃	50	〃	〃	〃
20	10	〃	〃	20	〃	20	〃	〃	〃
10	11	〃	〃	10	〃	10	〃	〃	〃
PAH ICV	SV502312	SV501010	10 ppm	10	200 µl	500	〃	〃	〃
PAH ICV	SV502313	SV501010	〃	〃	〃	〃	〃	〃	2-5-18
PAH CCV	SV502314	SV502302	10 ppm	10 µl	200 µl	500 ppb	$MeCl_2$	ZT	2-6-18
BNA CCV	SV502315	SV501811/12	200 ppm	20/30 µl	200 µl	20 ppm	〃	〃	〃
PAH CCV	SV502316	SV502302	10 ppm	10 µl	200 µl	500 ppb	〃	〃	2-7-18
BNA CCV	SV502317	SV501811/12	200 ppm	20/30 µl	200 µl	20 ppm	〃	〃	〃
PAH CCV	SV502318	SV502302	10 ppm	10 µl	〃	500 ppb	〃	〃	〃
PAH INST	SV502319	SV501719	4000 ppm	40 µl	4 mL	40 ppm	〃	〃	〃
PAH ICV	SV502320	SV501010	10 ppm	10 µl	200 µl	500 ppb	〃	〃	〃
1,4 dioxane Std. (ICV)	SV502321	31853 1,4-dioxane Lot# A0128697 Expire: 06/2022 Store: 0°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK						ZT	2-8-18
1,4 dioxane	SV502322	SV502321	2000 ppm	10 µl	2 mL	10 ppm	$MeCl_2$	ZT	2-8-18
ICV Stock		SV502020	1000 ppm	20 µl	〃	〃	〃	〃	〃

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SIGNATURE DATE

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Work continued from Page

ANALYTE	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	ANALYST	DATE
PAH ICV 5000	SVS-033-01	SVS-023-02	10 ppm	500 µl	1.0 ml	5000 ppb	MeCl2	ww	4-17-18
1000	-02			100 µl		1000			
500	-03			50		500			
200	-04			20		200			
100	-05			10		100			
50	-06	SVS-33-02	1.0 ppm	50		50			
20	-07			20		20			
10	-08			10		10			
BNA ICV	SVS-33-09	SVS-26-4/5	200 ppm	20/20µl	200µl	20 ppm	MeCl2	ww	
PAH ICV	SVS-33-10	SVS-10-10	10 ppm	10µl	200µl	500 ppb	〃	〃	〃
PAH CCV	SVS-33-11	SVS-023-2	10 ppm	10µl	200µl	500 ppb	MeCl2	ww	4-17-18
BNA CCV	SVS-33-12	SVS-26-4/5	200 ppm	20/20µl	200µl	20 ppm	MeCl2	ww	4-02-18
BNA CCV	SVS033313	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	4-13-18
PAH CCV	SVS033314	SVS02302	10 ppm	10 ul	200 ul	500 ppb	〃	〃	〃
PAH CCV	SVS033315	SVS02302	10 ppm	10 ul	200 ul	500 ppb	〃	〃	4-16-18
BNA CCV	SVS033316	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm	〃	〃	〃
PAH CCV	SVS033317	SVS02302	10 ppm	10 ul	200 ul	500 ppb	〃	〃	4-17-18
PAH INST	SVS033318	SVS03025	4000 ppm	40 ul	4 mL	40 ppm	〃	〃	〃
PAH CCV	SVS033319	SVS02302	10 ppm	10 ul	200 ul	500 ppb	〃	〃	〃
DFTPP MIX	SVS033320							ZT	4-17-18
DFTPP	SVS033321	SVS033320	1000 ppm	50 ul	1.0 mL	50 ppm	MeCl2	ZT	4-17-18
PAH Surr Stock	SVS033322							ZT	4-17-18
PAH Surr.	SVS033323	SVS033322	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	4-17-18
BNA CCV	SVS033324	SVS026 4/5	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	〃	〃
PAH CCV	SVS033325	SVS02302	10 ppm	10 ul	200 ul	500 ppb	〃	〃	4-18-18
BNA CCV	SVS033326	SVS026 4/5	200 ppm	20/20 ul	1	20 ppm	〃	〃	〃

NOTEBOOK INSERT LABEL

EPA 8270 GC/MS Tuning Solution II 47548-U
Lot: XA19099V EXP: MAR/2019 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED:_____
SUPELCO
Solutions within
595 North Harrison Road • Bellefonte, PA
16823-0048 USA • Phone 814-359-3441

31887 US/EN
Revised B/N Surrogate Mix
Lot# A0134896
Expire: 01/2024 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Rec. 4-3-18 ZT

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SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

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Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH										
ICV		SVS03401							ZT	4-18-18
Stock Solution										
PAH	ICV	SVS03402	SVS03401	2000 ppm	50 ul	10 mL	10 ppm	MeCl2	ZT	4-18-18
	Stock		SVS020320	1000 ppm	100 ul	"	"	"	"	
PAH	ICV	SVS03403	SVS03402	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	4-18-18
PAH	CCV	SVS03404	SVS02302	10 ppm	10 ul	200 ul	500 ppb			4-19-18
BNA	CCV	SVS03405	SVS02645	200 ppm	20/20 ul	200 ul	20 ppm			4-19-18
PAH	CCV	SVS03406	SVS02302	10 ppm	10 ul	200 ul	500 ppb			"
PAH	ICV	SVS03407	SVS03402	10 ppm	10 ul	200 ul	500 ppb			
PAH	CCV	SVS03408	SVS02302	10 ppm	10 ul	200 ul	500 ppb			4-20-18
BNA	CCV	SVS03409	SVS02645	200 ppm	20/20 ul	200 ul	20 ppm			"
BNA	60	SVS03410	SVS02645	200 ppm	60/60 ul	200 ul	60 ppm			4-22-18
	50	-11			50/50	"	50			
	35	-12			35/35	"	35			
	20	-13			40/40	400 ul	20			
	10	-14			10/10	200 ul	10			
	5	-15	SVS03413	20 ppm	50	"	5			
	2	-16	"	"	20	"	2			
	1	-17	"	"	10	"	1			
BNA	ICV	SVS03418	SVS01810/2	200 ppm	20/20 ul	"	20			
BNA	CCV	SVS03419	SVS02645	200 ppm	20/20 ul	200 ul	20 ppm			4-23-18
PAH	CCV	SVS03420	SVS02302	10 ppm	10 ul	200 ul	500 ppb			
PAH	CCV	SVS03421	SVS02302	10 ppm	10 ul	200 ul	"			
PAH	CCV	SVS03422	SVS02302	10 ppm	10 ul	200 ul	"			4-24-18
PAH	CCV	SVS03423	SVS02302	10 ppm	10 ul	200 ul	"			4-25-18
~~PAH~~	~~CCV~~	~~SVS03~~								

NOTEBOOK INSERT LABEL

Polynuclear Aromatic Hydrocarbons Mix CRM47543

Lot: ~~LEC/52TV~~ XA26145V EXP: APR/~~2017~~ 2020 STORAGE: REFRIGERATE 1 x 1ml

DATE RECEIVED:

SUPELCO Solutions within. 595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

4-27

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

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	Analyte		Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst Date	Date
	PAH	CCV	SVS04461	SVS02302	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	6-15-18
	PAH	CCV	SVS04462	SVS02302	10 ppm	10 ul	200 ul	500 ppb	"	"	"
5	PAH	ICV	SVS04463	SVS03402	10 ppm	10 ul	200 ul	"	"	"	"
	PAH	CCV	SVS04464	SVS02301	2000 ppm	50 ul	10 mL	10 ppm	"	"	"
	MIX			SVS02020	1000 ppm	100 ul	"	"	"	"	"
	PAH	5000	SVS04465	SVS04404	10 ppm	500 ul	1.0 mL	5000 ppb	"	"	"
		1000	06			100		1000	"	"	"
10		500	07			50		500	"	"	"
		200	08			20		200	"	"	"
		100	09			10		100	"	"	"
		50	10	SVS04406	1000 ppb	50		50	"	"	"
		20	11			20		20	"	"	"
15		10	12			10		10	"	"	"
	PAH	1000	SVS04413	SVS04404	10 ppm	100 ul	1.0 mL	1000 ppb	"	"	6-18-18
		50	SVS04414	SVS04413	1000 ppb	50		50	"	"	"
		20	15			20		20	"	"	"
		10	16			10		10	"	"	"
20	PAH	5000	SVS04417	SVS04404	10 ppm	500 ul		5000 ppb	"	"	"
	PAH	ICV	SVS04418	SVS03402	10 ppm	10 ul	200 ul	500 ppb	"	"	"
	PAH	ICV	SVS04419	"	"	"	"	"	"	"	"
	DEPD		SVS04420	SVS-033-20	1000 ppm	50 µl	1 ml	50 ppm	MeCl2	LM	6-19-18
	PAH	CCV	~~SVS04421~~ SVS033-20	SVS-044-4	10 ppm	10 µl	200 µl	500 ppb	"	"	"
25	BNA	CCV	SVS04422	SVS-043-8	200 ppm	20/20 µl	200 µl	20 ppm	"	"	"
	BNA	CCV	SVS04423	SVS043-8	200 ppm	20/20 µl	200 ul	20 ppm	"	ZT	6-20-18
	PAH	CCV	SVS04424	SVS04404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
	BNA	CCV	SVS04425	SVS043-8	200 ppm	20/20 ul	200 ul	20 ppm	"	"	6-21-18
	PAH	CCV	SVS04426	SVS04404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
30	BNA	60	SVS04427	SVS043-8	200 ppm	60/60 ul	200 ul	60 ppm	"	"	"
		50	28			50/50		50	"	"	"
		35	29			35/35		35	"	"	"
		20	30			40/40	400 ul	20	"	"	"
		10	31			10/10	200 ul	10	"	"	"
35	BNA	ICV	32	SVS039 1/2		20/20 ul		20 ppm	"	"	"

Work continued to Page

SIGNATURE DATE

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	Work continued from Page			Stock	Stock	Stock	Final	Final	Solvent	Analyst	Date
	Analyte		LAB ID	ID	Conc.	Vol.	Vol.	Conc.			
	1,4-diox			SV4204122	2000 ppm	10 ul	2 mL	10 ppm	MeCl2	ZT	7-11-18
	Stock		SV5047101	SV5020220	1000 ppm	20 ul	1	1			
5	100	1,4-Diox	SV5047102	SV5023~~22~~ 047101	10 ppm	10 ul	1 mL	100 ppb			
	200		03			20		200			
	500		04			50		500			
	1000		05			100		1000			
	2000		06			200		2000			
10	1,4-Diox ICV		07	SV5047101 023122		10 ul	200 ul	500 ppb			
	PAH	CCV	SV5047108	SV5044104	10 ppm	10 ul	200 ul	500 ppb			7-12-18
	BNA	CCV	SV5047109	SV5043819	200 ppm	20/200 ul	200 ul	20 ppm			
	PAH	CCV	SV5047110	SV5044104	10 ppm	10 ul	200 ul	500 ppb			7-13-18
	PAH	ICV	SV5047111	SV5034102	10 ppm	10 ul	200 ul	500 ppb			
15	PAH	INST.	SV5047112	SV5023025	4000 ppm	40 ul	4 mL	40 ppm			
	TCLP										
	Std.		SV5047113							ZT	
20	TCLP	Spike	SV5047114	SV5047113	2000 ppm	1.0 mL	10 mL	200 ppm	Acetone	ZT	7-13-18
	PAH	CCV	SV5047115	SV5044104	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	7-16-18
	BNA	CCV	SV5047116	SV5043819	200 ppm	20/200 ul	1	20 ppm			1
	DFTPP		SV5047117	SV5023320	1000 ppm	50 ul	1 mL	50 ppm			7-17-18
	PAH	CCV	SV5047118	SV5044104	10 ppm	10 ul	200 ul	500 ppb			
25	BNA	CCV	SV5047119	SV5043819	200 ppm	20/200 ul	1	20 ppm			
	BNA	CCV	SV5047120	SV5043819	200 ppm	20/200 ul	1	1			7-18-18
	PAH	CCV	SV5047121	SV5044104	10 ppm	10 ul	1	500 ppb			
	PAH	5000	SV5047122	SV5044104	10 ppm	500 ul	1.0 mL	5000 ppb			
		1000	23			100		1000			
30		500	24			50		500			
		200	25			20		200			
		100	26			10		100			
		50	27	SV5047123	1000 ppb	50		50			
		20	28			20		20			
35		10	29			10		10			

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FOR LABORATORY USE ONLY
H315 H335 H332 H302
H350 H360, H350 P338
P360 P331 P233 P262
P202 P264 P284 P280

TCLP-BNA 1 mL
Semi-Volatile Spiking Solution
2.0 mg/mL in CH2Cl2
Lot: 215091295 13 comp(s)
Exp: Sep 29, 2018 Storage: Refrig (0-5 °C)

Signal Word: Warning

Work continued to Page

SIGNATURE DATE

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Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
8270	SV505001	SV504911	2000 ppm	2.0 mL	50 mL	80 ppm	MeCl2/Acetone	ZT	8-6-18
Spike		SV504912	1000 ppm	"	"	40 ppm	"	"	
PAH Spike	SV505002	SV501914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	ZT	
INSTD	SV505003								
Stock									
BNA INST	SV505004	SV505003	4000 ppm	500 µl	4 mL	500 ppm	MeCl2	ZT	8-6-18
BNA 60	SV505005	SV504386	200 ppm	60/60 µl	200 µl	60 ppm			
50	06			50/50	"	50			
35	07			35/35	"	35			
20	08			40/40	400 µl	20			
10	09			10/10	200 µl	10			
5	10	SV505008	20 ppm	50		5			
2	11			20		2			
1	12			10		1			
BNA ICV	SV505013	SV503912	200 ppm	20/20 µl		20 ppm			
BNA CCV	SV505014	SV504386	200 ppm	20/20 µl		20 ppm			8-7-18
PAH CCV	SV505015	SV504404	10 ppm	10 µl		500 ppb			
PAH INST.	SV505016	SV503025	4000 ppm	40 µl	4 mL	40 ppm			
PAH CCV	SV505017	SV504404	10 ppm	10 µl	200 µl	500 ppb			
PAH ICV	SV505018	SV503402	10 ppm	10 µl					
PAH CCV	SV505019	SV504404	10 ppm	10 µl					8-8-18
PAH CCV	SV505020	SV504404	10 ppm	10 µl					8-9-18
BNA CCV	SV505021	SV504386	200 ppm	20/20 µl		20 ppm			
PAH Surr.	SV505022							ZT	8-14-18
Stock									
PAH Surr.	SV505023	SV505022	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	8-14-18
BNA CCV	SV505024	SV504386	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	
PAH CCV	SV505025	SV504404	10 ppm	10 µl	200 µl	500 ppb	"	"	

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Z-014J 1 mL

Internal Standard Mix

4.0 mg/mL in CH2Cl2

Lot: 217111166 6 comp(s)

Exp: Nov 14, 2027 Storage: Ambient (>5 °C)/Sonicate

FOR LABORATORY USE ONLY

H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 P264 P284 P280

Signal word: Warning

31887

Revised B/N Surrogate Mix

Lot# A0124675

Expire: 01/2023 Store: 10°C or colder 1 mL

1000 µg/mL each in Methylene Chloride

RESTEK

Application required. Mix is photosensitive.

2T Rec. 1-26-18

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page			Stock	Stock	Stock	Final	Final	Solvent	Analyst	Date
Analyte		LAB ID	ID	Conc.	Vol.	Vol.	Conc.			
DFTPP		SV505101	SV503320	1000 ppm	50 ul	1mL	50 ppm	MeCl2	ZT	8-15-18
PAH	CCV	SV505102	SV504404	10 ppm	10 ul	200 ul	500 ppb			1
PAH	CCV	SV505103	SV504404	10 ppm	10 ul	200 ul	500 ppb			8-16-18
BNA	CCV	SV505104	SV504306	200 ppm	20/20 ul	200 ul	20 ppm			
BNA	Ical	SV505105	SV504306	1000 ppm	500 ul	2.5mL	200 ppm			
#1										
BNA	Ical	SV505106	SV504305	1000 ppm	500 ul	2.5mL	200 ppm	MeCl2	ZT	8-16-18
#2			SV504307	2000	250					
			SV501811	4000	125					
BNA	60	SV505107	SV505115/6	200 ppm	60/60 ul	200 ul	60 ppm			
	50	08			50/50		50			
	35	09			35/35		35			
	20	10			40/40	400 ul	20			
	10	11			10/10	200 ul	10			
	5	12	SV505110	20 ppm	50		5			
	2	13			20		2			
	1	14			10		1			
BNA	ICV	SV505115	SV503915	200ppm	20/20 ul		20 ppm			
PAH	CCV	SV505116	SV504404	10 ppm	10 ul		500 ppb			8-17-18
RR BNA	1	SV505117	SV505110	20 ppm	10 ul		1 ppm			
BNA	ICV	SV505118	SV503915	200 ppm	20/20 ul		20 ppm			
PAH	CCV	SV505119	SV504404	10 ppm	10 ul		500 ppb			8-20-18
BNA	CCV	SV505120	SV505115/6	200 ppm	20/20 ul		20 ppm			
BNA	60	SV505121	SV505115/6	200 ppm	60/60 ul	200 ul	60 ppm			
	50	22			50/50		50			
	35	23			35/35		35			
	20	24			40/40	400 ul	20			
	10	25			10/10	200 ul	10			
	5	26	SV505124	20 ppm	50		5			
	2	27			20		2			
	1	28			10		1			
BNA	ICV	29	SV503915	200 ppm	20/20 ul		20			
PAH	CCV	SV505130	SV504404	10 ppm	10 ul		500 ppb			8-21-18

Work continued to Page

SIGNATURE DATE

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Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH CCV	SV505201	SV504404	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	8-22-18
BNA CCV	SV505202	SV505 5/6	200 ppm	20/20 ul	1	20 ppm			
PAH INST	SV505203	SV505003	4000 ppm	40 ul	4 mL	40 ppm			
PAH CCV	SV505204	SV504404	10 ppm	10 ul	200 ul	500 ppb			
1,4 Diox CCV	SV505205	SV504701	10 ppm						
PAH ICV	SV505206	SV503402						VKH	8-22-18
1,4 dioxane Spike	SV505207	SV502321	2000 ppm	125 ul	50 mL	5 ppm	Acetone	ZT	8-22-18
1,4 dioxane ICV Stock	SV505208	SV502321	2000 ppm	10 ul	2 mL	10 ppm	MeCl2		
ICV Diox	SV505209	SV502020	1000 ppm	20 ul					
PAH CCV	SV505210	SV505208	10 ppm	10 ul	200 ul	500 ppb			
BNA CCV	SV505211	SV504404	10 ppm	10 ul		500 ppb			8-23-18
PAH CCV	SV505212	SV505 5/6	200 ppm	20/20 ul		20 ppm			
BNA CCV	SV505213	SV504404	10 ppm	10 ul		500 ppb			8-24-18
1,4 Diox CCV	SV505214	SV505 5/6	200 ppm	20/20 ul		20 ppm			
PAH CCV	SV505215	SV504701	10 ppm	10 ul		500 ppb			
BNA CCV	SV505216	SV504404	10 ppm	10 ul		500 ppb			8-27-18
BNA CCV	SV505217	SV505 5/6	200 ppm	20/20 ul		20 ppm			
PAH CCV	SV505218	"	"	"		"			8-28-18
1,4 Diox CCV	SV505219	SV504404	10 ppm	10 ul		500 ppb			
BNA CCV	SV505220	SV504701	10 ppm	10 ul		"			
PAH CCV	SV505221	SV505 5/6	200 ppm	20/20 ul		20 ppm		WH	8-29-18
PAH CCV	SV505222	SV504404	10 ppm	10 ul		500 ppb			
BNA CCV	SV505223	"	"	"		"			8-30-18
PAH INST.	SV505224	SV505003	4000 ppm	40 ul	4 mL	40 ppm			
PAH CCV	SV505225	SV504404	10 ppm	10 ul	200 ul	500 ppb		ZT	8-30-18
PAH ICV	SV505226	SV503402	10 ppm	10 ul		"			
BNA CCV	SV505227	SV505 5/6	200 ppm	20/20 ul		20 ppm			
PAH CCV	SV505228	SV504404	10 ppm	10 ul		500 ppb		WH	8-31-18
BNA INST	SV505229	SV505003	4000 ppm	500 ul	4 mL	500 ppm			
BNA CCV	SV505230	SV505 5/6	200 ppm	20/20 ul	200 ul	20 ppm		ZT	8-31-18
BNA CCV	SV505231	"	"	"	"	"			9-1-18

Work continued to Page

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Pentachlorophenol by EPA 8151A Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data File : F0830027.D
Sample : 08-348-01

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 19:04:51
Operator :
Misc :
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:49:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.729	8.392	9228089	8832736	74.916m	62.122m
	Spiked Amount 100.000			Recovery	=	74.92%	62.12%
	Target Compounds						
1) A	Dalapon	0.000	0.000	0	0	N.D.	N.D.
2) A	2,4,6-Tri...	0.000	6.745	0	1067469	N.D.	0.957 #
4) A	Dicamba	0.000	0.000	0	0	N.D.	N.D.
5) A	MCPP	0.000	8.713f	0	2665107	N.D.	9297.324 #
6) A	MCPA	9.331	8.985f	4517681	2351738	10563.043	5545.127 #
7) A	Dichlorprop	0.000	9.393f	0	2170823	N.D.	15.507 #
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.
9) A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.
10) A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.
11) A	2,4,5-T	11.438f	0.000	2106485	0	4.339	N.D. #
12) A	2,4-DB	0.000	11.712	0	2780832	N.D.	32.726 #
13) a	Bentazon	13.003	12.660f	2072375	2566666	42.916	35.467
14) A	Dinoseb	0.000	12.080	0	3175226	N.D.	9.239 #

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

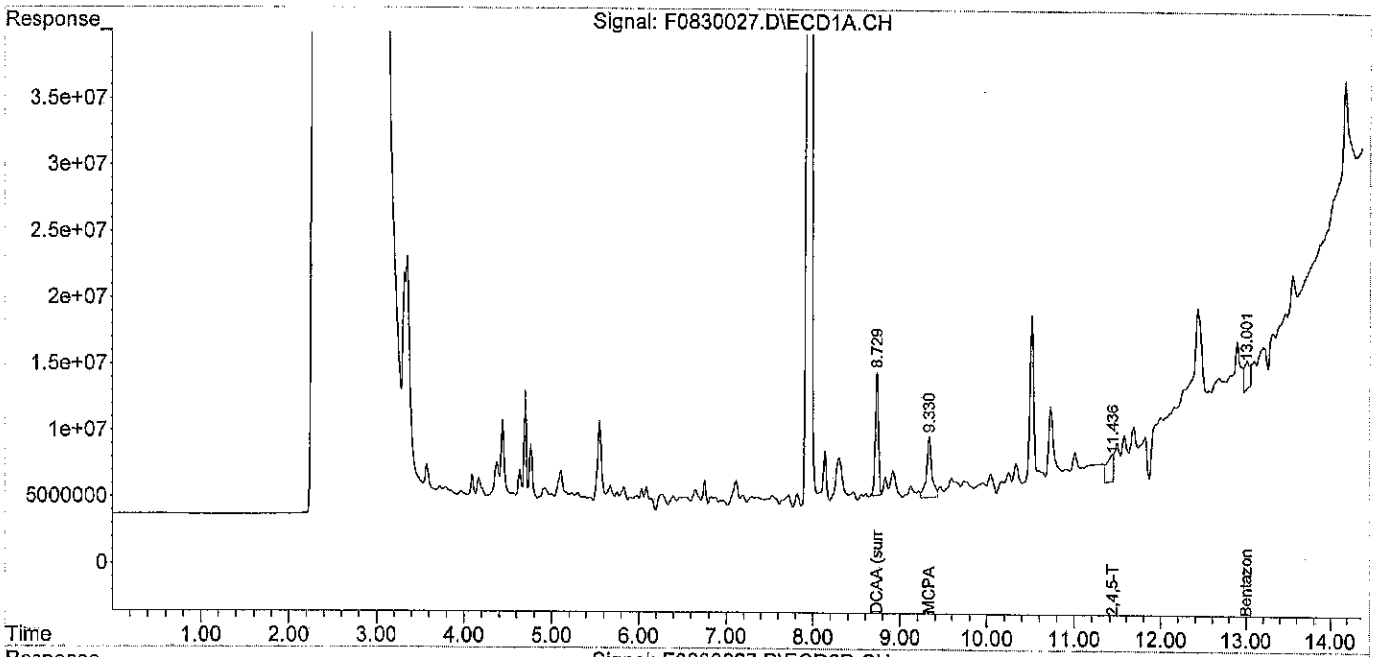
Quantitation Report (QT Reviewed)

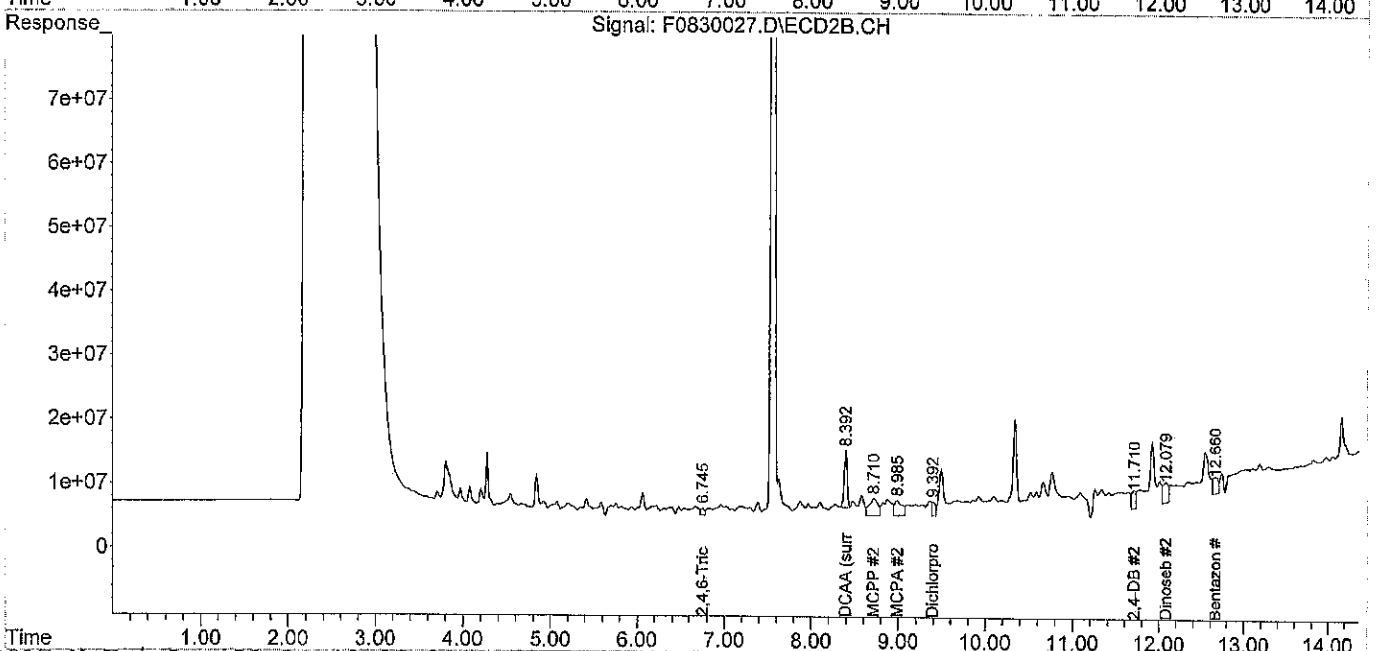
Data File : F0830027.D
Sample : 08-348-01

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 19:04:51
Operator :
Misc :
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:49:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830028.D
Sample : 08-348-02

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 19:24:24
Operator :
Misc :
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:49:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.730	8.394	11336841	12538362	92.036m	88.185m	
		Spiked Amount 100.000			Recovery	=	92.04%	88.19%	
		Target Compounds							
1)	A	Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2)	A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A	Dicamba	8.966	8.627	1993394	1138809	4.622	2.156	#
5)	A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A	MCPA	9.333	0.000	1289613	0	3254.931	N.D.	#
7)	A	Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A	2,4-D	10.057f	0.000	2760478	0	19.954	N.D.	#
9)	A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A	2,4-DB	0.000	0.000	0	0	N.D.	N.D.	
13)	a	Bentazon	13.011f	0.000	2358176	0	48.835	N.D.	#
14)	A	Dinoseb	0.000	12.086	0	4273954	N.D.	12.436	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

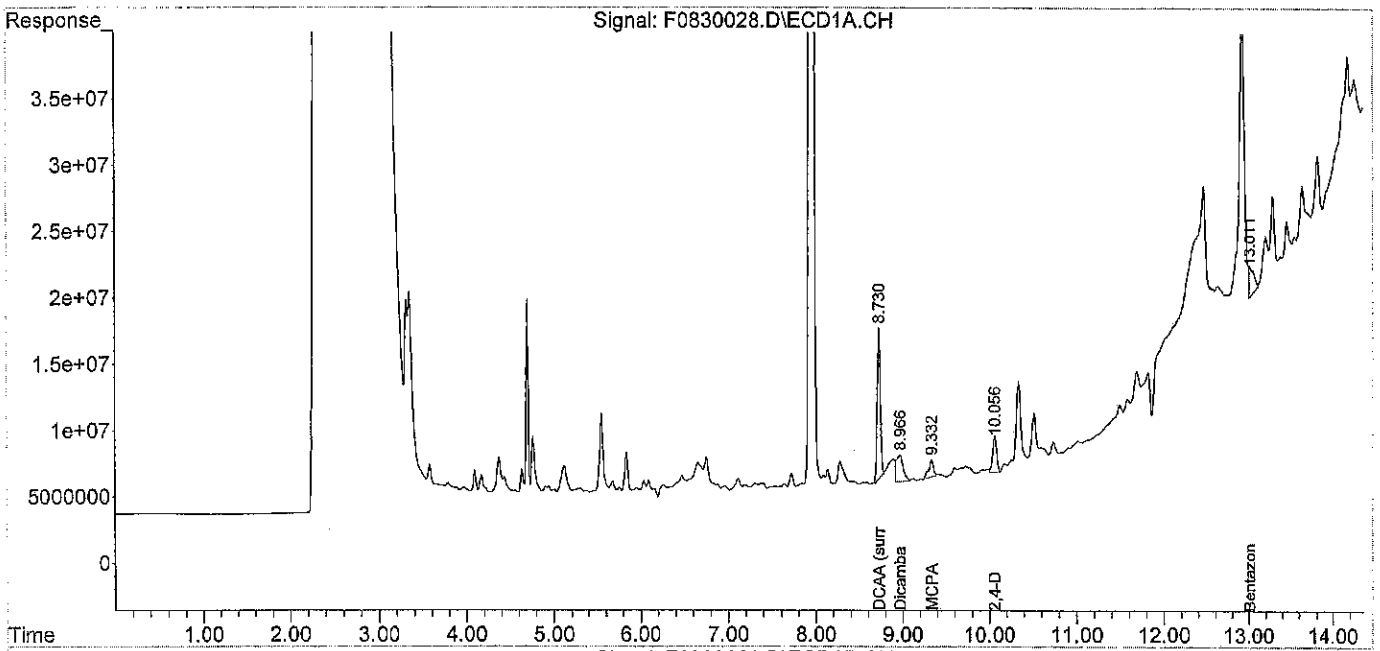
Quantitation Report (QT Reviewed)

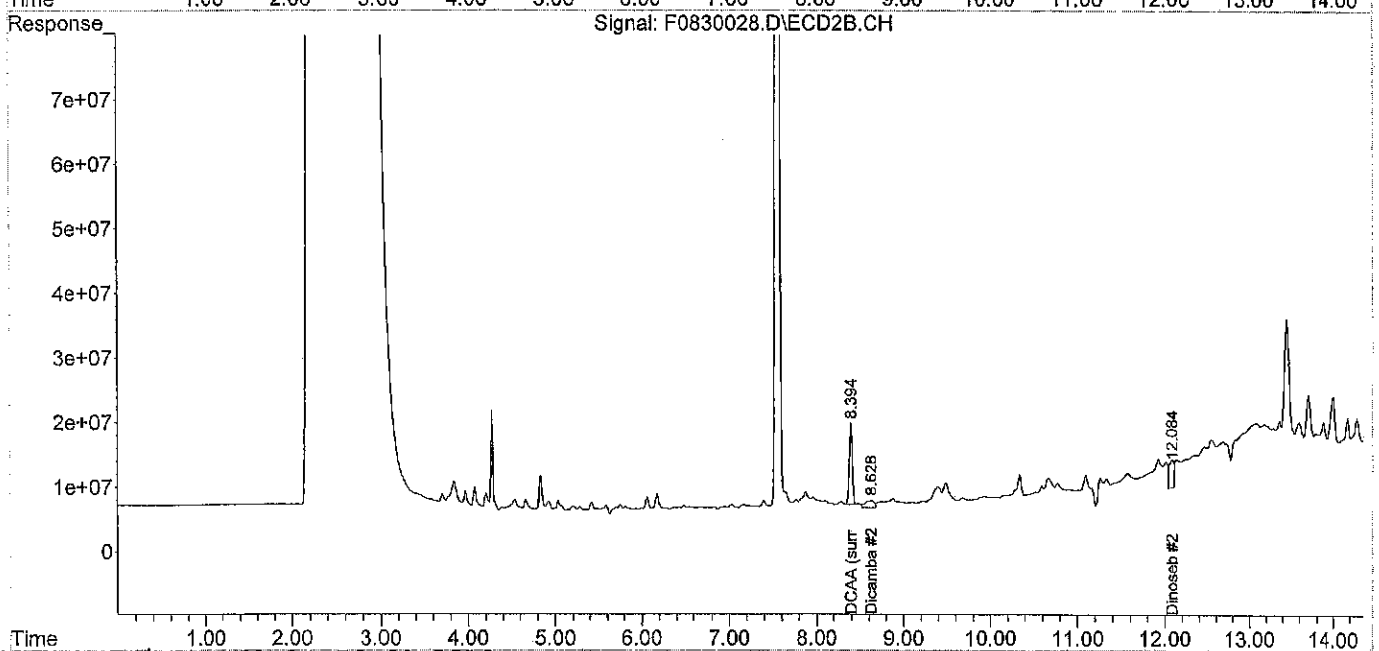
Data File : F0830028.D
Sample : 08-348-02

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 19:24:24
Operator :
Misc :
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:49:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830029.D
Sample : 08-348-03

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 19:43:57
Operator :
Misc :
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:50:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.729	8.392	10876774	10830379	88.301m	76.172m	
		Spiked Amount 100.000			Recovery	=	88.30%	76.17%	
		Target Compounds							
1)	A	Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2)	A	2,4,6-Tri...	7.097f	0.000	777886	0	0.811	N.D.	#
4)	A	Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A	MCPP	0.000	8.707	0	5171074	N.D.	15744.766	#
6)	A	MCPA	9.327	8.959	1738182	3814855	4270.459	8521.417	#
7)	A	Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A	2,4-D	10.056f	0.000	1381091	0	9.983	N.D.	#
9)	A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A	2,4-DB	0.000	11.698f	0	1039038	N.D.	12.228	#
13)	a	Bentazon	13.006	0.000	4255322	0	88.122	N.D.	#
14)	A	Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

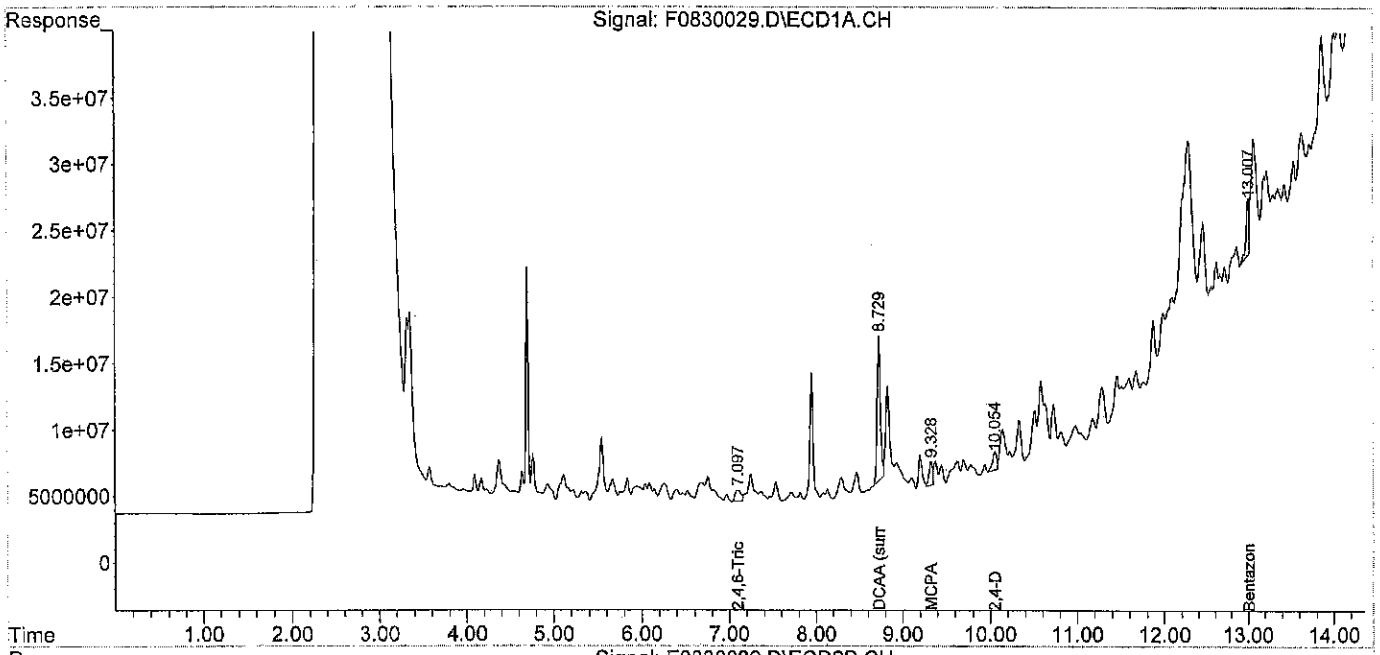
Quantitation Report (QT Reviewed)

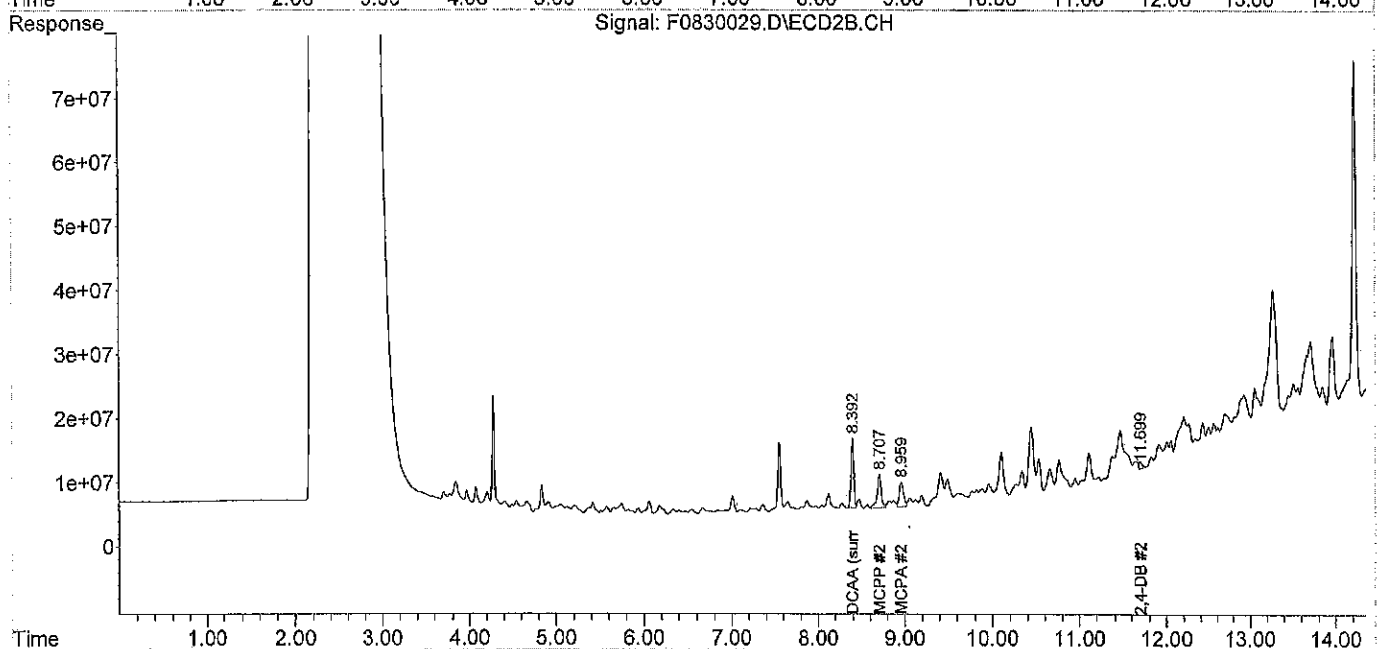
Data File : F0830029.D
Sample : 08-348-03

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 19:43:57
Operator :
Misc :
ALS Vial : 29 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:50:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830030.D
Sample : 08-348-04

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 20:03:25
Operator :
Misc :
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:51:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.732	8.394	10228393	11249441	83.037m	79.119m	
	Spiked Amount 100.000			Recovery	=	83.04%	79.12%	
	Target Compounds							
1) A	Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2) A	2,4,6-Tri...	7.094f	0.000	272222	0	0.284	N.D.	#
4) A	Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6) A	MCPA	9.333	0.000	10838815	0	24873.628	N.D.	#
7) A	Dichlorprop	9.785f	0.000	3322154	0	28.185	N.D.	#
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.	
9) A	Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10) A	2,4,5-TP	11.084	0.000	274555	0	0.474	N.D.	#
11) A	2,4,5-T	11.418	0.000	2006199	0	4.133	N.D.	#
12) A	2,4-DB	12.016f	11.723	1711902	4465714	25.136	52.554	#
13) a	Bentazon	12.989f	12.657f	17670421	2735821	365.930	37.804	#
14) A	Dinoseb	13.133	0.000	107180	0	0.498	N.D.	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 8/31/18

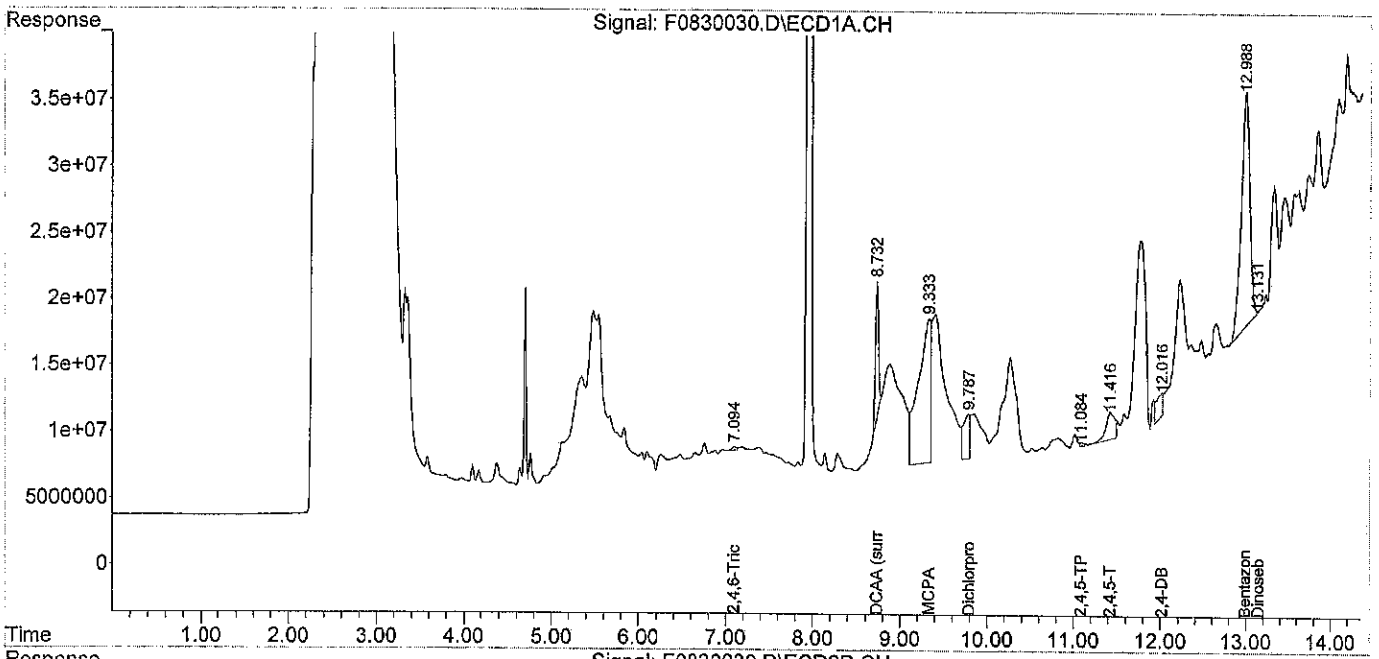
Quantitation Report (QT Reviewed)

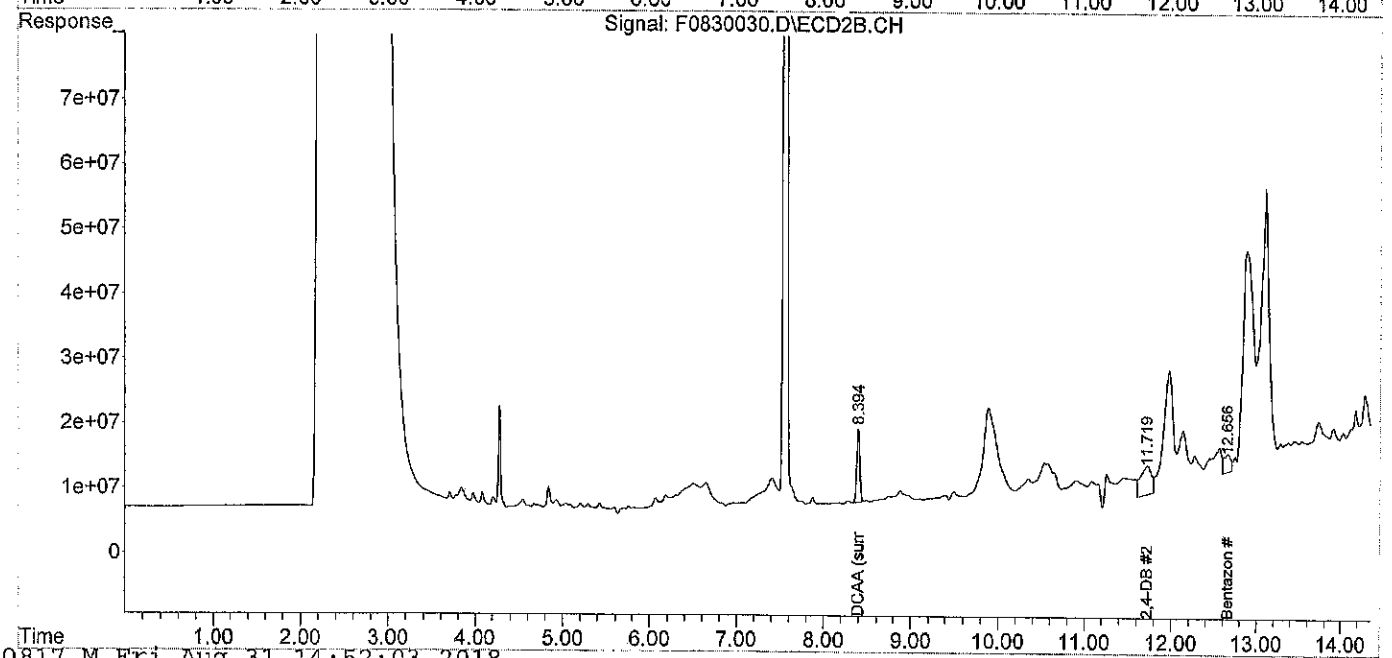
Data File : F0830030.D
Sample : 08-348-04

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 20:03:25
Operator :
Misc :
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:51:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830031.D
Sample : 08-348-05

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 20:23:00
Operator :
Misc :
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:52:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.733	8.397	7446894	7658999	60.456m	53.867m	
	Spiked Amount 100.000			Recovery	=	60.46%	53.87%	
	Target Compounds							
1)	A Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2)	A 2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A Dicamba	8.973	0.000	1819671	0	4.219	N.D.	#
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A MCPA	9.338	8.969	280756	390324	970.954	1555.193	#
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A 2,4-D	0.000	0.000	0	0	N.D.	N.D.	
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A 2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A 2,4-DB	0.000	11.717	0	2243802	N.D.	26.406	#
13)	a Bentazon	12.971f	12.646	906794	1949320	18.778	26.936	#
14)	A Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

LCMS 8/31/18

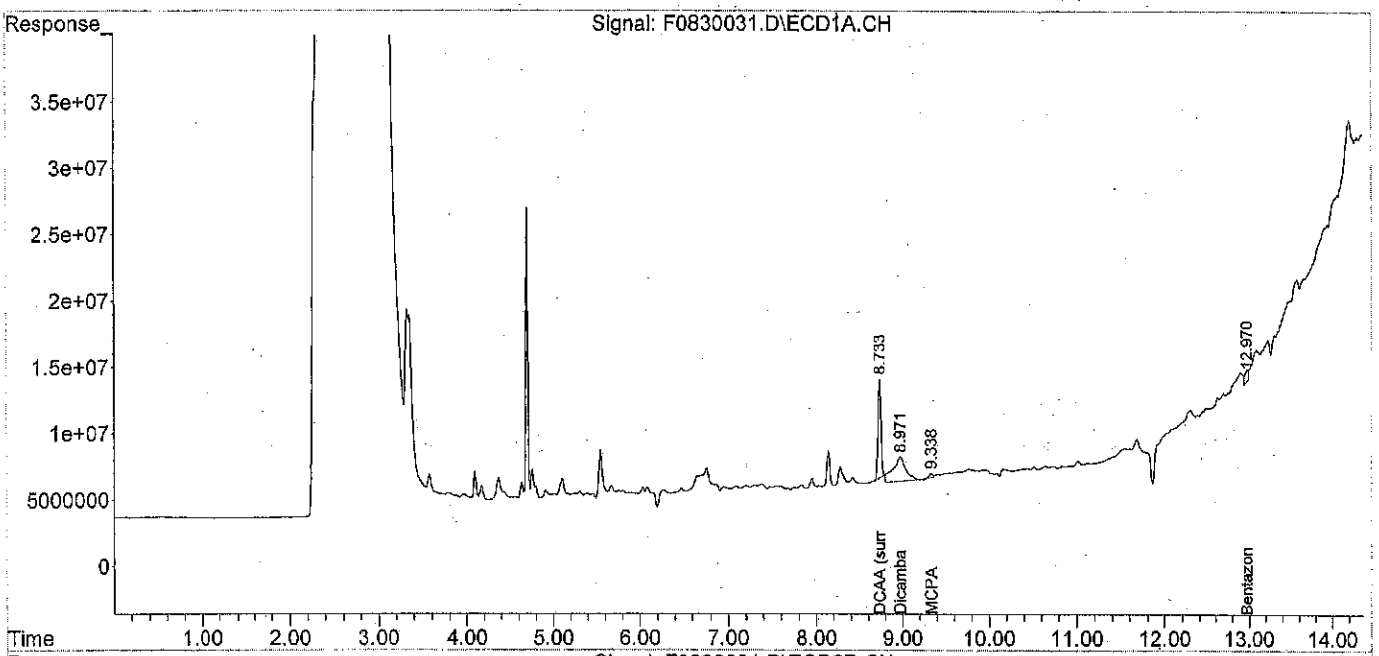
Quantitation Report (QT Reviewed)

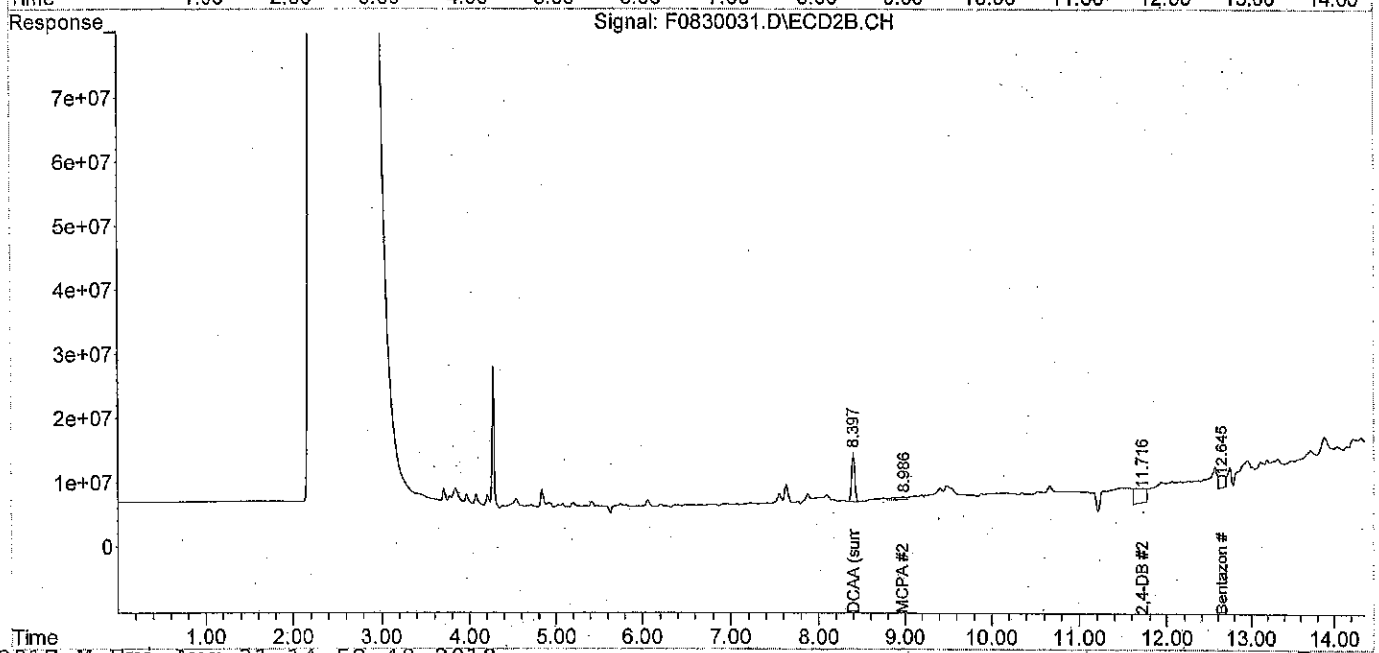
Data File : F0830031.D
Sample : 08-348-05

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 20:23:00
Operator :
Misc :
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 31 14:52:29 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830005.D
Sample : MB0830W1

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 11:56:56
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:38:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.740f	8.391	9930532	9891619	80.619	69.570m
	Spiked Amount 100.000			Recovery	=	80.62%	69.57%
	Target Compounds						
1) A	Dalapon	0.000	0.000	0	0	N.D.	N.D.
2) A	2,4,6-Tri...	0.000	6.737f	0	1700480	N.D.	1.524 #
4) A	Dicamba	0.000	0.000	0	0	N.D.	N.D.
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.
6) A	MCPA	9.342f	0.000	3016895	0	7165.373m	N.D. #
7) A	Dichlorprop	9.780f	9.386f	145891	597087	1.238m	4.265m#
8) A	2,4-D	0.000	0.000	0	0	N.D.	N.D.
9) A	Pentachlo...	10.385f	0.000	280012	0	0.089m	N.D. #
10) A	2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.
11) A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.
12) A	2,4-DB	12.005f	11.702f	398139	1317535	5.846m	15.505m#
13) a	Bentazon	13.008	0.000	575086	0	11.909m	N.D. #
14) A	Dinoseb	13.115f	12.082	215078	951445	1.000m	2.768m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

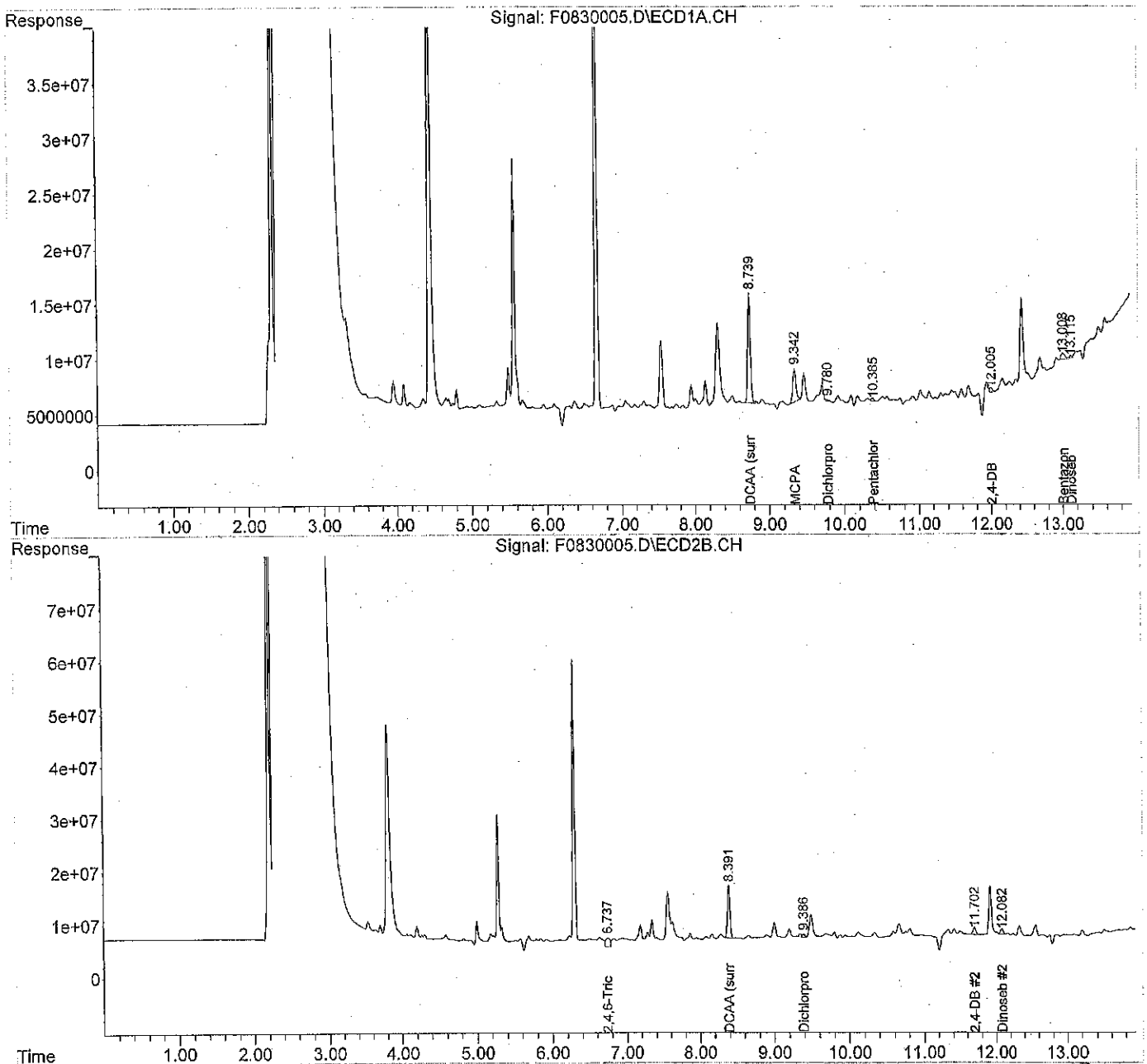
Quantitation Report (QT Reviewed)

Data File : F0830005.D
Sample : MB0830W1

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 11:56:56
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:38:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : F0830015.D
Sample : 08-326-03 MS

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:11:27
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:19:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.728	8.384	9510533	27161102	77.209m	191.029 #
	Spiked Amount 100.000			Recovery	=	77.21%	191.03%
	Target Compounds						
1) A	Dalapon	3.876f	3.473	29907210	8680566	406.445	91.099 #
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4) A	Dicamba	8.976	8.620	69542188	76480836	161.253m	144.776m
5) A	MCPP	9.152	8.705	4971636	6599786	16850.656	19420.608
6) A	MCPA	9.330	8.970	11210094	6704797	25714.178	14400.176 #
7) A	Dichlorprop	9.796	9.375	22637481	23895904	192.055	170.696
8) A	2,4-D	10.061	9.732	81465641	26830201	588.871	149.116 #
9) A	Pentachlo...	10.397	9.991	48791703	51751787	15.582	13.245
10) A	2,4,5-TP	11.088	10.683	129.4E6	152.4E6	223.251m	199.983m
11) A	2,4,5-T	11.415	11.123	119.0E6	142.6E6	245.163m	220.835m
12) A	2,4-DB	12.028	11.710	20102269	18289251	295.162m	215.236m#
13) a	Bentazon	0.000	0.000	0	0	N.D.	N.D.
14) A	Dinoseb	13.134	12.081	59785073	77569448	277.989m	225.700m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

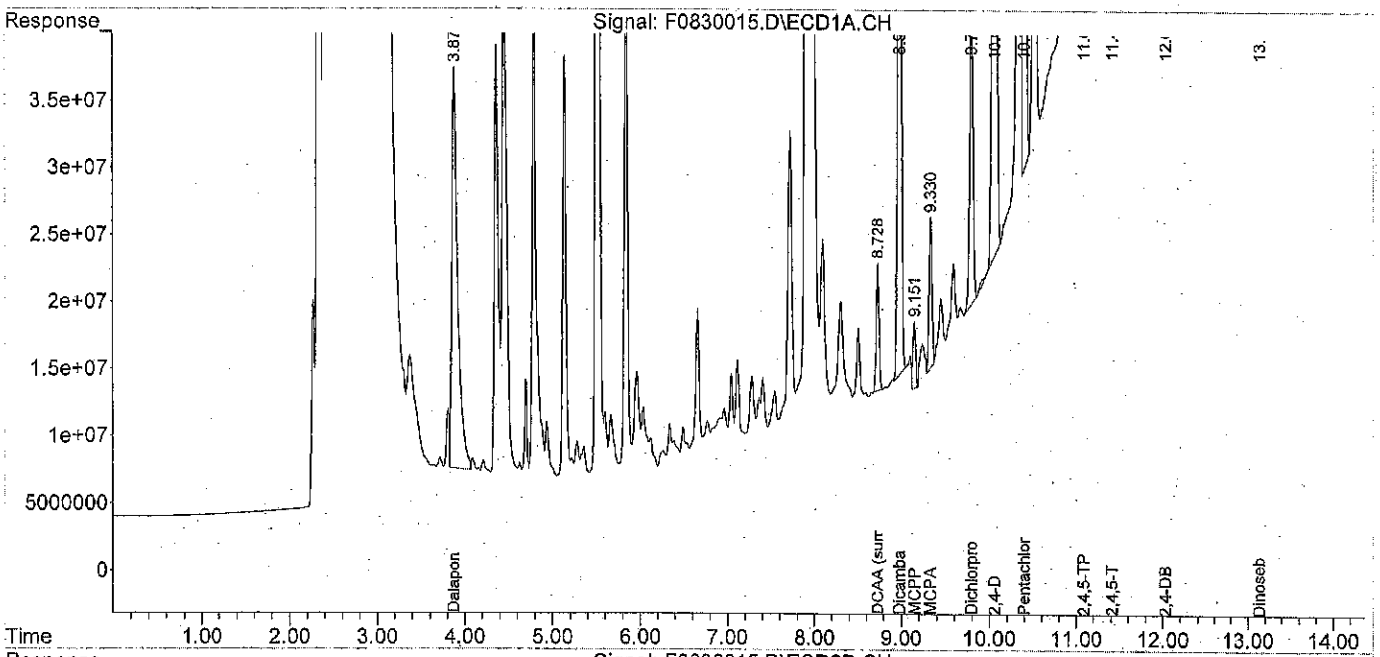
Quantitation Report (QT Reviewed)

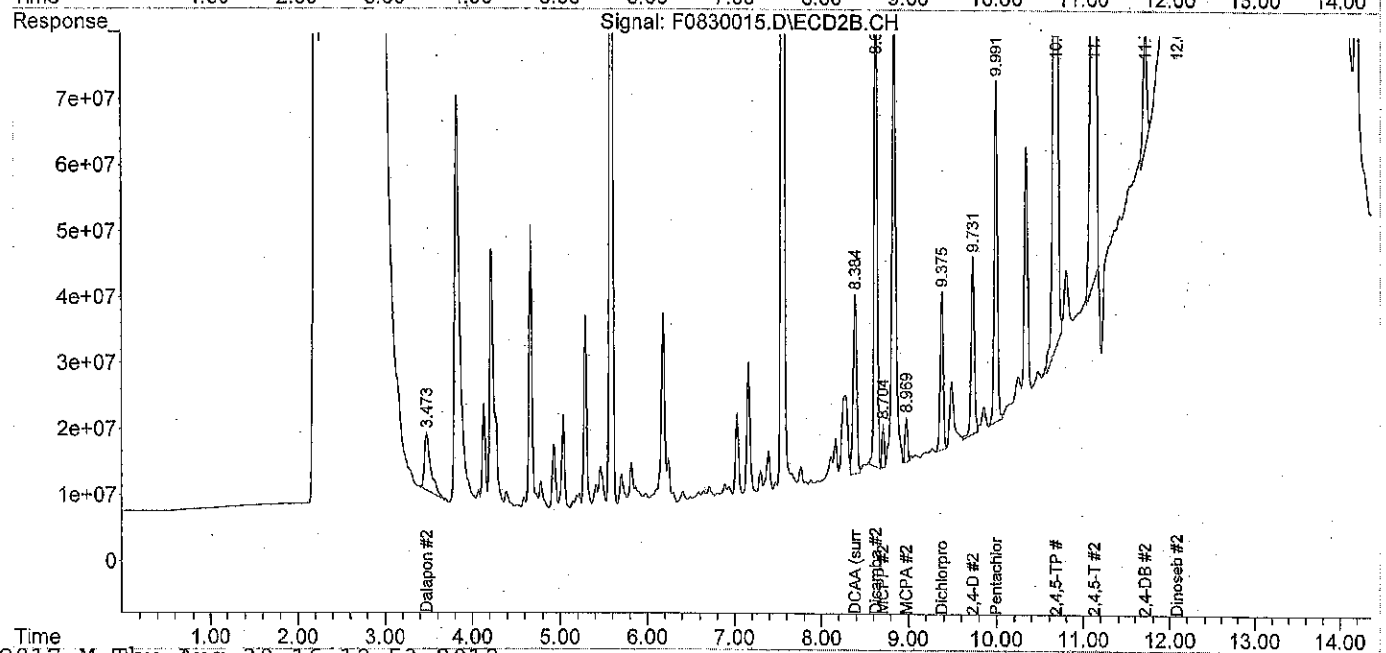
Data File : F0830015.D
Sample : 08-326-03 MS

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:11:27
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:19:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0830016.D
Sample : 08-326-03 MSD

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:30:51
Operator :
Misc :
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:21:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

KPS 8/31/18

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.728	8.382	11365119	37580686	92.265m	264.312 #
	Spiked Amount 100.000			Recovery	=	92.27%	264.31%
	Target Compounds						
1)	A Dalapon	3.874f	3.471	35621608	10731710	484.105	112.625m#
2)	A 2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4)	A Dicamba	8.975	8.620	90316864	95668125	209.425	181.097
5)	A MCPP	9.152	8.704	6149634	7970841	20300.172	22948.105
6)	A MCPA	9.330	8.970	12691158	8427500	29067.198	17904.519 #
7)	A Dichlorprop	9.796	9.374	26122778	27944462	221.624	199.617
8)	A 2,4-D	10.060	9.732	113.6E6	30949152	821.425	172.008 #
9)	A Pentachlo...	10.397	9.991	56298231	59049611	17.979	15.113
10)	A 2,4,5-TP	11.088	10.683	149.4E6	169.4E6	257.838m	222.282m
11)	A 2,4,5-T	11.413	11.121	135.7E6	170.2E6	279.569m	263.665m
12)	A 2,4-DB	12.028	11.710	22279889	19803991	327.136m	233.062m#
13)	a Bentazon	0.000	0.000	0	0	N.D.	N.D.
14)	A Dinoseb	13.131	12.078	71046524	85446110	330.352m	248.618m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

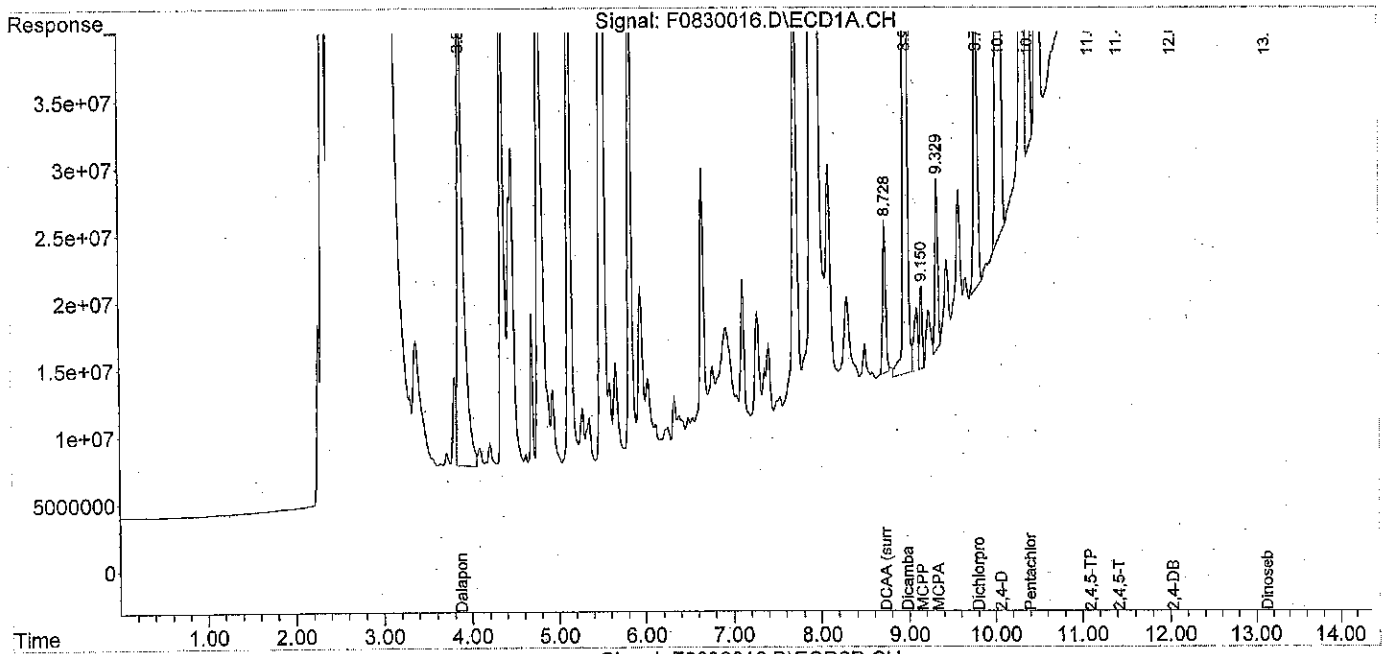
Quantitation Report (QT Reviewed)

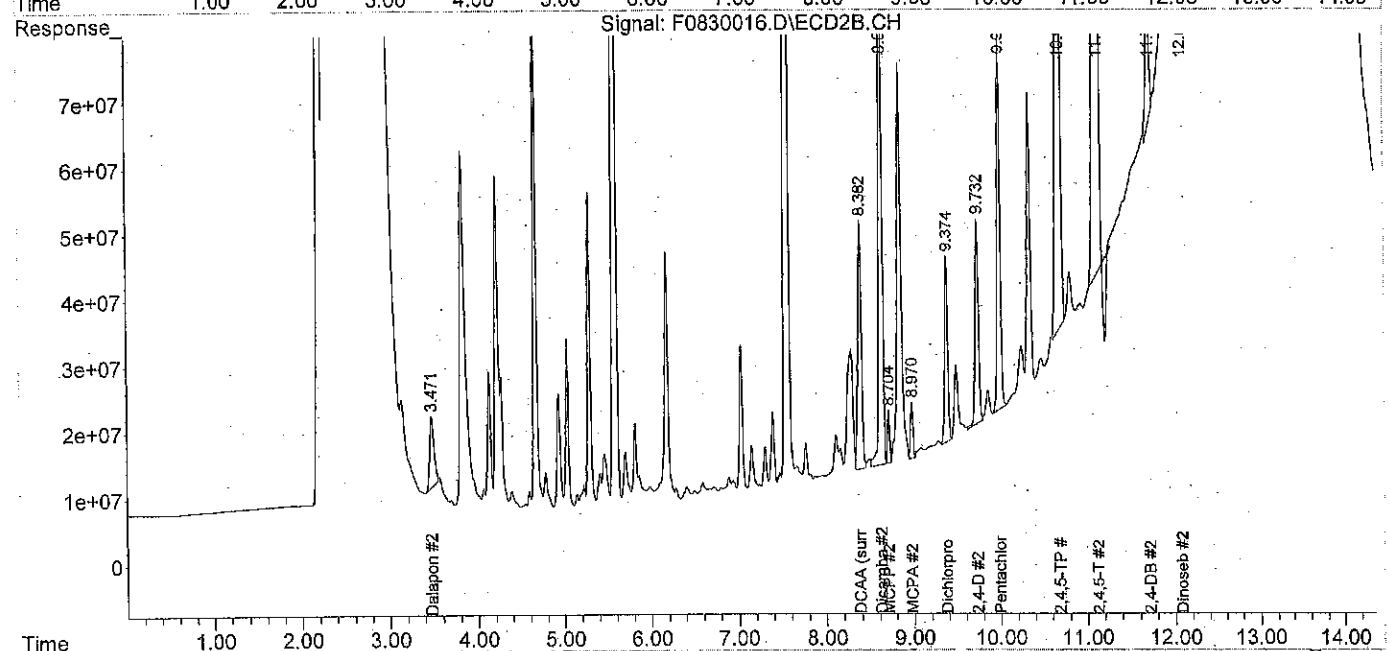
Data File : F0830016.D
Sample : 08-326-03 MSD

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 15:30:51
Operator :
Misc :
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:21:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Response Factor Report Frank

Method Path : C:\msdchem\1\METHODS\
Method File : H180817.M
Title : Herbicides
Last Update : Mon Aug 27 09:31:20 2018
Response Via : Initial Calibration

Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

	Compound	1	2	3	4	5	6	Avg		%RSD
3) S	DCAA (surr)	1.221	1.556	1.327	1.248	1.173	1.135	1.232	E5	12.57
9) A	Pentachloroph...	3.353	3.873	3.189	3.051	2.906	2.848	3.131	E6	11.56

Signal #2 Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

	Compound	1	2	3	4	5	6	Avg		%RSD
3) S	DCAA (surr)			1.811	1.471	1.363	1.345	1.422	E5	14.67
9) A	Pentachloroph...	4.312	4.842	4.063	3.914	3.723	3.557	3.907	E6	12.88

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

H180817.M Wed Aug 29 11:44:27 2018

Quantitation Report (Not Reviewed)

Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.737	8.407	244148	510653	1.982	3.592	#
Spiked Amount	100.000			Recovery	=	1.98%	3.59%	
	Target Compounds							
1) A	Dalapon	0.000	3.477	0	234822	N.D.	2.464	#
2) A	2,4,6-Tri...	7.081	6.758	1003548	1175072	1.046	1.053	
4) A	Dicamba	8.982	8.631	928730	1429532	2.154	2.706	#
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6) A	MCPA	0.000	0.000	0	0	N.D.	N.D.	
7) A	Dichlorprop	9.805	9.393	233714	269658	1.983	1.926	
8) A	2,4-D	10.078	9.750	265427	374007	1.919	2.079	
9) A	Pentachlo...	10.409	10.006	670577	862436	0.214	0.221	
10) A	2,4,5-TP	11.100	10.699	1184588	1619682	2.044	2.125	
11) A	2,4,5-T	11.431	11.145	899426	1294334	1.853	2.005	
12) A	2,4-DB	12.040	0.000	95151	0	1.397	N.D.	#
13) a	Bentazon	13.011	12.651	96634	189139	2.001	2.614	#
14) A	Dinoseb	13.149	12.093	312688	735842	1.454	2.141	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

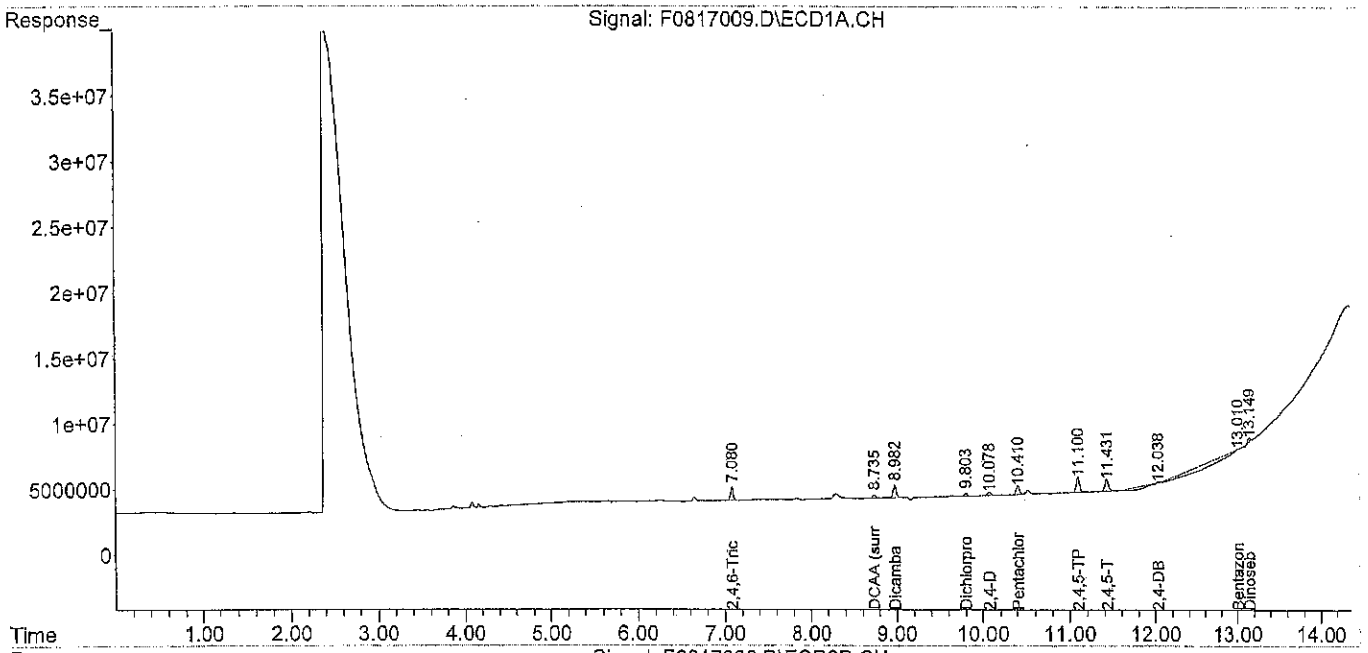
Quantitation Report (Not Reviewed)

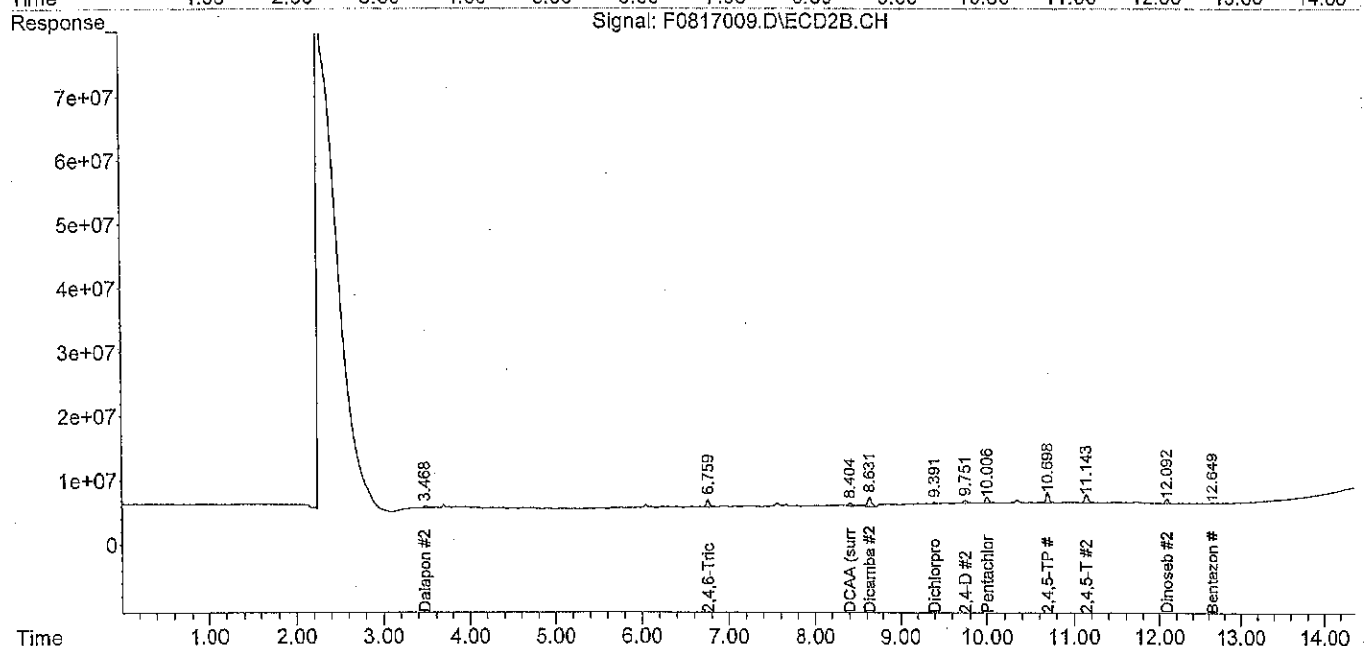
Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
		System Monitoring Compounds							
3)	S	DCAA (surr)	8.735	8.403	777921	1240643	6.315	8.726	#
		Spiked Amount 100.000			Recovery	=	6.31%	8.73%	
		Target Compounds							
1)	A	Dalapon	3.864	3.473	433588	563057	5.893	5.909	
2)	A	2,4,6-Tri...	7.081	6.758	2812928	3339271	2.933	2.993	
4)	A	Dicamba	8.981	8.630	2737180	3628346	6.347	6.868	
5)	A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A	MCPA	9.335	0.000	121656	0	610.762	N.D.	#
7)	A	Dichlorprop	9.805	9.392	768391	819685	6.519	5.855	
8)	A	2,4-D	10.078	9.747	828605	1081324	5.990	6.010	
9)	A	Pentachlo...	10.408	10.005	1936680	2420924	0.618	0.620	
10)	A	2,4,5-TP	11.099	10.698	3379558	4663673	5.832	6.120	
11)	A	2,4,5-T	11.430	11.144	2665633	3722944	5.491	5.767	
12)	A	2,4-DB	12.037	11.727	381563	513964	5.603	6.049	
13)	a	Bentazon	13.009	12.653	238341	417110	4.936	5.764	
14)	A	Dinoseb	13.144	12.092	1241096	2116004	5.771	6.157	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

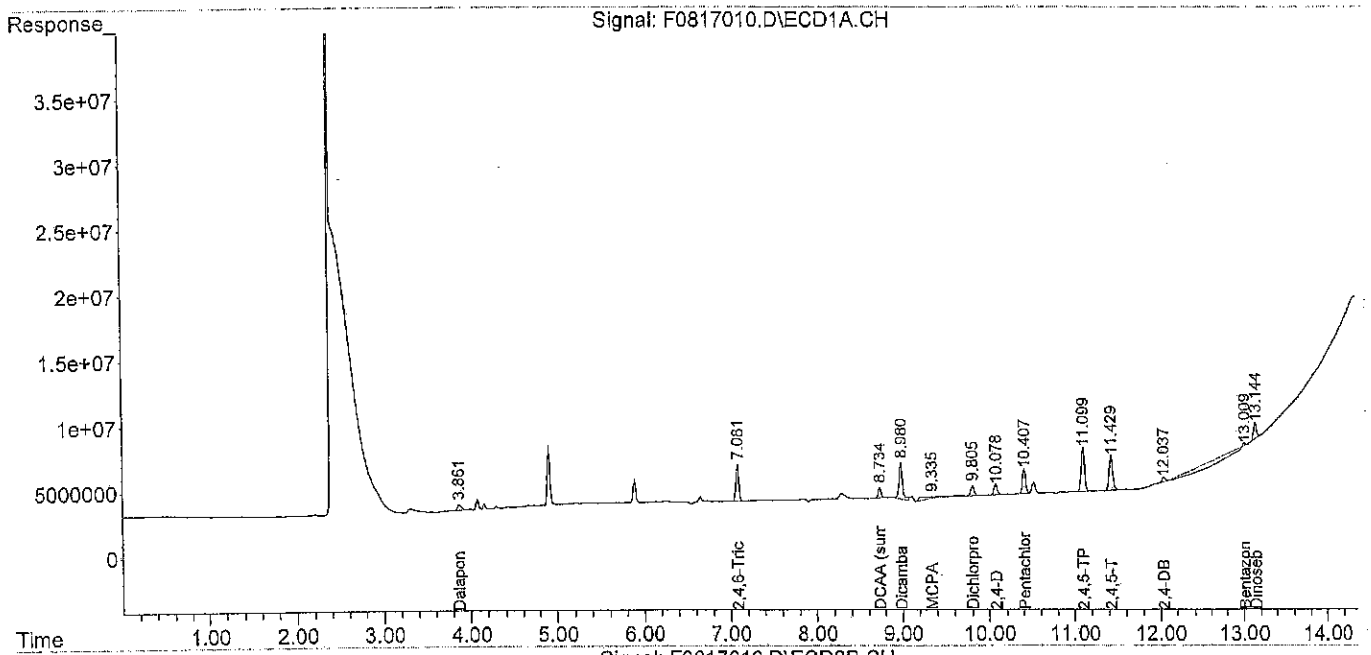
Quantitation Report (Not Reviewed)

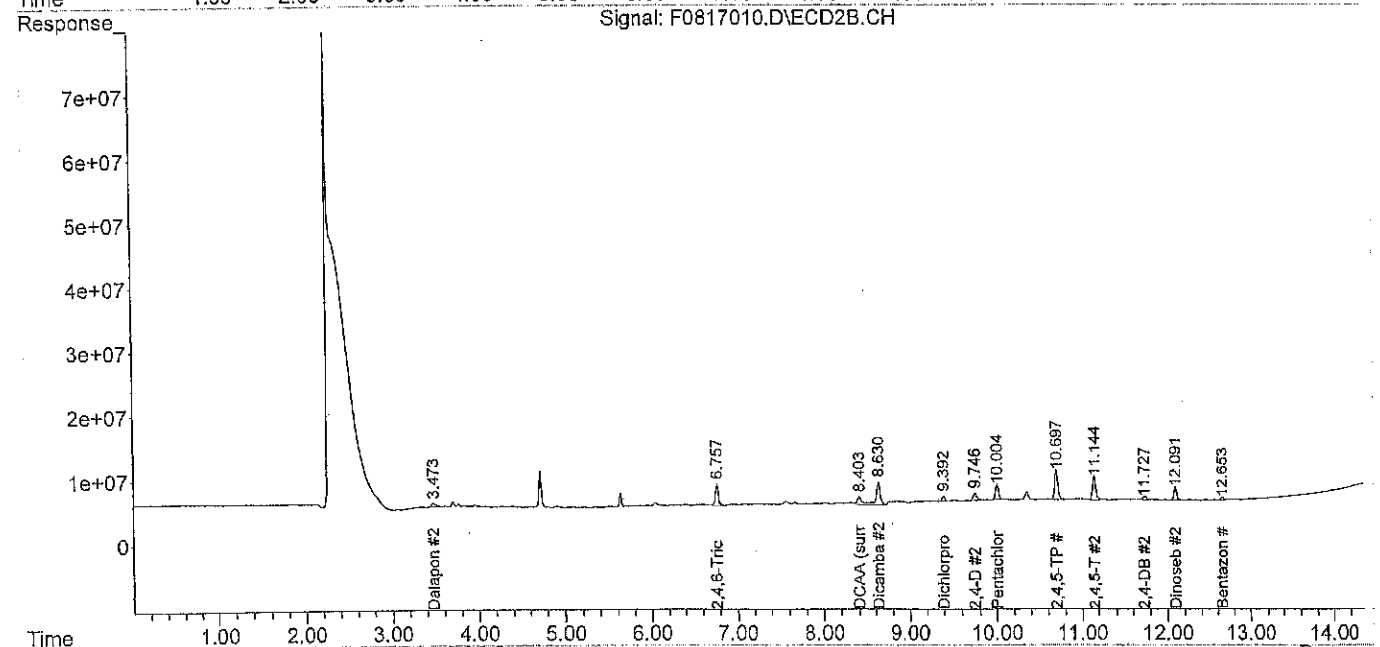
Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.734	8.403	1326771	1811094	10.771	12.738
Spiked Amount	100.000			Recovery	=	10.77%	12.74%
	Target Compounds						
1) A	Dalapon	3.865	3.473	770736	929282	10.474	9.752
2) A	2,4,6-Tri...	7.082	6.759	4640576	5380756	4.839	4.823
4) A	Dicamba	8.980	8.629	4250607	5592040	9.856	10.586
5) A	MCPP	9.157	8.711	10189	334	2322.111m	2441.300m
6) A	MCPA	9.335	8.976	225902	100237	846.768m	965.094m
7) A	Dichlorprop	9.805	9.388	1247076	1498144	10.580	10.702
8) A	2,4-D	10.077	9.746	1412974	1817263	10.214	10.100
9) A	Pentachlo...	10.408	10.004	3189050	4062901	1.018	1.040
10) A	2,4,5-TP	11.099	10.698	5638516	7542591	9.730	9.897
11) A	2,4,5-T	11.428	11.142	4671215	6321650	9.622	9.792
12) A	2,4-DB	12.036	11.728	660054	840753	9.692	9.894
13) a	Bentazon	13.008	12.652	442679	674246	9.167	9.317
14) A	Dinoseb	13.141	12.091	2282616	3508038	10.614	10.207

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

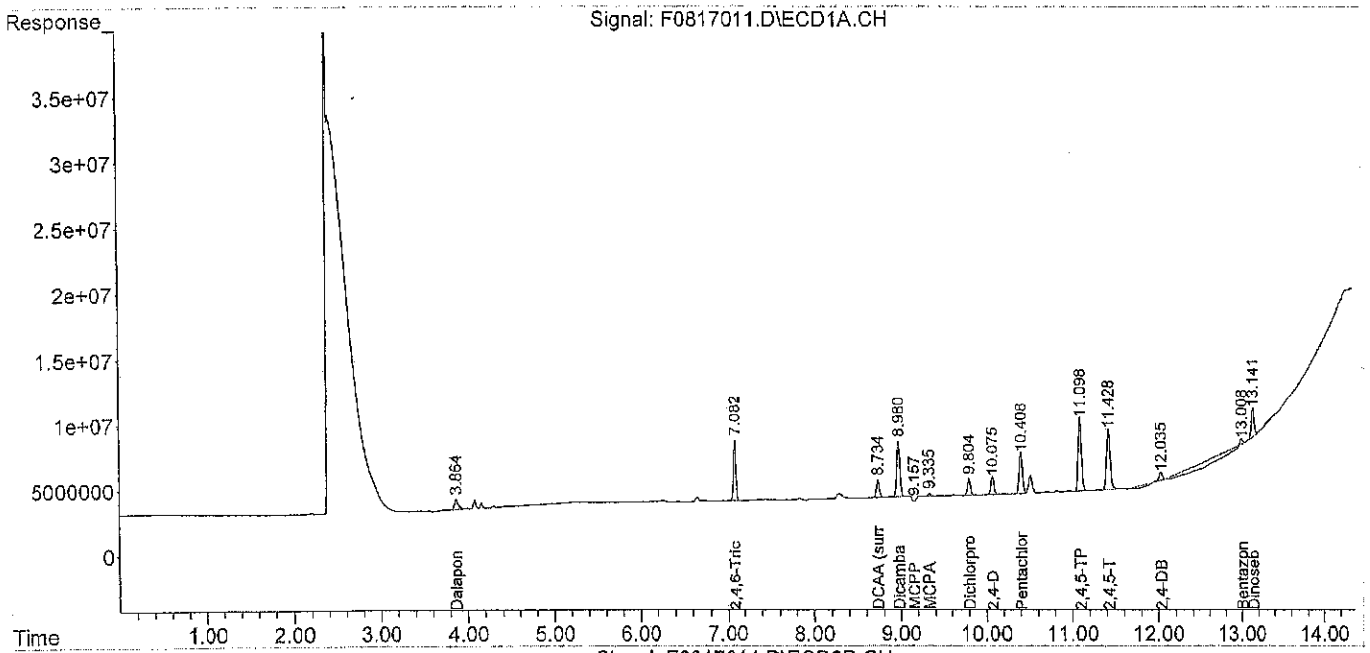
Quantitation Report (QT Reviewed)

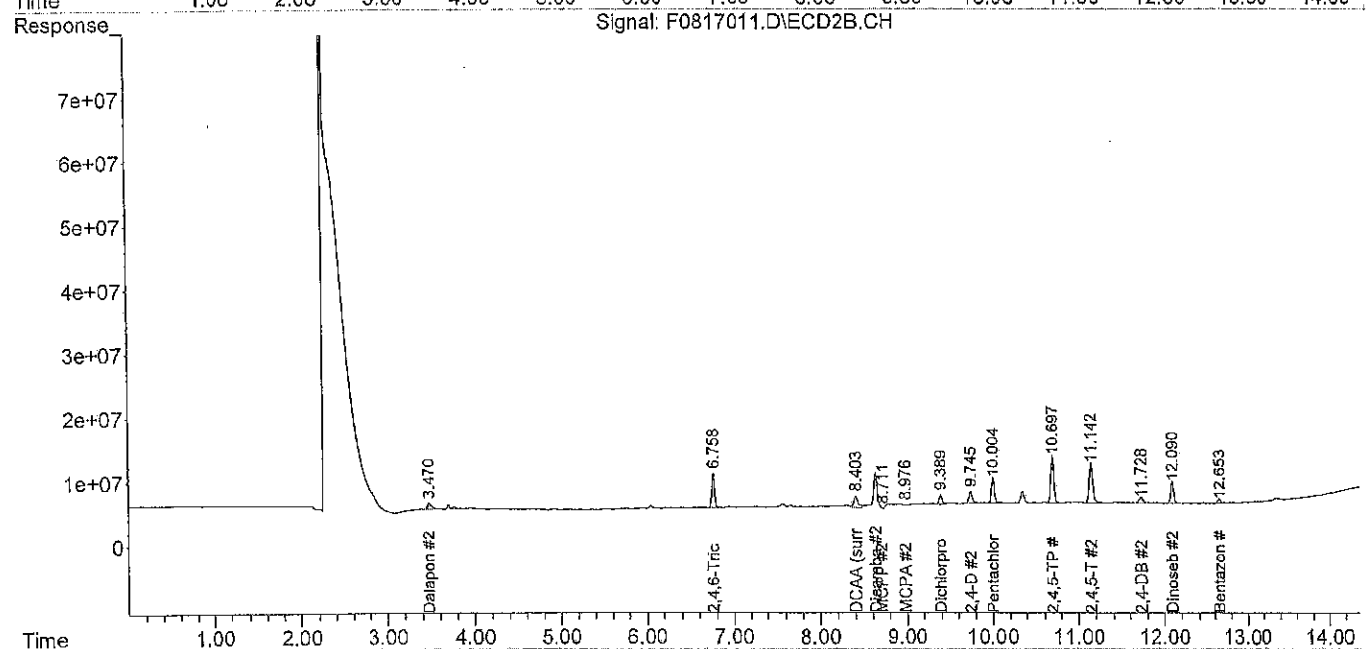
Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.735	8.403	3120475	3677033	25.333	25.861
	Spiked Amount 100.000			Recovery	=	25.33%	25.86%
	Target Compounds						
1)	A Dalapon	3.865	3.473	1855417	2249731	25.216	23.610
2)	A 2,4,6-Tri...	7.083	6.759	11354167	13199763	11.839	11.831
4)	A Dicamba	8.980	8.630	10068427	12558353	23.347	23.773
5)	A MCPP	9.157	8.712	199811	265631	2877.380	3123.865
6)	A MCPA	9.336	8.980	1048400	969997	2708.842	2734.370
7)	A Dichlorprop	9.805	9.388	2966815	3776783	25.170	26.979
8)	A 2,4-D	10.076	9.745	3455529	4654121	24.978	25.867
9)	A Pentachlo...	10.407	10.004	7628348	9784346	2.436	2.504
10)	A 2,4,5-TP	11.098	10.697	13752088	18343572	23.732	24.070
11)	A 2,4,5-T	11.427	11.142	11707613	15290891	24.117	23.686
12)	A 2,4-DB	12.035	11.726	1698799	2078253	24.944	24.458
13)	a Bentazon	13.005	12.653	1192894	1651396	24.703	22.819
14)	A Dinoseb	13.142	12.091	5347366	8238683	24.864	23.972

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

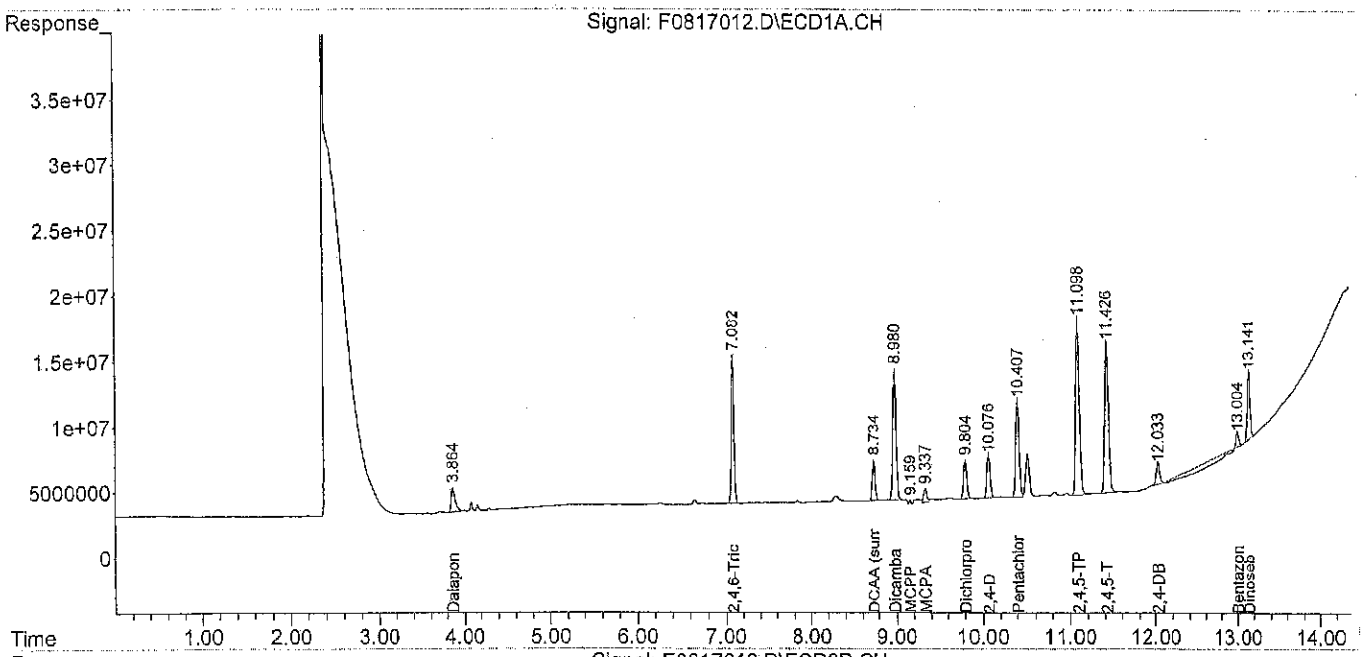
Quantitation Report (Not Reviewed)

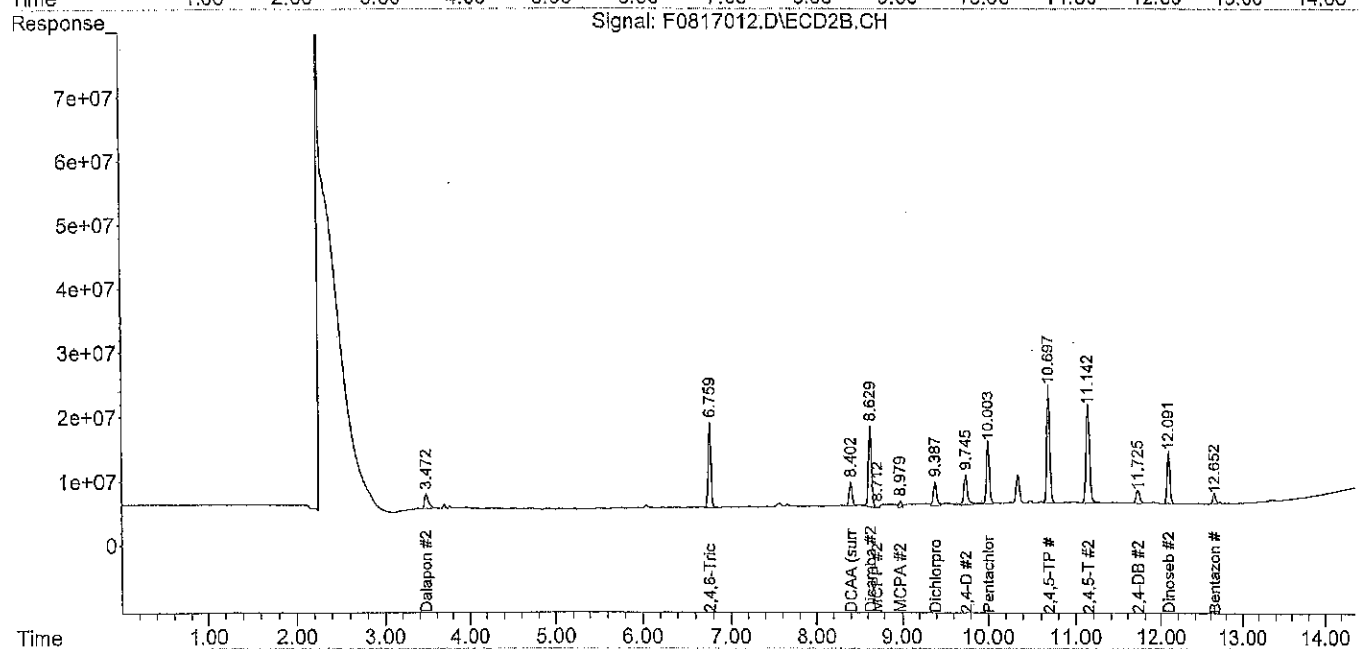
Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.733	8.401	5864299	6814069	47.608	47.925
		Spiked Amount 100.000			Recovery	=	47.61%	47.92%
		Target Compounds						
1)	A	Dalapon	3.864	3.472	3513619	4289384	47.751	45.015
2)	A	2,4,6-Tri...	7.082	6.758	22083231	25328645	23.026	22.701
4)	A	Dicamba	8.980	8.630	19506123	23646638	45.231	44.762
5)	A	MCPP	9.156	8.712	972672	1022364	5140.540	5070.816
6)	A	MCPA	9.335	8.978	2036145	2152226	4945.026	5139.277
7)	A	Dichlorprop	9.803	9.386	5516326	7047700	46.800	50.344
8)	A	2,4-D	10.074	9.744	6672898	8962952	48.235	49.814
9)	A	Pentachlo...	10.406	10.003	14530907	18616464	4.641	4.765
10)	A	2,4,5-TP	11.097	10.697	26647731	35111974	45.986	46.073
11)	A	2,4,5-T	11.426	11.141	22911810	30006336	47.196	46.480
12)	A	2,4-DB	12.034	11.725	3454487	3993012	50.722	46.991
13)	a	Bentazon	12.999f	12.648	2477630	3371122	51.308	46.583
14)	A	Dinoseb	13.135f	12.090	10836859	15985248	50.389	46.511

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

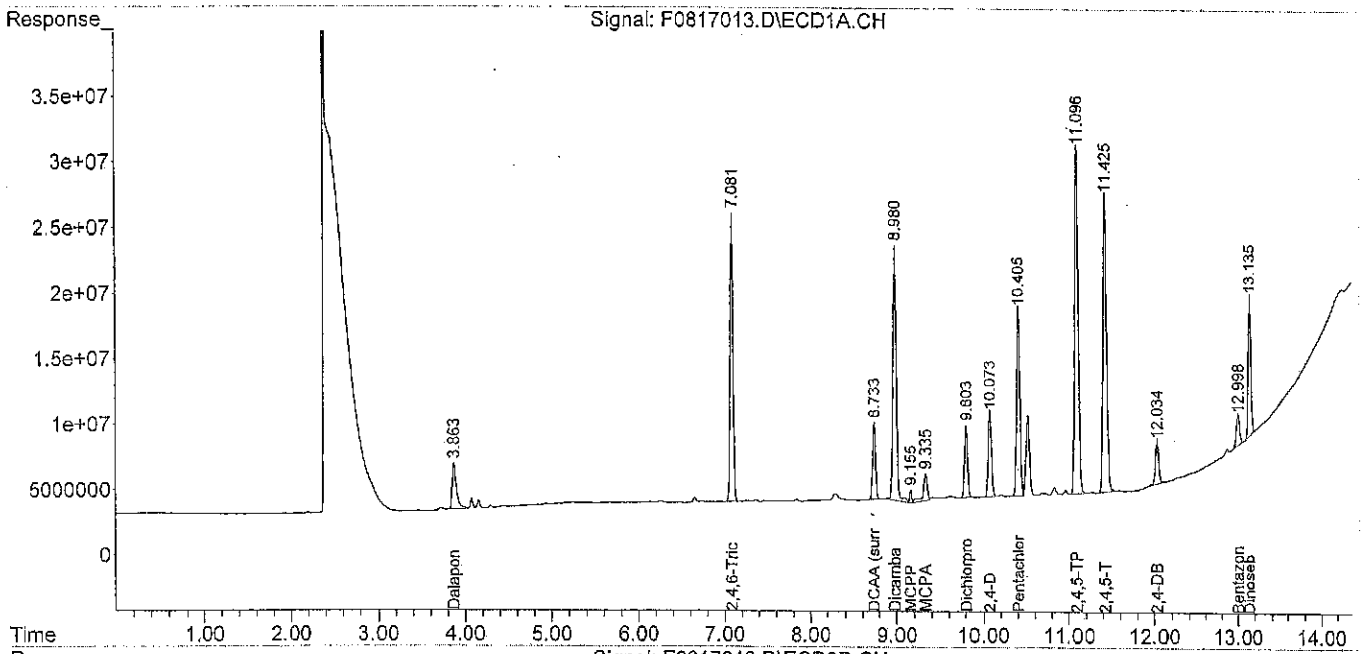
Quantitation Report (Not Reviewed)

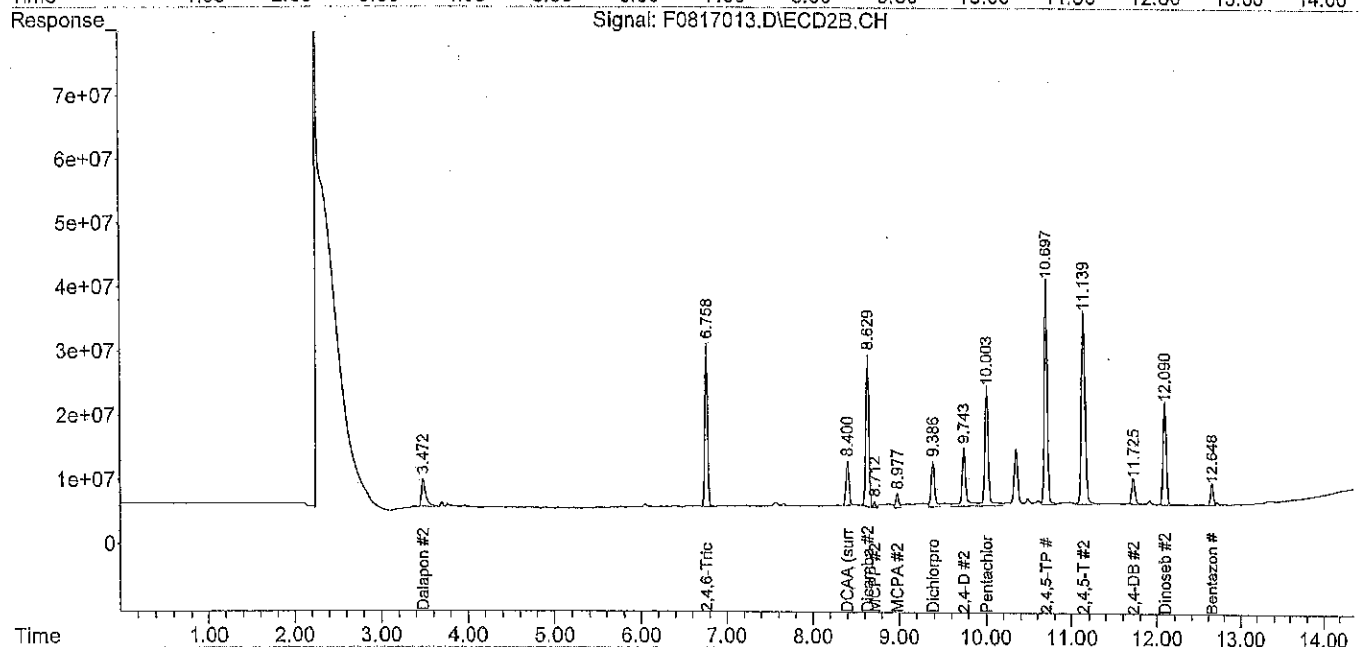
Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.731	8.400	11348388	13451287	92.129	94.605
		Spiked Amount 100.000			Recovery	=	92.13%	94.61%
		Target Compounds						
1)	A	Dalapon	3.865	3.473	6866529	8704228	93.318	91.347
2)	A	2,4,6-Tri...	7.081	6.758	44483672	50899710	46.383	45.620
4)	A	Dicamba	8.979	8.629	39334858	46144001	91.209	87.349
5)	A	MCPP	9.154	8.710	2488021	2706431	9577.916	9403.643
6)	A	MCPA	9.333	8.977	4187625	4322945	9815.820	9554.981
7)	A	Dichlorprop	9.801	9.385	10771858	12839484	91.388	91.717
8)	A	2,4-D	10.072	9.742	13053849	16533000	94.359	91.887
9)	A	Pentachlo...	10.404	10.001	28483043	35567736	9.096	9.103
10)	A	2,4,5-TP	11.096	10.695	54693437	69891107	94.384	91.709
11)	A	2,4,5-T	11.424	11.139	47347378	60940230	97.531	94.397
12)	A	2,4-DB	12.033	11.723	6898744	7999385	101.294	94.140
13)	a	Bentazon	13.003	12.650	4877862	6590466	101.014	91.069
14)	A	Dinoseb	13.139	12.089	21937455	32320424	102.005	94.041

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

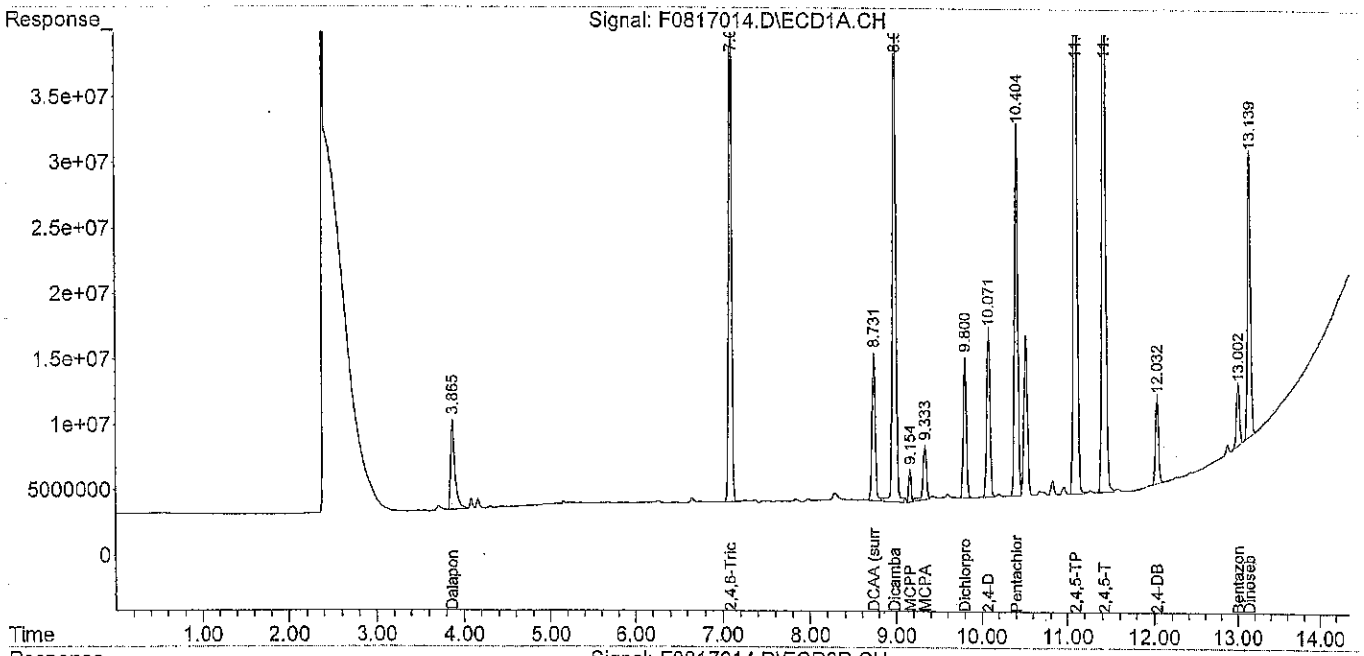
Quantitation Report (Not Reviewed)

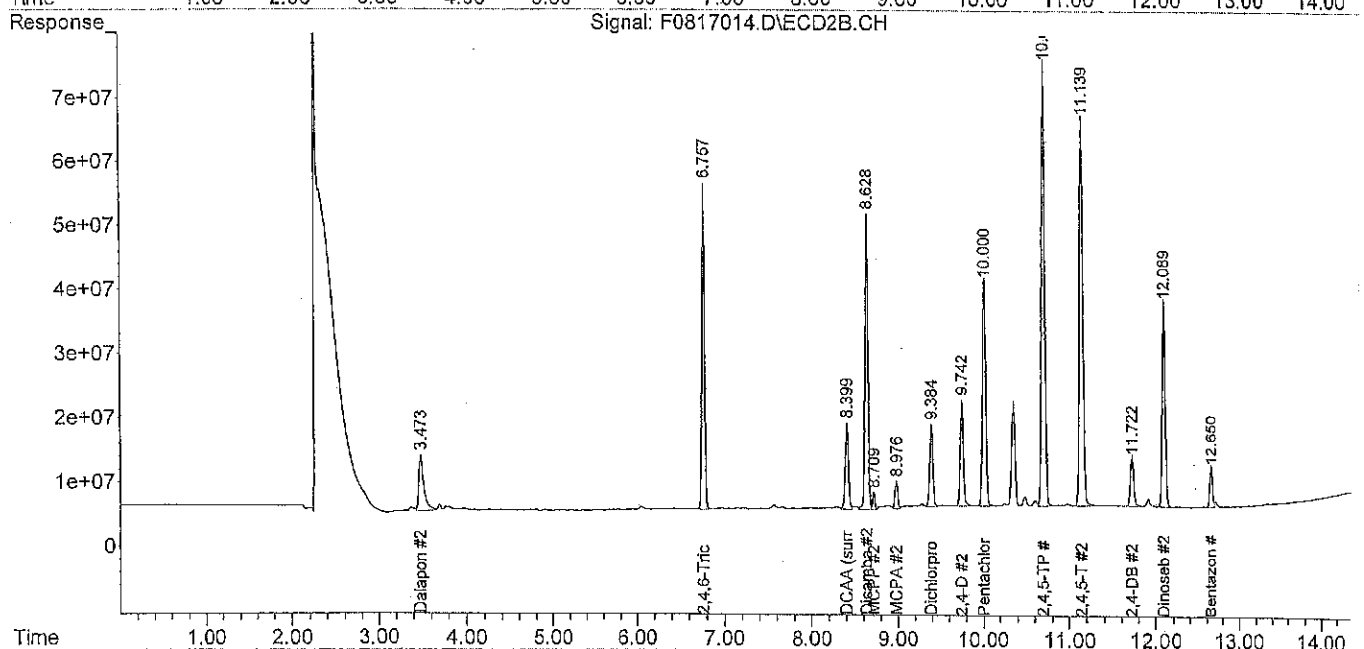
Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.732	8.400	26255998	30148769	213.154	212.042
Spiked Amount	100.000			Recovery	=	213.15%	212.04%
	Target Compounds						
1) A	Dalapon	3.867	3.475	16477193	21035245	223.929	220.756
2) A	2,4,6-Tri...	7.082	6.759	110.5E6	127.8E6	115.239	114.526
4) A	Dicamba	8.979	8.628	94350654	111.8E6	218.779	211.657
5) A	MCPP	9.156	8.711	6752926	7530404	22066.787	21814.934
6) A	MCPA	9.333	8.978	10206538	10786773	23442.201	22703.782
7) A	Dichlorprop	9.800	9.383	24717008	29583680	209.698	211.326
8) A	2,4-D	10.071	9.741	30823171	38043250	222.804	211.436
9) A	Pentachlo...	10.404	10.001	67787156	80426329	21.649	20.584
10) A	2,4,5-TP	11.096	10.696	134.4E6	169.3E6	231.873	222.207
11) A	2,4,5-T	11.424	11.139	116.5E6	151.0E6	239.955	233.880
12) A	2,4-DB	12.031	11.722	16678647	19089306	244.893	224.651
13) a	Bentazon	13.002	12.651	11612604	15572024	240.481	215.178
14) A	Dinoseb	13.139f	12.089	50893105	75489719	236.643	219.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

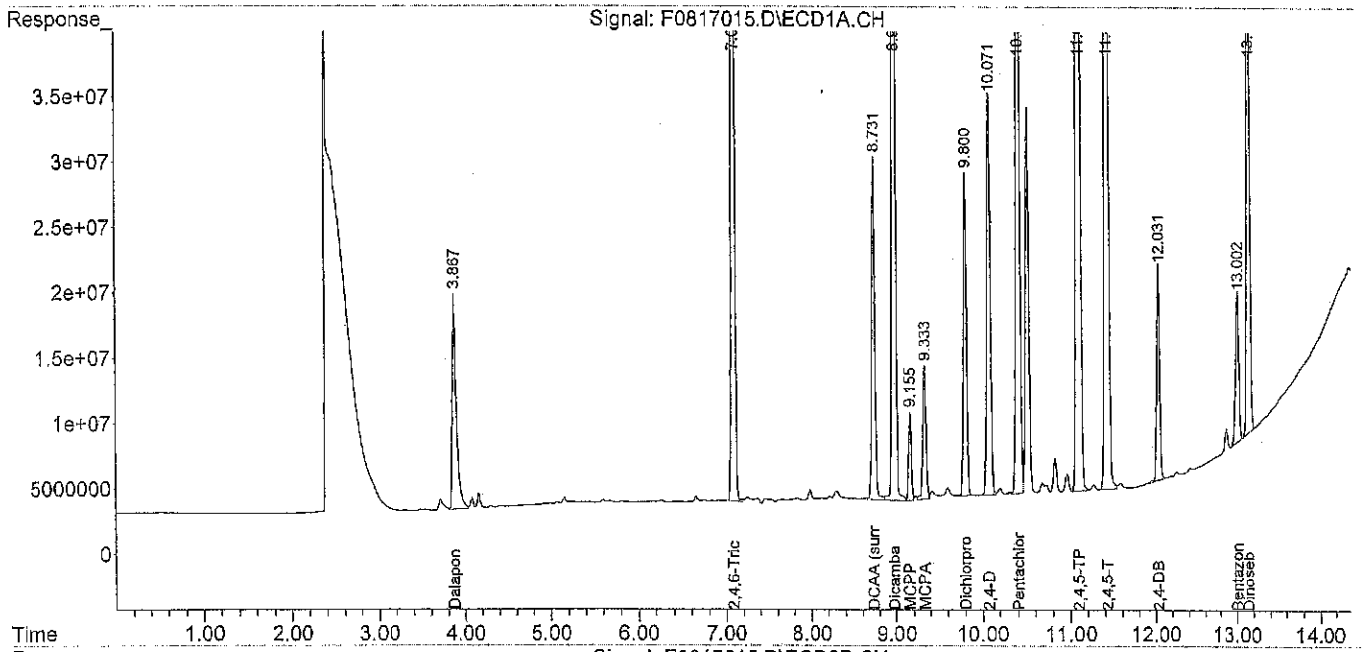
Quantitation Report (Not Reviewed)

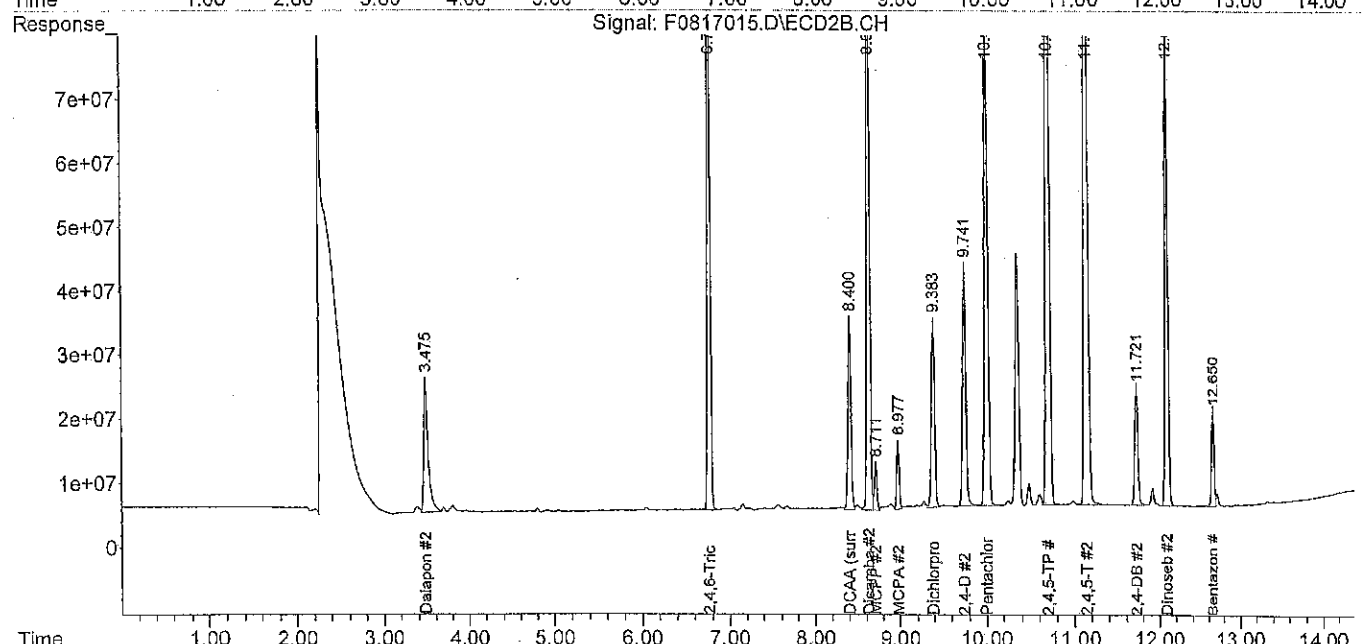
Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.732	8.401	57240466	66758932	464.695	469.528
	Spiked Amount 100.000			Recovery	=	464.70%	469.53%
	Target Compounds						
1) A	Dalapon	3.873	3.481	36111007	46193314	490.756	484.780
2) A	2,4,6-Tri...	7.084	6.760	262.5E6	307.4E6	273.730	275.508
4) A	Dicamba	8.979	8.628	224.8E6	264.5E6	521.275	500.754
5) A	MCPP	9.157	8.714	16801253	19124519	51491.177	51644.689
6) A	MCPA	9.336	8.981	23691471	25451703	53971.106	52535.373
7) A	Dichlorprop	9.799	9.382f	56064531	66294862	475.648	473.566
8) A	2,4-D	10.070	9.740	70747424	85752556	511.395	476.593
9) A	Pentachlo...	10.403	10.000	155.9E6	181.5E6	49.780	46.448
10) A	2,4,5-TP	11.095	10.695	318.2E6	393.8E6	549.044	516.783
11) A	2,4,5-T	11.422	11.138	283.9E6	357.8E6	584.755	554.208
12) A	2,4-DB	12.030f	11.721	41104828	44301446	603.543	521.358
13) a	Bentazon	12.999f	12.648	26780768	35928681	554.593	496.471
14) A	Dinoseb	13.135f	12.088	117.1E6	166.6E6	544.262	484.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

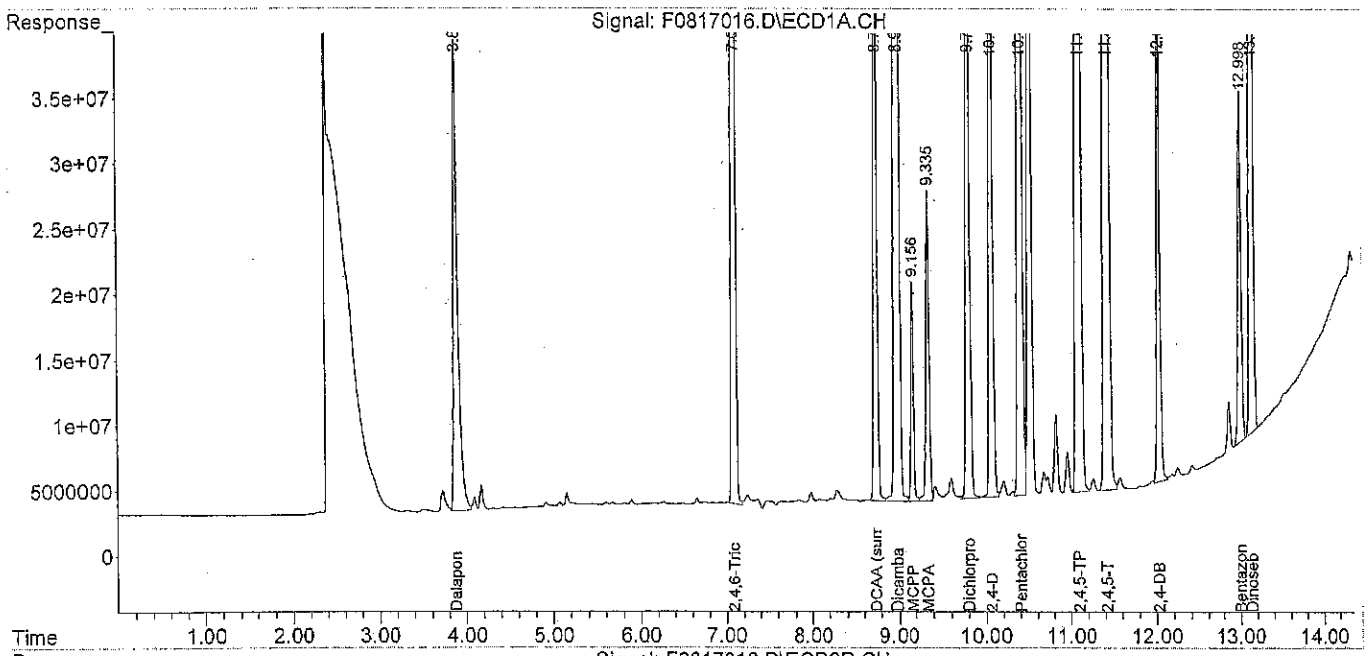
Quantitation Report (Not Reviewed)

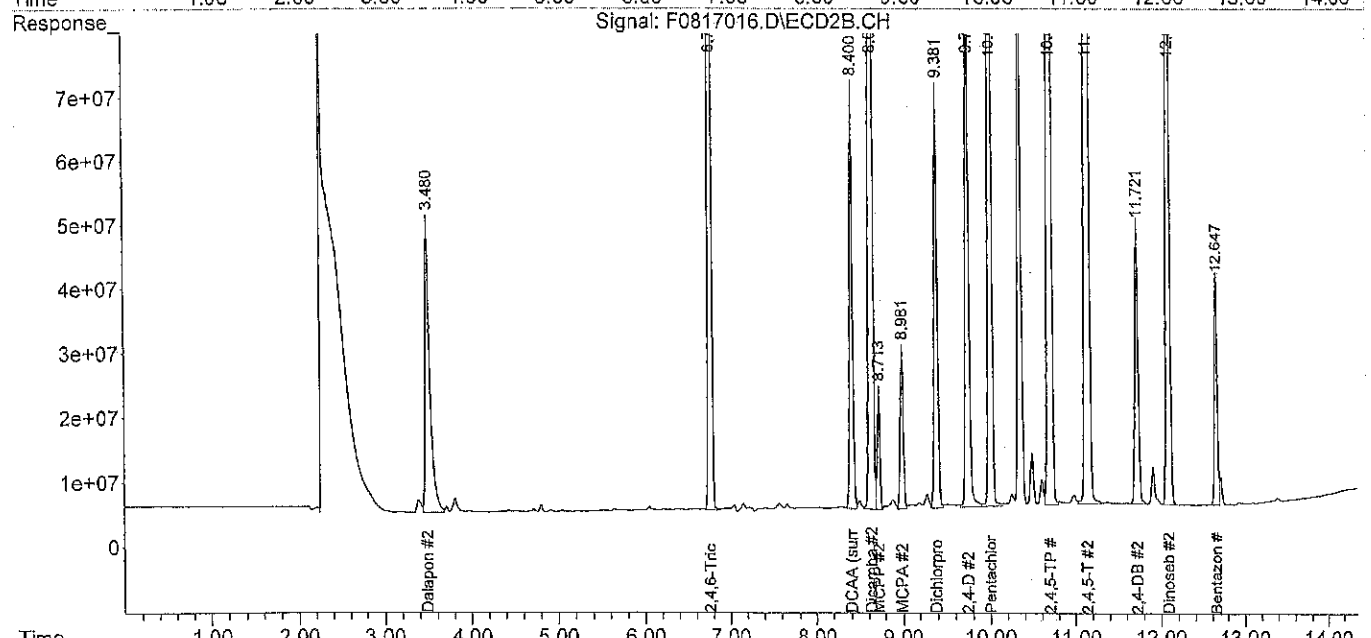
Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.753f	0.000	960161	0	7.795	N.D.	#
	Spiked Amount 100.000			Recovery	=	7.80%	0.00%	
	Target Compounds							
1)	A Dalapon	3.866	3.474	6807754	8572406	92.519	89.964	
2)	A 2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4)	A Dicamba	8.980	8.629	39483953	47293331	91.555	89.525	
5)	A MCPP	9.156	8.710	2639608	2834563	10021.806	9733.305	
6)	A MCPA	9.334	8.978	4386424	4659850	10265.887	10240.318	
7)	A Dichlorprop	9.802	9.385	10278317	12258239	87.201	87.565	
8)	A 2,4-D	10.074	9.744	12265306	15653918	88.659	87.001	
9)	A Pentachlo...	0.000	9.994f	0	240126	N.D.	0.061	#
10)	A 2,4,5-TP	11.097	10.697	51725738	66892655	89.263	87.774	
11)	A 2,4,5-T	11.424	11.140	48874445	63677945	100.677	98.638	
12)	A 2,4-DB	12.030	11.724	8907892	8593975	130.795	101.137	
13)	a Bentazon	13.001f	12.651	57292593	7187699	1186.451	99.321	#
14)	A Dinoseb	13.139	12.090	23459537	34548327	109.082	100.523	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

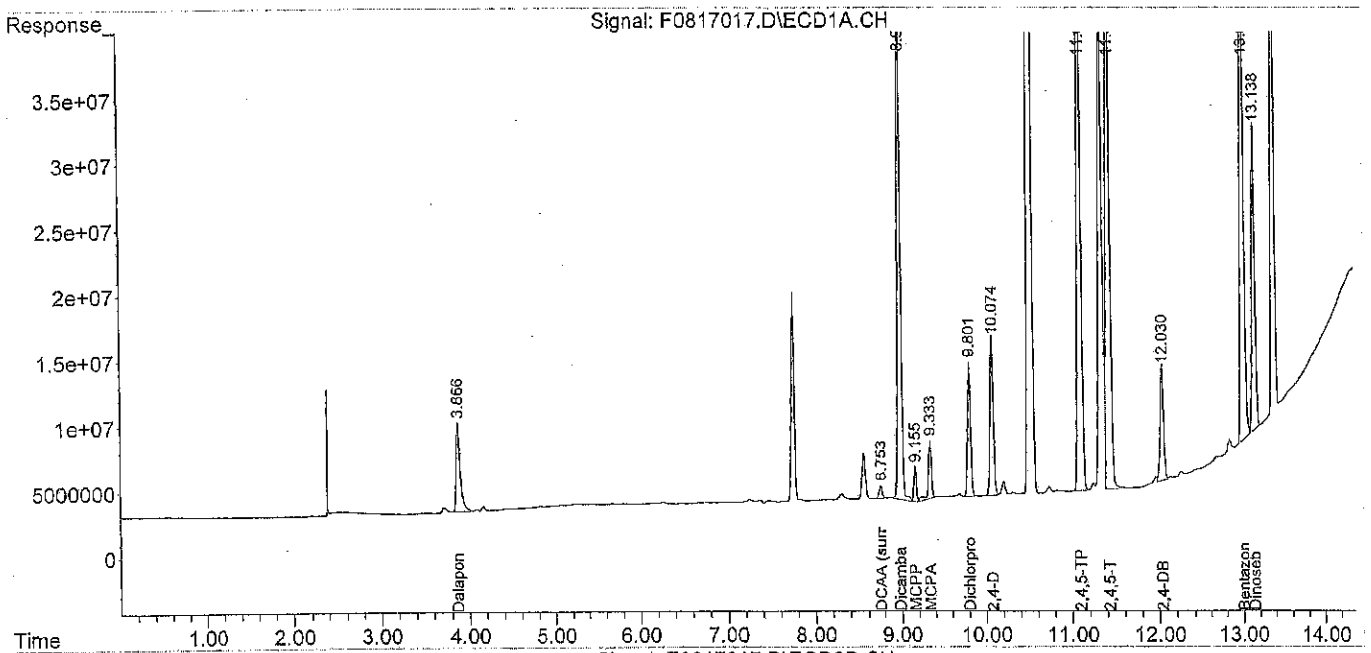
Quantitation Report (Not Reviewed)

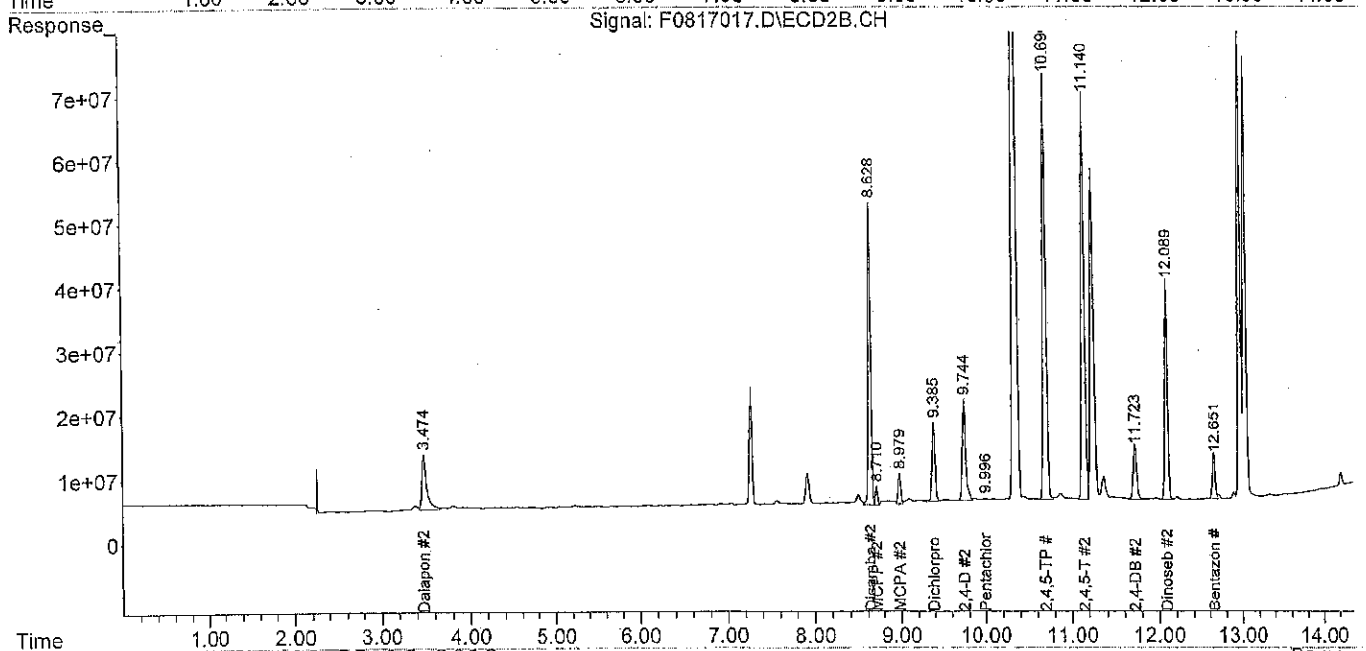
Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 12:05:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	107.046	-7.0	116	0.00
9 A	Pentachlorophenol	10.000	10.490	-4.9	115	0.00
Signal #2						
3 S	DCAA (surr)	100.000	95.587	4.4	101	0.00
9 A	Pentachlorophenol	10.000	8.950	10.5	98	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:41:09 2018

Evaluate Continuing Calibration Report

Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:45:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	108.157	-8.2	117	0.00
9 A	Pentachlorophenol	10.000	10.404	-4.0	114	0.00
Signal #2						
3 S	DCAA (surr)	100.000	100.128	-0.1	106	0.00
9 A	Pentachlorophenol	10.000	9.315	6.9	102	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:42:00 2018

Evaluate Continuing Calibration Report

Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	107.095	-7.1	116	0.00
9 A	Pentachlorophenol	10.000	10.362	-3.6	114	0.00
Signal #2						
3 S	DCAA (surr)	100.000	96.365	3.6	102	0.00
9 A	Pentachlorophenol	10.000	9.168	8.3	101	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:42:43 2018

Evaluate Continuing Calibration Report

Data File : F0830026.D
Sample : HERBCCV 0830-4 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 18:45:27
Operator :
Misc :
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 18:59:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	108.577	-8.6	118	0.00
9 A	Pentachlorophenol	10.000	10.457	-4.6	115	0.00
Signal #2						
3 S	DCAA (surr)	100.000	98.343	1.7	104	0.00
9 A	Pentachlorophenol	10.000	9.237	7.6	101	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:43:18 2018

Evaluate Continuing Calibration Report

Data File : F0830034.D
Sample : HERBCCV 0830-5 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 21:21:35
Operator :
Misc :
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 21:36:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	113.296	-13.3	123	0.00
9 A	Pentachlorophenol	10.000	10.843	-8.4	119	0.00
Signal #2						
3 S	DCAA (surr)	100.000	98.405	1.6	104	0.00
9 A	Pentachlorophenol	10.000	9.130	8.7	100	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Tue Sep 04 16:43:51 2018

Quantitation Report (Not Reviewed)

Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 10:41:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:21 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.728	8.391f	13185824	13590865	107.046	95.587
	Spiked Amount 100.000			Recovery	=	107.05%	95.59%
	Target Compounds						
1) A	Dalapon	3.864	3.465f	8244319	9866359	112.042	103.543
2) A	2,4,6-Tri...	7.079	6.750	54267911	52823177	56.585	47.344
4) A	Dicamba	8.975	8.619f	45881643	46640894	106.390	88.290
5) A	MCPP	9.152	8.702	2908306	2784309	10808.633	9604.012
6) A	MCPA	9.328	8.968	4866708	4325234	11353.215	9559.637
7) A	Dichlorprop	9.797	9.376f	12728383	12207255	107.987	87.201
8) A	2,4-D	10.068	9.732f	14996446	15976533	108.401	88.794
9) A	Pentachlo...	10.399	9.991f	32846744	34969476	10.490	8.950
10) A	2,4,5-TP	11.091	10.686f	51296014	67893566	88.521	89.088
11) A	2,4,5-T	11.421f	11.129f	53874394	59006473	110.976	91.401
12) A	2,4-DB	12.028f	11.713	7966950	7540365	116.979	88.738
13) a	Bentazon	13.000f	12.642	4926233	6385099	102.016	88.231
14) A	Dinoseb	13.136f	12.081f	23195763	28732408	107.856	83.601

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

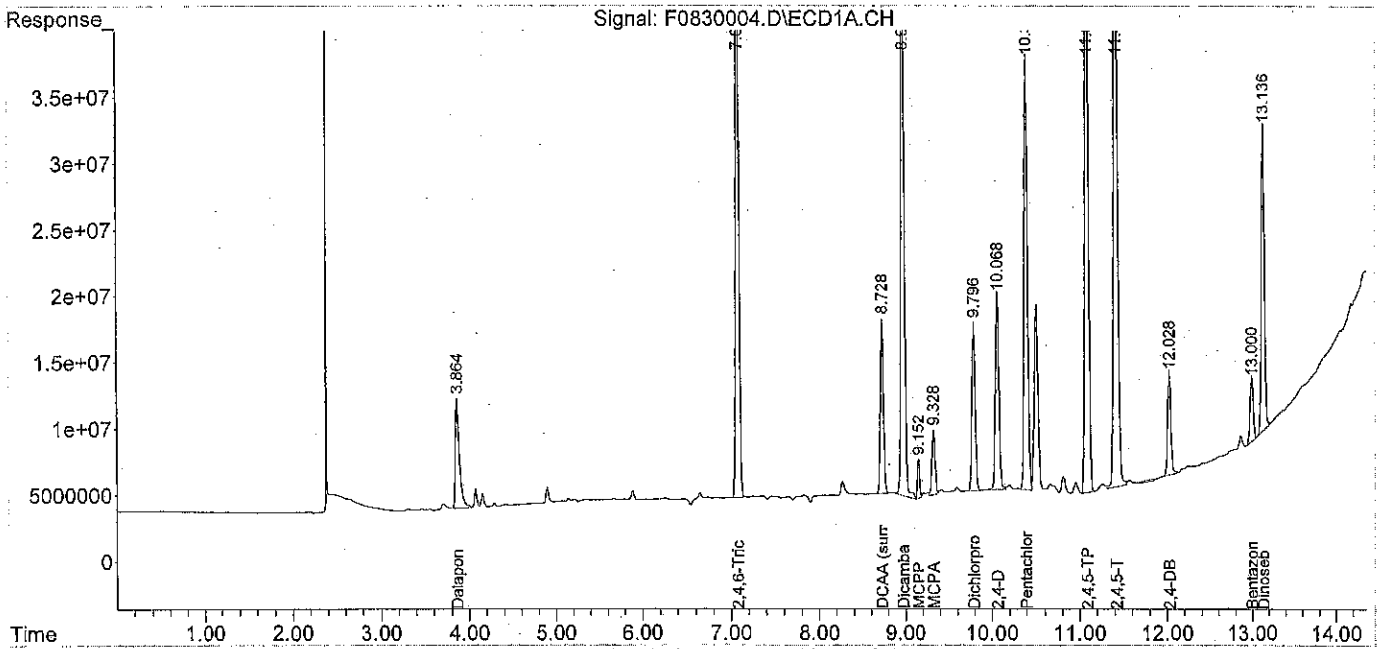
Quantitation Report (Not Reviewed)

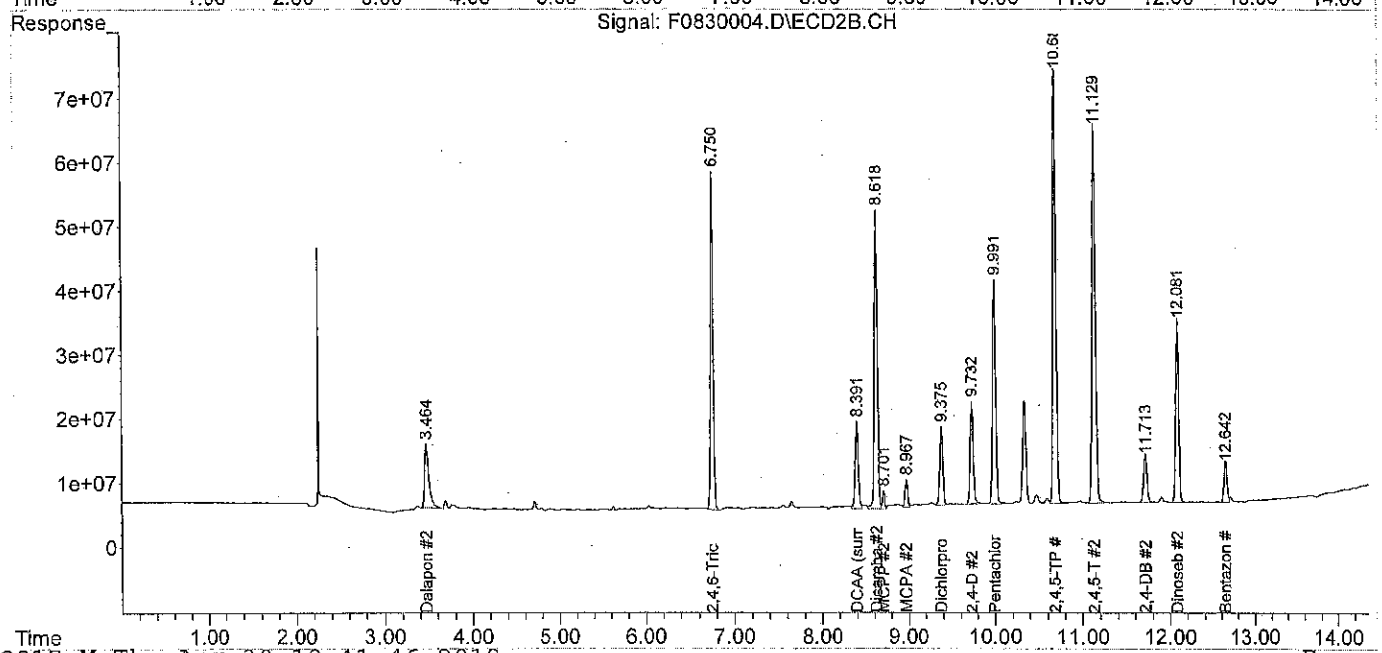
Data File : F0830004.D
Sample : HERBCCV 0830-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 10:27:18
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 10:41:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:21 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:44:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KMS 8-30-18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.730	8.393	13322608	14236559	108.157	100.128	
Spiked Amount	100.000			Recovery	=	108.16%	100.13%	
	Target Compounds							
1) A	Dalapon	3.867	3.467	8194475	10671290	111.365	111.991	
2) A	2,4,6-Tri...	7.081	6.752	53518773	54417163	55.804	48.773	
4) A	Dicamba	8.977	8.621	46011478	48315475	106.691	91.460	
5) A	MCPP	9.153	8.703	2535450	2592265	9716.801	9109.913	
6) A	MCPA	9.331	8.971	4603880	4242185	10758.191	9390.699	
7) A	Dichlorprop	9.798	9.378	12319390	12642914	104.517	90.313	
8) A	2,4-D	10.069	9.735	15506690	17278442	112.089	96.030	
9) A	Pentachlo...	10.401	9.994	32577559	36395124	10.404	9.315	
10) A	2,4,5-TP	11.093	10.689	59601705	72963900	102.855	95.741	
11) A	2,4,5-T	11.421	11.132	53673565	63374547	110.562	98.168	
12) A	2,4-DB	12.029	11.715	8307230	7852979	121.975	92.417	
13) a	Bentazon	13.000	12.645	5864539	6355626	121.447	87.824	#
14) A	Dinoseb	13.137	12.084	25010215	31705041	116.292	92.251	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

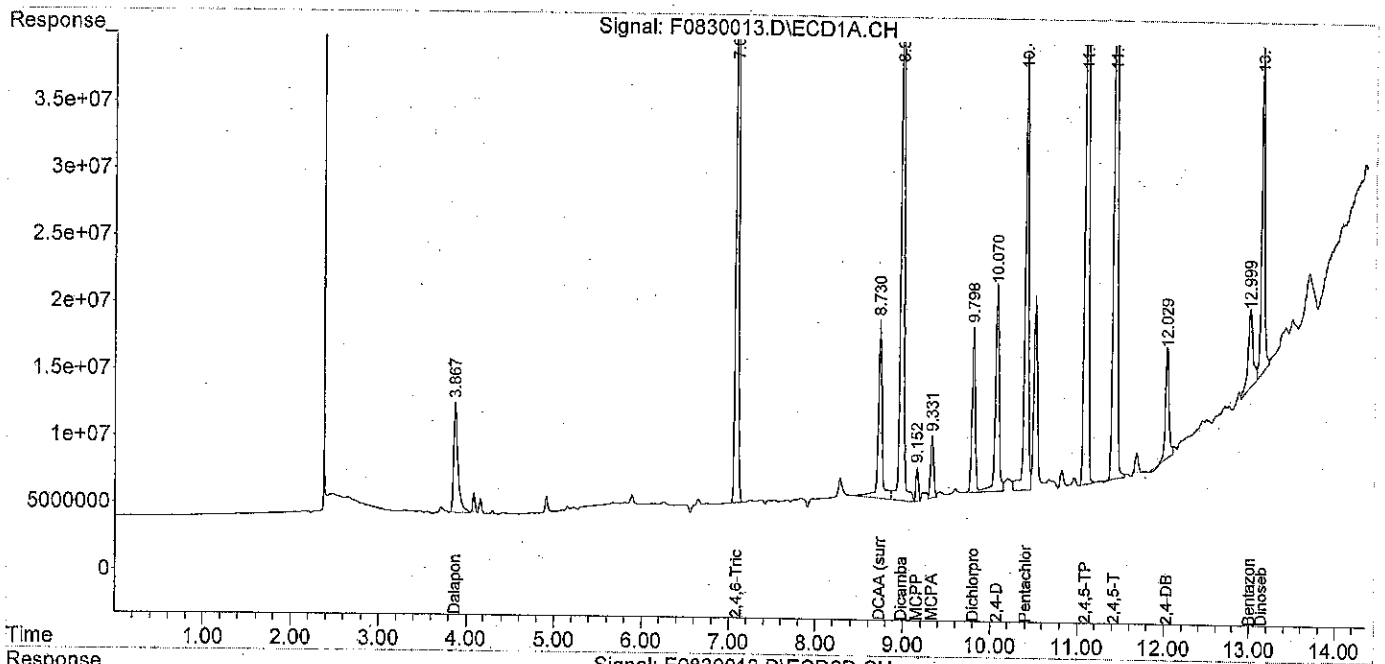
Quantitation Report (Not Reviewed)

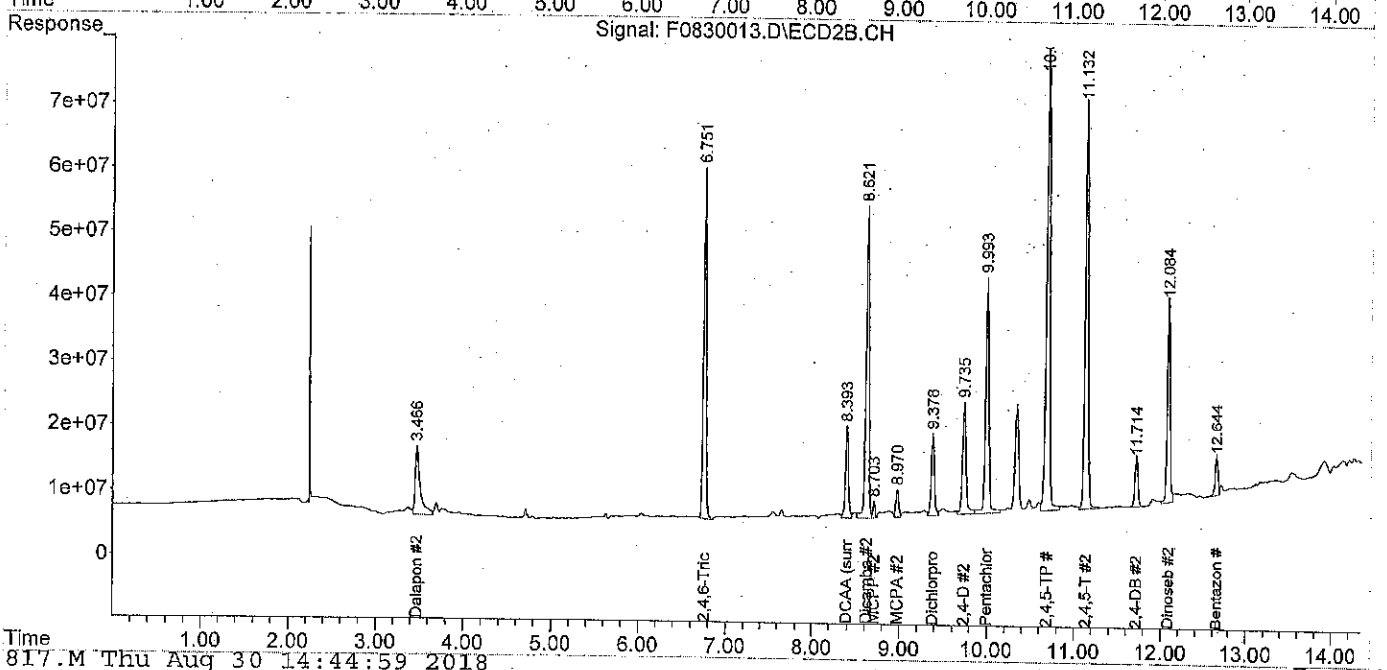
Data File : F0830013.D
Sample : HERBCCV 0830-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 14:30:30
Operator :
Misc :
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 14:44:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KMS 8/30/18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.729	8.392	13191837	13701406	107.095	96.365	
	Spiked Amount 100.000			Recovery	=	107.10%	96.36%	
	Target Compounds							
1) A	Dalapon	3.867	3.468	8000341	10349491	108.726	108.614	
2) A	2,4,6-Tri...	7.080	6.751	53120920	53235555	55.389	47.713	
4) A	Dicamba	8.975	8.620	45946536	46597479	106.540	88.208	
5) A	MCPP	9.151	8.703	2593114	2561947	9885.658	9031.909	
6) A	MCPA	9.330	8.969	4392949	4222554	10280.658	9350.763	
7) A	Dichlorprop	9.797	9.377	12462977	12504147	105.735	89.321	
8) A	2,4-D	10.068	9.734	15049915	17123145	108.788	95.166	
9) A	Pentachlo...	10.399	9.993	32446109	35821207	10.362	9.168	
10) A	2,4,5-TP	11.092	10.688	63866458	70419925	110.214	92.403	
11) A	2,4,5-T	11.420	11.131	55643351	61088545	114.620	94.627	
12) A	2,4-DB	12.028	11.715	8287229	7765095	121.682	91.383	
13) a	Bentazon	12.996	12.642	5400555	6060180	111.838	83.741	#
14) A	Dinoseb	13.133	12.083	21763386	27347886	101.195	79.573	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

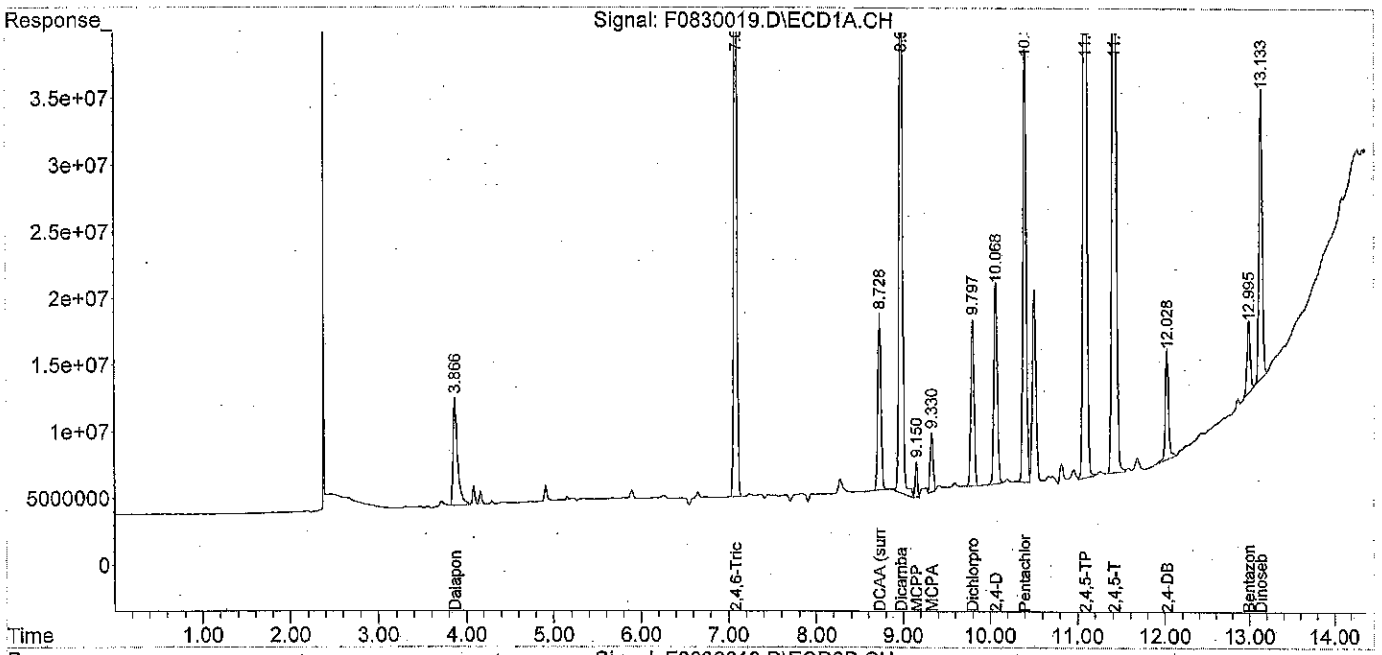
Quantitation Report (Not Reviewed)

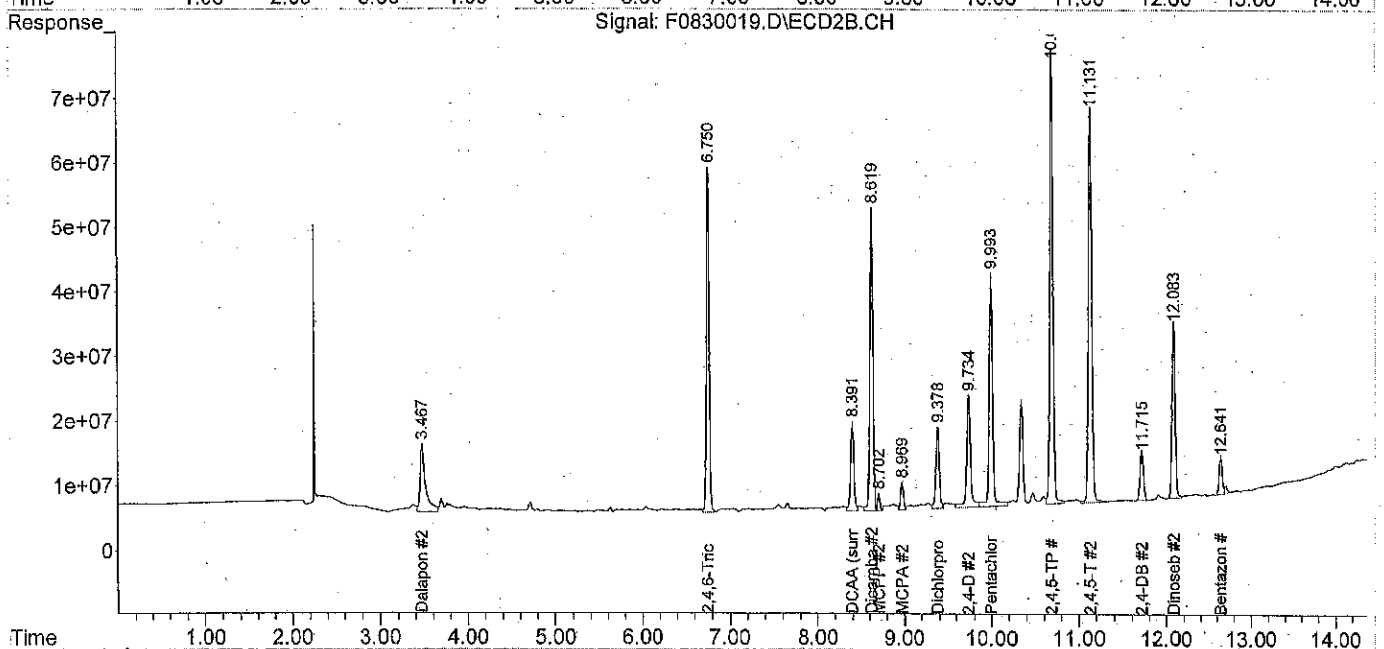
Data File : F0830019.D
Sample : HERBCCV 0830-3 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 16:28:48
Operator :
Misc :
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 16:43:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830026.D
Sample : HERBCCV 0830-4 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 18:45:27
Operator :
Misc :
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 18:59:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

8-31-18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

		Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
		System Monitoring Compounds						
3)	S	DCAA (surr)	8.729	8.394	13374428	13982716	108.577	98.343
		Spiked Amount 100.000			Recovery	=	108.58%	98.34%
		Target Compounds						
1)	A	Dalapon	3.867	3.468	7984690	9567291	108.514	100.405
2)	A	2,4,6-Tri...	7.081	6.752	51736644	53494276	53.946	47.945
4)	A	Dicamba	8.976	8.621	45724774	47551982	106.026	90.014
5)	A	MCPP	9.152	8.704	2563607	2672452	9799.255	9316.221
6)	A	MCPA	9.331	8.971	4544175	4317827	10623.023	9544.570
7)	A	Dichlorprop	9.798	9.379	12398871	12650343	105.191	90.366
8)	A	2,4-D	10.068	9.736	15189049	17393782	109.793	96.671
9)	A	Pentachlo...	10.401	9.994	32744468	36090638	10.457	9.237
10)	A	2,4,5-TP	11.091	10.689	64374073	70765982	111.090	92.857
11)	A	2,4,5-T	11.419	11.131	56326249	62511074	116.027	96.830
12)	A	2,4-DB	12.027	11.716	8242859	8039623	121.030	94.614
13)	a	Bentazon	12.994	12.643	5371383	6282450	111.234	86.812
14)	A	Dinoseb	13.132	12.083	22103794	27452521	102.778	79.877

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

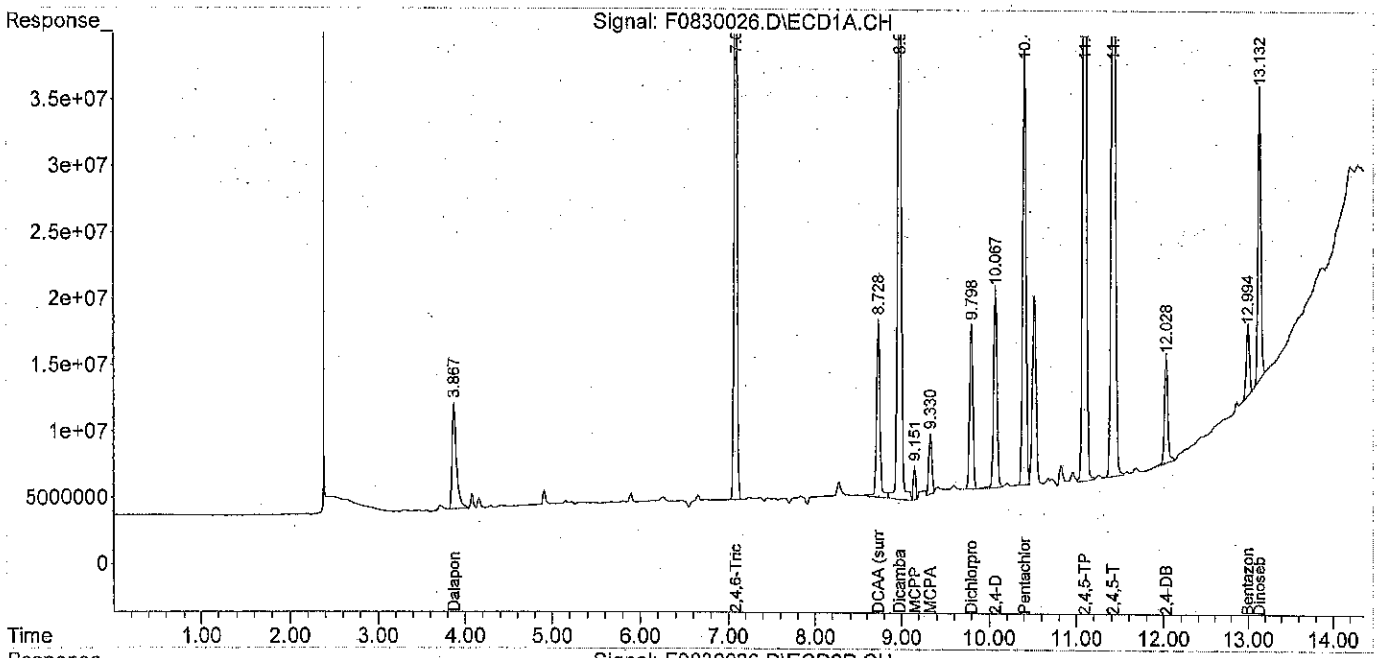
Quantitation Report (Not Reviewed)

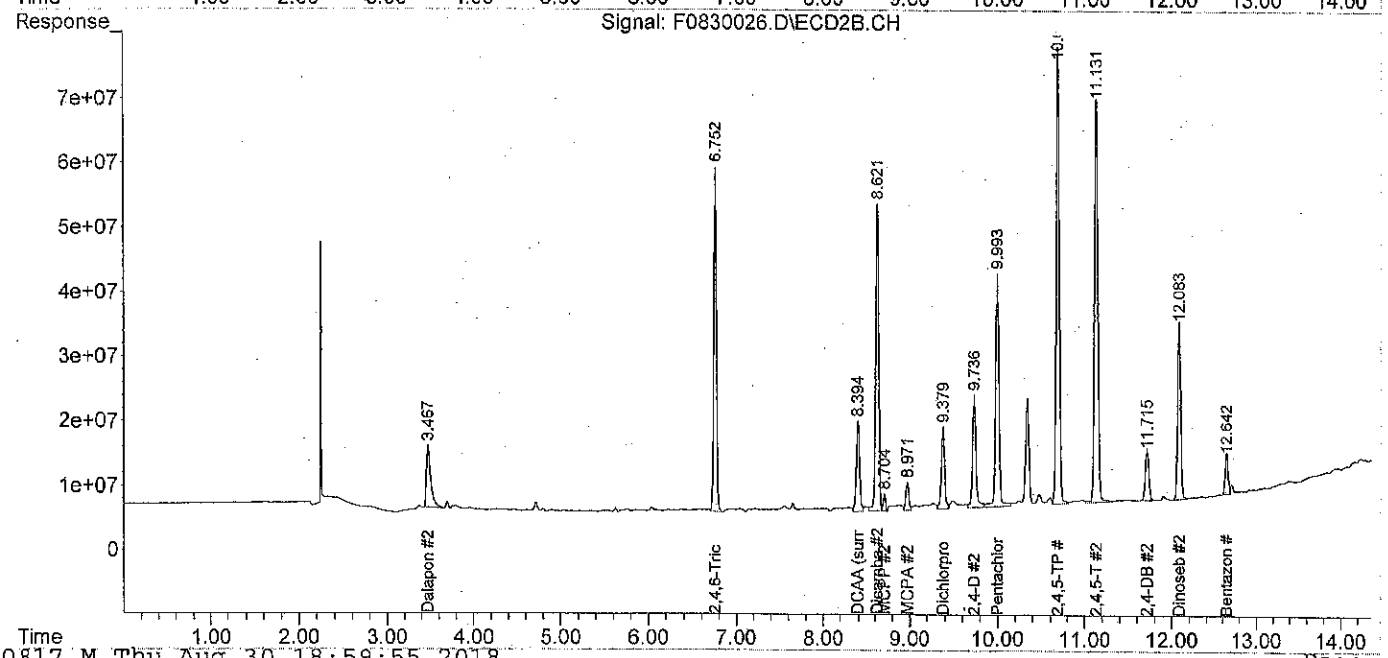
Data File : F0830026.D
Sample : HERBCCV 0830-4 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 18:45:27
Operator :
Misc :
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 18:59:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0830034.D
Sample : HERBCCV 0830-5 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 21:21:35
Operator :
Misc :
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 21:36:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

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	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.733	8.398	13955660	13991498	113.296	98.405	
	Spiked Amount 100.000			Recovery	=	113.30%	98.41%	
	Target Compounds							
1) A	Dalapon	3.872	3.474	7958092	8658219	108.152	90.864	
2) A	2,4,6-Tri...	7.086	6.757	55717462	54460352	58.096	48.811	
4) A	Dicamba	8.980	8.627	48071309	48574736	111.467	91.950	
5) A	MCPP	9.157	8.709	2758158	2767316	10368.956	9560.290	
6) A	MCPA	9.334	8.976	4597421	4298115	10743.569	9504.472	
7) A	Dichlorprop	9.802	9.384	13044400	12258962	110.668	87.570	
8) A	2,4-D	10.073	9.740	15829039	16812048	114.420	93.437	
9) A	Pentachlo...	10.405	10.000	33951544	35671962	10.843	9.130	
10) A	2,4,5-TP	11.096	10.694	66896037	70868883	115.442	92.992	
11) A	2,4,5-T	11.423	11.137	58549522	62028080	120.606 -24	96.082	
12) A	2,4-DB	12.031	11.720	8671095	8071296	127.318 27	94.986	#
13) a	Bentazon	12.999	12.647	6704162	6275050	138.834 39	86.710	#
14) A	Dinoseb	13.137	12.088	21004179	24976712	97.665	72.673	# +27

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

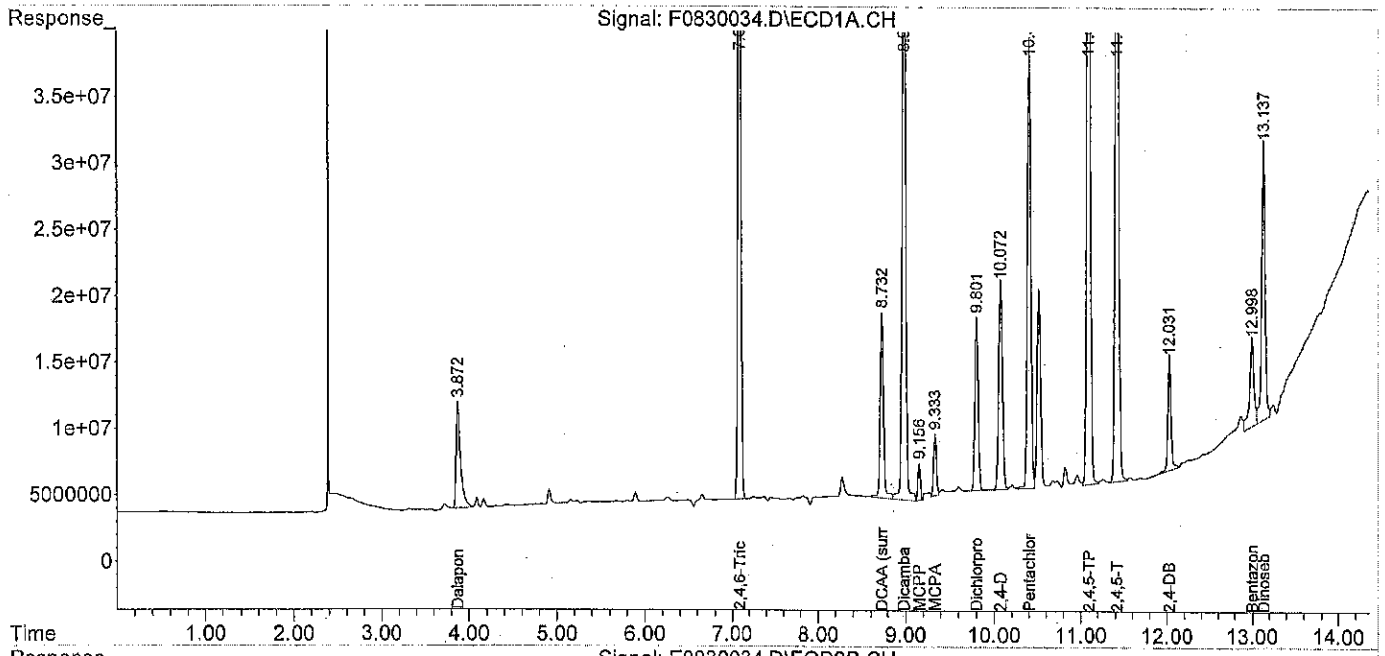
Quantitation Report (Not Reviewed)

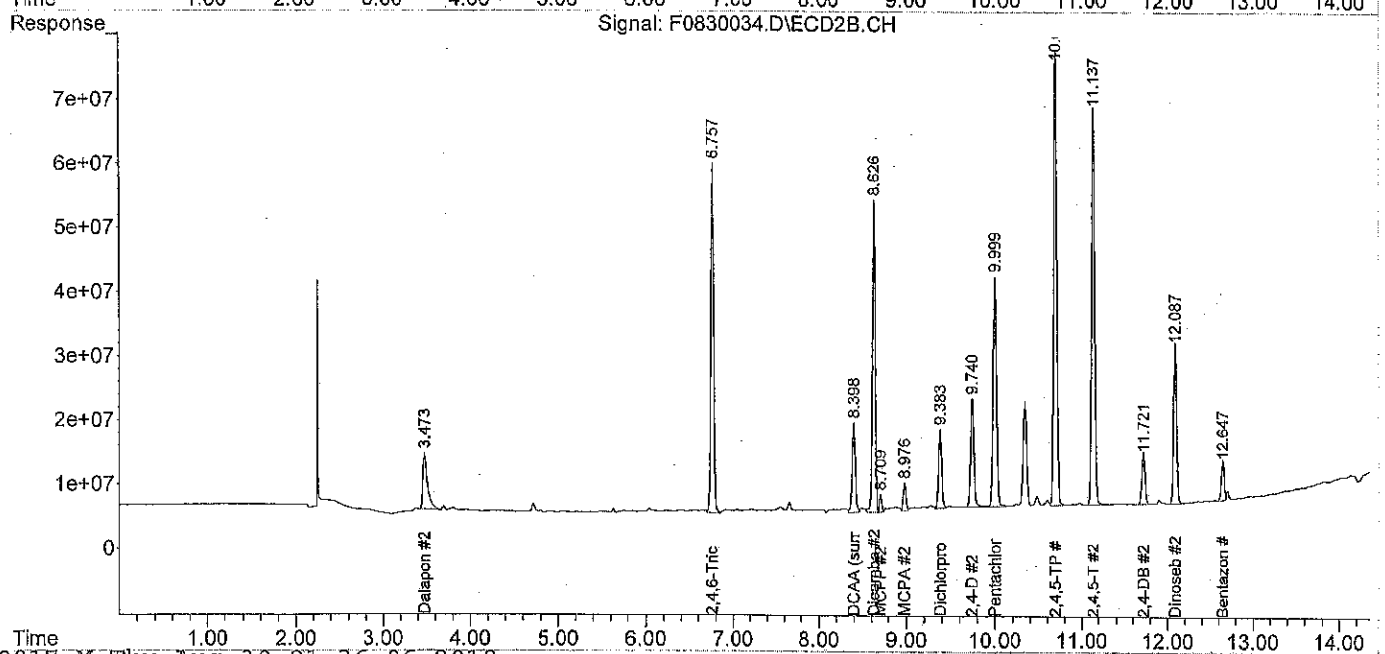
Data File : F0830034.D
Sample : HERBCCV 0830-5 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180830\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 30-Aug-18, 21:21:35
Operator :
Misc :
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 30 21:36:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Sequence Name: C:\msdchem\1\sequence\F180830.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180830\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

	Line		Sample Name/Misc Info		
1)	Sample	1	F0830001	H180817	HEX
2)	Sample	2	F0830002	H180817	HEX
3)	Sample	3	F0830003	H180817	HEX
4)	Sample	4	F0830004	H180817	HERBCCV 0830-1 (PS4-51-06)
5)	Sample	5	F0830005	H180817	MB0830W1
6)	Sample	6	F0830006	H180817	SB0830W1
7)	Sample	7	F0830007	H180817	SB0830W1 DUP
8)	Sample	8	F0830008	H180817	08-309-01
9)	Sample	9	F0830009	H180817	08-309-02
10)	Sample	10	F0830010	H180817	08-309-03
11)	Sample	11	F0830011	H180817	HEX
12)	Sample	12	F0830012	H180817	HEX
13)	Sample	13	F0830013	H180817	HERBCCV 0830-2 (PS4-51-06)
14)	Sample	14	F0830014	H180817	08-326-03
15)	Sample	15	F0830015	H180817	08-326-03 MS
16)	Sample	16	F0830016	H180817	08-326-03 MSD
17)	Sample	17	F0830017	H180817	HEX
18)	Sample	18	F0830018	H180817	HEX
19)	Sample	19	F0830019	H180817	HERBCCV 0830-3 (PS4-51-06)
20)	Sample	20	F0830020	H180817	08-326-01
21)	Sample	21	F0830021	H180817	08-326-02
22)	Sample	22	F0830022	H180817	08-326-04
23)	Sample	23	F0830023	H180817	08-326-05
24)	Sample	24	F0830024	H180817	HEX
25)	Sample	25	F0830025	H180817	HEX
26)	Sample	26	F0830026	H180817	HERBCCV 0830-4 (PS4-51-06)
27)	Sample	27	F0830027	H180817	08-348-01
28)	Sample	28	F0830028	H180817	08-348-02
29)	Sample	29	F0830029	H180817	08-348-03
30)	Sample	30	F0830030	H180817	08-348-04
31)	Sample	31	F0830031	H180817	08-348-05
32)	Sample	32	F0830032	H180817	HEX
33)	Sample	33	F0830033	H180817	HEX
34)	Sample	34	F0830034	H180817	HERBCCV 0830-5 (PS4-51-06)

Sequence Name: C:\msdchem\1\sequence\F180817.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180817\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	F0817001 PC180813 HEX
2)	Sample 2	F0817002 PC180813 HEX
3)	Sample 3	F0817003 PC180813 HEX
4)	Sample 4	F0817004 PC180813 PCBCCV 0817-1 (PS4-53-07)
5)	Sample 5	F0817005 H180817 hex
6)	Sample 6	F0817006 H180817 hex
7)	Sample 7	F0817007 H180817 hex
8)	Sample 8	F0817008 H180817 hex
9)	Calibration 9	F0817009 H180817 HERB IC 2.0 ppm PS4-51-08
10)	Calibration 10	F0817010 H180817 HERB IC 5.0 ppm PS4-51-09
11)	Calibration 11	F0817011 H180817 HERB IC 10 ppm PS4-51-10
12)	Calibration 12	F0817012 H180817 HERB IC 25 ppm PS4-51-11
13)	Calibration 13	F0817013 H180817 HERB IC 50 ppm PS4-51-12
14)	Calibration 14	F0817014 H180817 HERB IC 100 ppm PS4-51-13
15)	Calibration 15	F0817015 H180817 HERB IC 250 ppm PS4-51-14
16)	Calibration 16	F0817016 H180817 HERB IC 500 ppm PS4-51-15
17)	Sample 17	F0817017 H180817 HERB ICV PS4-055-09
18)	Sample 18	F0817018 PC180817 HEX
19)	Sample 19	F0817019 PC180817 HEX
20)	Calibration 20	F0817020 PC180817 PCB IC 0.020 ppm PS4-054-08
21)	Calibration 21	F0817021 PC180817 PCB IC 0.050 ppm PS4-054-09
22)	Calibration 22	F0817022 PC180817 PCB IC 0.10 ppm PS4-054-10
23)	Calibration 23	F0817023 PC180817 PCB IC 0.25 ppm PS4-054-11
24)	Calibration 24	F0817024 PC180817 PCB IC 0.50 ppm PS4-054-12
25)	Calibration 25	F0817025 PC180817 PCB IC 0.75 ppm PS4-054-13
26)	Calibration 26	F0817026 PC180817 PCB IC 1.0 ppm PS4-054-14
27)	Calibration 27	F0817027 PC180817 PCB IC 2.0 ppm PS4-054-15
28)	Calibration 28	F0817028 PC180817 AR1221 SPQ PS4-055-01
29)	Calibration 29	F0817029 PC180817 AR1232 SPQ PS4-055-02
30)	Calibration 30	F0817030 PC180817 AR1242 SPQ PS4-055-03
31)	Calibration 31	F0817031 PC180817 AR1248 SPQ PS4-055-04
32)	Calibration 32	F0817032 PC180817 AR1254 SPQ PS4-055-05
33)	Calibration 33	F0817033 PC180817 AR1262 SPQ PS4-055-06
34)	Calibration 34	F0817034 PC180817 AR1268 SPQ PS4-055-07
35)	Sample 35	F0817035 PC180817 PCB ICV PS4-055-08

Environmental Inc.

PCB'S EXTRACTION LOG

Date: 08/30/01 Time Ext. _____ am/pm

Analysis: Herbicide

Matrix: Water

Surrogate Std. I.D.: PS4-51-01

Spike Std. I.D: PS4-53-03

LAB ID	pH	SAMPLE W/V	INTER VOLUME	ALIQUOT TAKEN	ALIQUOT FIN VOL.	SAMPLE FIN VOL	AMT SUR	AMT SPK	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
MB0830W1	<2	1000 mL	180	—		10mL	100uL	—	—	MM/RD	
SB0830W1		↓						250uL			
SB0830W1 dup		↓						↓			
08-309-01d		1567/510						—			
02a		1513/513									
03a		1580/514									
08-326-01d		1577/510									
02a		1581/508									
03a		1587/511						↓			
03a MS		1577/512						250uL			
03a MSD		1575/511						↓			
04c		1571/509						—			heavy emulsion
05c	↓	1575/511	↓	↓		↓	↓	↓	↓	↓	
08-348-01a		1576/514		—				—	—		Heavy Emulsion
02a		1586/515									
03a		1570/510									
04a		1577/513									
05a	↓	1569/507	↓	↓		↓	↓	↓	↓	↓	

Clean-up (A)Acid cleanup (S)Silica gel cleanup (F)Florisil cleanup (H)Mercury Cleanup

TITLE

PROJECT

Continued from page

NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
Pest/PCP	BS4-5101	PN2-13-01					Acetone	4-20-18	KMS	10-20-18
DDT, Endrin	↓	↓	500ppm	5 µL	25mL	100ppb	Hexane	↓	↓	↓
Pest/PCP Surr	BS4-5102			0.25		20ppm	Acetone	4-23-18	KMS	4-23-18
TCMX		PN2-12-17	2000ppm	0.25mL						10
DCB		PN2-12-27	1000ppm	0.5mL						
Pest Mid Level	BS4-5103	BS4-49-01	25ppm	100 µL	25mL	100ppb	Hexane	4-25-18	KMS	10-25-18
Pest/PCP Surr	BS4-5104					20ppm	Acetone	5-3-18	KMS	11-3-18
TCMX		PN2-12-17	2000ppm	0.25mL			↓	↓	↓	↓
DCB	↓	PN2-12-27	1000ppm	0.5mL	↓	↓				
Herb Stock	BS4-5105				10mL		Acetone/ Hexane	5-7-18	KMS	12-7-18
Herbs, ME		PN2-13-05	100ppm	0.5mL		5ppm				
DCAA, ME		PN2-13-06								
Bentazon, ME		PN2-13-07		↓		↓				
2,4,5-TP, ME		PN2-12-13		0.25mL		2.5ppm				
PCP, ME	↓	PN2-12-09	↓	50 µL	↓	0.5ppm	↓	↓	↓	↓
Herb CCV	BS4-5106	BS4-5105	5ppm	0.5mL	25mL	100ppb	Hexane	↓	↓	11-7-18
Herb Surr	BS4-5107			1mL	10mL	10ppm	Acetone	5-15-18	KMS	11-15-18
DCAA		PN2-12-16	100ppm							
Herb Std							Hexane	5-18-18	KMS	11-18-18
2 ppb	BS4-5108	BS4-5105	5ppm	10 µL	25mL	2ppb	↓	↓	↓	↓
5	09	↓	↓	↓	10mL	5				
10	10			20 µL	↓	10				
25	11			50		25				
50	12			100		50				
100	13			200		100				
250	14			500		250				
500	15			1mL		500				

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PROJECT

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NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
Test PCB Sol Surr	PS4-530				25 mL	20 ppm	Acetone	6-21-18	KMS	12-18
TCmX	↓	PNZ-13-09	2000 ppm	0.25 mL	↓	↓	↓	↓	↓	↓
DCB		PNZ-13-11	1000 ppm	0.5 mL						
HerbMDL	PS4-53-02				10 mL		MeOH	6-22-18	KMS	7-2618
10HerbS	↓	PNZ-13-18	100 ppm	200 µL	↓	2.0 ppm	↓	↓	↓	↓
Dalapon		PNZ-13-13	1000 ppm	80 µL		8.0 ppm				
PCP		PS4-40-10	100 ppm	20 µL		0.2 ppm				
DCAA		PNZ-12-16	100 ppm	100 µL		1.0 ppm				
2,4,6-TCP		PNZ-11-19	100 ppm	↓		↓				
Bentazon	↓	PNZ-13-20	1000 ppm	20 µL		2.0 ppm	↓	↓	↓	↓
HerbSpike	PS4-5303						MeOH	7-2-18	KMS	12-19
10HerbS	↓	PNZ-13-18	100 ppm	1 mL		10 ppm	↓	↓	↓	↓
PCP Acid		PNZ-13-19	5000 ppm	2 µL	↓	1.0 ppm				
EOBSurr	PS4-5304									
TCmX		PNZ-13-09	2000 ppm	17.5 µL	100 mL	0.35 ppm	MeOH	7-16-18	KMS	8-6-19
Test PCB Sol Surr	PS4-5305			0.25	25 mL	20 ppm	Acetone			
TCmX		PNZ-13-09	2000 ppm	0.5 mL						
DCB		PNZ-13-11	1000 ppm	0.5 mL	↓	↓	↓	↓	↓	↓
PCBStock	PS4-5306				10 mL		Hexane	7-23-18	KMS	8-6-19
AR1016	↓	PNZ-12-03	0.25 mL	1000 ppm	↓	25 ppm	↓	↓	↓	↓
AR1260		10-25	25	↓		↓				
TCmX		13-11	50 µL	2000 ppm		5 ppm				
DCB	↓	13-09	50 µL	1000 ppm	↓	↓	↓	↓	↓	↓
PCBCCV	PS4-5307	PS4-5306		0.5 mL	25 mL	0.5 ppm	Hexane			
AR1016/1260			25 ppm	↓	↓	↓	↓	↓	↓	↓
TCmX/DCB	↓	↓	↓	↓	↓	0.1 ppm	↓	↓	↓	↓

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BOOK PAGE

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NAME	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
Toxaphene SPQ	PS4-54-01		100ppm	0.1mL	10mL	1.0ppm	Hexane	7-27-18	KMS	1-27-19
Rest ICV	PS4-54-02		1000ppm	5µL	50mL	100ppb				
Rest IPR Soil Surr	PS4-54-03				25mL	20ppm	Acetone	8-7-18	KMS	2-7-19
TCMX		PNE-13-04	2000ppm	0.25mL						
DCB		PNE-13-11	1000ppm	0.5mL						
Herb Surr	PS4-054-04	PNE-13-21	100ppm	1mL	10mL	10ppm	MeOH	8-8-18	KMS	2-8-19
PCBs/Spike	PS4-054-05									
AR1260		PNE-13-12	5000ppm	0.5mL	25mL	100ppm	Acetone	8-10-18	KMS	2-10-19
AR1221										
~~AR1016~~ Stock	PS4-054-06				10mL		Hexane	8-11-18	KMS	2-11-19
~~AR1242~~ AR1254		PNE-13-15	1000ppm	0.25mL		25ppm				
TCMX		PNE-13-09	2000ppm	25µL		5ppm				
DCB		PNE-13-11	1000ppm	50µL						
AR1248 Stock	PS4-054-07									
AR1248		PNE-13-14	1000ppm	0.25mL		25ppm				
TCMX		PNE-13-09	2000ppm	25µL		5ppm				
DCB		PNE-13-11	1000ppm	50µL						
PCB CL		PS4-053-06				ppm				1-15-19
0.02	PS4-054-08		25/5ppm	20µL	25mL	0.02/0.004				
0.05	09			50µL		0.05/0.01				
0.1	10			100µL		0.1/0.02				
0.25	11			0.25mL		0.25/0.05				
0.5	12			0.5mL		0.5/0.1				
0.75	13			0.75mL		0.75/0.15				
1.0	14			1mL		1.0/0.2				
2.0	15			0.8mL	10mL	2.0/0.4				

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Continued from page	LAB ID	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	Solvent	Date	Initials	EXP
NAME										
DRTZ1 SPQ	P54055-01	PS4-0540-06	25 ppm	0.5mL	25mL	0.5 ppm	Hexane	8-1-18	KMS	2-1-19
TCMX/DCB	↓	↓	5 ppm	↓	↓	0.1 ppm	↓	↓	↓	↓
5										
ARLD2SPQ	02	PS4-4605	25 ppm			0.5 ppm				1-18-19
TCMX/DCB	↓	↓	5 ppm			0.1 ppm				↓
ARLR2SPQ	03	PS4-4606	25 ppm			0.5 ppm				1-18-19
10 TCMX/DCB	↓	↓	5 ppm			0.1 ppm				
ARLR4SPQ	04	PS4-4607	25 ppm			0.5 ppm				2-1-19
TCMX/DCB	↓	↓	5 ppm			0.1 ppm				
15 ARLD5SPQ	05	PS4-4607	25 ppm			0.5 ppm				1-8-19
TCMX/DCB	↓	↓	5 ppm	↓		0.1 ppm				
ARLR6SPQ	06	PN2-1308	100 ppm	0.125mL		0.5 ppm				2-1-19
ARLR8SPQ	07	PN2-12-11	↓	↓		↓				↓
20										
RLB1CV	08	PS4-4618		0.5mL						1-18-19
AR1016260			25 ppm			0.5 ppm				↓
TCMX/DCB	↓	↓	5 ppm	↓	↓	0.1 ppm	↓	↓	↓	↓
Herb1CV	P54055-09	PN2-1317	100 ppm	10 µL	10mL	100 ppb	Acetone/ Hexane	8-17-18	KMS	2-17-19
Pest1C							Hexane			
1 ppb	P54055-10	PS449-01	25 ppm	1 µL	25mL	1 ppb				1-15-19
2 ppb	11			2		2				
5	12			5		5				
10	13			10		10				
25	14			25		25				
50	15			50		50				
100	16			100		100				
35 200	17			200		200				
400	18			400		400				

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OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 11, 2018

Sydney Bronson
GeoEngineers, Inc.
1101 Fawcett Avenue South, Unit 200
Tacoma, WA 98402

Re: Analytical Data for Project 0356-114-08
Laboratory Reference No. 1808-393

Dear Syndney:

Enclosed are the analytical results and associated quality control data for samples submitted on August 31, 2018.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

Case Narrative

Samples were collected on August 30 and 31, 2018 and received by the laboratory on August 31, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

PAHs EPA 8270D/SIM Analysis

The associated method blank had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
TL-MW-7-08302018	08-393-01	Water	8-30-18	8-31-18	
HS-MW-8-08302018	08-393-02	Water	8-30-18	8-31-18	
RINSEATE-08302018	08-393-03	Water	8-30-18	8-31-18	
TL-MW-15-08312018	08-393-04	Water	8-31-18	8-31-18	
RINSEATE-08312018	08-393-05	Water	8-31-18	8-31-18	

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TL-MW-7-08302018**					
Laboratory ID:	08-393-01					
Diesel Range Organics	**11**	0.25	NWTPH-Dx	9-10-18	9-10-18	
Lube Oil Range Organics	**0.93**	0.41	NWTPH-Dx	9-10-18	9-10-18	N1
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***96***	***50-150***				
Client ID:	**HS-MW-8-08302018**					
Laboratory ID:	08-393-02					
Diesel Range Organics	**3.7**	0.25	NWTPH-Dx	9-10-18	9-10-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	9-10-18	9-10-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***91***	***50-150***				
Client ID:	**RINSEATE-08302018**					
Laboratory ID:	08-393-03					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	9-10-18	9-10-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	9-10-18	9-10-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***92***	***50-150***				
Client ID:	**TL-MW-15-08312018**					
Laboratory ID:	08-393-04					
Diesel Range Organics	**0.93**	0.25	NWTPH-Dx	9-10-18	9-10-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	9-10-18	9-10-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***98***	***50-150***				
Client ID:	**RINSEATE-08312018**					
Laboratory ID:	08-393-05					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	9-10-18	9-10-18	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	9-10-18	9-10-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***93***	***50-150***				

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TL-MW-7-08302018**					
Laboratory ID:	08-393-01					
Naphthalene	**3.8**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
2-Methylnaphthalene	**130**	10	EPA 8270D/SIM	9-4-18	9-5-18	
1-Methylnaphthalene	**260**	10	EPA 8270D/SIM	9-4-18	9-5-18	
Acenaphthylene	**2.6**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Acenaphthene	**10**	2.1	EPA 8270D/SIM	9-4-18	9-5-18	
Fluorene	**10**	2.1	EPA 8270D/SIM	9-4-18	9-5-18	
Phenanthrene	**14**	2.1	EPA 8270D/SIM	9-4-18	9-5-18	
Anthracene	**1.1**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Fluoranthene	**0.99**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Pyrene	**1.2**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[a]anthracene	**0.36**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Chrysene	**0.38**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[b]fluoranthene	**0.36**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo(j,k)fluoranthene	**0.091**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[a]pyrene	**0.31**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Indeno(1,2,3-c,d)pyrene	**0.23**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Dibenz[a,h]anthracene	**0.037**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[g,h,i]perylene	**0.24**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***45***	***21 - 110***				
Pyrene-d10	***59***	***19 - 111***				
Terphenyl-d14	***75***	***32 - 137***				

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HS-MW-8-08302018**					
Laboratory ID:	08-393-02					
Naphthalene	**5.4**	1.9	EPA 8270D/SIM	9-4-18	9-5-18	
2-Methylnaphthalene	**340**	9.3	EPA 8270D/SIM	9-4-18	9-5-18	
1-Methylnaphthalene	**340**	9.3	EPA 8270D/SIM	9-4-18	9-5-18	
Acenaphthylene	**1.5**	0.093	EPA 8270D/SIM	9-4-18	9-4-18	
Acenaphthene	**8.8**	1.9	EPA 8270D/SIM	9-4-18	9-5-18	
Fluorene	**6.9**	1.9	EPA 8270D/SIM	9-4-18	9-5-18	
Phenanthrene	**5.2**	1.9	EPA 8270D/SIM	9-4-18	9-5-18	
Anthracene	**0.29**	0.093	EPA 8270D/SIM	9-4-18	9-4-18	
Fluoranthene	**0.18**	0.093	EPA 8270D/SIM	9-4-18	9-4-18	
Pyrene	**0.24**	0.093	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[a]anthracene	**0.018**	0.0093	EPA 8270D/SIM	9-4-18	9-4-18	
Chrysene	**0.028**	0.0093	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[b]fluoranthene	**0.021**	0.0093	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo(j,k)fluoranthene	**ND**	0.0093	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[a]pyrene	**0.015**	0.0093	EPA 8270D/SIM	9-4-18	9-4-18	
Indeno(1,2,3-c,d)pyrene	**0.015**	0.0093	EPA 8270D/SIM	9-4-18	9-4-18	
Dibenz[a,h]anthracene	**ND**	0.0093	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[g,h,i]perylene	**0.017**	0.0093	EPA 8270D/SIM	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***68***	***21 - 110***				
Pyrene-d10	***86***	***19 - 111***				
Terphenyl-d14	***86***	***32 - 137***				

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RINSEATE-08302018**					
Laboratory ID:	08-393-03					
Naphthalene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
2-Methylnaphthalene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
1-Methylnaphthalene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
Acenaphthylene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
Acenaphthene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
Fluorene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
Phenanthrene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
Anthracene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
Fluoranthene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
Pyrene	**ND**	0.097	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[a]anthracene	**ND**	0.0097	EPA 8270D/SIM	9-4-18	9-5-18	
Chrysene	**ND**	0.0097	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[b]fluoranthene	**ND**	0.0097	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo(j,k)fluoranthene	**ND**	0.0097	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[a]pyrene	**ND**	0.0097	EPA 8270D/SIM	9-4-18	9-5-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0097	EPA 8270D/SIM	9-4-18	9-5-18	
Dibenz[a,h]anthracene	**ND**	0.0097	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[g,h,i]perylene	**ND**	0.0097	EPA 8270D/SIM	9-4-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***31***	***21 - 110***				
Pyrene-d10	***42***	***19 - 111***				
Terphenyl-d14	***48***	***32 - 137***				

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TL-MW-15-08312018**					
Laboratory ID:	08-393-04					
Naphthalene	**0.21**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
2-Methylnaphthalene	**ND**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
1-Methylnaphthalene	**0.79**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
Acenaphthylene	**ND**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
Acenaphthene	**0.37**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
Fluorene	**ND**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
Phenanthrene	**ND**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
Anthracene	**ND**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
Fluoranthene	**ND**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
Pyrene	**ND**	0.098	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[a]anthracene	**ND**	0.0098	EPA 8270D/SIM	9-4-18	9-5-18	
Chrysene	**ND**	0.0098	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[b]fluoranthene	**ND**	0.0098	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo(j,k)fluoranthene	**ND**	0.0098	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[a]pyrene	**ND**	0.0098	EPA 8270D/SIM	9-4-18	9-5-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0098	EPA 8270D/SIM	9-4-18	9-5-18	
Dibenz[a,h]anthracene	**ND**	0.0098	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[g,h,i]perylene	**ND**	0.0098	EPA 8270D/SIM	9-4-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***56***	***21 - 110***				
Pyrene-d10	***78***	***19 - 111***				
Terphenyl-d14	***78***	***32 - 137***				

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PAHs EPA 8270D/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**RINSEATE-08312018**					
Laboratory ID:	08-393-05					
Naphthalene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
2-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
1-Methylnaphthalene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
Acenaphthylene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
Acenaphthene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
Fluorene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
Phenanthrene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
Anthracene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
Fluoranthene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
Pyrene	**ND**	0.095	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[a]anthracene	**ND**	0.0095	EPA 8270D/SIM	9-4-18	9-5-18	
Chrysene	**ND**	0.0095	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[b]fluoranthene	**ND**	0.0095	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo(j,k)fluoranthene	**ND**	0.0095	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[a]pyrene	**ND**	0.0095	EPA 8270D/SIM	9-4-18	9-5-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0095	EPA 8270D/SIM	9-4-18	9-5-18	
Dibenz[a,h]anthracene	**ND**	0.0095	EPA 8270D/SIM	9-4-18	9-5-18	
Benzo[g,h,i]perylene	**ND**	0.0095	EPA 8270D/SIM	9-4-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***39***	***21 - 110***				
Pyrene-d10	***77***	***19 - 111***				
Terphenyl-d14	***79***	***32 - 137***				

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TL-MW-7-08302018**					
Laboratory ID:	08-393-01					
Pentachlorophenol	**ND**	0.040	EPA 8151A	9-5-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***78***	***17-94***				
Client ID:	**HS-MW-8-08302018**					
Laboratory ID:	08-393-02					
Pentachlorophenol	**ND**	0.040	EPA 8151A	9-5-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***71***	***17-94***				
Client ID:	**RINSEATE-08302018**					
Laboratory ID:	08-393-03					
Pentachlorophenol	**ND**	0.040	EPA 8151A	9-5-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***54***	***17-94***				
Client ID:	**TL-MW-15-08312018**					
Laboratory ID:	08-393-04					
Pentachlorophenol	**ND**	0.040	EPA 8151A	9-5-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***73***	***17-94***				
Client ID:	**RINSEATE-08312018**					
Laboratory ID:	08-393-05					
Pentachlorophenol	**ND**	0.040	EPA 8151A	9-5-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***66***	***17-94***				

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0910W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	9-10-18	9-10-18	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	9-10-18	9-10-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
o-Terphenyl	***84***	***50-150***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-393-01										
	ORIG	DUP									
Diesel Range Organics	**11.0**	**7.08**	NA	NA		NA		NA	43	NA	
Lube Oil Range Organics	**0.931**	**0.674**	NA	NA		NA		NA	32	NA	N1
Surrogate:											
o-Terphenyl						***96***	***103***	***50-150***			

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCV0910F-V1	100	99.4	0.6	+/-15%
CCV0910F-V2	100	101	-0.8	+/-15%
CCV0910F-V3	100	102	-1.9	+/-15%
CCV0910F-V4	100	102	-1.5	+/-15%

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0904W1					
Naphthalene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
2-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
1-Methylnaphthalene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Acenaphthylene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Acenaphthene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Fluorene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Phenanthrene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Anthracene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Fluoranthene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Pyrene	**ND**	0.10	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[a]anthracene	**ND**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Chrysene	**ND**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[a]pyrene	**ND**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Indeno(1,2,3-c,d)pyrene	**ND**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270D/SIM	9-4-18	9-4-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
2-Fluorobiphenyl	***115***	***21 - 110***				Q
Pyrene-d10	***88***	***19 - 111***				
Terphenyl-d14	***117***	***32 - 137***				

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PAHs EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0904W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.343**	**0.271**	0.500	0.500	69	54	28 - 109	23	38	
Acenaphthylene	**0.384**	**0.320**	0.500	0.500	77	64	37 - 111	18	26	
Acenaphthene	**0.375**	**0.304**	0.500	0.500	75	61	41 - 113	21	33	
Fluorene	**0.366**	**0.339**	0.500	0.500	73	68	47 - 114	8	23	
Phenanthrene	**0.363**	**0.339**	0.500	0.500	73	68	50 - 113	7	18	
Anthracene	**0.380**	**0.362**	0.500	0.500	76	72	50 - 117	5	18	
Fluoranthene	**0.396**	**0.381**	0.500	0.500	79	76	52 - 120	4	15	
Pyrene	**0.395**	**0.381**	0.500	0.500	79	76	51 - 128	4	31	
Benzo[a]anthracene	**0.428**	**0.413**	0.500	0.500	86	83	57 - 127	4	15	
Chrysene	**0.414**	**0.413**	0.500	0.500	83	83	51 - 120	0	15	
Benzo[b]fluoranthene	**0.412**	**0.402**	0.500	0.500	82	80	54 - 124	2	17	
Benzo(j,k)fluoranthene	**0.426**	**0.418**	0.500	0.500	85	84	50 - 127	2	18	
Benzo[a]pyrene	**0.414**	**0.398**	0.500	0.500	83	80	50 - 120	4	16	
Indeno(1,2,3-c,d)pyrene	**0.407**	**0.390**	0.500	0.500	81	78	46 - 132	4	20	
Dibenz[a,h]anthracene	**0.416**	**0.403**	0.500	0.500	83	81	49 - 129	3	18	
Benzo[g,h,i]perylene	**0.412**	**0.402**	0.500	0.500	82	80	45 - 130	2	19	
Surrogate:										
2-Fluorobiphenyl					***69***	***56***	***21 - 110***			
Pyrene-d10					***79***	***78***	***19 - 111***			
Terphenyl-d14					***79***	***77***	***32 - 137***			

Date of Report: September 11, 2018
Samples Submitted: August 31, 2018
Laboratory Reference: 1808-393
Project: 0356-114-08

PENTACHLOROPHENOL
EPA 8151A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0905W1					
Pentachlorophenol	**ND**	0.040	EPA 8151A	9-5-18	9-5-18	
Surrogate:	***Percent Recovery***	***Control Limits***				
DCAA	***40***	***17-94***				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0905W1										
	SB	SBD	SB	SBD		SB	SBD				
Pentachlorophenol	**0.129**	**0.155**	0.250	0.250	N/A	**52**	**62**	40-111	18	20	
Surrogate:											
DCAA						***75***	***83***	***17-94***			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: GEOENGINEERS
Project Number: 0356-114-08
Project Name: RG HALEY, PRDI UPLAND SURVEY
Project Manager: SYDNEY BROWSON
Sampled by: BRIAN ANDERSON

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 08-393

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A						% Moisture
1	TL-MW-7-08302018	8-30-2018	1543	W	6				4					4				4										
2	HS-MW-8-08302018	8-30-2018	1447	W	6				4					4				4										
3	RINSEATE-08302018	8-30-2018	1615	W	6				4					4				4										
4	TL-MW-15-08312018	8-31-18	1300	W	6				4					4				4										
5	RINSEATE-08312018	8-31-18	1400	W	6				4					4				4										

	Signature	Company	Date	Time
Relinquished		GEOENGINEERS	8-31-18	1517
Received		ARI	8/31/18	357
Relinquished		ARI	08/31/18	5:02
Received		GEO	8/31/18	1702
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

PCP ANALYSIS BY SW8151 - SPECIAL RPT LIMITS: ONLY REPORT DOWN TO @ 0.04ug/kg

PAH ANALYSIS BY SW 8270 SIM

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Sample/Cooler Receipt and Acceptance Checklist

Client: GER

Client Project Name/Number: 0356-114-08

OnSite Project Number: 08-393

Initiated by: MM

Date Initiated: 8/31/18

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	Yes	No		1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	Temperature: 0,0	
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No	1 2 3 4
2.2 Was the COC legible and written in permanent ink?	Yes	No	1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No	1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No	1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	Yes	No	1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	No	1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4

Explain any discrepancies:

2.4) #3) 1615 on COC, 1543 on labels

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

Complete Data Package

- NWTPH-Diesel
- PAHs EPA 8270D/SIM
- Pentachlorophenol by EPA 8151A

NWTPH-DIESEL Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V06.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 12:42
Operator : JT
Sample : 08-393-01 DUP
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 13:18:35 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

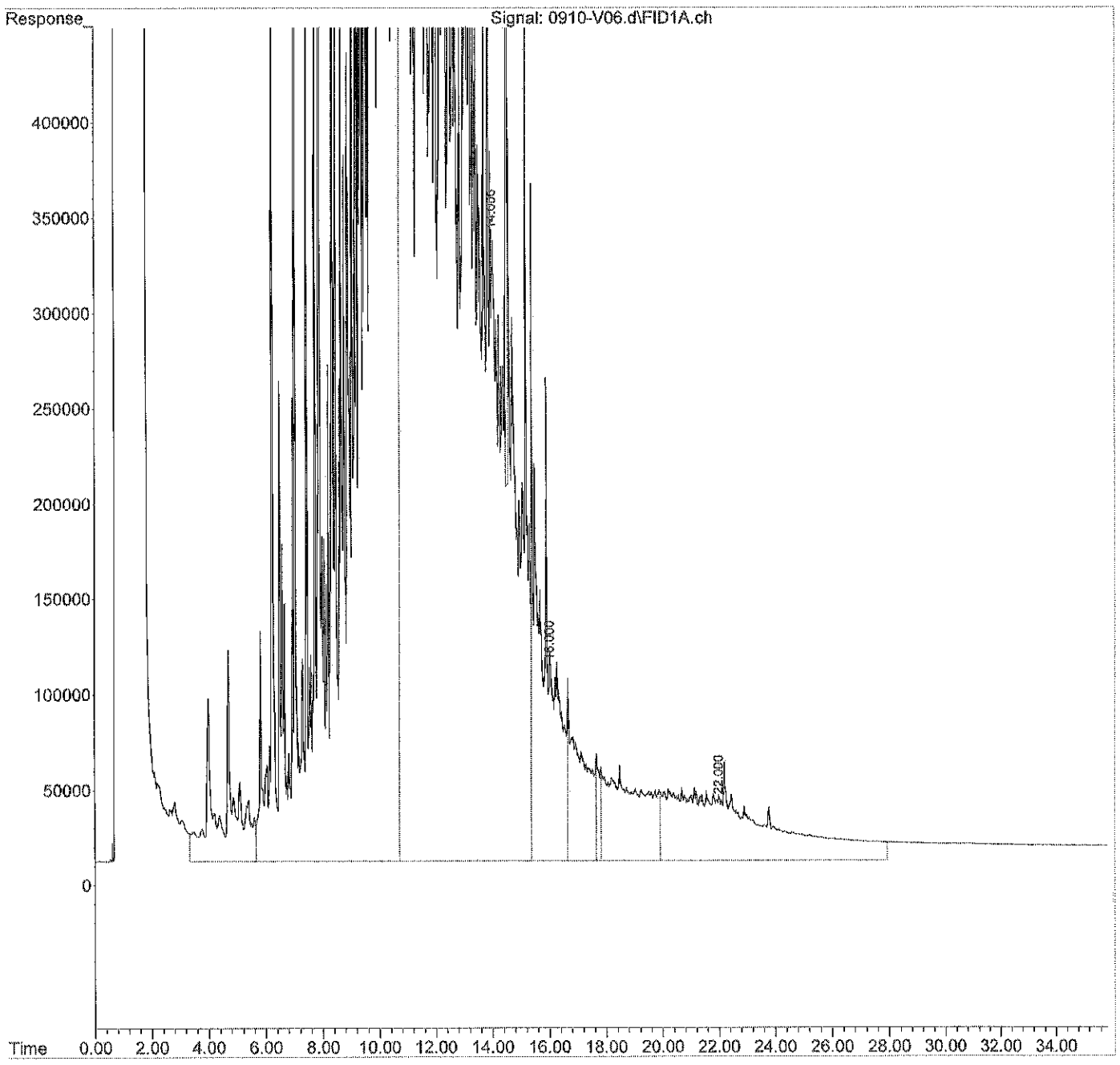
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.517	132312877	47.822	PPM
Spiked Amount	50.000		Recovery =	95.64%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.893	3221256	NoCal	PPM
3) H	Gasoline	3.500	50760856	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	2486267750	972.428	PPM
5) H	Diesel Fuel #2 (06-...	14.000	2572237887	1084.609	PPM
6) H	Oil (06-07-18)	22.000	267137463	137.029	PPM
7) H	Oil Acid Clean (06-12...	22.000	267137463	92.699	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	2534246462	1090.932	PPM
9) H	Oil Combo (06-07-18)	22.000	183492023	92.000	PPM
10) H	Oil Acid Clean Combo ...	22.000	183492023	58.434	PPM
11) H	Alaska 102 DF2 ()	13.025	2580990376	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	107235286	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	1516634112	595.200	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	2716606909	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	2716606909	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	2751933728	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	1464326376	599.415	PPM
18) H	Oil Acid Clean MO Com...	22.000	150420553	45.584	PPM
19) H	Oil MO Combo (06-07-18)	22.000	150420553	75.515	PPM

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V06.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 12:42
Operator : JT
Sample : 08-393-01 ~~DUP~~
Misc : mw 9-11
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 13:18:35 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V07.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 13:22
Operator : JT
Sample : 08-393-02
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 13:58:38 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.514	126385292	45.704	PPM
Spiked Amount	50.000		Recovery =	91.41%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	37267622	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	872188249	339.707	PPM
5) H	Diesel Fuel #2 (06-...	14.000	877741635	369.157	PPM
6) H	Oil (06-07-18)	22.000	107038102	47.812	PPM
7) H	Oil Acid Clean (06-12...	22.000	107038102	25.106	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	864897649	371.562	PPM
9) H	Oil Combo (06-07-18)	22.000	87305857	37.559	PPM
10) H	Oil Acid Clean Combo ...	22.000	87305857	17.224	PPM
11) H	Alaska 102 DF2 ()	13.025	881113555	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	49179903	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	317798084	124.969	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	952148590	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	952148590	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	978500507	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	298025172	122.880	PPM
18) H	Oil Acid Clean MO Com...	22.000	76190981	12.924	PPM
19) H	Oil MO Combo (06-07-18)	22.000	76190981	32.307	PPM

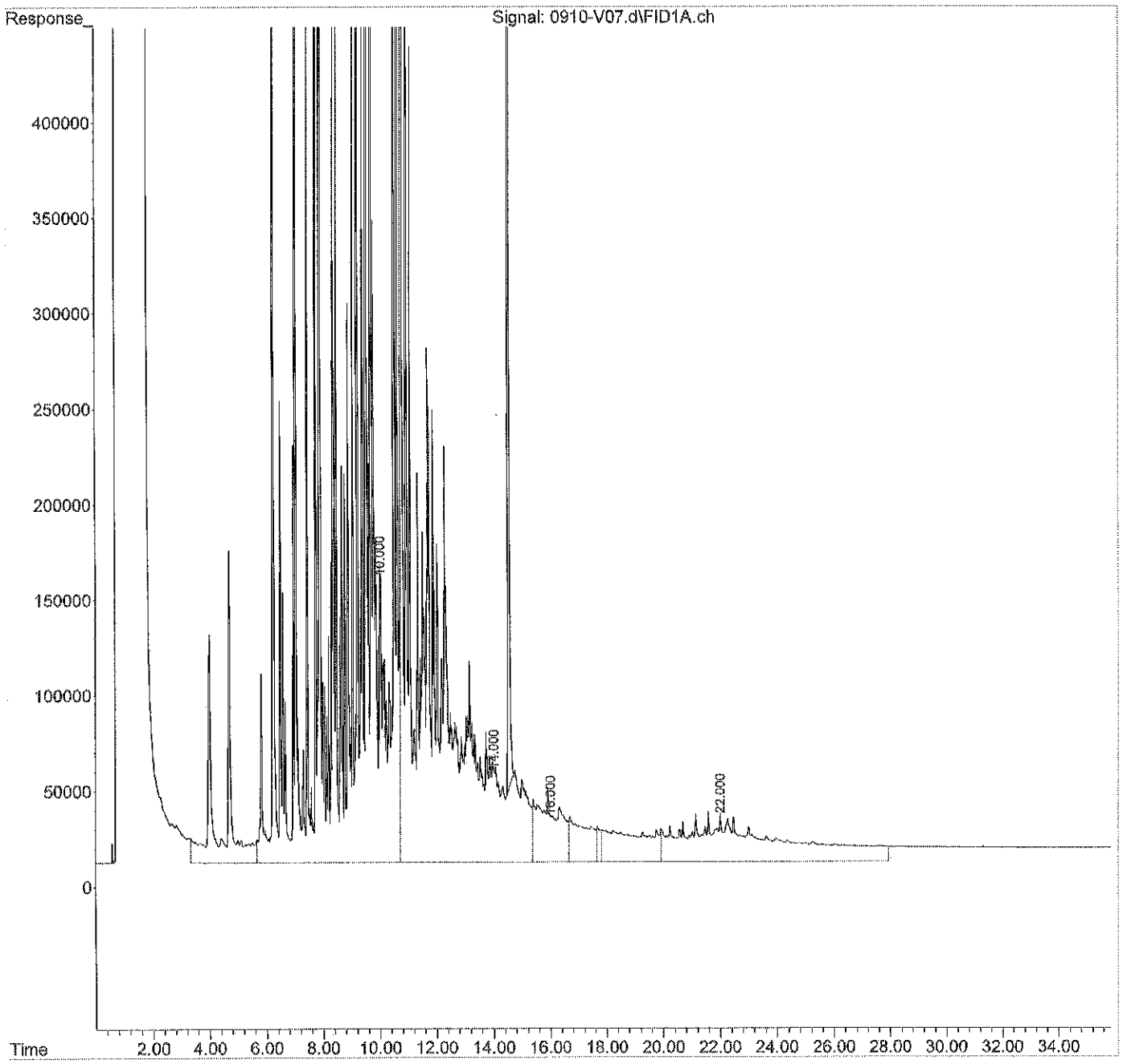
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V07.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 13:22
Operator : JT
Sample : 08-393-02
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 13:58:38 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V08.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 14:15
Operator : JT
Sample : 08-393-03
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 14:51:12 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.514	127161499	45.981	PPM
Spiked Amount	50.000		Recovery =	91.96%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	13533780	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	36307245	12.041	PPM
5) H	Diesel Fuel #2 (06-...	14.000	32546794	12.299	PPM
6) H	Oil (06-07-18)	22.000	38155124	9.426	PPM
7) H	Oil Acid Clean (06-12...	22.000	38155124	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	30763175	12.110	PPM
9) H	Oil Combo (06-07-18)	22.000	35325248	8.139	PPM
10) H	Oil Acid Clean Combo ...	22.000	35325248	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	33181500	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16888433	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	20874260	8.504	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	68833507	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	68833507	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	74017746	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	17304318	8.182	PPM
18) H	Oil Acid Clean MO Com...	22.000	33795761	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	33795761	7.630	PPM

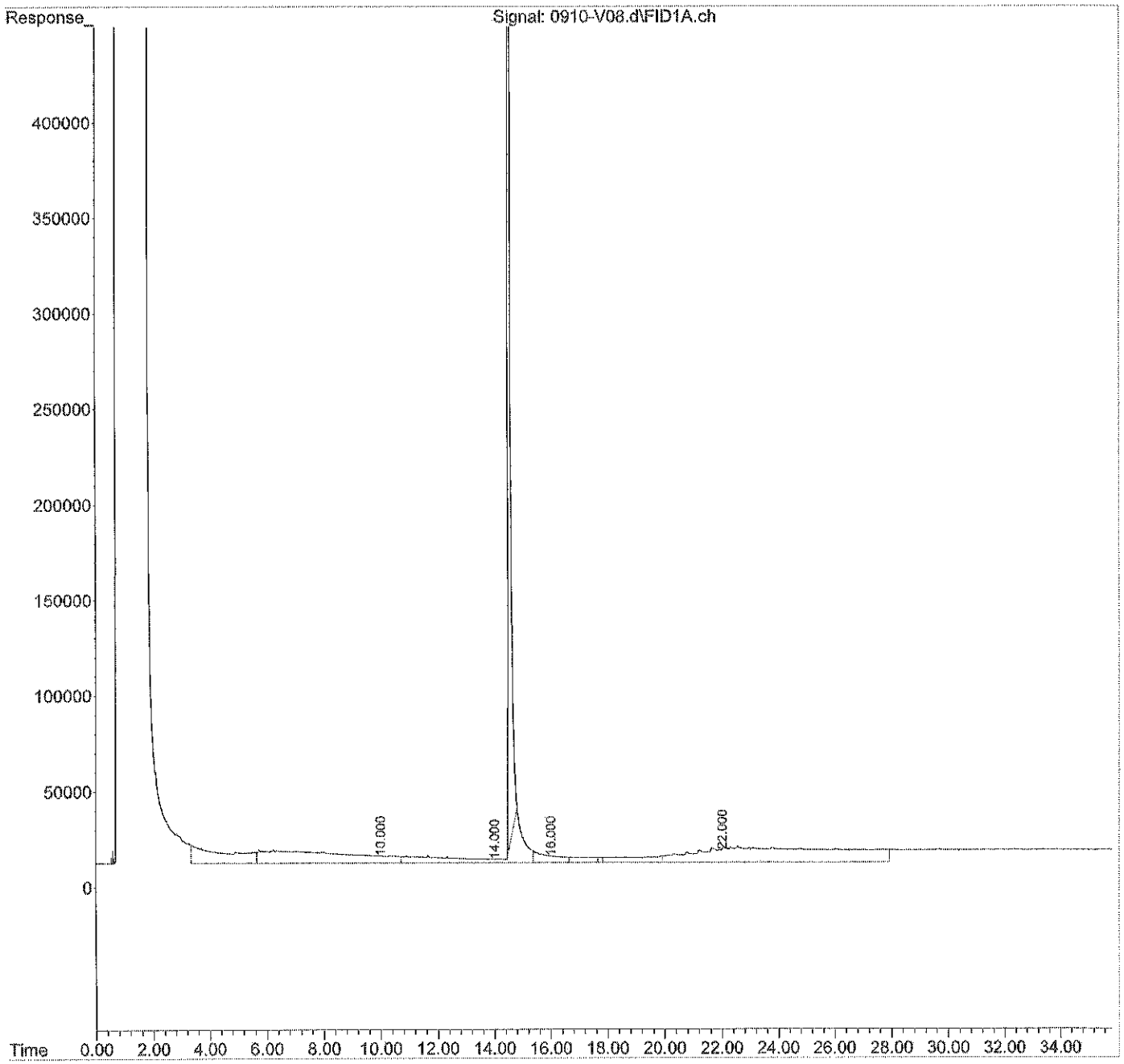
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V08.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 14:15
Operator : JT
Sample : 08-393-03
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 14:51:12 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V09.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 14:56
Operator : JT
Sample : 08-393-04
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 15:32:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.516	135346797	48.907	PPM
Spiked Amount	50.000		Recovery =	97.81%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	14767331	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	200742355	76.500	PPM
5) H	Diesel Fuel #2 (06-...	14.000	221599900	92.121	PPM
6) H	Oil (06-07-18)	22.000	88092581	37.254	PPM
7) H	Oil Acid Clean (06-12...	22.000	88092581	17.107	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	209301205	89.047	PPM
9) H	Oil Combo (06-07-18)	22.000	70359583	27.968	PPM
10) H	Oil Acid Clean Combo ...	22.000	70359583	9.964	PPM
11) H	Alaska 102 DF2 ()	13.025	224764740	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	36159923	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	160358638	63.215	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	282558812	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	282558812	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	288661130	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	142926761	59.509	PPM
18) H	Oil Acid Clean MO Com...	22.000	59701348	5.668	PPM
19) H	Oil MO Combo (06-07-18)	22.000	59701348	22.709	PPM

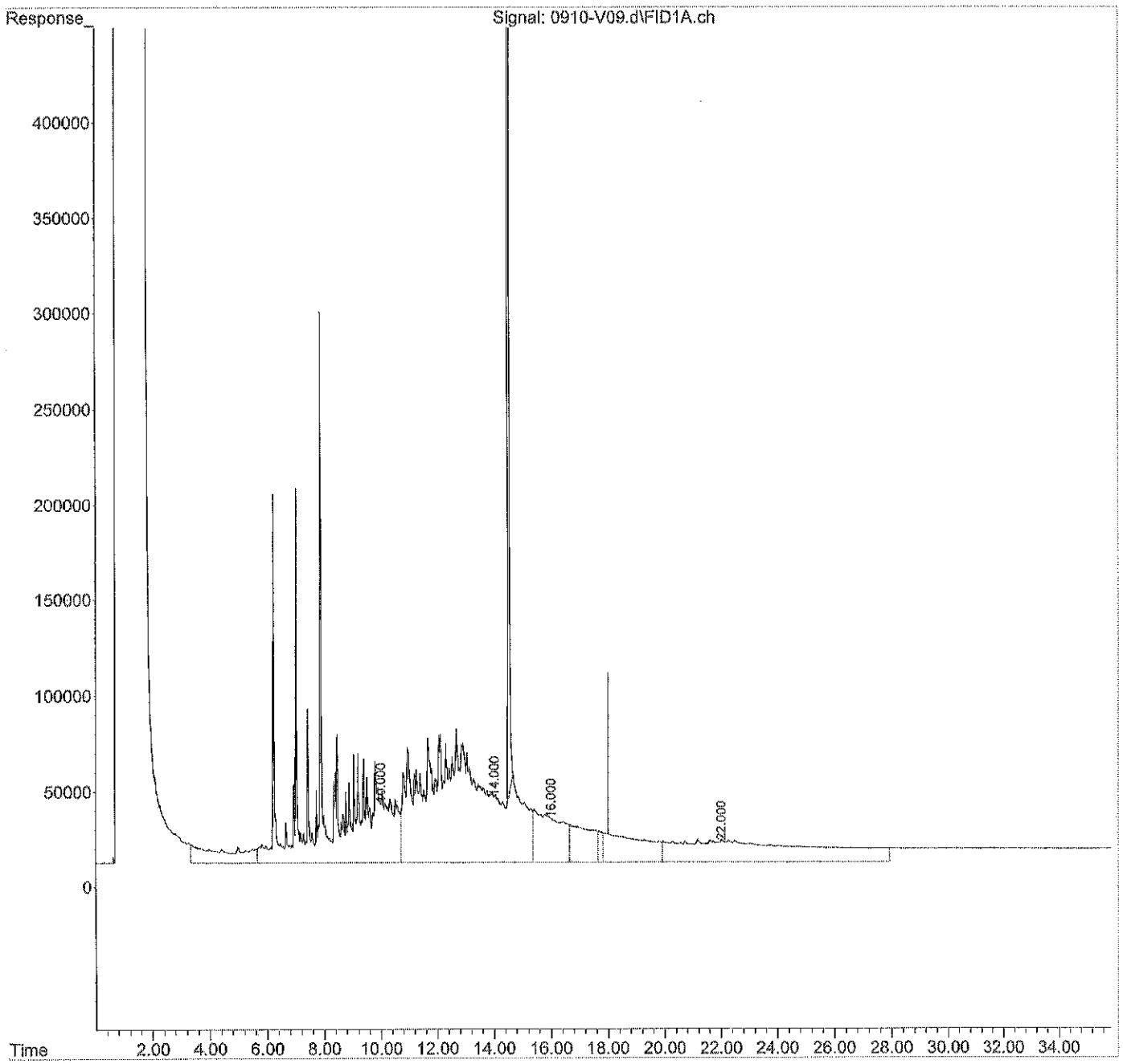
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V09.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 14:56
Operator : JT
Sample : 08-393-04
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 15:32:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V10.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 16:23
Operator : JT
Sample : 08-393-05
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 16:59:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.514	129152530	46.693	PPM
Spiked Amount	50.000		Recovery =	93.39%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	13455527	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	37926551	12.676	PPM
5) H	Diesel Fuel #2 (06-...	14.000	35221417	13.428	PPM
6) H	Oil (06-07-18)	22.000	45110950	13.302	PPM
7) H	Oil Acid Clean (06-12...	22.000	45110950	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	32855848	13.012	PPM
9) H	Oil Combo (06-07-18)	22.000	41809569	11.809	PPM
10) H	Oil Acid Clean Combo ...	22.000	41809569	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	36003402	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	20235313	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	23598230	9.572	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	77943270	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	77943270	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	83034815	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	18990022	8.870	PPM
18) H	Oil Acid Clean MO Com...	22.000	39781730	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	39781730	11.114	PPM

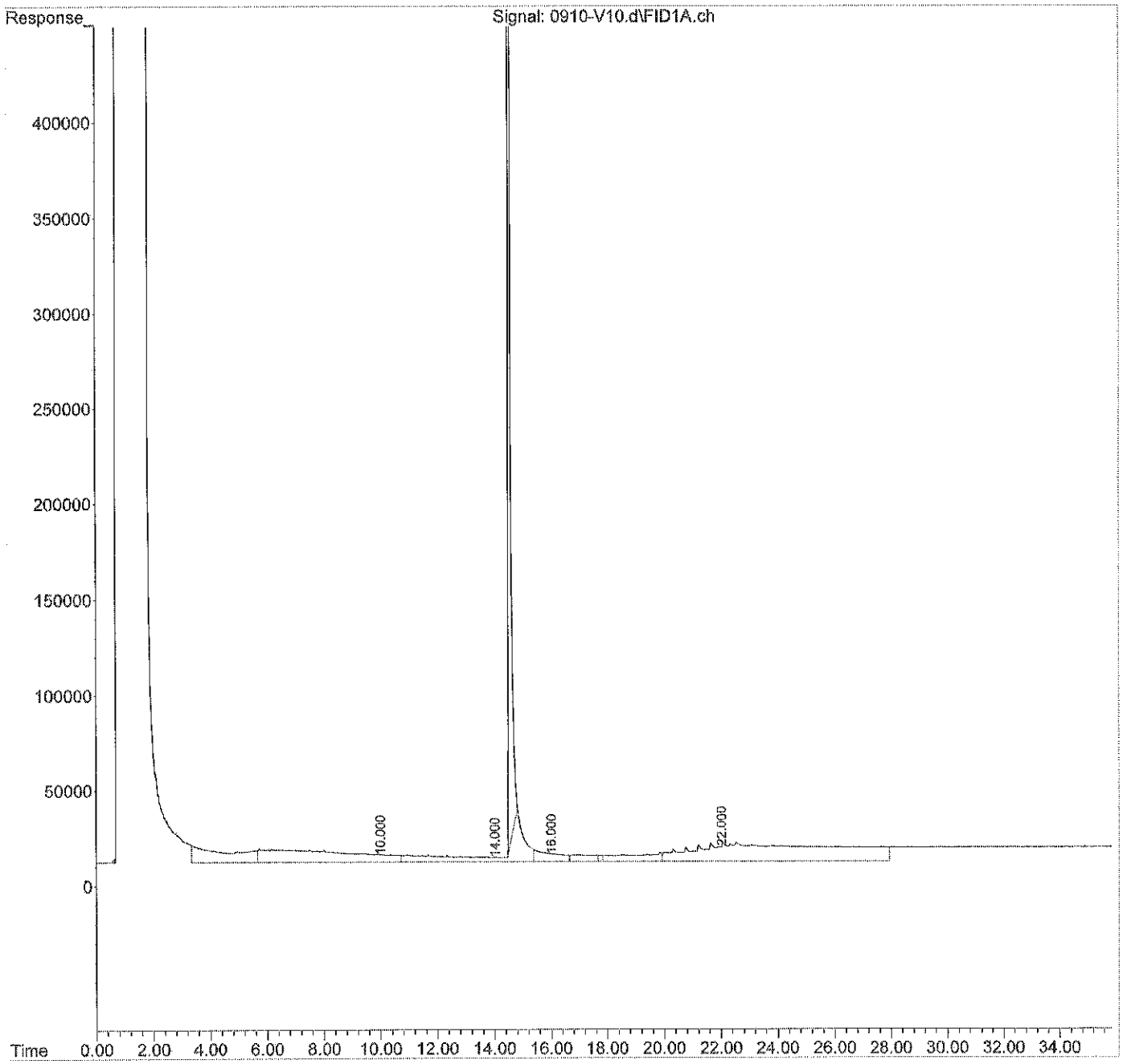
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V10.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 16:23
Operator : JT
Sample : 08-393-05
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 16:59:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V03.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 10:32
Operator : JT
Sample : MB0910W1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 11:08:39 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.513	116669997	42.232	PPM
Spiked Amount	50.000		Recovery =	84.46%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	13173292	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	38478963	12.893	PPM
5) H	Diesel Fuel #2 (06-...	14.000	35065476	13.362	PPM
6) H	Oil (06-07-18)	22.000	34525985	7.404	PPM
7) H	Oil Acid Clean (06-12...	22.000	34525985	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	33540965	13.307	PPM
9) H	Oil Combo (06-07-18)	22.000	31409122	5.922	PPM
10) H	Oil Acid Clean Combo ...	22.000	31409122	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	35615670	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14708123	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	21692296	8.825	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	67367266	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	67367266	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	72430148	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	18774560	8.782	PPM
18) H	Oil Acid Clean MO Com...	22.000	30092650	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	30092650	5.475	PPM

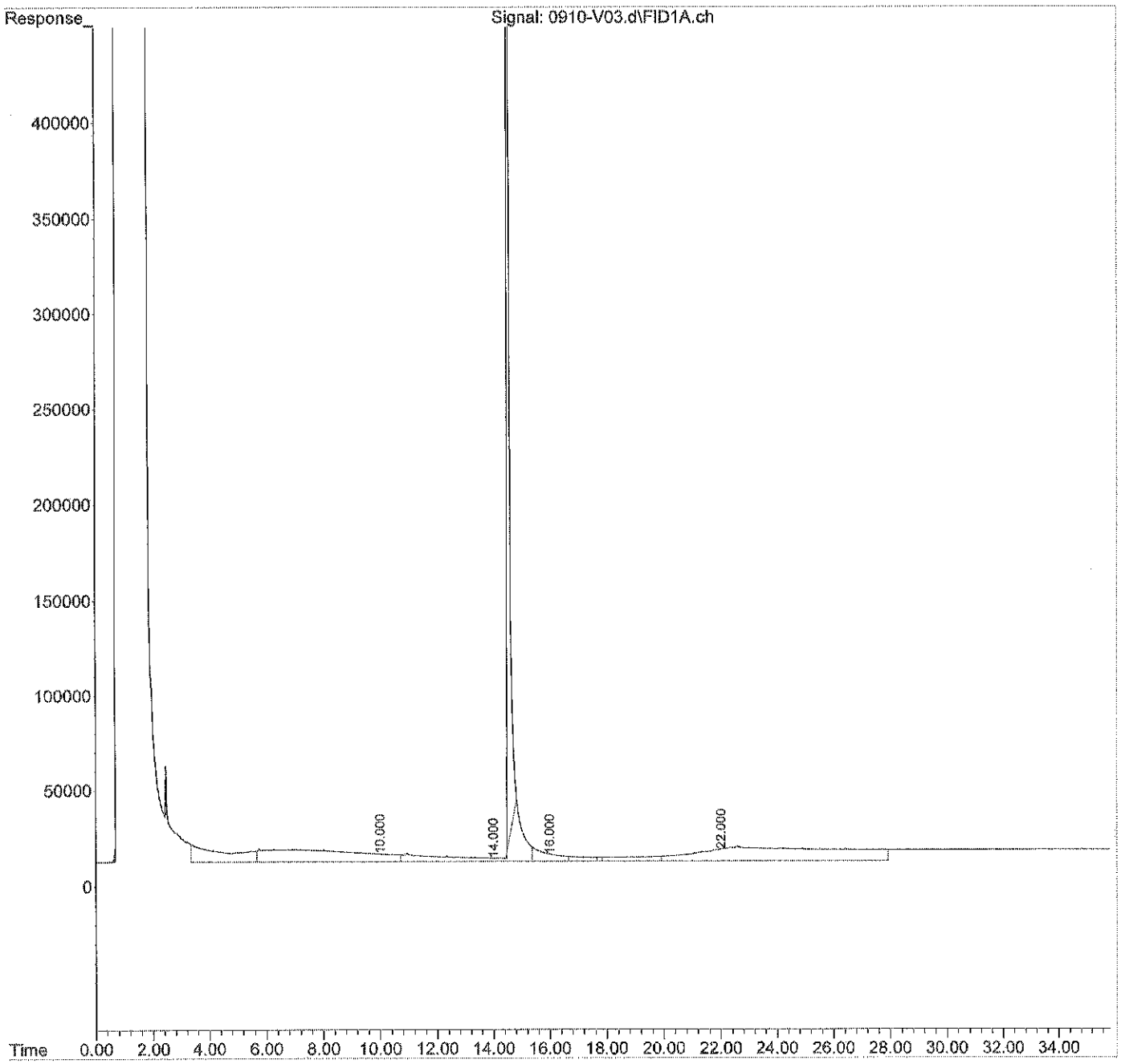
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V03.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 10:32
Operator : JT
Sample : MB0910W1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 11:08:39 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V05.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 11:52
Operator : JT
Sample : 08-393-01 DUP
Misc : wr 9.11
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 12:28:48 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.517	141958194	51.270	PPM
Spiked Amount	50.000		Recovery =	102.54%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	40145867	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	1595284723	623.162	PPM
5) H	Diesel Fuel #2 (06-...	14.000	1650191482	695.302	PPM
6) H	Oil (06-07-18)	22.000	193474801	95.979	PPM
7) H	Oil Acid Clean (06-12...	22.000	193474801	61.599	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	1622652924	698.101	PPM
9) H	Oil Combo (06-07-18)	22.000	138442588	66.503	PPM
10) H	Oil Acid Clean Combo ...	22.000	138442588	39.133	PPM
11) H	Alaska 102 DF2 ()	13.025	1656741634	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	79351123	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	948880297	372.504	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1760704796	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1760704796	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1787475702	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	910653016	373.192	PPM
18) H	Oil Acid Clean MO Com...	22.000	114478044	29.770	PPM
19) H	Oil MO Combo (06-07-18)	22.000	114478044	54.593	PPM

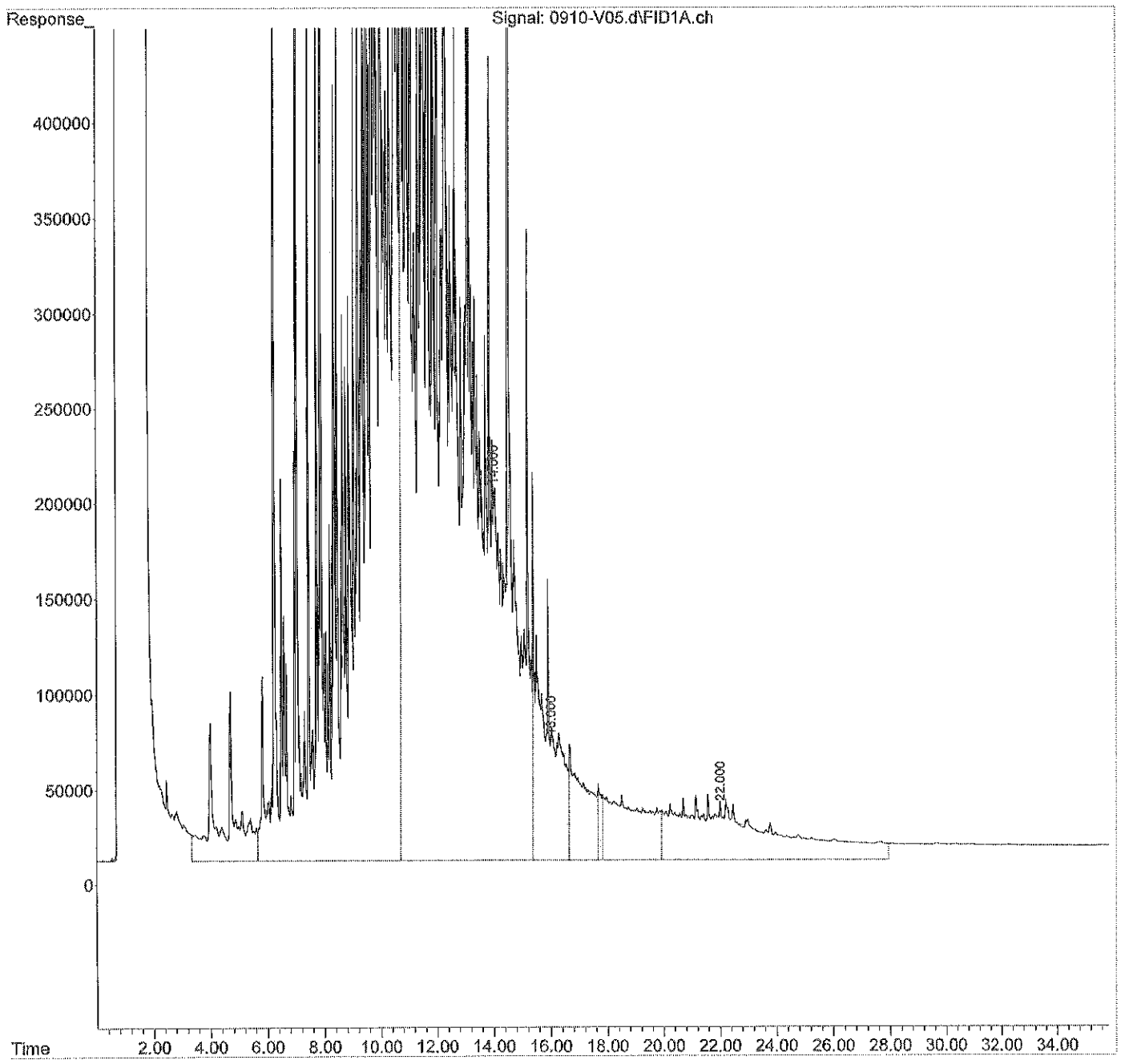
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V05.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 11:52
Operator : JT
Sample : 08-393-01 DUP
Misc : mw 9.11
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 12:28:48 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V01.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 7:25
Operator : JT
Sample : CCV0910F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 08:01:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	31595142	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	242412125	92.835	PPM
5) H	Diesel Fuel #2 (06-...	14.000	238788468	99.378	PPM
6) H	Oil (06-07-18)	22.000	56577074	19.692	PPM
7) H	Oil Acid Clean (06-12...	22.000	56577074	3.801	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	233382320	99.424	PPM
9) H	Oil Combo (06-07-18)	22.000	43872125	12.976	PPM
10) H	Oil Acid Clean Combo ...	22.000	43872125	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	240308451	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	17762270	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	150527810	59.359	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	279440081	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	279440081	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	297407388	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	145929688	60.736	PPM
18) H	Oil Acid Clean MO Com...	22.000	39006270	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	39006270	10.663	PPM

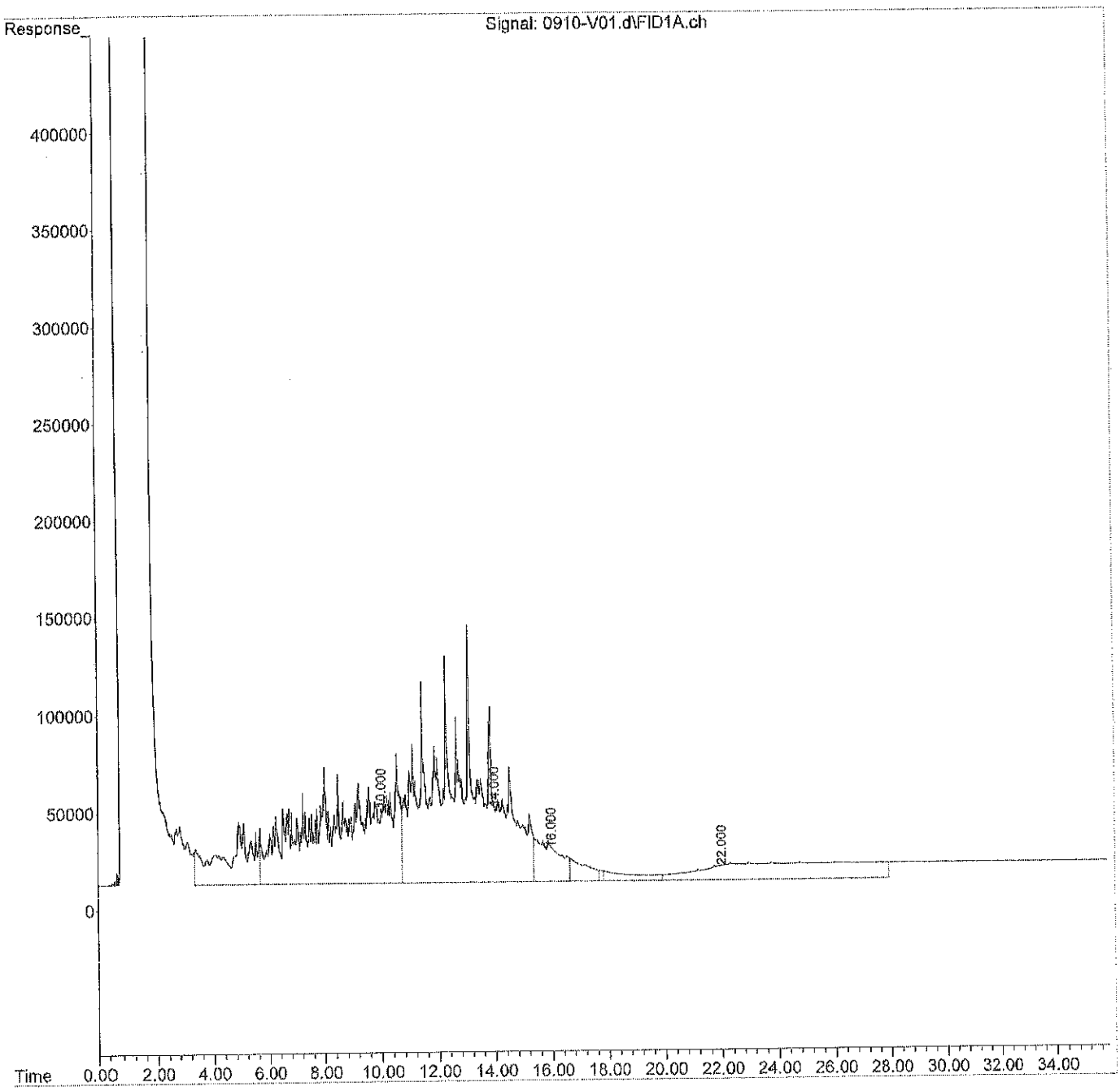
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V01.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 7:25
Operator : JT
Sample : CCV0910F-V1
Misc : SV3-29-03
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 08:01:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V12.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 17:43
Operator : JT
Sample : CCV0910F-V2
Misc : SV3-29-03
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 18:20:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	32580023	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	245209059	93.931	PPM
5) H	Diesel Fuel #2 (06-...	14.000	242086289	100.771	PPM
6) H	Oil (06-07-18)	22.000	50967185	16.566	PPM
7) H	Oil Acid Clean (06-12...	22.000	50967185	1.433	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	236082395	100.588	PPM
9) H	Oil Combo (06-07-18)	22.000	37631345	9.444	PPM
10) H	Oil Acid Clean Combo ...	22.000	37631345	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	243757551	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15294515	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	153581867	60.557	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	274805831	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	274805831	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	293724619	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	148434525	61.760	PPM
18) H	Oil Acid Clean MO Com...	22.000	32250493	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	32250493	6.731	PPM

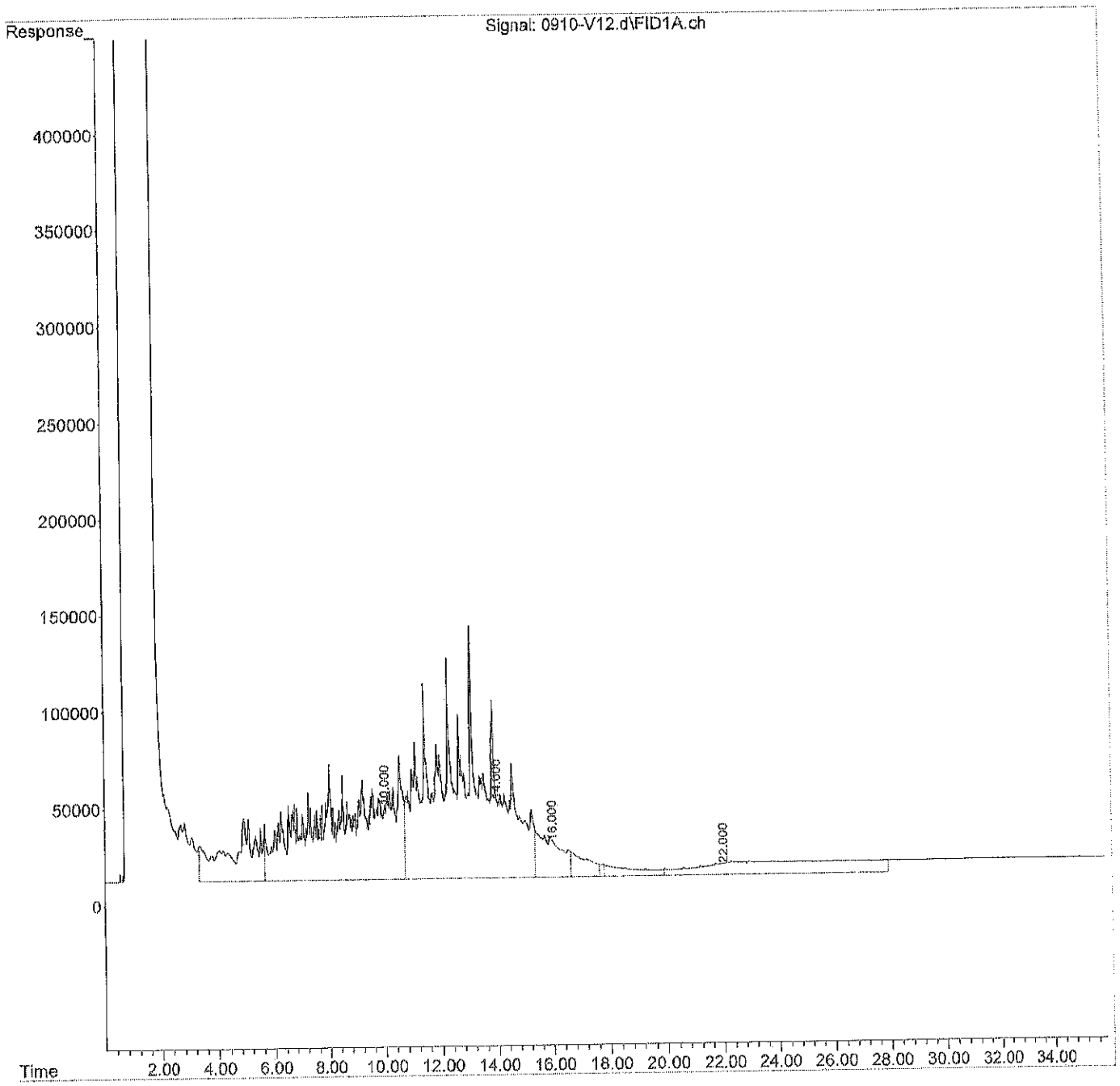
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V12.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 17:43
Operator : JT
Sample : CCV0910F-V2
Misc : SV3-29-03
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 10 18:20:00 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V21.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 23:45
Operator : JT
Sample : CCV0910F-V3
Misc : SV3-29-03
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 11 00:21:17 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	32266273	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	247328609	94.762	PPM
5) H	Diesel Fuel #2 (06-...	14.000	244864910	101.944	PPM
6) H	Oil (06-07-18)	22.000	52062295	17.176	PPM
7) H	Oil Acid Clean (06-12...	22.000	52062295	1.895	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	238684104	101.709	PPM
9) H	Oil Combo (06-07-18)	22.000	38458913	9.912	PPM
10) H	Oil Acid Clean Combo ...	22.000	38458913	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	246573295	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16071662	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	155877991	61.458	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	278176211	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	278176211	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	296971771	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	150571343	62.633	PPM
18) H	Oil Acid Clean MO Com...	22.000	32924735	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	32924735	7.123	PPM

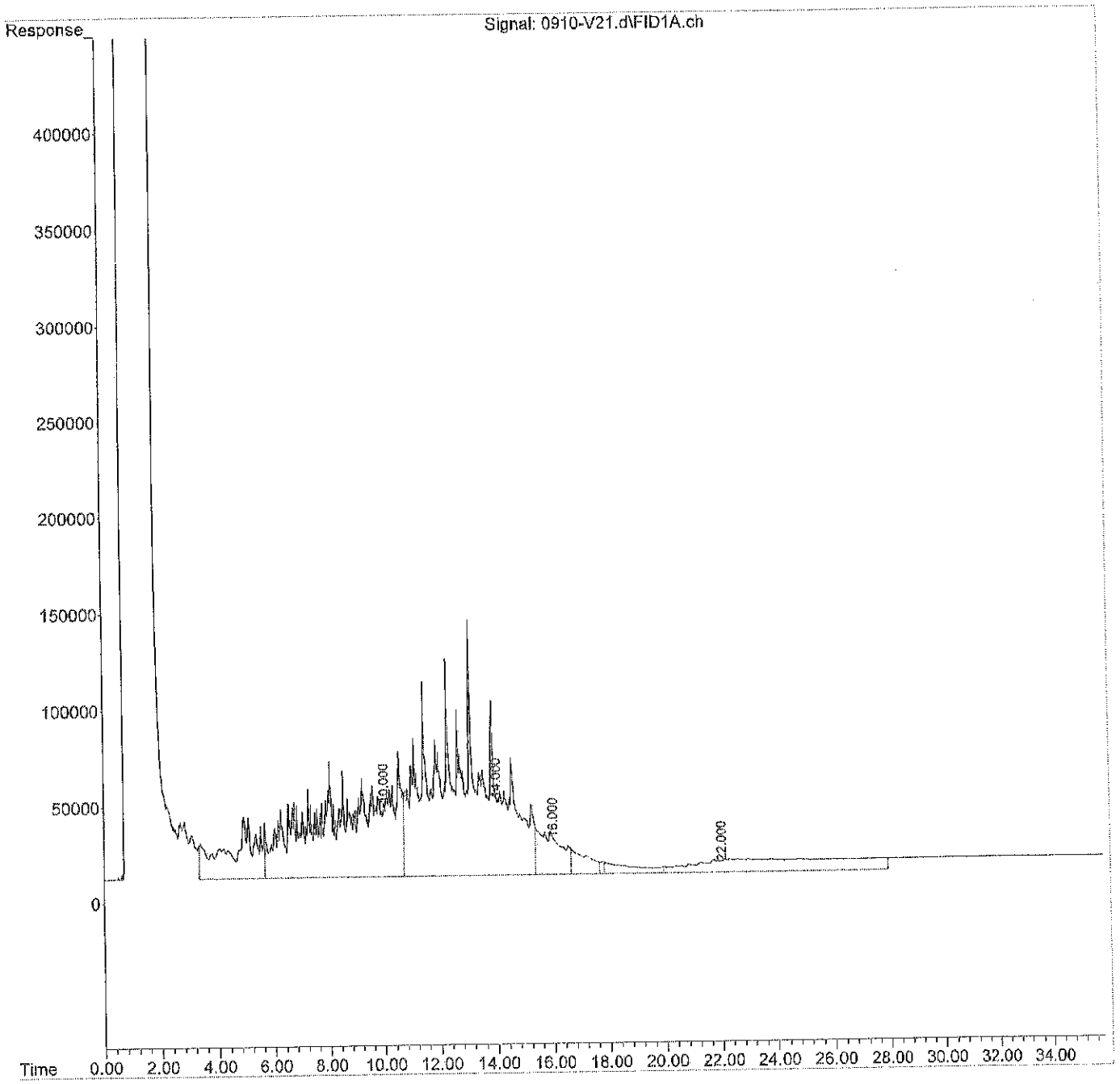
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V21.d
Signal(s) : FID1A.ch
Acq On : 10 Sep 2018 23:45
Operator : JT
Sample : CCV0910F-V3
Misc : SV3-29-03
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 11 00:21:17 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V30.d
Signal(s) : FID1A.ch
Acq On : 11 Sep 2018 5:45
Operator : JT
Sample : CCV0910F-V4
Misc : SV3-29-03
ALS Vial : 30 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 11 06:21:38 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	32076818	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	246458188	94.421	PPM
5) H	Diesel Fuel #2 (06-...	14.000	243830176	101.507	PPM
6) H	Oil (06-07-18)	22.000	54893088	18.753	PPM
7) H	Oil Acid Clean (06-12...	22.000	54893088	3.090	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	237809349	101.332	PPM
9) H	Oil Combo (06-07-18)	22.000	41433465	11.596	PPM
10) H	Oil Acid Clean Combo ...	22.000	41433465	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	245495145	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16859242	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	154868799	61.062	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	280880562	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	280880562	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	299339887	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	149695652	62.275	PPM
18) H	Oil Acid Clean MO Com...	22.000	36046127	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	36046127	8.940	PPM

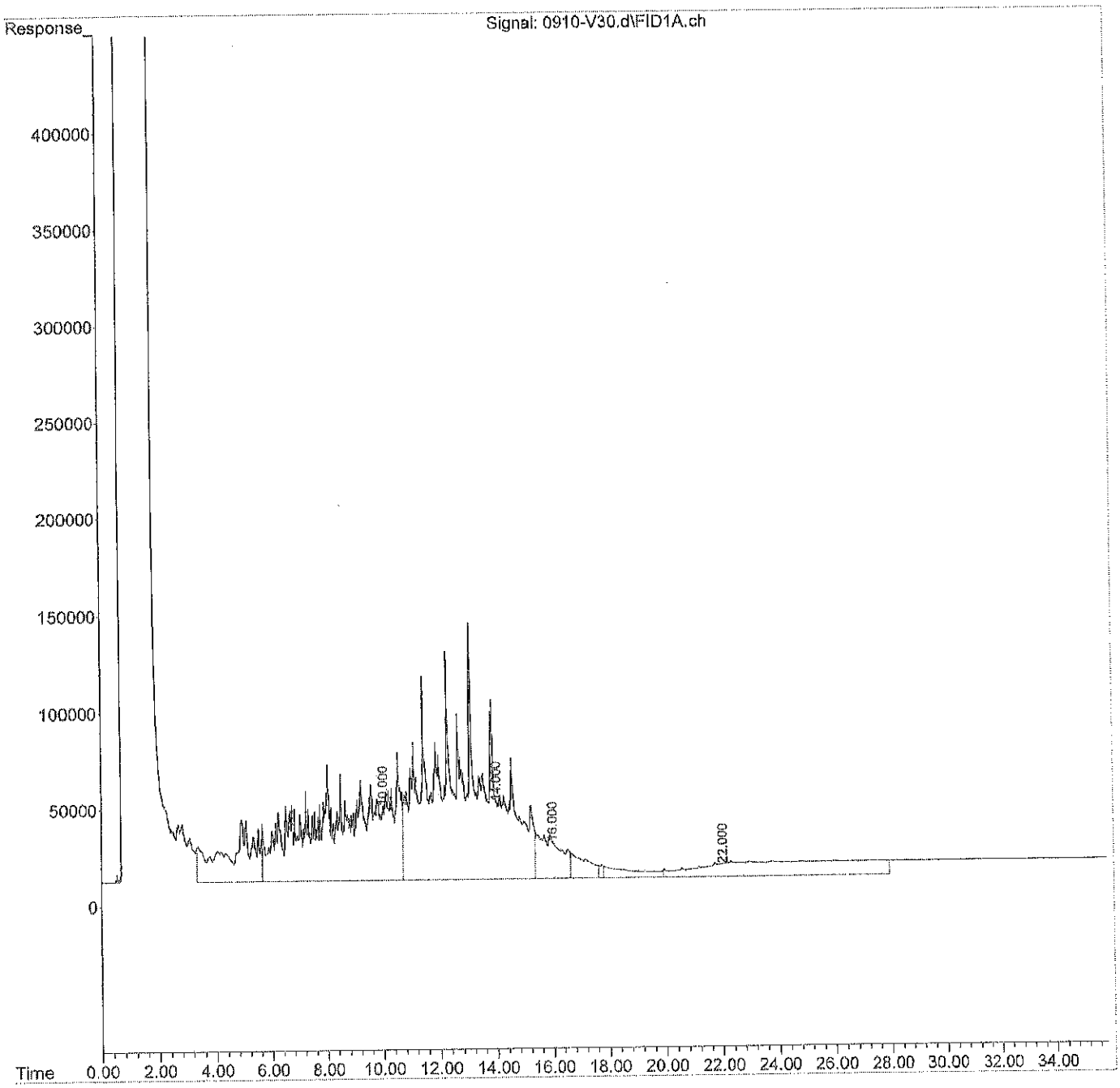
(f)=RT Delta > 1/2 Window (m)=manual int.

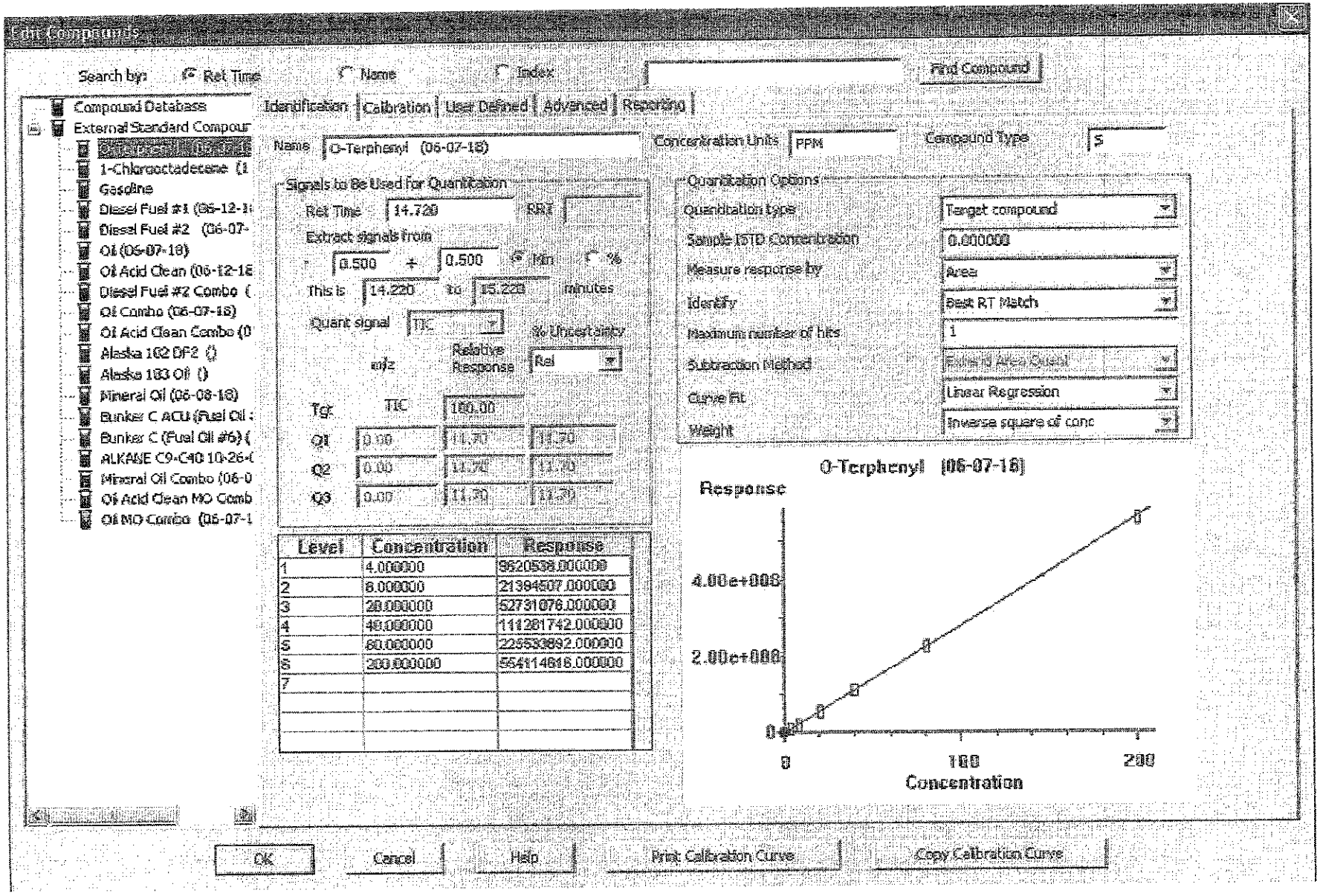
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\V180910\
Data File : 0910-V30.d
Signal(s) : FID1A.ch
Acq On : 11 Sep 2018 5:45
Operator : JT
Sample : CCV0910F-V4
Misc : SV3-29-03
ALS Vial : 30 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 11 06:21:38 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by: Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 183 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
O-Terphenyl (06-07-18)
Concentration Units
PPM
Compound Type
S
Signals to Be Used For Quantification
Ret Time
14.720
RRT
Extract signals from
0.500
0.500
Min
%
This is
14.220
to
15.220
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
4.000000
96205308.000000
2
8.000000
213945070.000000
3
20.000000
527310760.000000
4
40.000000
1112817420.000000
5
80.000000
2255308920.000000
6
200.000000
5541148160.000000
7
O-Terphenyl (06-07-18)
Response
4.00e+008
2.00e+008
0.00
0
100
200
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.582	9620538	3.974 PPM
Spiked Amount	50.000		Recovery =	7.95%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2918914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7973112	0.934 PPM
5) H	Diesel Fuel #2 (06-...	14.000	8067167	1.963 PPM
6) H	Oil (06-07-18)	22.000	41478047	11.278 PPM
7) H	Oil Acid Clean (06-12...	22.000	41478047	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	7057774	1.895 PPM
9) H	Oil Combo (06-07-18)	22.000	40647380	11.151 PPM
10) H	Oil Acid Clean Combo ...	22.000	40647380	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	8402084	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	20317087	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	7057262	3.084 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	51378922	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	51378922	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	51452820	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	4092445	2.783 PPM
18) H	Oil Acid Clean MO Com...	22.000	39796223	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	39796223	11.123 PPM

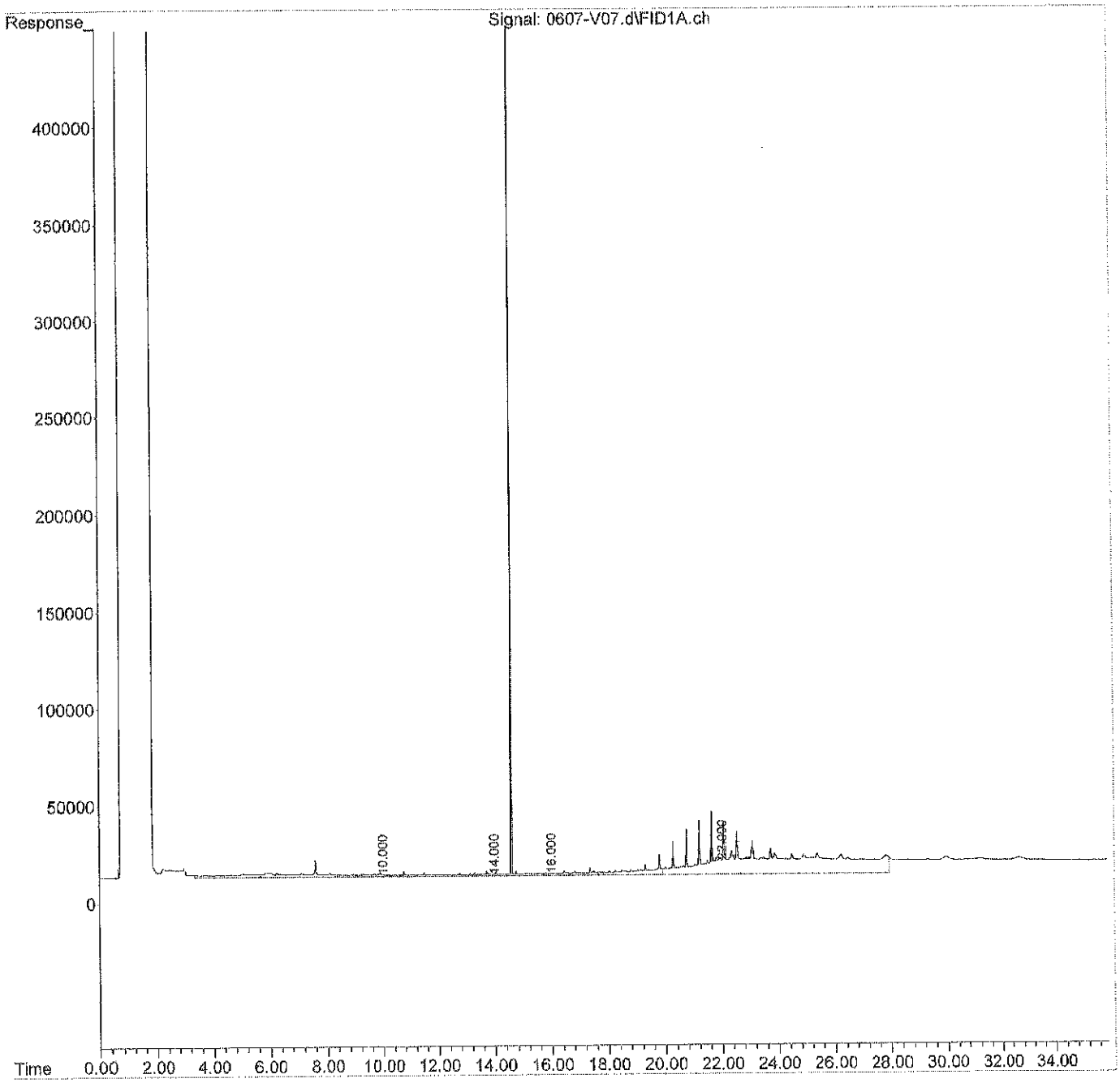
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V07.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:18
Operator : JT
Sample : 4 PPM SURR ICAL
Misc : SV3-26-6
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:10 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
1)	S	O-Terphenyl (06-07-18)	14.583	21394507	8.182	PPM
Spiked Amount		50.000		Recovery =	16.36%	
Target Compounds						
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	2578709	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	6568002	0.383	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	6442554	1.277	PPM
6)	H	Oil (06-07-18)	22.000	38834383	9.804	PPM
7)	H	Oil Acid Clean (06-12...	22.000	38834383	N.D.	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	5650075	1.288	PPM
9)	H	Oil Combo (06-07-18)	22.000	38215738	9.775	PPM
10)	H	Oil Acid Clean Combo ...	22.000	38215738	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	6700816	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	20412619	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	5601139	2.513	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	47152459	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	47152459	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	47173180	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	3086112	2.372	PPM
18)	H	Oil Acid Clean MO Com...	22.000	37547444	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	37547444	9.814	PPM

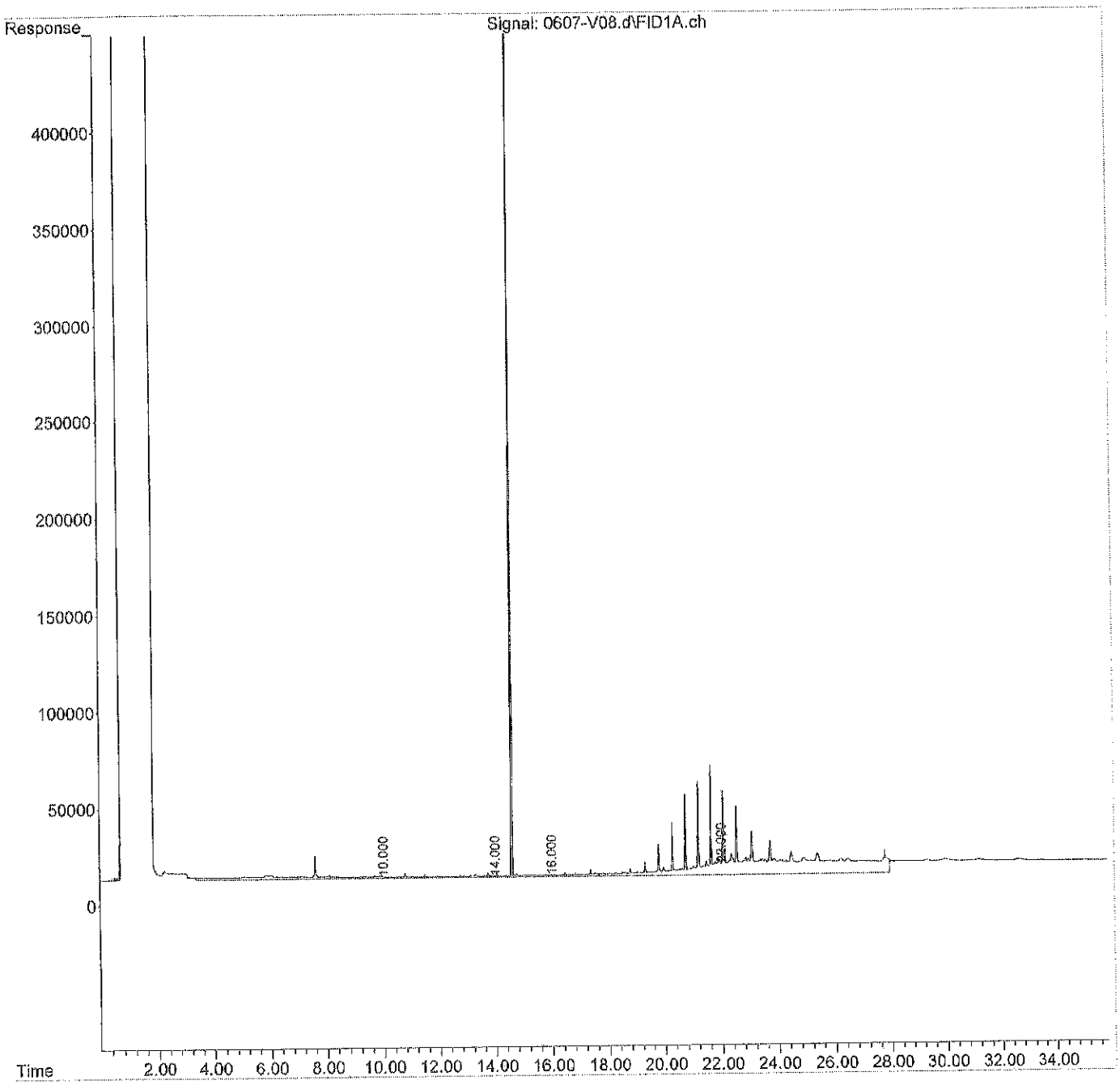
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V08.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 17:58
Operator : JT
Sample : 8 PPM SURR ICAL
Misc : SV3-26-7
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:40 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.588	52731076	19.381	PPM
Spiked Amount	50.000		Recovery =	38.76%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	2265067	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5081733	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	4905010	0.628	PPM
6) H	Oil (06-07-18)	22.000	32732210	6.404	PPM
7) H	Oil Acid Clean (06-12...	22.000	32732210	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4219849	0.672	PPM
9) H	Oil Combo (06-07-18)	22.000	32242464	6.394	PPM
10) H	Oil Acid Clean Combo ...	22.000	32242464	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	5118955	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	16586145	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	4326333	2.013	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	39478225	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	39478225	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	39423416	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2320552	2.059	PPM
18) H	Oil Acid Clean MO Com...	22.000	31663541	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	31663541	6.389	PPM

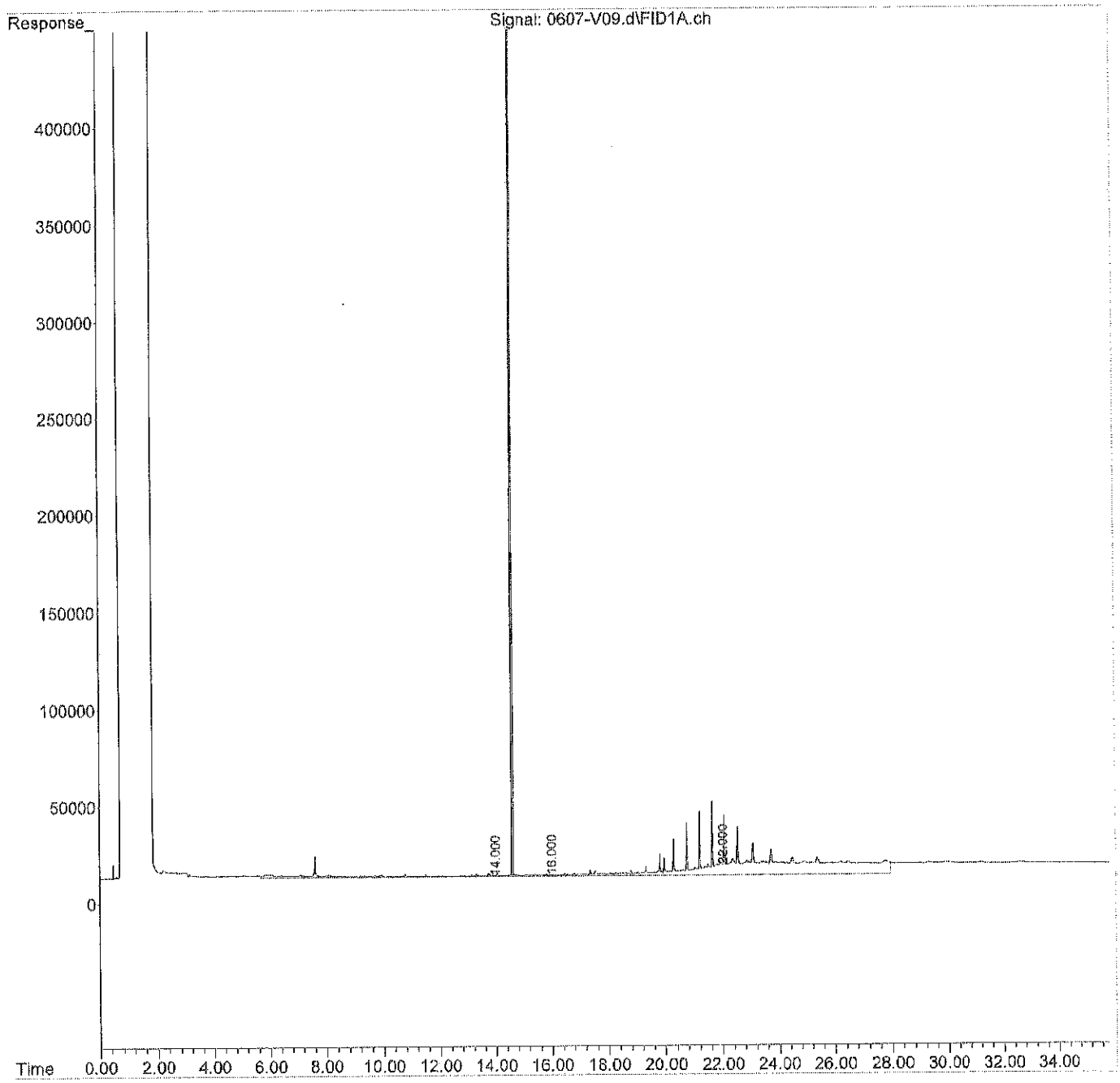
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V09.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 18:38
Operator : JT
Sample : 20 PPM SURR ICAL
Misc : SV3-26-8
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:08:57 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.595	111281742	40.306 PPM
Spiked Amount	50.000		Recovery =	80.61%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2340566	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4714319	N.D. PPM
5) H	Diesel Fuel #2 (06-...	14.000	4271422	0.360 PPM
6) H	Oil (06-07-18)	22.000	31921729	5.952 PPM
7) H	Oil Acid Clean (06-12...	22.000	31921729	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	3720497	0.456 PPM
9) H	Oil Combo (06-07-18)	22.000	31518020	5.984 PPM
10) H	Oil Acid Clean Combo ...	22.000	31518020	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	4457580	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	16644658	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	3770307	1.795 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	38132311	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	38132311	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	38147075	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	1868960	1.875 PPM
18) H	Oil Acid Clean MO Com...	22.000	31056856	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	31056856	6.036 PPM

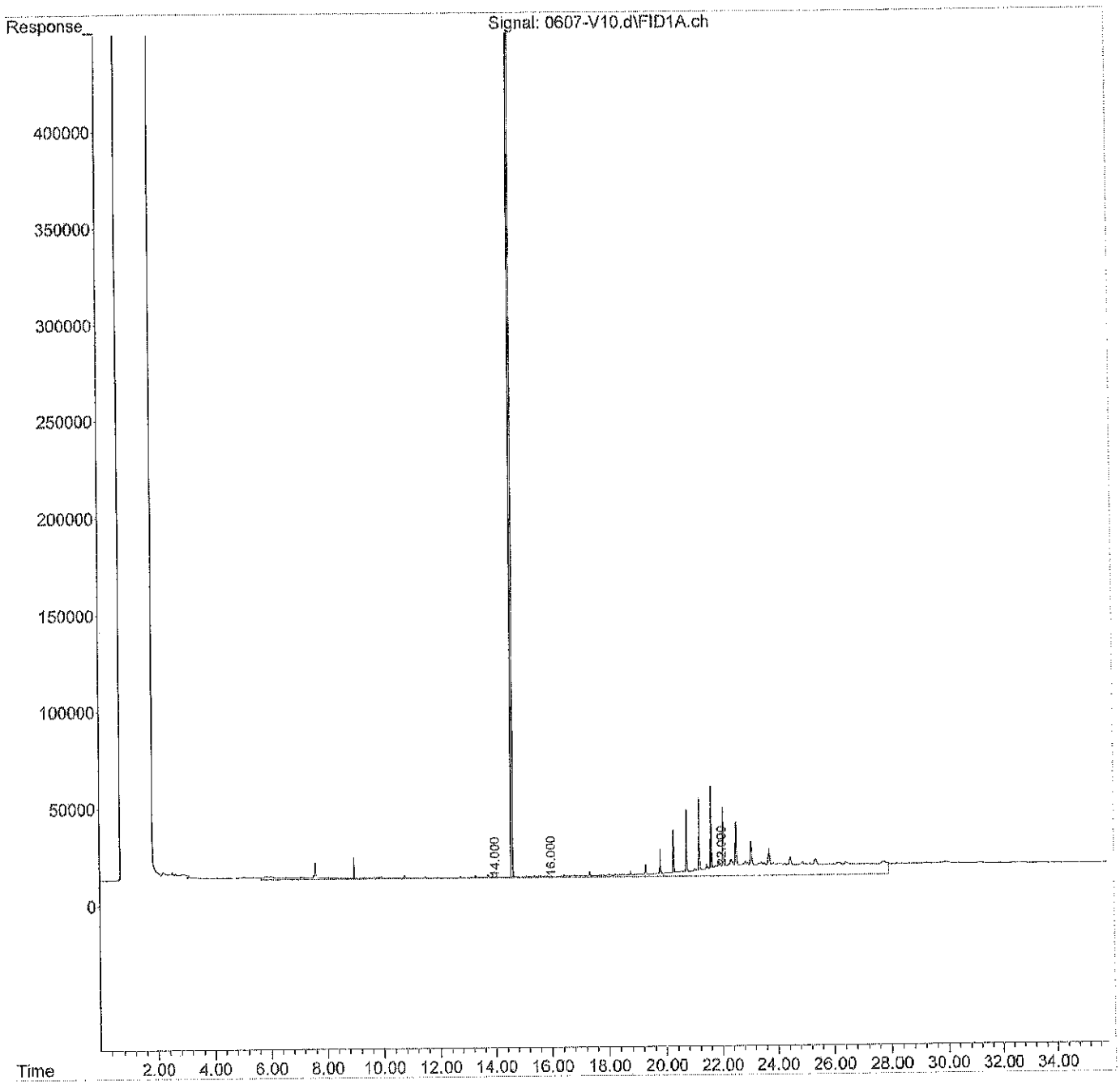
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V10.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:18
Operator : JT
Sample : 40 PPM SURR ICAL
Misc : SV3-26-9
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:14 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.608	225533892	81.138 PPM
Spiked Amount	50.000		Recovery =	162.28%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	2825914	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	7127070	0.603 PPM
5) H	Diesel Fuel #2 (06-...	14.000	6794365	1.426 PPM
6) H	Oil (06-07-18)	22.000	35914188	8.177 PPM
7) H	Oil Acid Clean (06-12...	22.000	35914188	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6032453	1.453 PPM
9) H	Oil Combo (06-07-18)	22.000	35297875	8.123 PPM
10) H	Oil Acid Clean Combo ...	22.000	35297875	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	7031240	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	19426371	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	5449526	2.454 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	44200935	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	44200935	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	44502128	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	3154382	2.400 PPM
18) H	Oil Acid Clean MO Com...	22.000	34654159	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	34654159	8.130 PPM

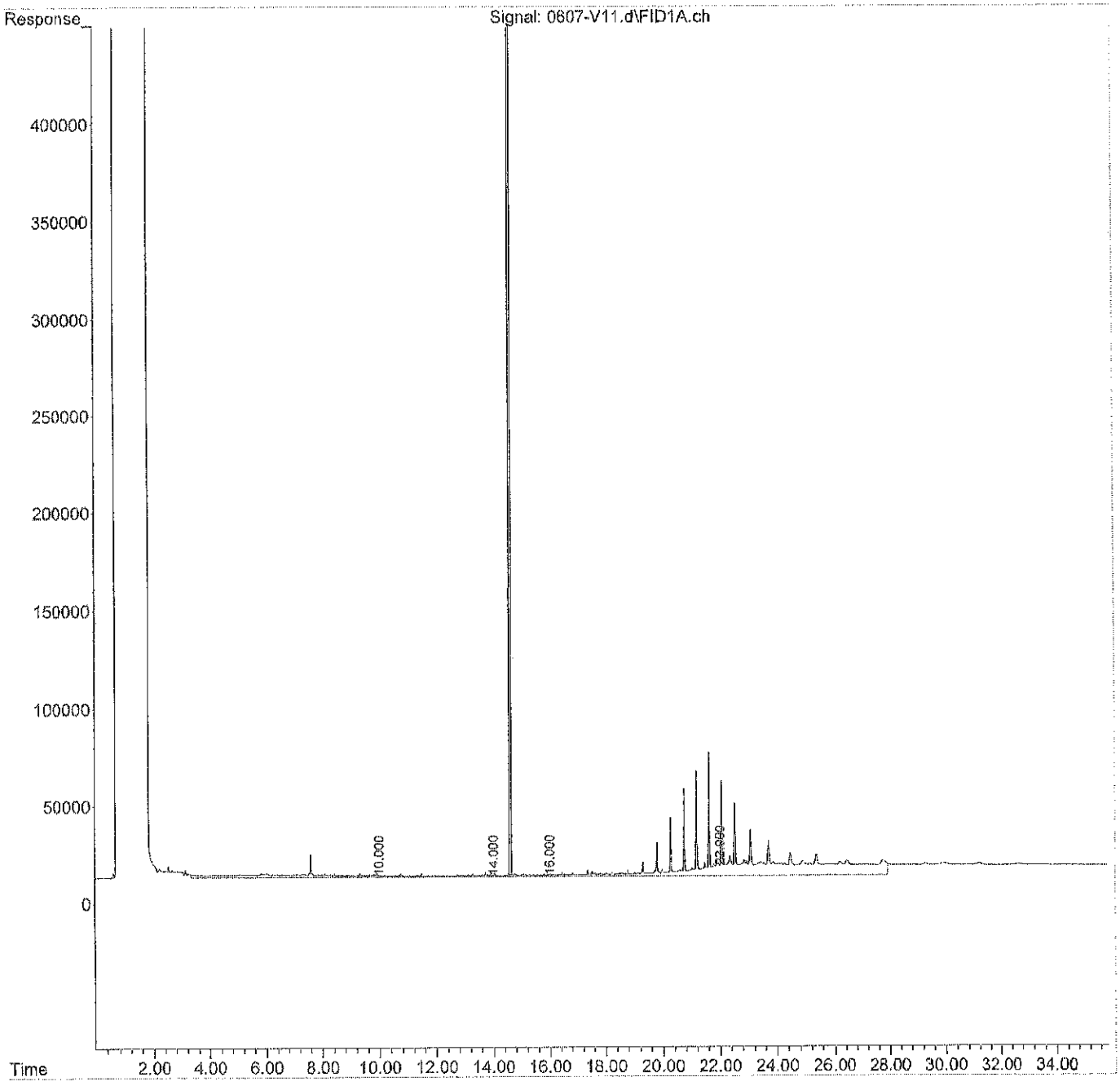
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V11.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 19:58
Operator : JT
Sample : 80 PPM SURR ICAL
Misc : SV3-26-10
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:09:32 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S O-Terphenyl (06-07-18)	14.633	554114616	198.568	PPM
Spiked Amount	50.000		Recovery =	397.14%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	2480847	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5332885	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	4955156	0.649	PPM
6) H	Oil (06-07-18)	22.000	29536918	4.623	PPM
7) H	Oil Acid Clean (06-12...	22.000	29536918	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4340875	0.724	PPM
9) H	Oil Combo (06-07-18)	22.000	29073821	4.600	PPM
10) H	Oil Acid Clean Combo ...	22.000	29073821	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	5149935	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14577866	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	4166131	1.950	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	36280871	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	36280871	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	36345279	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	2350636	2.072	PPM
18) H	Oil Acid Clean MO Com...	22.000	28553677	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28553677	4.579	PPM

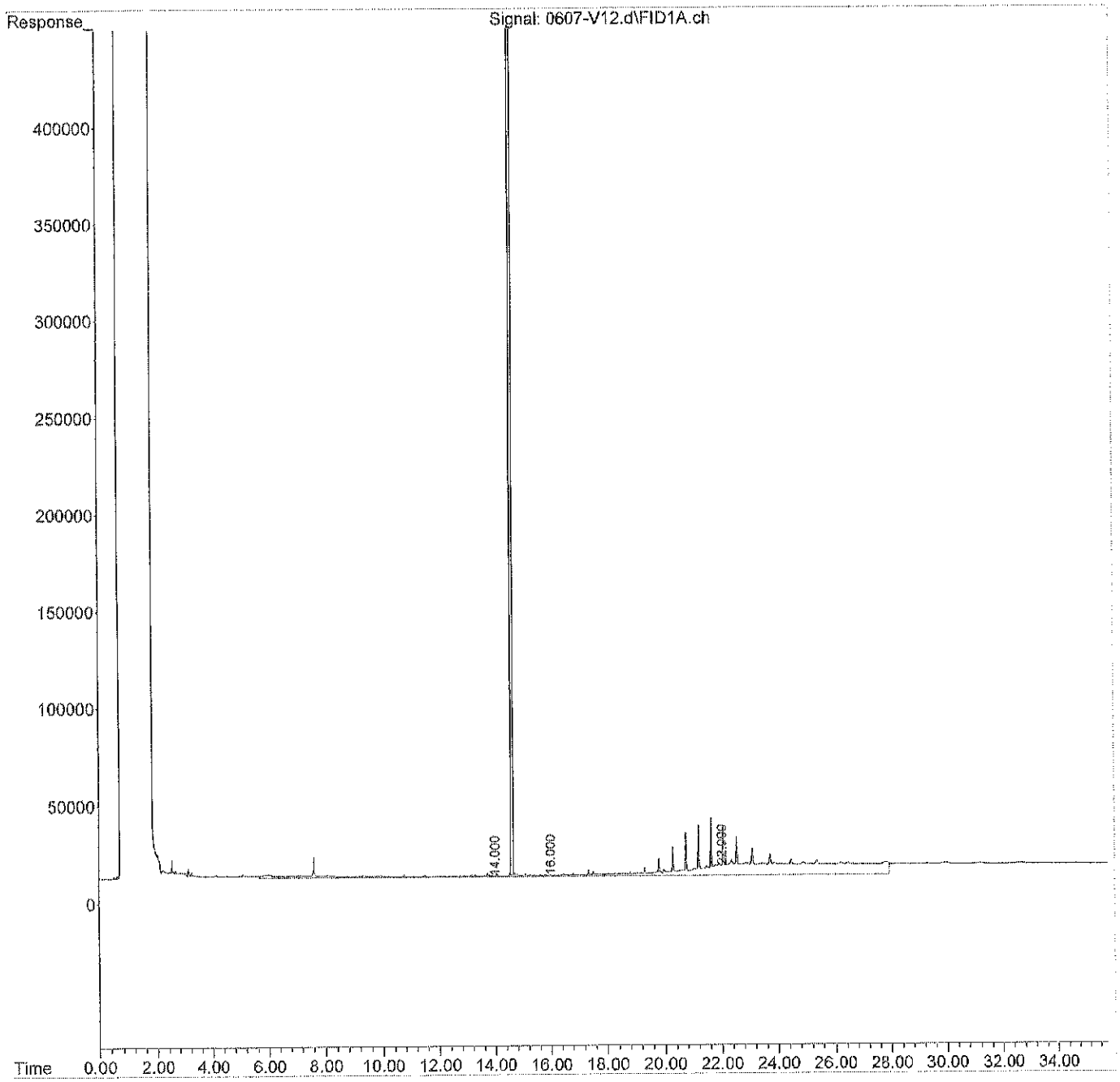
(f)=RT Delta > 1/2 Window (m)=manual int.

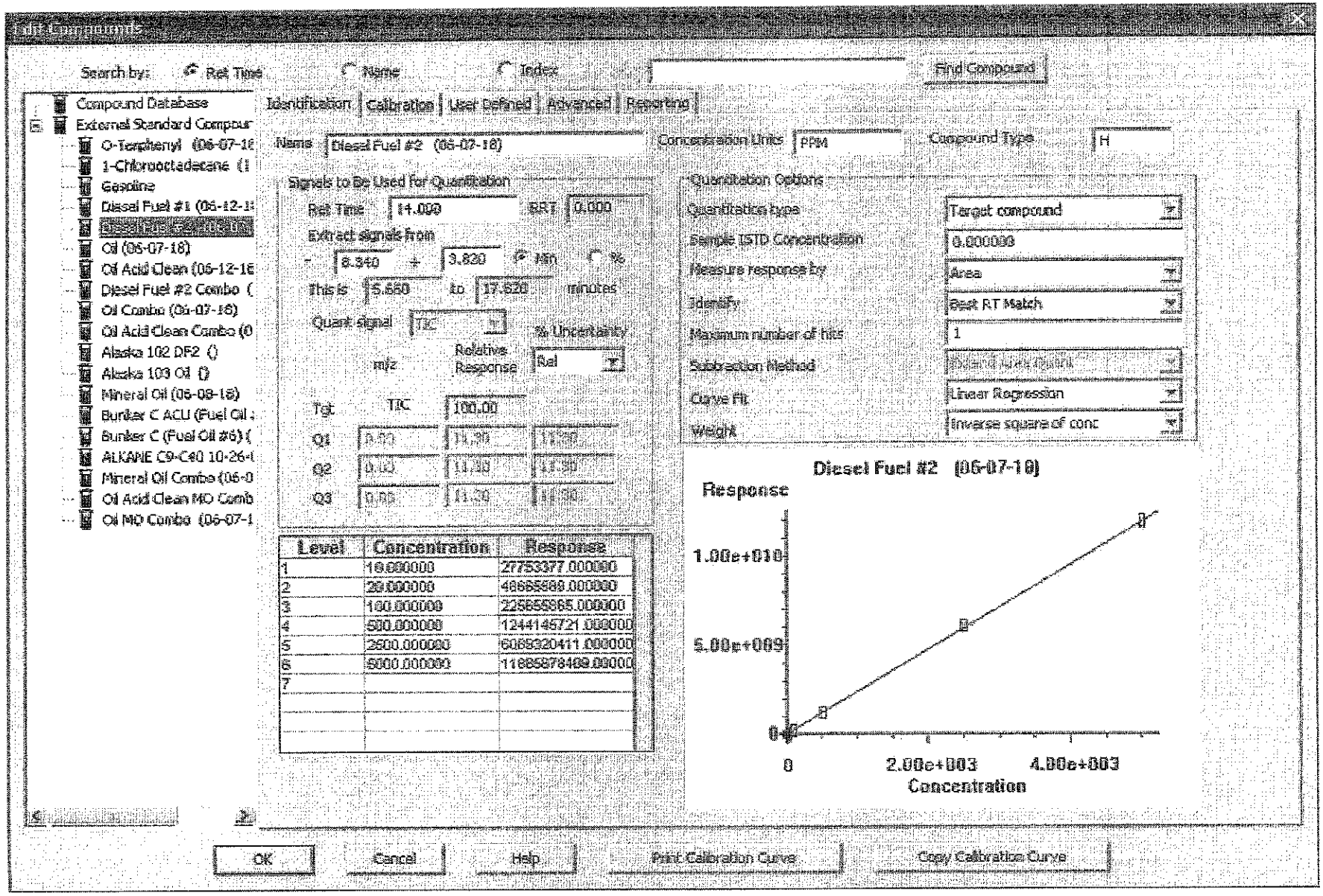
Quantitation Report (Not Reviewed)

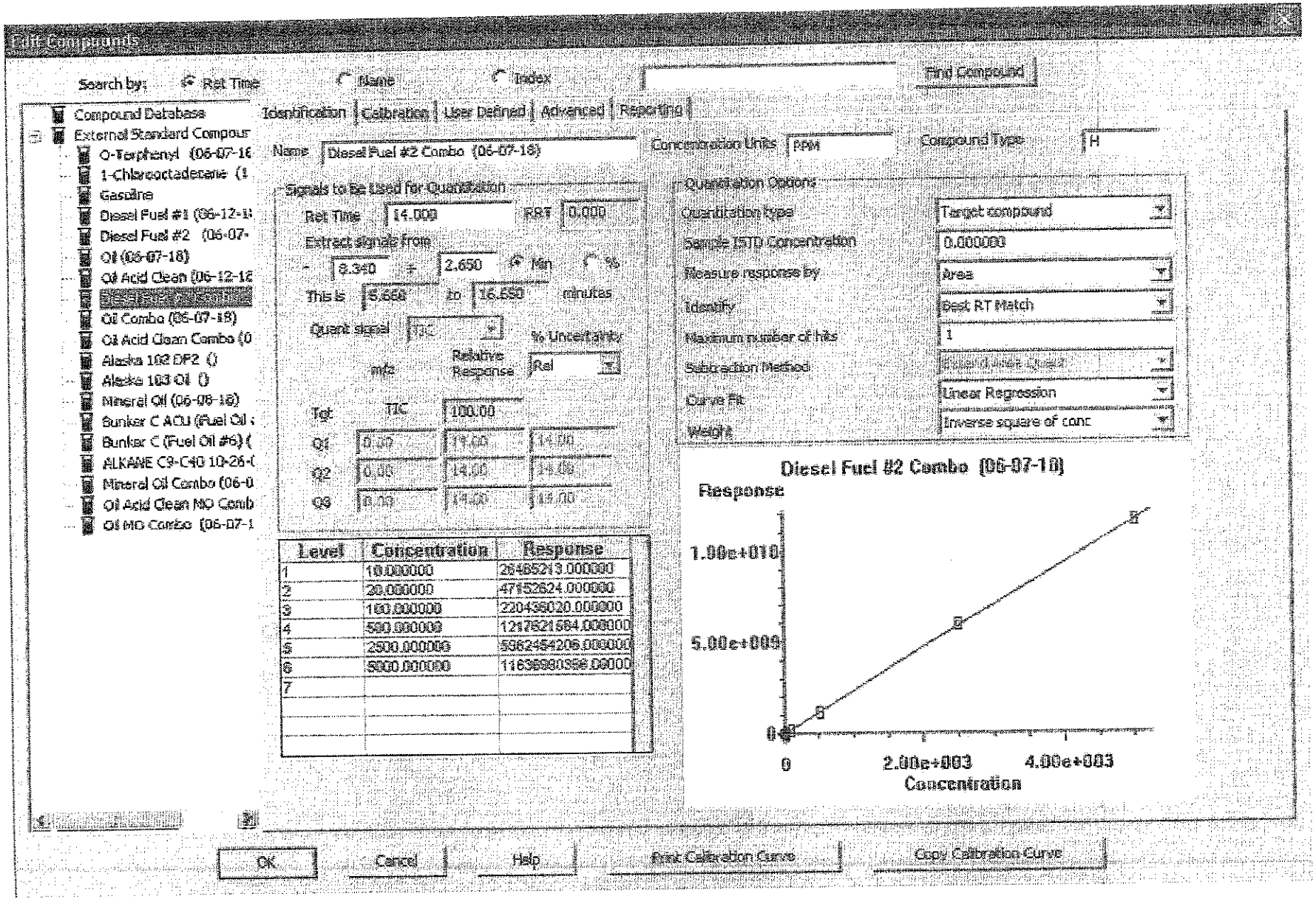
Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V12.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 20:38
Operator : JT
Sample : 200 PPM SURR ICAL
Misc : SV3-26-11
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:10:58 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-1
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Combo (06-07-18)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-18)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
14.099
RRT
0.000
Extract signals from
8.340
3.820
Min
%
This is
5.660
to
17.920
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
10.000000
27753377.000000
2
20.000000
48665688.000000
3
100.000000
225855865.000000
4
500.000000
1244145721.000000
5
2500.000000
6089320411.000000
6
5000.000000
11886878409.000000
Diesel Fuel #2 (06-07-18)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-16
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-16)
Oil Acid Clean (06-12-16
Diesel Fuel #2 Combo (06-07-16)
Oil Combo (06-07-16)
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-16)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Diesel Fuel #2 Combo (06-07-16)
Concentration Units
PPM
Compound Type
H
Signals to be Used for Quantitation
Ret Time
14.000
RRT
0.000
Extract signals from
8.340
2.650
Min
%
This is
5.668
to
16.650
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
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2
20.000000
47152624.000000
3
160.000000
220436020.000000
4
590.000000
1217821584.000000
5
2900.000000
5862454206.000000
6
5900.000000
11636980396.000000
7
Diesel Fuel #2 Combo (06-07-16)
Response
1.00e+010
5.00e+009
0
0
2.00e+003
4.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	O-Terphenyl (06-07-18)	14.579	1768524	1.168 PPM
Spiked Amount	50.000		Recovery =	2.34%
	Target Compounds			
2)	1-Chlorooctadecane (...	0.000	0	N.D. PPM
3) H	Gasoline	3.500	4133777	NoCal PPM
4) H	Diesel Fuel #1 (06-12...	10.000	27269128	8.498 PPM
5) H	Diesel Fuel #2 (06-...	14.000	27753377	10.275 PPM
6) H	Oil (06-07-18)	22.000	31915458	5.949 PPM
7) H	Oil Acid Clean (06-12...	22.000	31915458	N.D. PPM
8) H	Diesel Fuel #2 Combo ...	14.000	26465213	10.258 PPM
9) H	Oil Combo (06-07-18)	22.000	30005900	5.128 PPM
10) H	Oil Acid Clean Combo ...	22.000	30005900	N.D. PPM
11) H	Alaska 102 DF2 ()	13.025	28080594	NoCal PPM
12) H	Alaska 103 Oil ()	22.000	14809319	NoCal PPM
13) H	Mineral Oil (06-08-18)	16.000	19317557	7.893 PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	59083420	NoCal PPM
15) H	Bunker C (Fuel Oil #6...	15.000	59083420	NoCal PPM
16) H	ALKANE C9-C40 10-26-07	12.666	60452306	NoCal PPM
17) H	Mineral Oil Combo (06...	16.000	17051878	8.078 PPM
18) H	Oil Acid Clean MO Com...	22.000	28888187	N.D. PPM
19) H	Oil MO Combo (06-07-18)	22.000	28888187	4.774 PPM

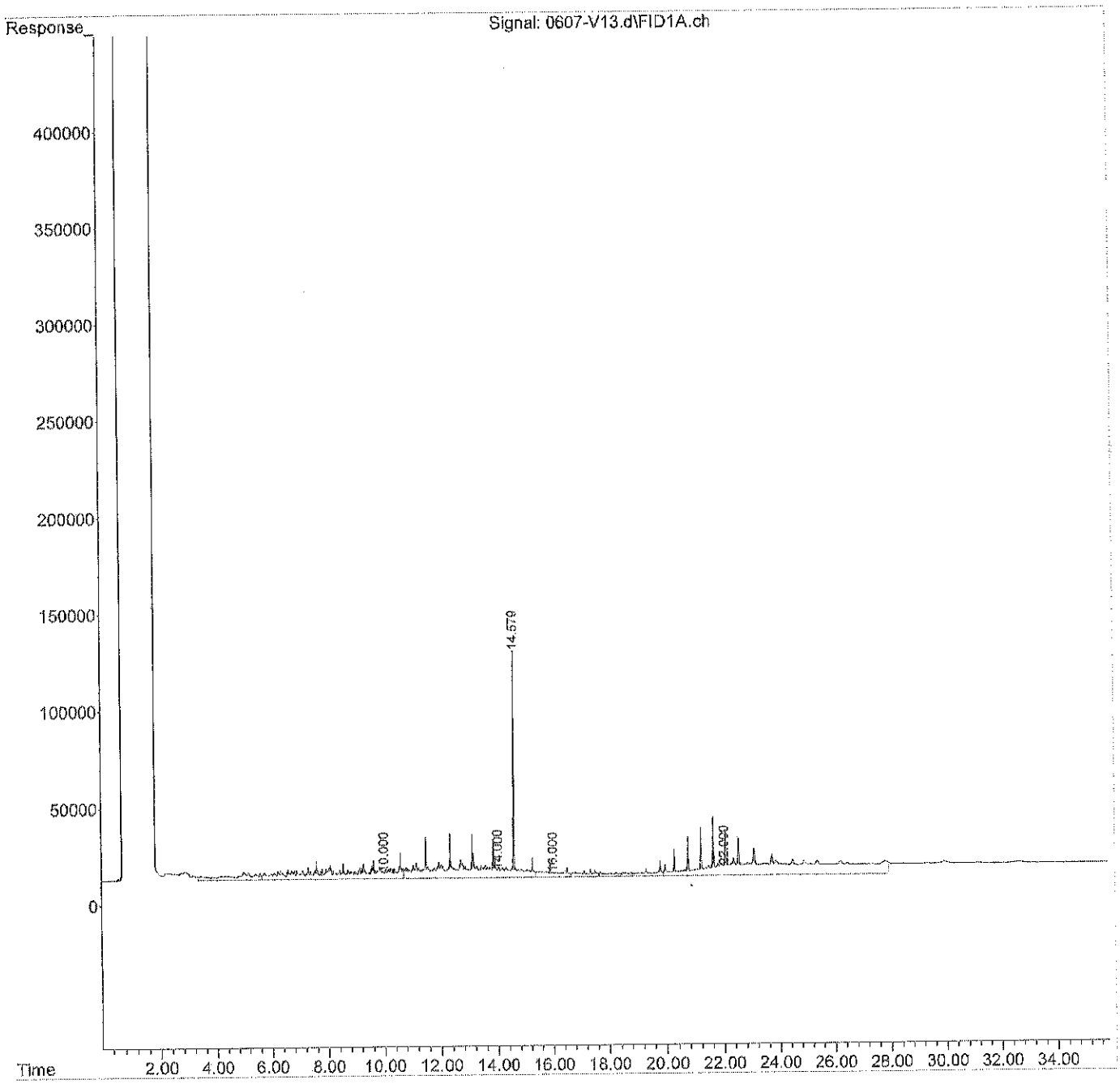
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V13.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:18
Operator : JT
Sample : 10 PPM DF2 ICAL
Misc : SV3-27-16
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:08 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	5646580	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	48040088	16.641	PPM
5) H	Diesel Fuel #2 (06-...	14.000	48665589	19.104	PPM
6) H	Oil (06-07-18)	22.000	33762580	6.978	PPM
7) H	Oil Acid Clean (06-12...	22.000	33762580	N.D.	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	47152624	19.173	PPM
9) H	Oil Combo (06-07-18)	22.000	30844064	5.602	PPM
10) H	Oil Acid Clean Combo ...	22.000	30844064	N.D.	PPM
11) H	Alaska 102 DF2 ()	13.025	48992912	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	15851618	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	32931233	13.233	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	80349703	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	80349703	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	82875651	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	30717015	13.662	PPM
18) H	Oil Acid Clean MO Com...	22.000	29519570	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	29519570	5.141	PPM

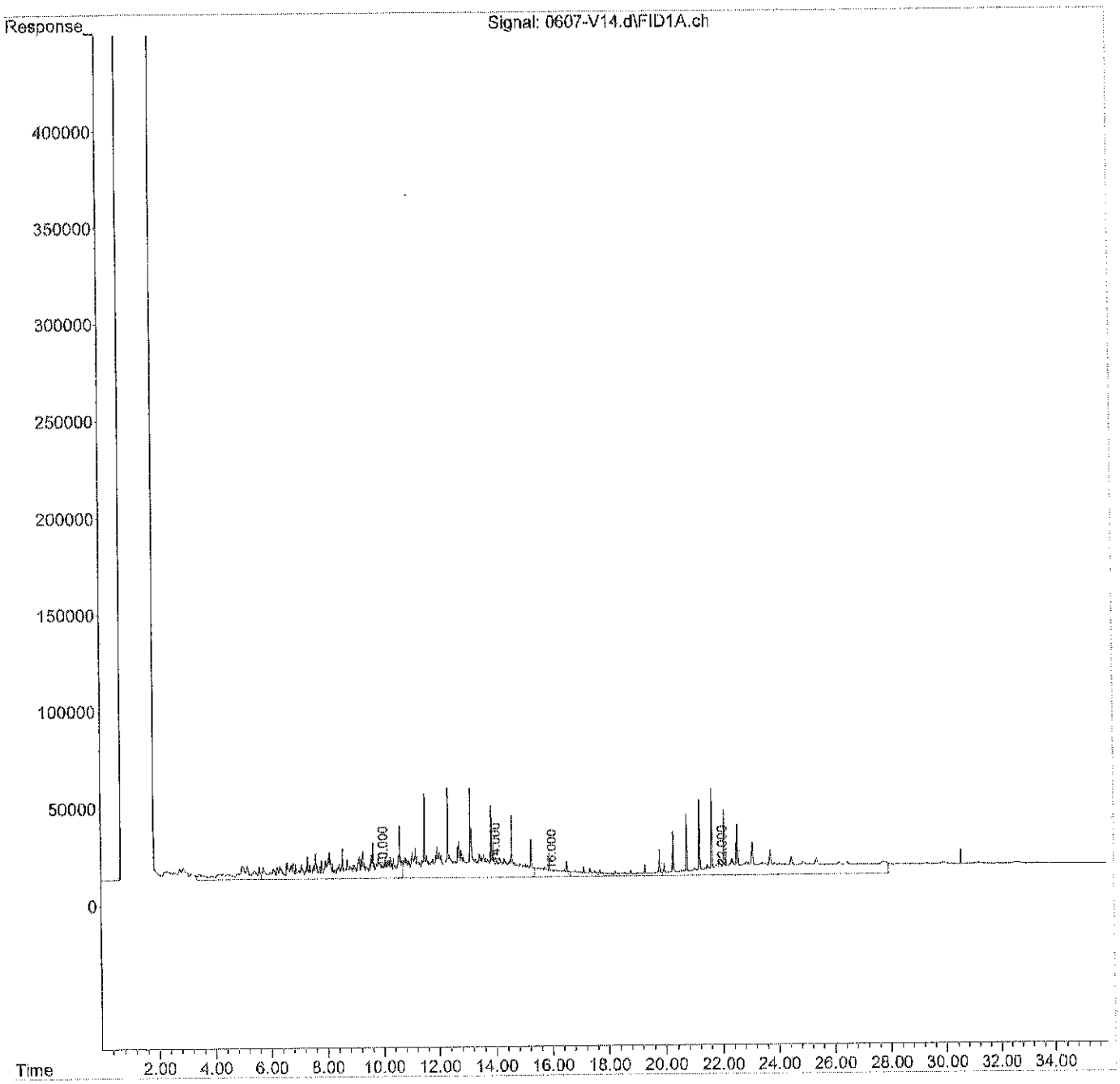
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V14.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 21:59
Operator : JT
Sample : 20 PPM DF2 ICAL
Misc : SV3-27-17
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	O-Terphenyl (06-07-18)	14.568	1827597	1.189	PPM
Spiked Amount		50.000		Recovery =	2.38%	
		Target Compounds				
2)		1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3)	H	Gasoline	3.500	20974403	NoCal	PPM
4)	H	Diesel Fuel #1 (06-12...	10.000	222453979	85.011	PPM
5)	H	Diesel Fuel #2 (06-...	14.000	225655865	93.833	PPM
6)	H	Oil (06-07-18)	22.000	47759430	14.778	PPM
7)	H	Oil Acid Clean (06-12...	22.000	47759430	0.079	PPM
8)	H	Diesel Fuel #2 Combo ...	14.000	220436020	93.845	PPM
9)	H	Oil Combo (06-07-18)	22.000	34923076	7.911	PPM
10)	H	Oil Acid Clean Combo ...	22.000	34923076	N.D.	PPM
11)	H	Alaska 102 DF2 ()	13.025	226627792	NoCal	PPM
12)	H	Alaska 103 Oil ()	22.000	16006487	NoCal	PPM
13)	H	Mineral Oil (06-08-18)	16.000	147049004	57.995	PPM
14)	H	Bunker C ACU (Fuel Oi...	15.000	256196607	NoCal	PPM
15)	H	Bunker C (Fuel Oil #6...	15.000	256196607	NoCal	PPM
16)	H	ALKANE C9-C40 10-26-07	12.666	269640605	NoCal	PPM
17)	H	Mineral Oil Combo (06...	16.000	143067779	59.567	PPM
18)	H	Oil Acid Clean MO Com...	22.000	30286616	N.D.	PPM
19)	H	Oil MO Combo (06-07-18)	22.000	30286616	5.588	PPM

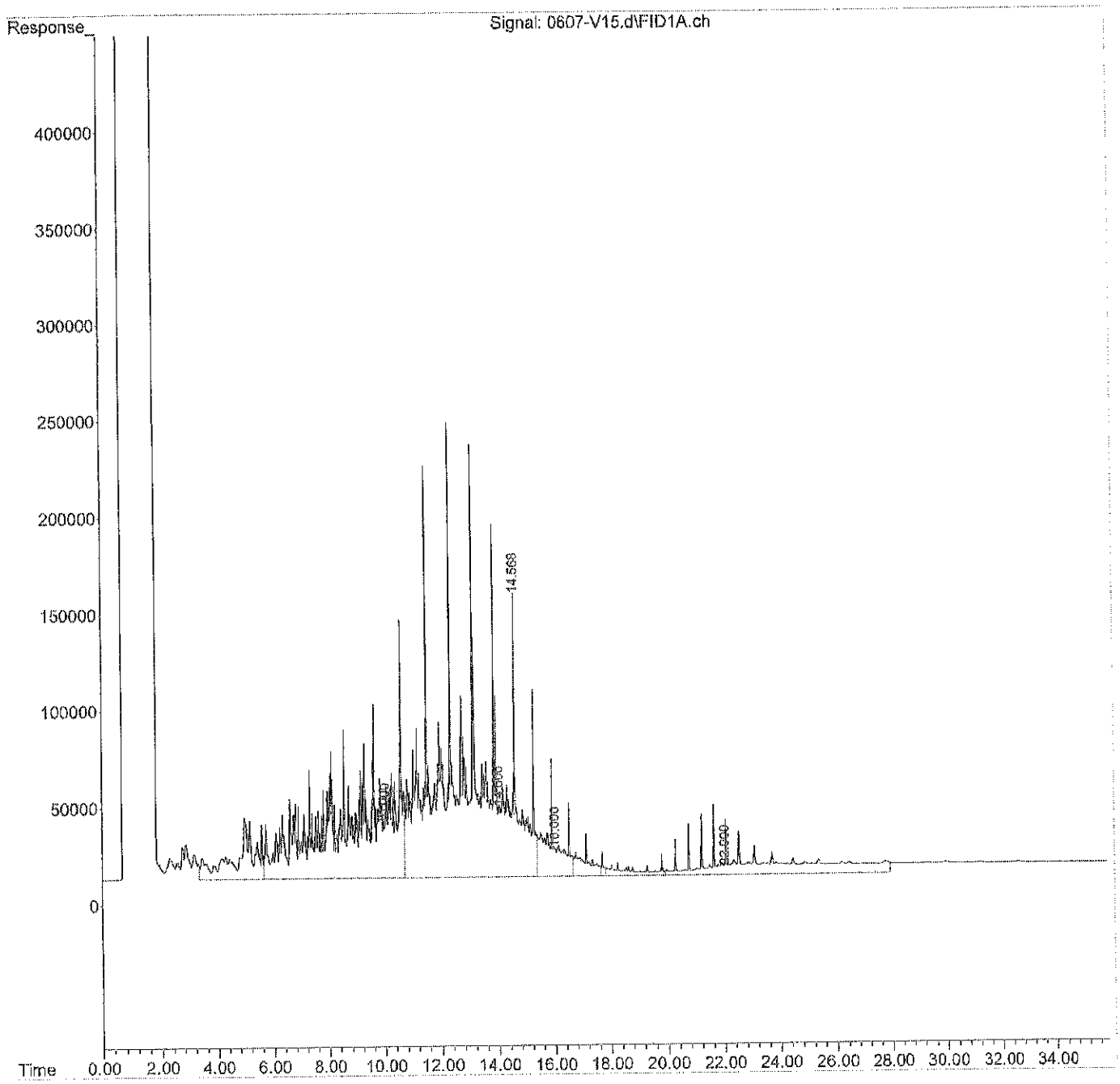
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V15.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 22:39
Operator : JT
Sample : 100 PPM DF2 ICAL
Misc : SV3-27-18
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:15:43 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.570	10094442	4.143	PPM
Spiked Amount	50.000		Recovery =	8.29%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.902	4101806	NoCal	PPM
3) H	Gasoline	3.500	107804991	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	1225065784	478.036	PPM
5) H	Diesel Fuel #2 (06-...	14.000	1244145721	523.861	PPM
6) H	Oil (06-07-18)	22.000	134868745	63.321	PPM
7) H	Oil Acid Clean (06-12...	22.000	134868745	36.856	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	1217621584	523.561	PPM
9) H	Oil Combo (06-07-18)	22.000	64913475	24.886	PPM
10) H	Oil Acid Clean Combo ...	22.000	64913475	7.630	PPM
11) H	Alaska 102 DF2 ()	13.025	1248540939	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	22045480	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	806013642	316.466	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1274842144	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1274842144	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1350137154	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	792702049	324.999	PPM
18) H	Oil Acid Clean MO Com...	22.000	41221857	N.D.	PPM
19) H	Oil MO Combo (06-07-18)	22.000	41221857	11.953	PPM

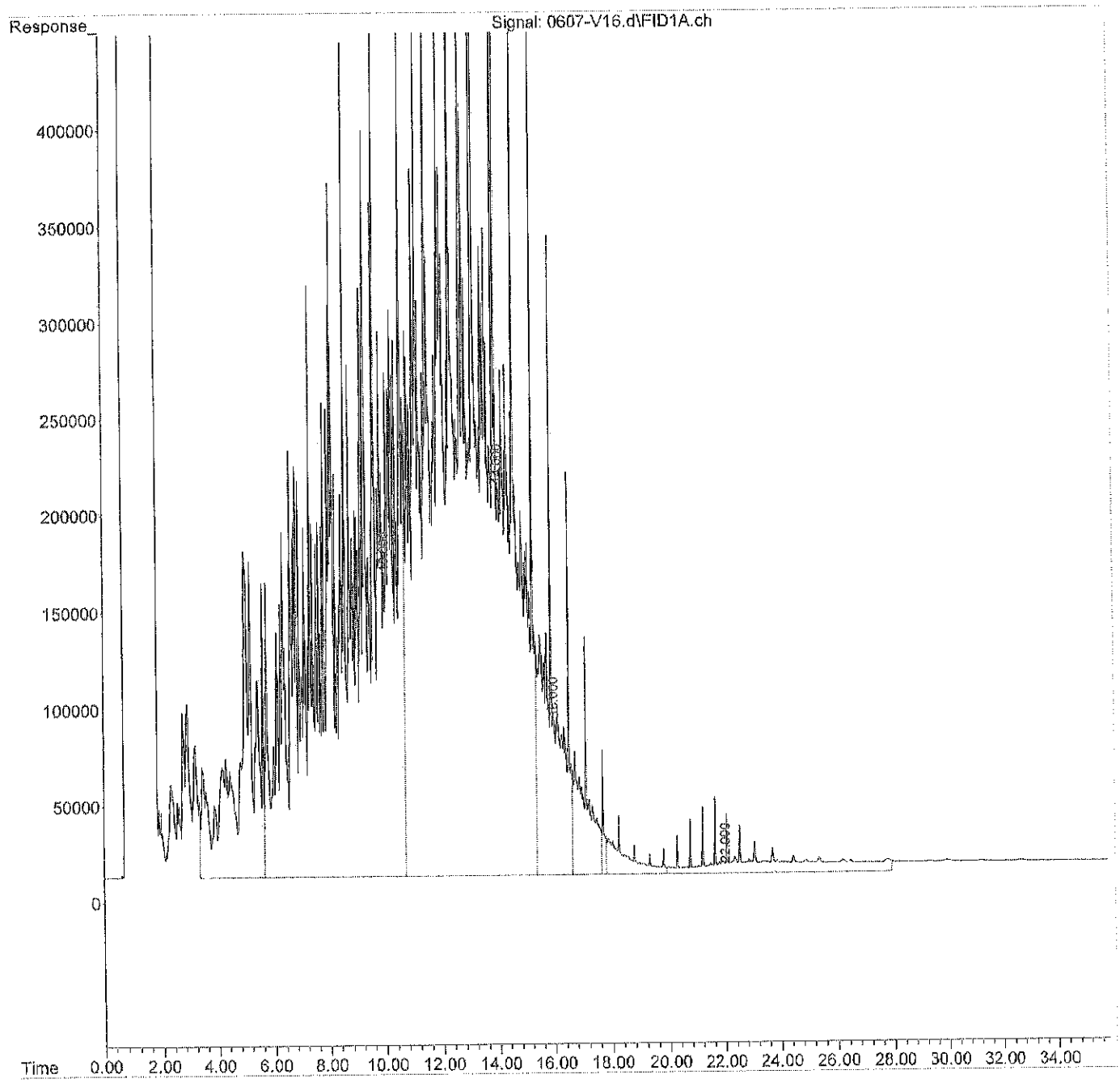
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V16.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:19
Operator : JT
Sample : 500 PPM DF2 ICAL
Misc : SV3-27-19
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:24 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.859	6943936	3.017	PPM
Spiked Amount	50.000		Recovery =	6.03%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.907	20022644	NoCal	PPM
3) H	Gasoline	3.500	514070408	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	5991992203	2346.675	PPM
5) H	Diesel Fuel #2 (06-...	14.000	6089320411	2569.593	PPM
6) H	Oil (06-07-18)	22.000	546017303	292.438	PPM
7) H	Oil Acid Clean (06-12...	22.000	546017303	210.441	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	5962454206	2568.245	PPM
9) H	Oil Combo (06-07-18)	22.000	205322242	104.356	PPM
10) H	Oil Acid Clean Combo ...	22.000	205322242	67.787	PPM
11) H	Alaska 102 DF2 ()	13.025	6110405818	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	49953834	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	3963830817	1555.086	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	6120193046	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	6120193046	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	6484678415	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	3906186074	1597.126	PPM
18) H	Oil Acid Clean MO Com...	22.000	91750432	19.770	PPM
19) H	Oil MO Combo (06-07-18)	22.000	91750432	41.364	PPM

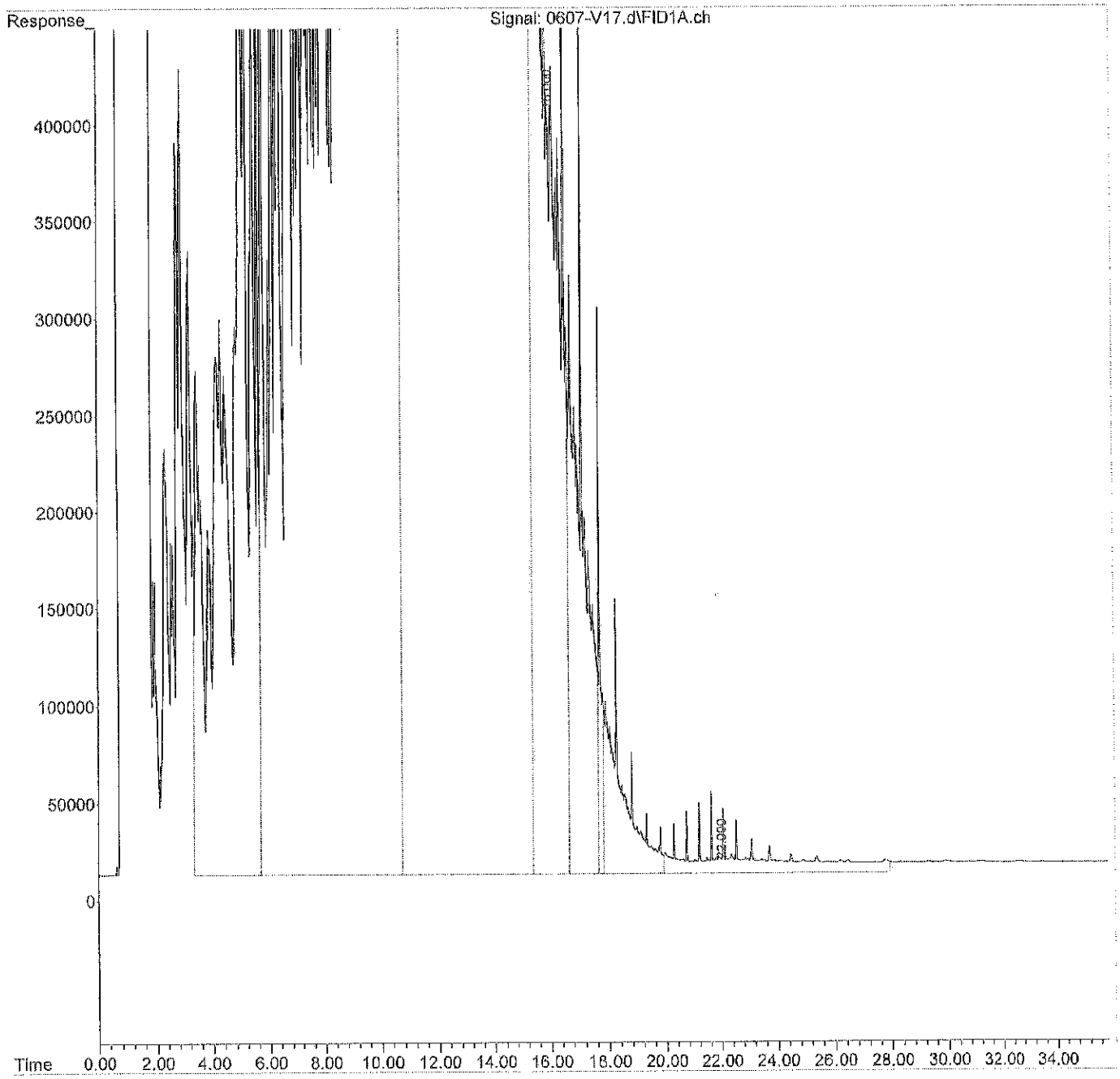
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V17.d
Signal(s) : FID1A.ch
Acq On : 7 Jun 2018 23:59
Operator : JT
Sample : 2500 PPM DF2 ICAL
Misc : SV3-27-20
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:16:56 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	14.663	76998678	28.054	PPM
Spiked Amount	50.000		Recovery =	56.11%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.751	42430766	NoCal	PPM
3) H	Gasoline	3.500	998815431	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	11682128479	4577.214	PPM
5) H	Diesel Fuel #2 (06-...	14.000	11885878409	5017.019	PPM
6) H	Oil (06-07-18)	22.000	1050282128	573.445	PPM
7) H	Oil Acid Clean (06-12...	22.000	1050282128	423.340	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	11636990366	5013.565	PPM
9) H	Oil Combo (06-07-18)	22.000	375558313	200.709	PPM
10) H	Oil Acid Clean Combo ...	22.000	375558313	140.724	PPM
11) H	Alaska 102 DF2 ()	13.025	11928301203	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	83451915	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	7745644585	3038.462	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	11917323247	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	11917323247	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	12626887751	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	7634286594	3120.377	PPM
18) H	Oil Acid Clean MO Com...	22.000	152380955	46.447	PPM
19) H	Oil MO Combo (06-07-18)	22.000	152380955	76.656	PPM

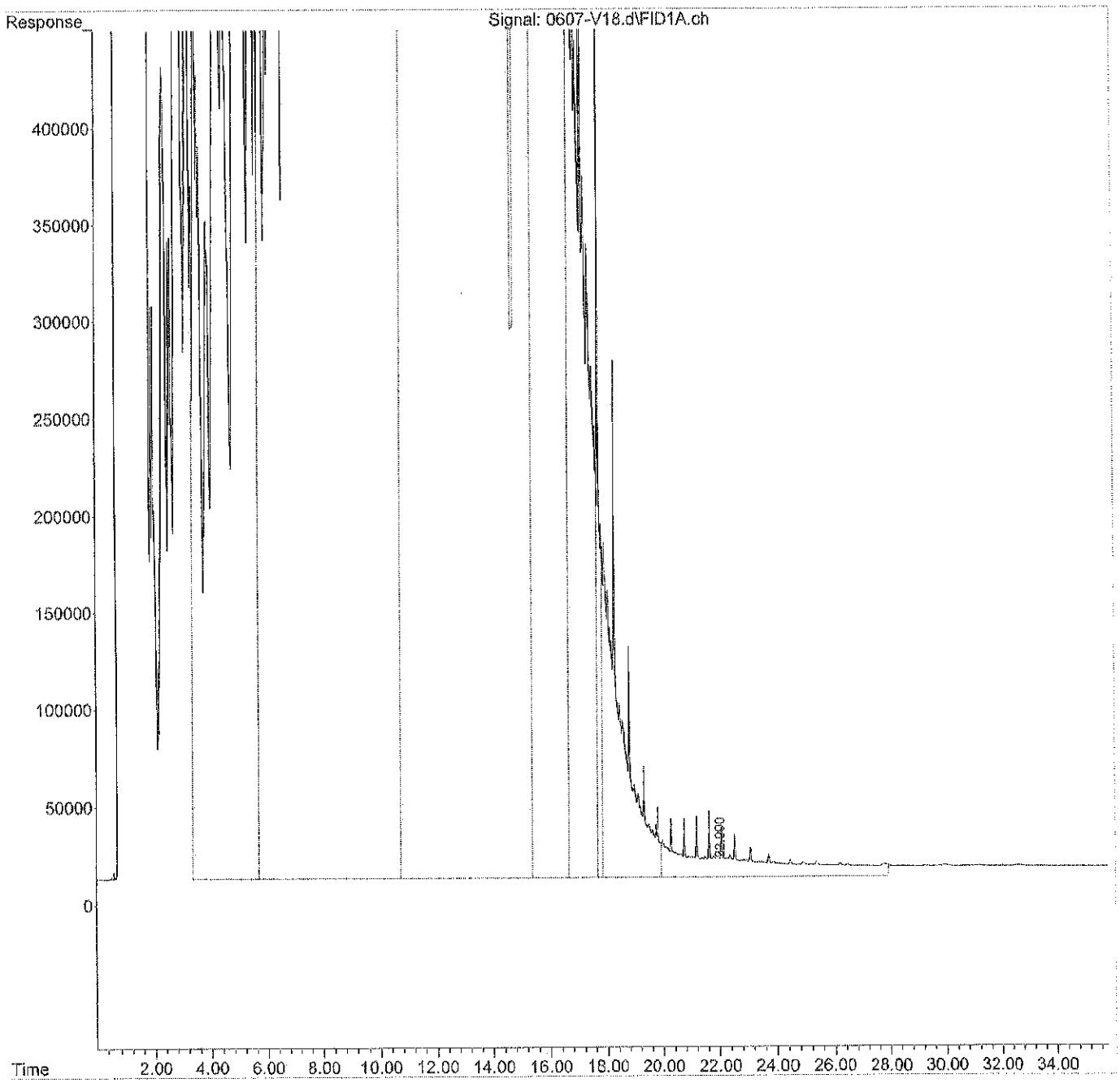
(f)=RT Delta > 1/2 Window (m)=manual int.

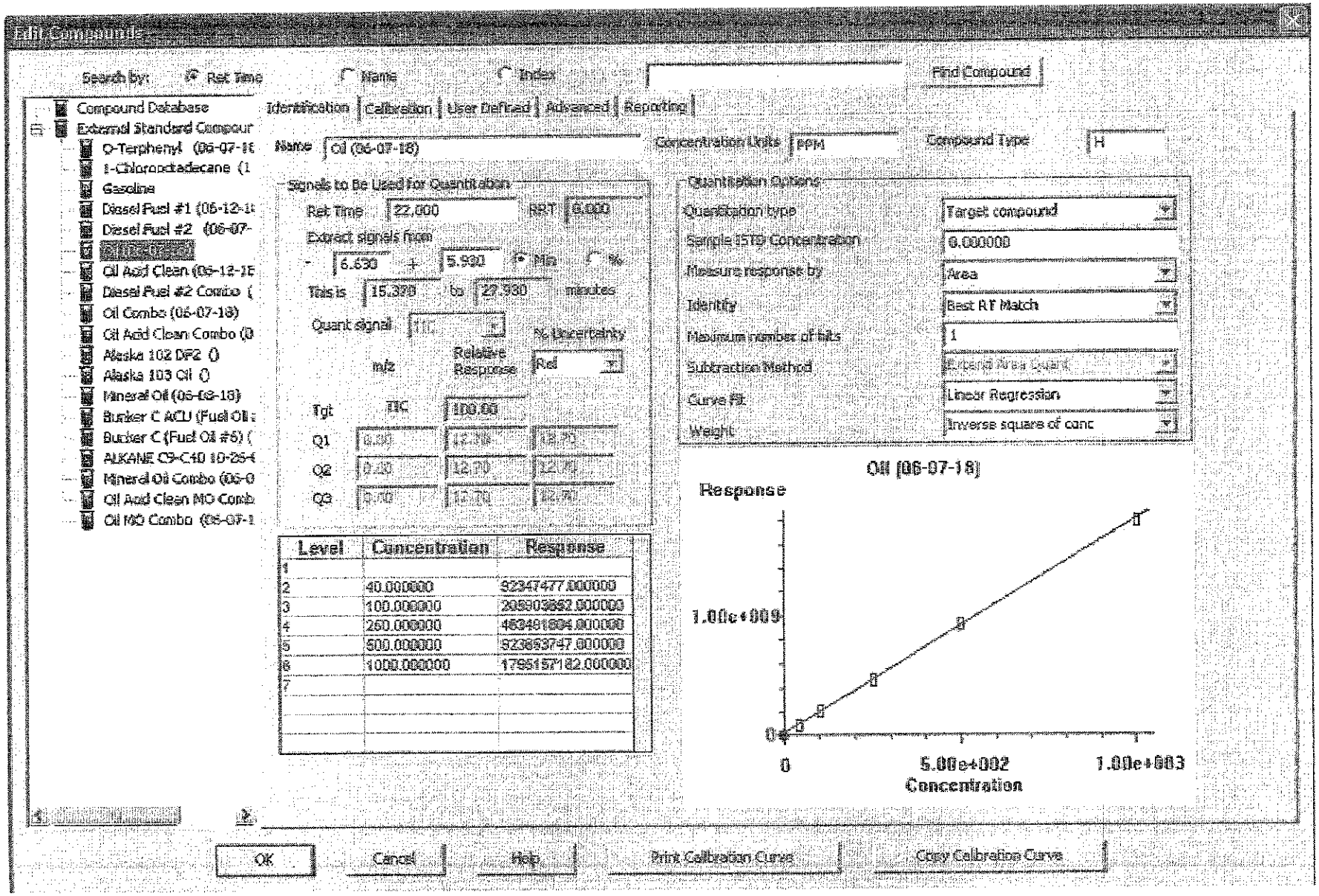
Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V18.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 00:39
Operator : JT
Sample : 5000 PPM DF2 ICAL
Misc : SV3-27-21
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:17:21 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :




Edit Compounds
Search by: Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil (06-07-18)
Concentration Units
ppm
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
22.000
RRT
0.000
Extract signals from
6.630
5.930
Min
%
Tells is
15.370
to
27.930
minutes
Quant signal
m/z
Relative Response
% Uncertainty
Rel
Tgt
ISC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
0.000000
Measure response by
Area
Identify
Best RT Match
Maximum number of hits
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Subtraction Method
Extend Area Quant
Curve Fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
1
2
40.000000
92347477.000000
3
100.000000
209903682.000000
4
260.000000
463481604.000000
5
500.000000
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6
1000.000000
1795157182.000000
7
Oil (06-07-18)
Response
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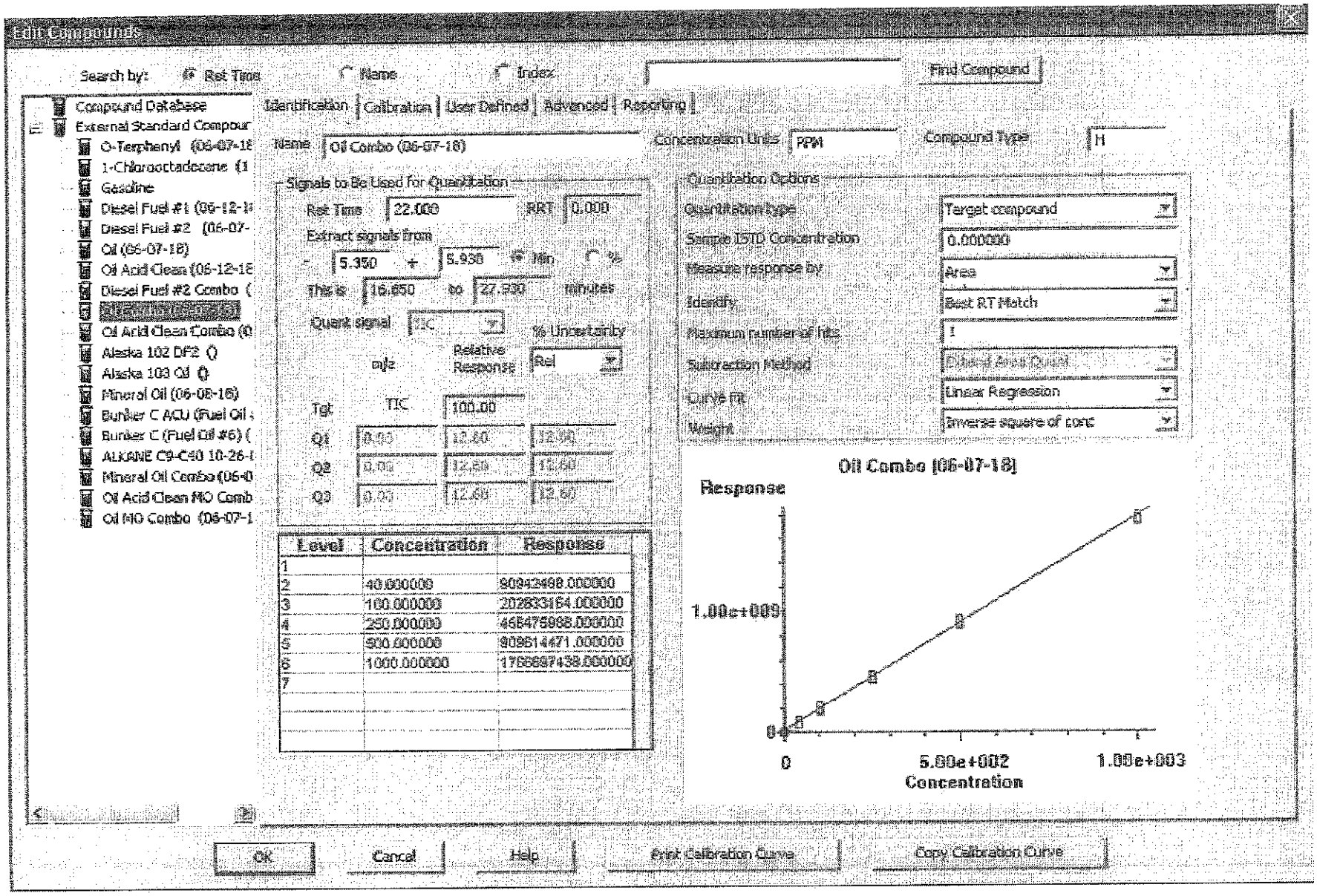
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Compound Database
External Standard Compour
O-Terphenyl (06-07-18
1-Chlorooctadecane (1
Gasoline
Diesel Fuel #1 (06-12-1
Diesel Fuel #2 (06-07-
Oil (06-07-18)
Oil Acid Clean (06-12-18
Diesel Fuel #2 Combo (
Oil Acid Clean Combo (0
Alaska 102 DF2 ()
Alaska 103 Oil ()
Mineral Oil (06-08-16)
Bunker C ACU (Fuel Oil
Bunker C (Fuel Oil #6) (
ALKANE C9-C40 10-26-(
Mineral Oil Combo (06-0
Oil Acid Clean MO Comb
Oil MO Combo (06-07-1
Identification
Calibration
User Defined
Advanced
Reporting
Name
Oil Combo (06-07-18)
Concentration Units
PPM
Compound Type
H
Signals to Be Used for Quantitation
Ret Time
22.000
RRT
0.000
Extract signals from
5.350
5.930
Min
%
This is
16.650
to
27.930
minutes
Quant signal
TIC
% Uncertainty
m/z
Relative Response
Rel
Tgt
TIC
100.00
Q1
Q2
Q3
Quantitation Options
Quantitation type
Target compound
Sample ISTD Concentration
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Measure response by
Area
Identify
Best RT Match
Maximum number of hits
1
Subtraction Method
Curve fit
Linear Regression
Weight
Inverse square of conc
Level
Concentration
Response
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909423488.000000
3
100.000000
2028833184.000000
4
250.000000
4658475968.000000
5
500.000000
9098614471.000000
6
1000.000000
17668697438.000000
7
Oil Combo (06-07-18)
Response
1.00e+009
0
0
5.00e+002
1.00e+003
Concentration
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1674771	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4349802	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	7464800	1.709	PPM
6) H	Oil (06-07-18)	22.000	92347477	39.625	PPM
7) H	Oil Acid Clean (06-12...	22.000	92347477	18.903	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	4780848	0.913	PPM
9) H	Oil Combo (06-07-18)	22.000	90942488	39.618	PPM
10) H	Oil Acid Clean Combo ...	22.000	90942488	18.782	PPM
11) H	Alaska 102 DF2 ()	13.025	8451878	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	53467548	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	14998011	6.199	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	101163084	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	101163084	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	99848035	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	5450356	3.338	PPM
18) H	Oil Acid Clean MO Com...	22.000	88735126	18.443	PPM
19) H	Oil MO Combo (06-07-18)	22.000	88735126	39.609	PPM

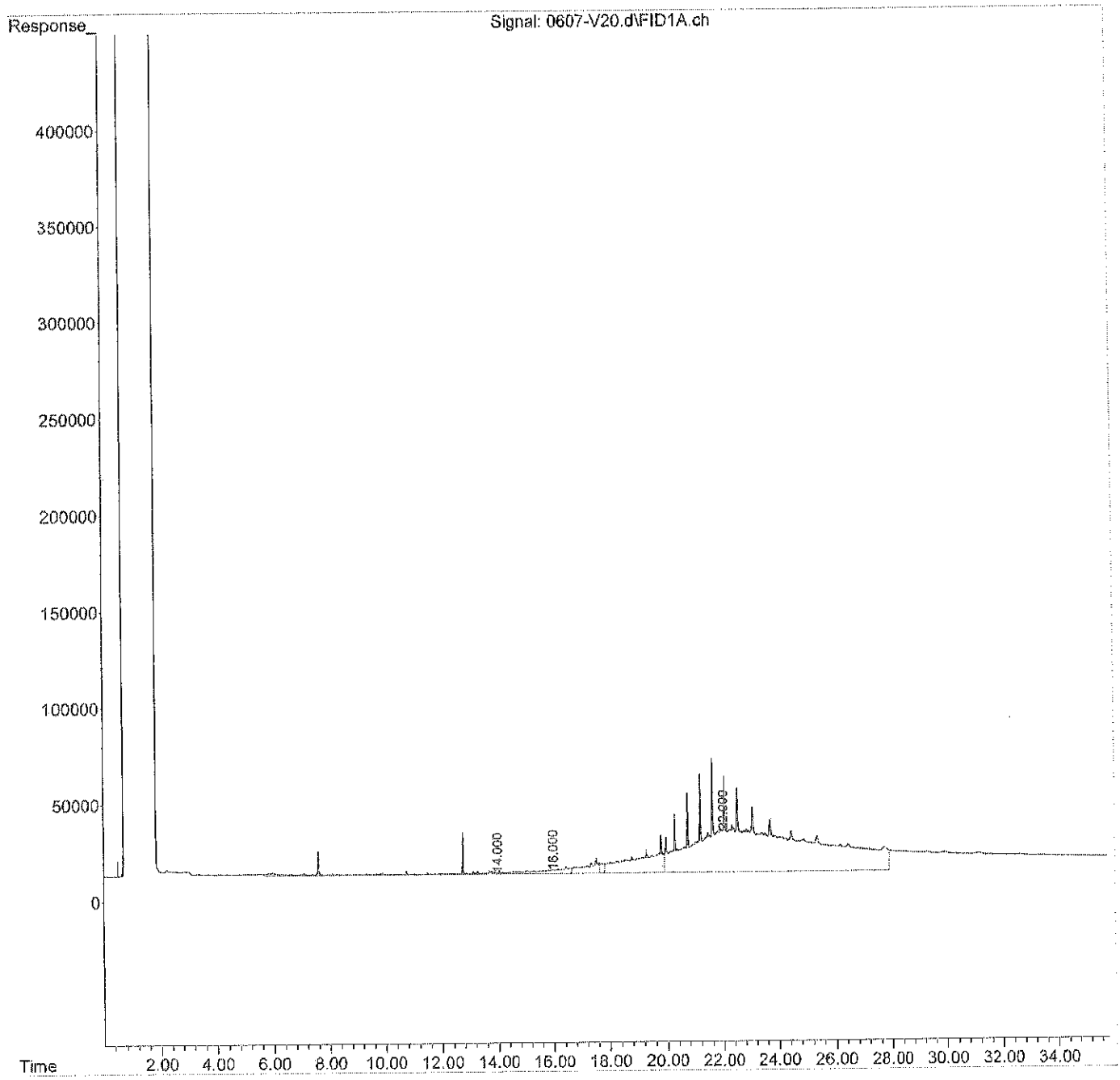
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V20.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 1:59
Operator : JT
Sample : 40 PPM LO ICAL
Misc : SV3-27-23
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:13 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1598184	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	4418396	N.D.	PPM
5) H	Diesel Fuel #2 (06-...	14.000	12922642	4.013	PPM
6) H	Oil (06-07-18)	22.000	205903852	102.906	PPM
7) H	Oil Acid Clean (06-12...	22.000	205903852	66.846	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	6563765	1.682	PPM
9) H	Oil Combo (06-07-18)	22.000	202833164	102.947	PPM
10) H	Oil Acid Clean Combo ...	22.000	202833164	66.721	PPM
11) H	Alaska 102 DF2 ()	13.025	15328573	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	121718874	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	33706367	13.537	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	220233304	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	220233304	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	216825077	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	10255046	5.301	PPM
18) H	Oil Acid Clean MO Com...	22.000	197632815	66.358	PPM
19) H	Oil MO Combo (06-07-18)	22.000	197632815	102.996	PPM

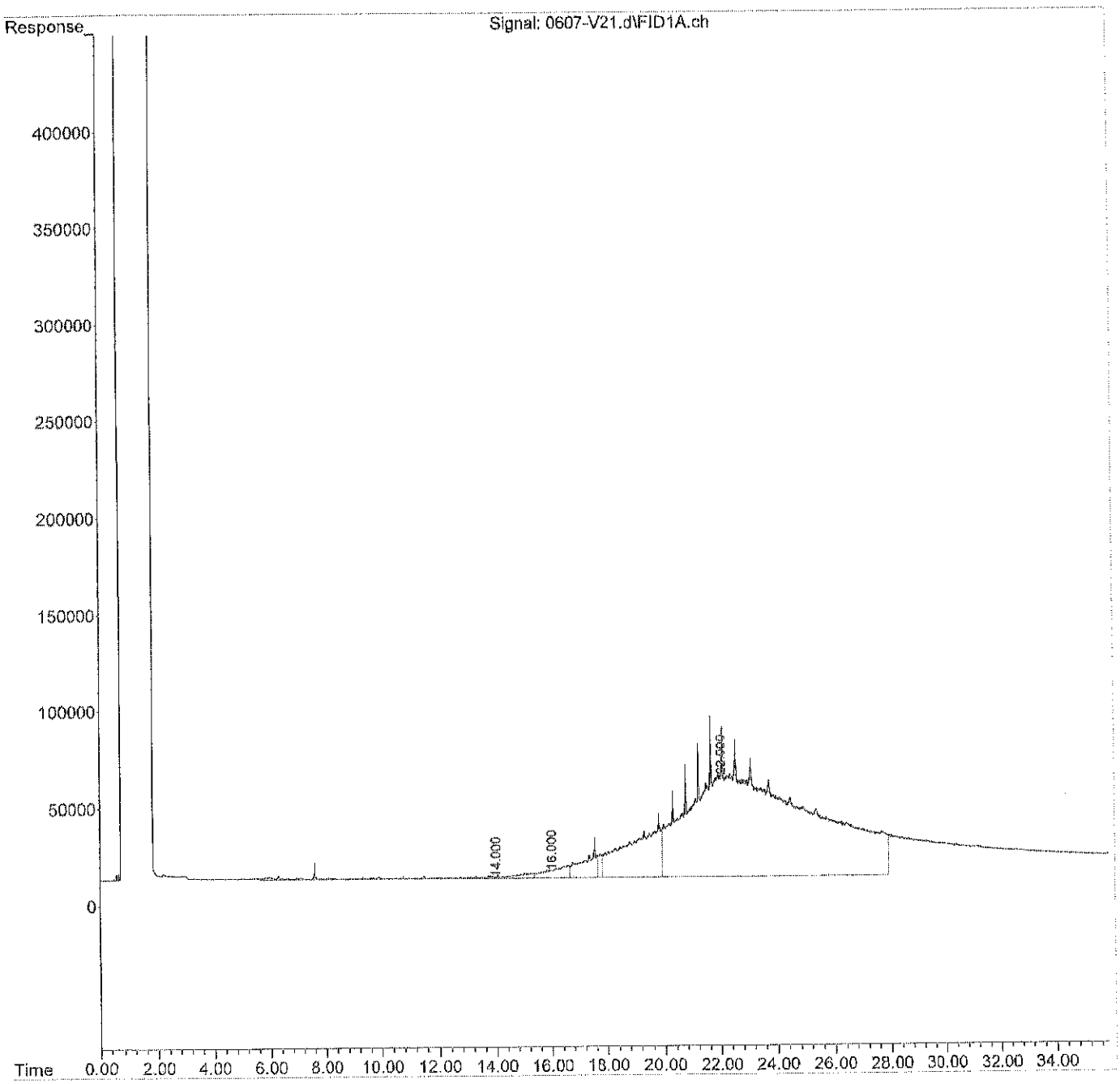
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V21.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 2:39
Operator : JT
Sample : 100 PPM LO ICAL
Misc : SV3-27-24
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:18:28 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1546027	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	6218526	0.246	PPM
5) H	Diesel Fuel #2 (06-...	14.000	27255505	10.065	PPM
6) H	Oil (06-07-18)	22.000	463491604	246.449	PPM
7) H	Oil Acid Clean (06-12...	22.000	463491604	175.599	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	12350051	4.175	PPM
9) H	Oil Combo (06-07-18)	22.000	456475988	246.508	PPM
10) H	Oil Acid Clean Combo ...	22.000	456475988	175.392	PPM
11) H	Alaska 102 DF2 ()	13.025	32953847	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	276476057	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	77875662	30.862	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	491752125	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	491752125	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	483732259	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	22789674	10.423	PPM
18) H	Oil Acid Clean MO Com...	22.000	444309472	174.894	PPM
19) H	Oil MO Combo (06-07-18)	22.000	444309472	246.581	PPM

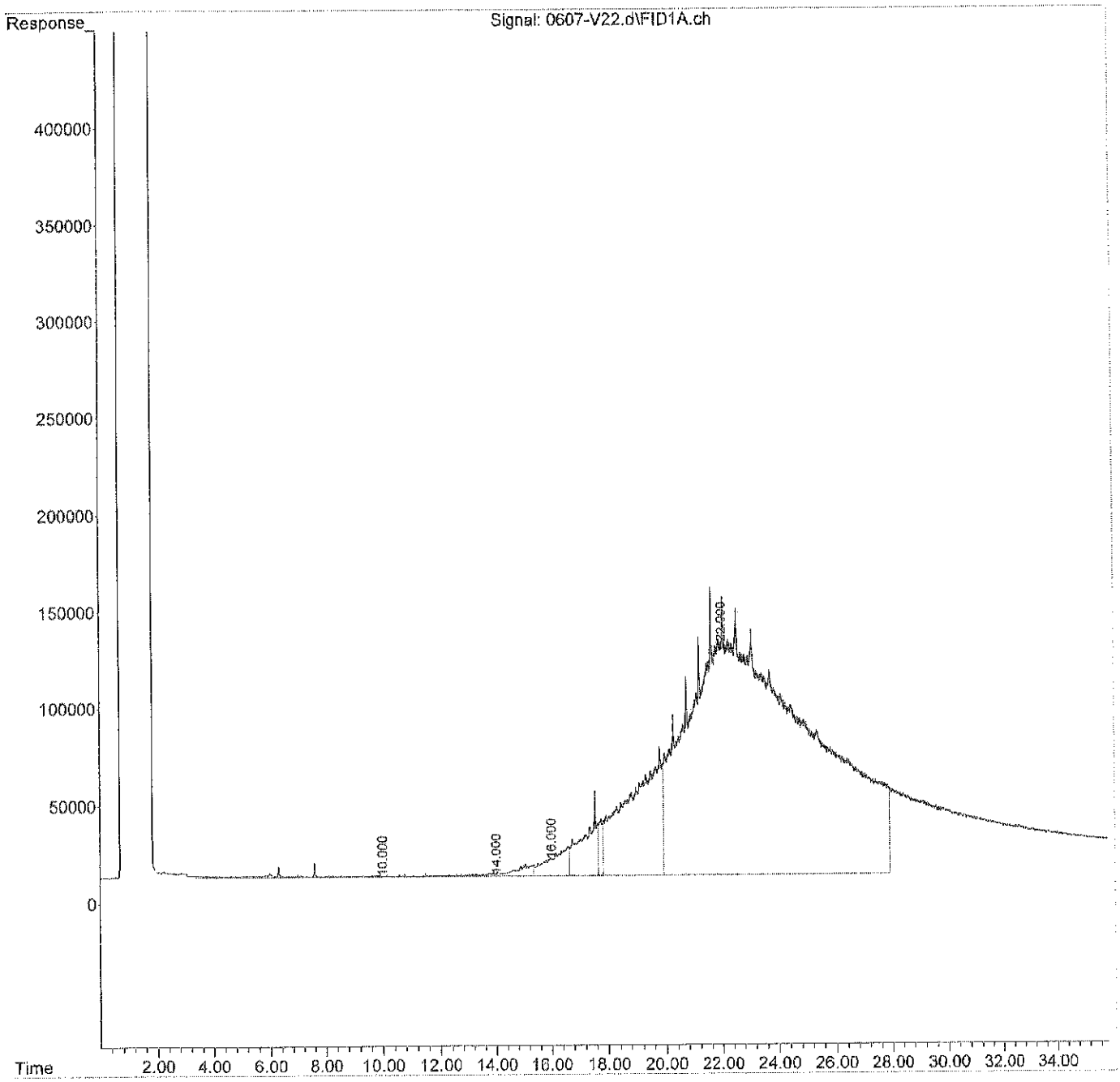
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V22.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:18
Operator : JT
Sample : 250 PPM LO ICAL
Misc : SV3-27-25
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:06 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1940705	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	10844457	2.060	PPM
5) H	Diesel Fuel #2 (06-...	14.000	54401051	21.526	PPM
6) H	Oil (06-07-18)	22.000	923853747	502.991	PPM
7) H	Oil Acid Clean (06-12...	22.000	923853747	369.962	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	23981577	9.188	PPM
9) H	Oil Combo (06-07-18)	22.000	909614471	502.982	PPM
10) H	Oil Acid Clean Combo ...	22.000	909614471	369.535	PPM
11) H	Alaska 102 DF2 ()	13.025	66004621	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	552071448	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	157156060	61.959	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	978412766	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	978412766	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	962198704	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	45999762	19.906	PPM
18) H	Oil Acid Clean MO Com...	22.000	884778027	368.698	PPM
19) H	Oil MO Combo (06-07-18)	22.000	884778027	502.968	PPM

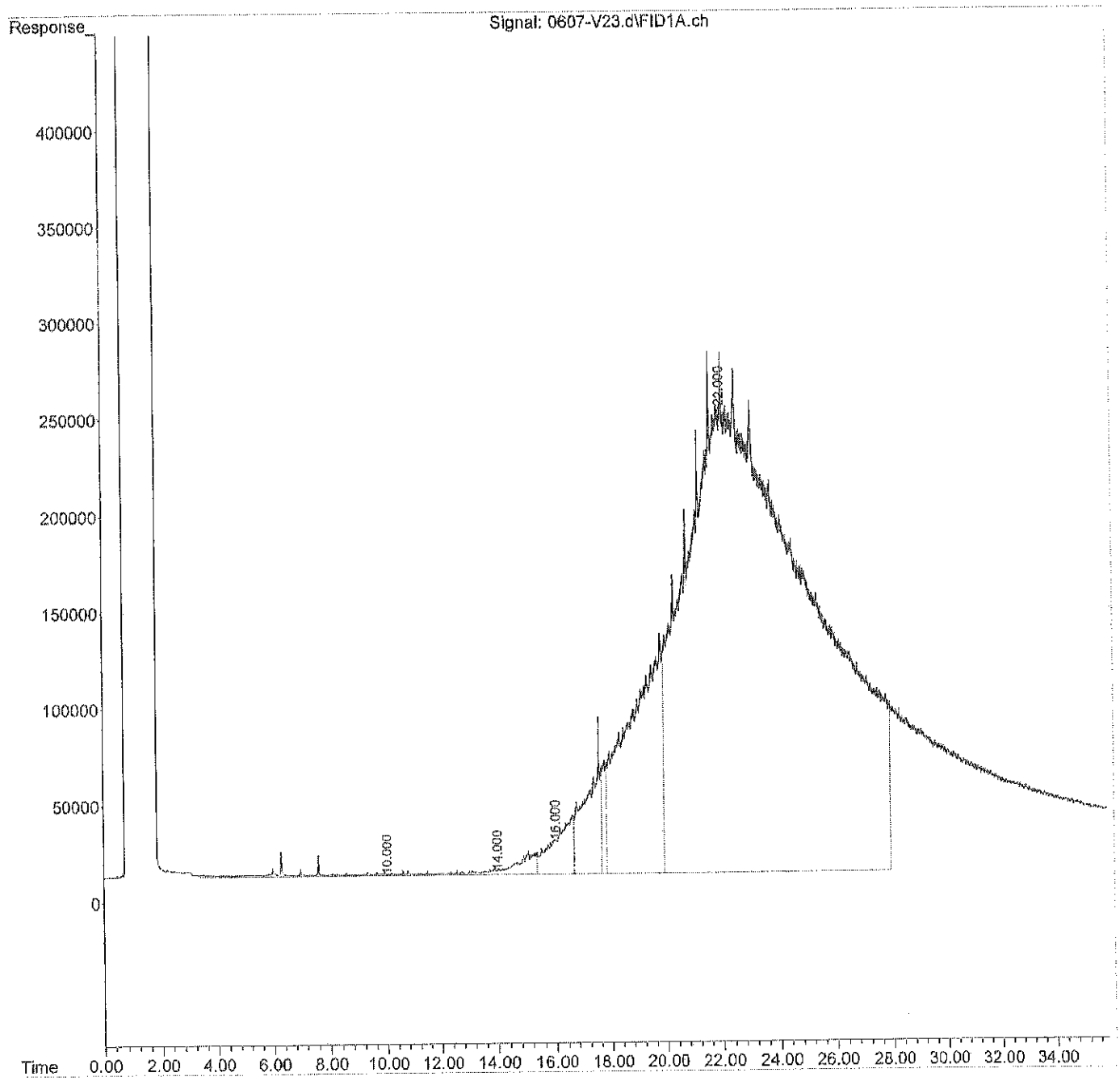
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V23.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 3:58
Operator : JT
Sample : 500 PPM LO ICAL
Misc : SV3-27-26
ALS Vial : 23 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:37 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	0.000	0	N.D.	PPM
3) H	Gasoline	3.500	1782145	NoCal	PPM
4) H	Diesel Fuel #1 (06-12...	10.000	17398055	4.629	PPM
5) H	Diesel Fuel #2 (06-...	14.000	105304585	43.019	PPM
6) H	Oil (06-07-18)	22.000	1795157182	988.534	PPM
7) H	Oil Acid Clean (06-12...	22.000	1795157182	737.823	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	44853790	18.182	PPM
9) H	Oil Combo (06-07-18)	22.000	1766697438	988.086	PPM
10) H	Oil Acid Clean Combo ...	22.000	1766697438	736.745	PPM
11) H	Alaska 102 DF2 ()	13.025	128211822	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	1072600956	NoCal	PPM
13) H	Mineral Oil (06-08-18)	16.000	308958277	121.502	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	1897916566	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	1897916566	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	1865896028	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	90565974	38.115	PPM
18) H	Oil Acid Clean MO Com...	22.000	1717287209	734.997	PPM
19) H	Oil MO Combo (06-07-18)	22.000	1717287209	987.553	PPM

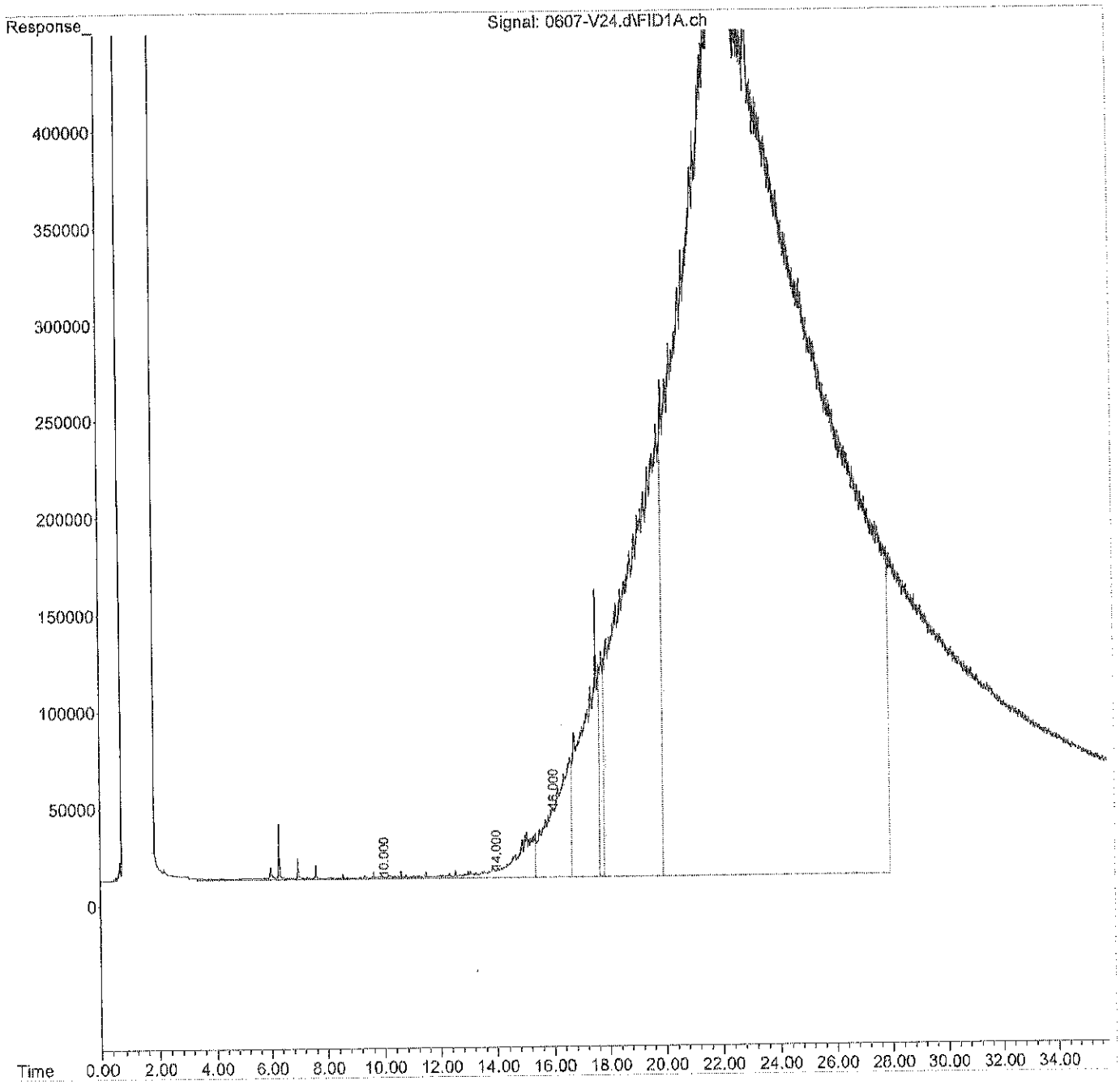
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : X:\DIESELS\VIGO\DATA\V180607\
Data File : 0607-V24.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 4:38
Operator : JT
Sample : 1000 PPM LO ICAL
Misc : SV3-27-27
ALS Vial : 24 Sample Multiplier: 1

Integration File: events.e
Quant Time: Aug 30 12:21:53 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Wed Jun 13 09:17:43 2018
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	O-Terphenyl (06-07-18)	0.000	0	N.D.	PPM
Spiked Amount	50.000		Recovery =	0.00%	
	Target Compounds				
2)	1-Chlorooctadecane (...	15.890	4592544	NoCal	PPM
3) H	Gasoline	3.500	23135296	NoCal	PPM
4) H	Diesel Fuel #1 (03-14...	10.000	228603455	NoCal	PPM
5) H	Diesel Fuel #2 (06-...	14.000	242935381	101.129	PPM
6) H	Oil (06-07-18)	22.000	57884255	20.420	PPM
7) H	Oil Acid Clean (03-13...	22.000	57884255	NoCal	PPM
8) H	Diesel Fuel #2 Combo ...	14.000	236032700	100.566	PPM
9) H	Oil Combo (06-07-18)	22.000	34848739	7.869	PPM
10) H	Oil Acid Clean Combo ...	22.000	34848739	NoCal	PPM
11) H	Alaska 102 DF2 ()	13.025	244345227	NoCal	PPM
12) H	Alaska 103 Oil ()	22.000	14426576	NoCal	PPM
13) H	Mineral Oil (06-01-18)	16.000	158574203	61.224	PPM
14) H	Bunker C ACU (Fuel Oi...	15.000	271566231	NoCal	PPM
15) H	Bunker C (Fuel Oil #6...	15.000	271566231	NoCal	PPM
16) H	ALKANE C9-C40 10-26-07	12.666	285842892	NoCal	PPM
17) H	Mineral Oil Combo (06...	16.000	153670430	61.811	PPM
18) H	Oil Acid Clean MO Com...	22.000	28691923	NoCal	PPM
19) H	Oil MO Combo (06-07-18)	22.000	28691923	4.659	PPM

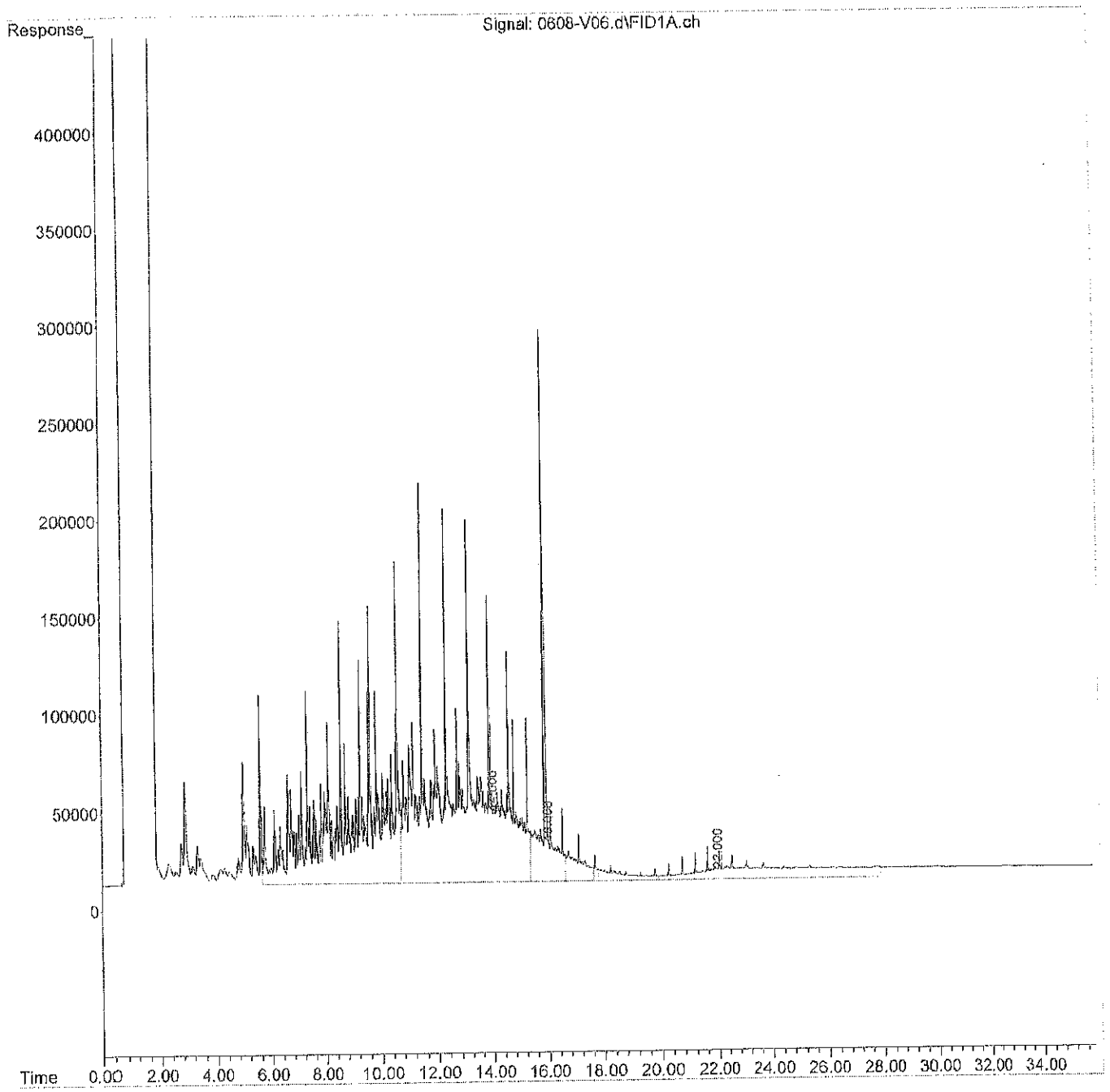
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\DATA\V180608\
Data File : 0608-V06.d
Signal(s) : FID1A.ch
Acq On : 8 Jun 2018 10:21
Operator : JT
Sample : DF2 ICV
Misc : SV3-28-02
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 08 10:57:46 2018
Quant Method : C:\MSDCHEM\2\METHODS\V180601F.M
Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Sequence Name: C:\msdchem\2\sequence\V180910.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180910\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Unlinked		
2)	RearSamp	51	0910-V51 V171204R CCV0910R-V1
3)	Sample	1	0910-V01 V180601F CCV0910F-V1
4)	RearSamp	52	0910-V52 V171204R LOCCV0910R-V1
5)	Sample	2	0910-V02 V180601F LOCCV0910F-V1
6)	RearSamp	53	0910-V53 V171204R MB0910S1
7)	Sample	3	0910-V03 V180601F MB0910W1
8)	RearSamp	54	0910-V54 V171204R SB0910S1
9)	Sample	4	0910-V04 V180601F SB0910W1
10)	RearSamp	55	0910-V55 V171204R 08-391-01
11)	Sample	5	0910-V05 V180601F 08-393-01
12)	RearSamp	56	0910-V56 V171204R 08-391-01 100X
13)	Sample	6	0910-V06 V180601F 08-393-01 DUP
14)	RearSamp	57	0910-V57 V171204R 08-391-01 DUP 100X
15)	Sample	7	0910-V07 V180601F 08-393-02
16)	RearSamp	58	0910-V58 V171204R CCV0910R-V2
17)	Sample	8	0910-V08 V180601F 08-393-03
18)	RearSamp	59	0910-V59 V171204R 09-012-03
19)	Sample	9	0910-V09 V180601F 08-393-04
20)	RearSamp	60	0910-V60 V171204R 09-012-03 DUP
21)	Sample	10	0910-V10 V180601F 08-393-05
22)	RearSamp	61	0910-V61 V171204R 09-012-07
23)	Sample	11	0910-V11 V180601F M
24)	RearSamp	62	0910-V62 V171204R 09-012-07 DUP
25)	Sample	12	0910-V12 V180601F CCV0910F-V2
26)	RearSamp	63	0910-V63 V171204R 09-012-16
27)	Sample	13	0910-V13 V180601F 09-022-03
28)	RearSamp	64	0910-V64 V171204R 09-012-20
29)	Sample	14	0910-V14 V180601F 09-022-05
30)	RearSamp	65	0910-V65 V171204R 09-051-01
31)	Sample	15	0910-V15 V180601F 09-022-06
32)	RearSamp	66	0910-V66 V171204R 09-051-30
33)	Sample	16	0910-V16 V180601F 09-022-07
34)	RearSamp	67	0910-V67 V171204R 09-051-08
35)	Sample	17	0910-V17 V180601F 09-022-09
36)	RearSamp	68	0910-V68 V171204R 09-058-04
37)	Sample	18	0910-V18 V180601F 09-022-10
38)	RearSamp	69	0910-V69 V171204R M
39)	Sample	19	0910-V19 V180601F 09-022-11
40)	RearSamp	70	0910-V70 V171204R M
41)	Sample	20	0910-V20 V180601F M
42)	RearSamp	71	0910-V71 V171204R CCV0910R-V3
43)	Sample	21	0910-V21 V180601F CCV0910F-V3

Sequence Name: C:\msdchem\2\sequence\V180910.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	72	0910-V72	V171204R	09-051-25
45)		Sample	22	0910-V22	V180601F	09-022-12
46)		RearSamp	73	0910-V73	V171204R	M
47)		Sample	23	0910-V23	V180601F	09-022-04
48)		RearSamp	74	0910-V74	V171204R	09-051-06
49)		Sample	24	0910-V24	V180601F	09-022-01
50)		RearSamp	75	0910-V75	V171204R	M
51)		Sample	25	0910-V25	V180601F	09-022-01 DUP
52)		RearSamp	76	0910-V76	V171204R	09-001-01
53)		Sample	26	0910-V26	V180601F	09-022-02
54)		RearSamp	77	0910-V77	V171204R	M
55)		Sample	27	0910-V27	V180601F	M
56)		RearSamp	78	0910-V78	V171204R	M
57)		Sample	28	0910-V28	V180601F	M
58)		RearSamp	79	0910-V79	V171204R	M
59)		Sample	29	0910-V29	V180601F	M
60)		RearSamp	80	0910-V80	V171204R	CCV0910R-V4
61)		Sample	30	0910-V30	V180601F	CCV0910F-V4
62)		RearSamp	81	0910-V81	V171204R	
63)		Sample	31	0910-V31	V180601F	
64)		RearSamp	82	0910-V82	V171204R	
65)		Sample	32	0910-V32	V180601F	
66)		RearSamp	83	0910-V83	V171204R	
67)		Sample	33	0910-V33	V180601F	
68)		RearSamp	84	0910-V84	V171204R	
69)		Sample	34	0910-V34	V180601F	
70)		RearSamp	85	0910-V85	V171204R	
71)		Sample	35	0910-V35	V180601F	
72)		RearSamp	86	0910-V86	V171204R	
73)		Sample	36	0910-V36	V180601F	
74)		RearSamp	87	0910-V87	V171204R	
75)		Sample	37	0910-V37	V180601F	
76)		RearSamp	88	0910-V88	V171204R	
77)		Sample	38	0910-V38	V180601F	
78)		RearSamp	89	0910-V89	V171204R	
79)		Sample	39	0910-V39	V180601F	
80)		RearSamp	90	0910-V90	V171204R	
81)		Sample	40	0910-V40	V180601F	
82)		RearSamp	91	0910-V91	V171204R	
83)		Sample	41	0910-V41	V180601F	
84)		RearSamp	92	0910-V92	V171204R	
85)		Sample	42	0910-V42	V180601F	
86)		RearSamp	93	0910-V93	V171204R	
87)		Sample	43	0910-V43	V180601F	
88)		RearSamp	94	0910-V94	V171204R	
89)		Sample	44	0910-V44	V180601F	
90)		RearSamp	95	0910-V95	V171204R	
91)		Sample	45	0910-V45	V180601F	
92)		RearSamp	96	0910-V96	V171204R	
93)		Sample	46	0910-V46	V180601F	
94)		RearSamp	97	0910-V97	V171204R	
95)		Sample	47	0910-V47	V180601F	
96)		RearSamp	98	0910-V98	V171204R	

Sequence Name: C:\msdchem\2\sequence\V180607.s
Comment:
Operator: JT
Data Path: C:\msdchem\2\DATA\V180607\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Unlinked		
2)	RearSamp	51	0607-V51 V171204R LOCCV0607R-V1
3)	Sample	1	0607-V01 V180601F M
4)	RearSamp	52	0607-V52 V171204R LOCCV0607R-V1
5)	Sample	2	0607-V02 V180601F M
6)	RearSamp	53	0607-V53 V171204R CCV0607R-V1
7)	Sample	3	0607-V03 V180601F 100 PPM DF2 ICV
8)	RearSamp	54	0607-V54 V171204R M
9)	Sample	4	0607-V04 V180601F CCV0607F-V1
10)	RearSamp	55	0607-V55 V171204R
11)	Sample	5	0607-V05 V180601F LOCCV0607F-V1
12)	RearSamp	56	0607-V56 V171204R DF2
13)	Sample	6	0607-V06 V180601F M
14)	RearSamp	57	0607-V57 V171204R OIL
15)	Sample	7	0607-V07 V180601F 4 PPM SURR ICAL
16)	RearSamp	58	0607-V58 V171204R M
17)	Sample	8	0607-V08 V180601F 8 PPM SURR ICAL
18)	RearSamp	59	0607-V59 V171204R M
19)	Sample	9	0607-V09 V180601F 20 PPM SURR ICAL
20)	RearSamp	60	0607-V60 V171204R M
21)	Sample	10	0607-V10 V180601F 40 PPM SURR ICAL
22)	RearSamp	61	0607-V61 V171204R M
23)	Sample	11	0607-V11 V180601F 80 PPM SURR ICAL
24)	RearSamp	62	0607-V62 V171204R M
25)	Sample	12	0607-V12 V180601F 200 PPM SURR ICAL
26)	RearSamp	63	0607-V63 V171204R M
27)	Sample	13	0607-V13 V180601F 10 PPM DF2 ICAL
28)	RearSamp	64	0607-V64 V171204R M
29)	Sample	14	0607-V14 V180601F 20 PPM DF2 ICAL
30)	RearSamp	65	0607-V65 V171204R M
31)	Sample	15	0607-V15 V180601F 100 PPM DF2 ICAL
32)	RearSamp	66	0607-V66 V171204R M
33)	Sample	16	0607-V16 V180601F 500 PPM DF2 ICAL
34)	RearSamp	67	0607-V67 V171204R M
35)	Sample	17	0607-V17 V180601F 2500 PPM DF2 ICAL
36)	RearSamp	68	0607-V68 V171204R M
37)	Sample	18	0607-V18 V180601F 5000 PPM DF2 ICAL
38)	RearSamp	69	0607-V69 V171204R M
39)	Sample	19	0607-V19 V180601F M
40)	RearSamp	70	0607-V70 V171204R M
41)	Sample	20	0607-V20 V180601F 40 PPM LO ICAL
42)	RearSamp	71	0607-V71 V171204R M
43)	Sample	21	0607-V21 V180601F 100 PPM LO ICAL

Sequence Name: C:\msdchem\2\sequence\V180607.s

	Line Type	Vial	DataFile	Method	Sample Name
44)	RearSamp	72	0607-V72	V171204R	M
45)	Sample	22	0607-V22	V180601F	250 PPM LO ICAL
46)	RearSamp	73	0607-V73	V171204R	M
47)	Sample	23	0607-V23	V180601F	500 PPM LO ICAL
48)	RearSamp	74	0607-V74	V171204R	M
49)	Sample	24	0607-V24	V180601F	1000 PPM LO ICAL
50)	RearSamp	75	0607-V75	V171204R	M
51)	Sample	25	0607-V25	V180601F	M
52)	RearSamp	76	0607-V76	V171204R	M
53)	Sample	26	0607-V26	V180601F	M
54)	RearSamp	77	0607-V77	V171204R	
55)	Sample	27	0607-V27	V180601F	
56)	RearSamp	78	0607-V78	V171204R	
57)	Sample	28	0607-V28	V180601F	
58)	RearSamp	79	0607-V79	V171204R	
59)	Sample	29	0607-V29	V180601F	
60)	RearSamp	80	0607-V80	V171204R	
61)	Sample	30	0607-V30	V180601F	
62)	RearSamp	81	0607-V81	V171204R	
63)	Sample	31	0607-V31	V180601F	
64)	RearSamp	82	0607-V82	V171204R	
65)	Sample	32	0607-V32	V180601F	
66)	RearSamp	83	0607-V83	V171204R	
67)	Sample	33	0607-V33	V180601F	
68)	RearSamp	84	0607-V84	V171204R	
69)	Sample	34	0607-V34	V180601F	
70)	RearSamp	85	0607-V85	V171204R	
71)	Sample	35	0607-V35	V180601F	
72)	RearSamp	86	0607-V86	V171204R	
73)	Sample	36	0607-V36	V180601F	
74)	RearSamp	87	0607-V87	V171204R	
75)	Sample	37	0607-V37	V180601F	
76)	RearSamp	88	0607-V88	V171204R	
77)	Sample	38	0607-V38	V180601F	
78)	RearSamp	89	0607-V89	V171204R	
79)	Sample	39	0607-V39	V180601F	
80)	RearSamp	90	0607-V90	V171204R	
81)	Sample	40	0607-V40	V180601F	
82)	RearSamp	91	0607-V91	V171204R	
83)	Sample	41	0607-V41	V180601F	
84)	RearSamp	92	0607-V92	V171204R	
85)	Sample	42	0607-V42	V180601F	
86)	RearSamp	93	0607-V93	V171204R	
87)	Sample	43	0607-V43	V180601F	
88)	RearSamp	94	0607-V94	V171204R	
89)	Sample	44	0607-V44	V180601F	
90)	RearSamp	95	0607-V95	V171204R	
91)	Sample	45	0607-V45	V180601F	
92)	RearSamp	96	0607-V96	V171204R	
93)	Sample	46	0607-V46	V180601F	
94)	RearSamp	97	0607-V97	V171204R	
95)	Sample	47	0607-V47	V180601F	
96)	RearSamp	98	0607-V98	V171204R	

OSE Traveler #	pH	SAMPLE W/V	PRE CONC VOLUME	SUB ALIQUOT TAKEN	SUB ALIQUOT FIN. VOL.	CONC SAMPLE FIN. VOL.	AMT SUR	AMT SPIKE	CLEAN UP	Analyst	Comments Batch QA/QC
MB 0910 W1	<2	500 mL	100 mL	20 mL	1.0 mL	5.0 mL	25ul	NO	NO	RD	
SB 0910 W1								NO			
09-393-01		792 299						NO			Slight Emulsion
-01 DUP		795 301									
-02		793 300									
-03		792 299									
-04		793 299									
-05		795 300									
09-022-01		767 302									
-01 DUP		789 300									
-02		784 309									
-03		785 303									
-04		788 300									
-05		787 302									
-06		786 301									
-07		792 302									
-09		795 300									
-10		794 300									
-11		791 303									
-12		786 300									

Clean-up (A)Acid cleanup (S)Silica gel cleanup

PROJECT

Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Prep Date	
AK 103 Ical									
40 ppm	SV2-93-01	SV2-92-23	10000 ppm	40 ul	10 ml	40 ppm	$MeCl_2$	8-4-10	
100 ppm	-02			100 ul		100 ppm			
500 ppm	-03			500 ul		500 ppm			
1000 ppm	-04			1 ml		1000 ppm			
2500 ppm	-05			2.5 ml		2500 ppm			
AK103 Mix #1	SV2-93-06	SV2-66-18 SV2-66-19	Neat	5g/5g	10 g	Neat	—	8/5/10	
Lube Oil Stock (Non-Acid Cleaned)	SV2-93-07	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$		
AK103 Spike	SV2-93-08	↓	↓	↓	↓	↓	↓		
AK 103 Ical									
40 ppm	SV2-93-09	SV2-93-07	10,000 ppm	40 ul	10 ml	40 ppm			
100 ppm	-10			100 ul		100 ppm			
500 ppm	-11			500 ul		500 ppm			
1000 ppm	-12			1 ml		1000 ppm			
2500 ppm	-13			2.5 ml		2500 ppm			
Lube Oil Stock	SV2-93-14	SV2-93-06	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	8-16-10	
Acid cleaned									
Lube Oil ICV	SV2-93-15	SV2-93-14	10,000 ppm	0.5 ml	50 ml	100 ppm	$MeCl_2$		
Lo Ical									
40 ppm	SV2-93-16	SV2-89-24	40 ul →	10,000 ppm	10 ml	40 ppm	$MeCl_2$	8-18-10	
100 ppm	-17		100 ul →			100 ppm			
500 ppm	-18		500 ul →			500 ppm			
1000 ppm	-19		1000 ul →			1000 ppm			
2500 ppm	-20		2500 ul →			2500 ppm			
DF2 CCV	SV2-93-21	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	8-18-10	
DF2 Surr.	SV2-93-22	04403JH	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-2-10	
DF2 Spike	SV2-93-23	SV2-86-01	Neat	1.00 g	100 ml	10,000 ppm	Acetone	9-7-10	
TOL CCV	SV2-93-24	SV2-90-18	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	9-9-10	
DF3 CCV	SV2-93-25	SV2-90-01	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	9-22-10	
DF3 Surr.	SV2-93-26	~~04403JH~~	Neat	1.00 g	100 ml	10,000 ppm	Acetone	10-01-10	
TOL Spike	SV2-93-27	Lot #	163959	exp	9/21/2013		Acetone		
DF3 MDL 100ppm	SV2-93-28	SV2-93-23	10,000 ppm	1 ml	10 ml	1000 ppm	Acetone	10-14-10	
LO MDL 100ppm	SV2-93-29	SV2-89-24	10,000 ppm	1 ml	10 ml	1,000 ppm	1	1	

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Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Date	Int.
Surrogate Ical									
4 ppm	SV3-03-01	SV3-02-06	10,000 ppm	10 µl	25 ml	4 ppm	$MeCl_2$	11-28-12	ZT
8 ppm	SV3-03-02	"	"	20 µl	"	8 ppm	"	"	"
20 ppm	SV3-03-03	"	"	50 µl	"	20 ppm	"	"	"
40 ppm	SV3-03-04	"	"	100 µl	"	40 ppm	"	"	"
80 ppm	SV3-03-05	"	"	200 µl	"	80 ppm	"	"	"
200 ppm	SV3-03-06	"	"	500 µl	"	200 ppm	"	"	"
FTRPH Calibration	SV3-03-07							11-30-12	ZT
DF2 Neat	SV3-03-08	Union 76	Neat	—	—	—	—	Purchase ✓	ZT
DF2 Neat	SV3-03-09	Chevron	Neat	—	—	—	—	11/30/12	"
DF2 Stock	SV3-03-10	SV3-03-08	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	11-30-12	ZT
DF2 Stock	SV3-03-11	SV3-03-09	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	11-30-12	ZT
DF2 Ical									
10 ppm	SV3-03-12	SV3-03-10	10 µl	10,000 ppm	10 ml	10 ppm	$MeCl_2$	11-30-12	ZT
20 ppm	SV3-03-13		20 µl			20 ppm			
100 ppm	SV3-03-14		100 µl			100 ppm			
500 ppm	SV3-03-15		500 µl			500 ppm			
1000 ppm	SV3-03-16		1.0 ml			1000 ppm			
2500 ppm	SV3-03-17		2.5 ml			2500 ppm			
5000 ppm	SV3-03-18		5.0 ml			5000 ppm			
DF2 ICV	SV3-03-19	SV3-03-09	10,000 ppm	0.5 ml	50 ml	100 ppm	$MeCl_2$	11-30-12	ZT
Dx Surr Micro	SV3-03-20	04H03JH	Neat	0.25 g	100 ml	2500 ppm	Acetone	12-10-12	ZT
DF2 CCV	SV3-03-21	SV3-03-10	10,000 ppm	1.0 ml	100 ml	100 ppm	$MeCl_2$	12-13-12	ZT
Lube oil Stock (Acid cleaned)	SV3-03-22	SV2-66-21	Neat	1.0 g	100 ml	10,000 ppm	$MeCl_2$	1-7-13	ZT
Gasoline Stock	SV3-03-23	V2-17-9	Neat	0.1 g	10 ml	10,000 ppm	$MeCl_2$	1-7-13	ZT
Single Pt. Cal.	SV3-03-24	SV3-03-22	10,000 ppm	500 µl	100 ml	50 ppm	$MeCl_2$	"	"
		SV3-03-23	"	100 µl	"	10 ppm	"	"	"

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FOR LABORATORY USE ONLY

DRH-FTRPH 1 mL

FTRPH Calibration/ Window Defining Standard

500 µg/mL in Hexane

17 comps.

Lot: 211111267

Exp: Nov 22,2021

HIGHLY FLAMMABLE

STORAGE Ambient

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ANALYTE	LAB ID #	STOCK ID	STOCK CONC	STOCK VOL	FINAL VOL	FINAL CONC	SOLVENT	DATE	INIT
1000 ppm MO	SV3-25-01	SV3-24-27	10,000 ppm	2.5 ml	25 ml 1000 ppm	1000 ppm	MeCl2	10.5.17	KM
5000 ppm MO	SV3-25-02	↓	↓	12.5 ml	↓	5000 ppm	↓	↓	↓
MinOil Stock	SV32503	SV3-17-02	NEAT	.5g	50 ml	10,000 ppm	MeCl2	10.7.17	KM
20 ppm ICAL	SV3-25-04	SV3-25-3	10,000 ppm	.050 ml	25 ml	20 ppm			
100	05			.25 ml		100			
500	06			1.25 ml		500			
1000	07			2.5 ml		1000			
5000	08			12.5 ml		5000			
40 ppm LO ICAL	SV3-25-09	SV3-25-04	10,000 ppm	.100 ml	25 ml	40 ppm	MeCl2	10.9.17	KM
100 ppm LO ICAL	10			.250 ml		100			
250 ppm LO ICAL	11			.625 ml		250			
500 ppm LO ICAL	12			1.25 ml		500			
1000 ppm LO ICAL	13			2.50 ml		1000			
NOVANS STOCK	SV3-25-14	36-10A	NEAT	10 ml	10 ml	1000 ppm	MeCl2	10.18.17	KM
RT STD	PRE-PREP	500 ppm	.1 ml	1 ml	50 ppm	1			
	SV3-25-14	1000 ppm	.05 ml	↓	↓	mm	10-16-17		
RT STD	SV3-25-15	DRH-PREP	500 ppm	.1 ml	1 ml	50 ppm	10-16-17	MeCl2	KM
		SV3-25-14	1000 ppm	.050 ml	↓	↓	↓	↓	↓
DF2 STOCK	SV3-25-16	SV3-03-08	NEAT	.5g gram	50 ml	10,000 ppm	MeCl2	KM 10.18.17	KM
DF2 CCV	SV3-25-17	SV3-25-16	10,000 ppm	1 ml	100 ml	100 ppm	MeCl2	KM 10-18-17	KM
10 ppm DF2 ICAL	SV3-25-18	SV3-25-16		25 µl	25 ml	10			
20	19			50 µl		20			
100	20			250 µl		100			
350	21	KM	10-18-17	500 µl 1.625 ml		250			
500	22			1.0 ml 1.25 ml		500			
2500	23			2.5 ml 2.5 ml 6 25 ml		2500			
5000	24			12.5 ml		5000			
Dx Micro Sun	SV3-25-25	687V	NEAT	.25g	100 ml	2500 ppm	Acetone	10.19.17	KM
1664 Spike	SV3-25-26	Lot #	3155041				Acetone	10-26-17	RP
1664 Spike	SV3-25-27	Lot #	3258112				Acetone	11/29/17	CS
Dx Micro Sun	SV3-25-28	687 V	NEAT				Acetone	12/04/17	JT
DF2 ICV	SV3-25-29	SV3-17-18 21-11	10000 ppm	500 µl	50 mL	100 ppm	MeCl2	12-6-17	JT
DF2 Spike	SV3-25-30	SV3-03-08	NEAT	0.50 g	50 mL	10,000 ppm	Acetone	12-15-17	JT

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
1664 Spike	SV3-26-01	Lot #	041717				Acetone	12-15-17	JT
DX Surr	SV3-26-02	687V	NEAT	1.0 g	100 mL	10,000 ppm	Acetone	12-20-17	JT
LO CCV	SV3-26-03	SV3-23-04	10,000 ppm	2.0 mL	100 mL	200 ppm	$MeCl_2$	1-3-18	JT
TOLL NEAT	SV3-26-04	NA	NEAT					1-4-18	JT
DF2 CCV	SV3-26-05	SV3-25-16	10,000 ppm	1 mL	100 mL	100 ppm	$MeCl_2$	1-8-18	JT
4 ppm Surr	SV3-26-06	SV3-26-02	10,000 ppm	10 mL	25 mL	4 ppm	$MeCl_2$	1-9-18	JT
8 ppm Surr	07			20 mL		8 ppm			
20 ppm Surr	08			50 mL		20 ppm			
40 ppm Surr	09			100 mL		40 ppm			
80 ppm Surr	10			200 mL		80 ppm			
200 ppm Surr	11			500 mL		200 ppm			
LO MDL Spike	SV3-26-12	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-10-18	JT
DF2 MDL Spike	SV3-26-13	SV3-25-16	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-16-18	JT
LO MDL Spike	SV3-26-14	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-17-18	JT
LO MDL Spike	SV3-26-15	SV3-23-04	10,000 ppm	1.0 mL	10 mL	1000 ppm	Acetone	1-23-18	JT
1664 Spike	SV3 26 28	Stock ID 041717		10 mL			Acetone	1-31-18	PD
Gasoline Stock	SV3-26-16	V2-17-21	Neat	.1 g	10 mL	10,000 ppm	$MeCl_2$	2-6-18	VL
Single Point Cal	SV3-26-17	SV3-25-16 SV3-23-04	10,000 ppm 10,000 ppm	100 uL 500 uL	100 mL 100 mL	10 ppm 50 ppm	$MeCl_2$	2-6-18	VL
DX Micro Surr	SV3-26-18	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	2-9-18	JT
DF2 CCV	SV3-26-19	SV3-25-16	10,000 ppm	1 mL	100 mL	100 ppm	$MeCl_2$	2-20-18	JT
1664 Spike	SV3 26 20	Stock 041717		10 mL			Acetone	3-2-18	PD
~~10 ppm DF1 ICV~~	~~SV3-26-21~~	~~SV3-24-06~~	~~2,000 ppm~~	~~25 mL~~	~~5 mL~~	~~10 ppm~~	~~$MeCl_2$~~	~~3-13-18~~	~~JT~~
20	22	L	2,000 ppm	50 mL		20			
100	23	2160911022	20,000 ppm	100 mL		100			
500	24		20000 ppm	50 mL		500			
1000	25			250 mL		1000			
2000	26			500 mL		2000			
5000	27		20,000 ppm	1000 mL		5000			

JT 3-13-18

Work continued to Page

SIGNATURE DATE

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Work continued from Page

Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
10 ppm WP2 Ical	SV3-27-01	SV3-27-03	100 PPM	100 mL	1 mL	10 PPM	$MeCl_2$	3-14-18	JT
50 ppm	02	SV3-27-04	500 PPM	100 mL		50 PPM			
100 ppm	03	SV3-27-06	2,000 PPM	50 mL		100 PPM			
500 ppm	04	216091022	20,000 PPM	25 mL		500 PPM			
1000 ppm	05	↓	↓	50 mL		1000 PPM			
2000 ppm	06			100 mL		2000 PPM			
5000 ppm	07	216091022	↓	250 mL		5000 PPM			
DX Micro Surr	SV3-27-08	687V	NEAT	0.2500g	100 mL	2500 PPM	Acetone	3-27-18	JT
DF2 CCV	SV3-27-09	SV3-25-16	10,000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$	3-29-18	JT
DB2 CCV	SV3-27-10	SV3-25-16	10000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$	4-30-18	JT
LO CCV	SV3-27-11	SV3-23-04	10,000 PPM	2.0 mL	200 mL	200 PPM	$MeCl_2$	4-30-18	JT
DX Surr	SV3-27-12	687V	NEAT	1.0 mL	100 mL	10000PPM	Acetone	5-3-18	JT
DX Micro Surr	SV3-27-13	687V	NEAT	0.2500g	100 mL	2500 PPM	Acetone	5-3-17	JT
LO Stock	SV3-27-14	SV2-93-06	NEAT	0.50g	50 mL	10,000PPM	$MeCl_2$	5-31-18	JT
LO CCV	SV3-27-15	SV3-27-14	10000 PPM	2.0 mL	100 mL	200 PPM	$MeCl_2$	5-31-18	JT
10 PPM DF2 Ical	SV3-27-16	SV3-25-16	10,000 PPM	25 mL	25 mL	10 PPM	$MeCl_2$	6-1-18	JT
20	17			50 mL		20			
100	18			250		100			
500	19			1.25 mL		500			
2500	20			2.5 6.25 mL		2500			
5000	21			12.5 mL		5000			
DF2 CCV	SV3-27-22	SV3-25-16	10,000 PPM	1.0 mL	100 mL	100 PPM	$MeCl_2$		JT
40 PPM LO Ical	SV3-27-23	SV3-27-14	10,000 PPM	40 mL	40 PPM	10 mL			
100	24			100 mL	100				
250	25			250 mL	250	↔			
500	26			500 mL	500	JT			
1000	27			1.0 mL	1000	6-1-18			
20 PPM MO Eval	SV3-27-28	SV3-25-03	10,000 PPM	20 mL	10 mL	20 PPM	$MeCl_2$		
100 PPM	29			100 mL		100			
500 PPM	30			500 mL		500			
1000 PPM	31			1.0 mL	10 mL	1000			
5000 PPM	32			5.0 mL	2	5000			

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page

Analyte	Lab ID	Stock ID	Stock Conc.	Stock Vol	Final Vol	Final Conc	Solvent	Date	Init
DF2 Stock 2nd	SV3-28-01	SV3-03-09	NEAT	0.5 g	50 mL	10000 PPM	Methyl	6-4-18	JT
DF2 ICV	SV3-28-02	SV3-28-01	10,000 PPM	5 mL	50 mL	100 PPM	L	L	L
DF1 5x 1mL vials	SV3-28-03							6-12-18	JT
DF1 ICal 5000 PPM	SV3-28-04	SV3-28-03	20,000 PPM	2.5 mL	10 mL	5000 PPM	Methyl	6-12-18	JT
2000	05			1.0 mL		2000			
1000	06			0.5 mL		1000			
500	07			0.25 mL		500			
100	08			0.05 mL		100			
20	09	SV3-28-05	2000 PPM	0.1 mL		20			
10	10	L	L	0.05 mL		10			
DF2 Spike	SV3-28-11	SV3-03-08	NEAT	0.50 g	50 mL	10,000 PPM	Acetone	6-18-18	JT
DF2 Mid ICV	SV3-28-12	SV3-28-07	NEAT	0.25 g	100 mL	2500 PPM	Acetone	7-2-18	JT
DF2 Stock	SV3-28-13	SV3-03-06	NEAT	0.500 g	50 mL	10,000 PPM	Methyl	L	L
DF2 ICV	SV3-28-14	SV3-28-13	10,000 PPM	1 mL	100 mL	100 PPM	Methyl	L	L
4 PPM Surr Ical	SV3-28-15	SV3-27-12	10,000 PPM	10 mL	25 mL	4 PPM	Methyl	7-3-18	JT
8	16			20		8			
20	17			50		20			
40	18			100		40			
80	19			200		80			
200	20			500		200			
1664 Spike	SV3 3021	Stock 04-717		10mL			Acetone	8-1-18	RD
Single PM Cal	SV3-28-22	SV3-27-14	10,000 PPM	500 mL	100 mL	500 PPM	Methyl	8-7-18	JT
		SV3-26-16		100 mL		100 PPM			
Mineral oil NEAT	SV3-28-23	NA	NEAT					8-7-18	JT

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com

FU-013-D-40X 1 mL

#1 Diesel (Low Sulfur) in Dichloromethane

20.0 mg/mL in CH2Cl2

Lot: 216091022 1 comp(s)

Exp: Sep 02, 2026 Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY

H315 H335 H332 H302 H351 H350 P338 P350 P331 P233 P262 P202 P264 P284 P280

Signal Word Warning

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page

ANALYTE	LAB ID	STOCK ID	Stock Conc	Stock Vol	Final Vol	Final Solvent Conc	Solvent	Date	Init
~~Mineral oil Neat~~	~~JT Acquired~~								
Mineral Oil Neat Scattle City Light	SV3-029-01	Acquired From SCL	NEAT	—	—	—	~~8-8-18~~	8-8-18	JT
Transformer Oil / High Performance Dielectric Fluid	SV3029-02	—	NEAT	Acquired From Sales	3 Inc.	Expanded Services		8-9-18	JT
DF2 CCV	SV3-029-03	SV3-28-13	10,000 ppm	1 mL	100 mL	100 PPM	Methanol	8-9-18	JT
DX Sweet	SV3-029-04	687V	NEAT	1.0 g	100 mL	10,000 ppm	Acetone	8-17-18	JT
DX Mineral Seal	SV3-029-05	687V	NEAT	0.2500 g	100 mL	2500 ppm	Acetone	8-27-18	JT

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

PAHs by EPA 8270D Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180904\
Data File : C0904028.D
Acq On : 4 Sep 2018 9:50 pm
Operator :
Sample : 08-393-01
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 05 16:13:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.600	136	140460	2000.00	ppb	-0.03
6) Acenaphthene-d10	4.864	164	126863m	2000.00	ppb	0.00
10) Phenanthrene-d10	5.871	188	163047m	2000.00	ppb	0.00
17) Chrysene-d12	7.797	240	112249	2000.00	ppb	-0.02
21) Perylene-d12	9.162	264	118138	2000.00	ppb	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	3.228	82	3096	46.39	ppb	-0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 4.64%#			
7) 2-Fluorobiphenyl	4.408	172	46386m	449.71	ppb	-0.02
Spiked Amount 1000.000	Range 25 - 89		Recovery = 44.97%			
11) Pyrene-d10	6.815	212	44452m	591.90	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 59.19%			
18) Terphenyl-d14	6.966	244	38885	754.36	ppb	-0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery = 75.44%			
Target Compounds						Qvalue
3) Naphthalene	3.611	128	266639	3663.93	ppb	100
4) 2-Methylnaphthalene	4.162	142	5614822	116049.84	ppb	100
5) 1-Methylnaphthalene	4.162	142	5614822	123059.66	ppb	100
8) Acenaphthylene	4.741	152	334721m	2499.55	ppb	
9) Acenaphthene	4.887	153	500996	5988.97	ppb	100
12) Fluorene	5.249	166	603712m	8978.52	ppb	
13) Phenanthrene	5.886	178	1184793m	12126.63	ppb	
14) Anthracene	5.917	178	103691m	1070.27	ppb	
15) Fluoranthene	6.676	202	102921m	965.80	ppb	
16) Pyrene	6.821	202	127507m	1156.70	ppb	
19) Benzo[a]anthracene	7.785	228	24961	351.10	ppb	100
20) Chrysene	7.816	228	26448	373.22	ppb	100
22) Benzo[b]fluoranthene	8.799	252	25277m	346.06	ppb	
23) Benzo(j,k)fluoranthene	8.823	252	6480m	88.58	ppb	
24) Benzo[a]pyrene	9.100	252	20613	300.15	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.134	276	14036	226.29	ppb	100
26) Dibenz[a,h]anthracene	10.161	278	2255	35.48	ppb	100
27) Benzo[g,h,i]perylene	10.352	276	15826	230.24	ppb	100

VE

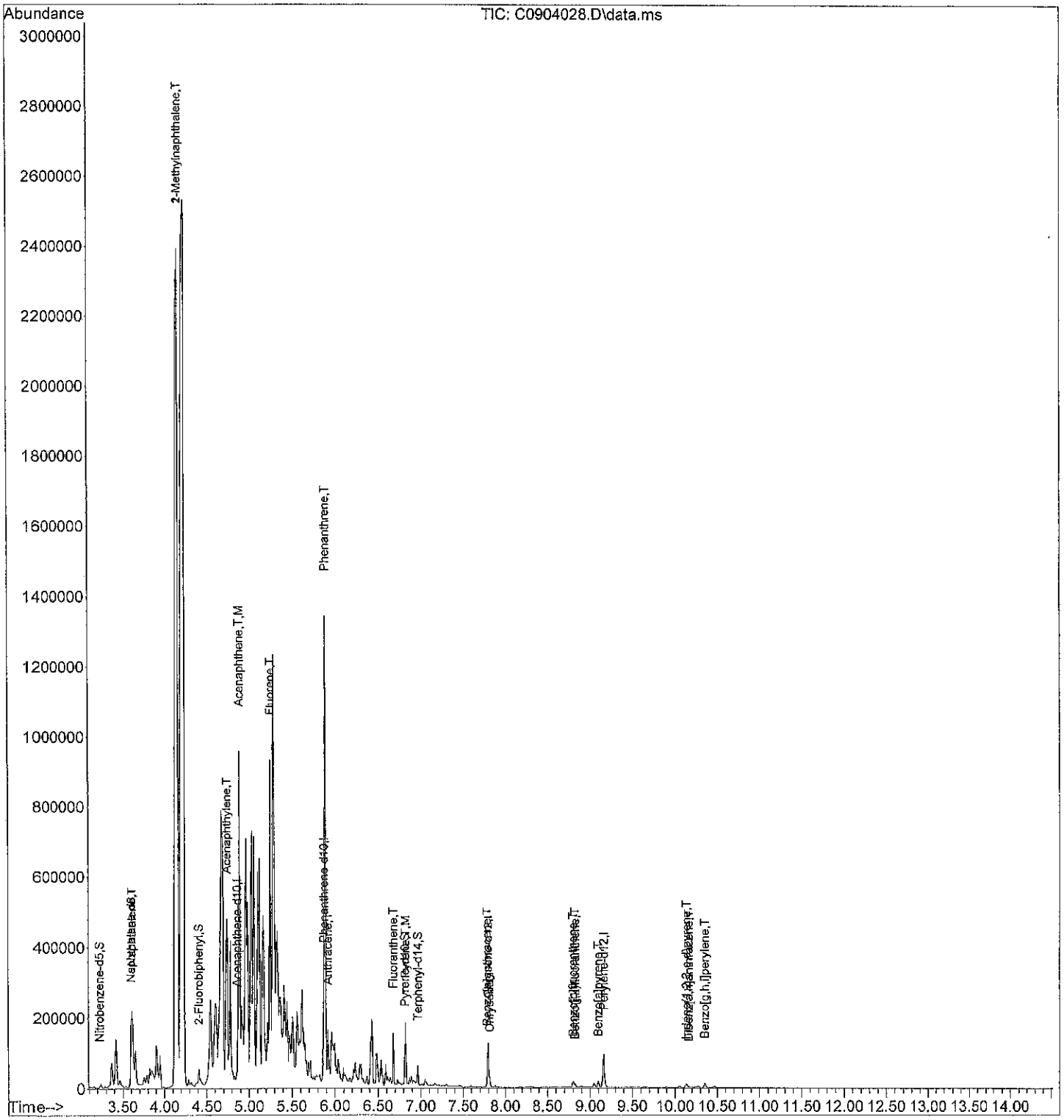
ZT
9-5-18

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

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180904\
Data File : C0904028.D
Acq On : 4 Sep 2018 9:50 pm
Operator :
Sample : 08-393-01
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 05 16:13:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905016.D
Acq On : 5 Sep 2018 5:27 pm
Operator :
Sample : 08-393-01 20X
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 05 17:42:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.523	136	101798	2000.00 ppb	0.00
6) Acenaphthene-d10	4.767	164	55096	2000.00 ppb	0.00
10) Phenanthrene-d10	5.769	188	104186	2000.00 ppb	0.00
17) Chrysene-d12	7.669	240	99340	2000.00 ppb	0.00
21) Perylene-d12	9.003	264	102531	2000.00 ppb	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5	3.256	82	451	9.32 ppb	0.01
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.93%#		
7) 2-Fluorobiphenyl	4.320	172	1626	36.30 ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 3.63%#		
11) Pyrene-d10	6.714	212	1848	38.51 ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 3.85%#		
18) Terphenyl-d14	6.870	244	1678	36.78 ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 3.68%#		
Target Compounds					Qvalue
3) Naphthalene	3.535	128	11290	214.06 ppb	100
4) 2-Methylnaphthalene	4.047	142	264819	7552.16 ppb	100
5) 1-Methylnaphthalene	4.114	142	477001	14424.89 ppb	100
8) Acenaphthylene	4.674	152	7152	122.98 ppb	100
9) Acenaphthene	4.790	153	18090	497.93 ppb	100
12) Fluorene	5.144	166	21379	497.58 ppb	100
13) Phenanthrene	5.781	178	43685	699.73 ppb	100
14) Anthracene	5.816	178	4947	79.91 ppb	100
15) Fluoranthene	6.580	202	3943	57.90 ppb	100
16) Pyrene	6.725	202	5307	75.34 ppb	100
19) Benzo[a]anthracene	7.661	228	1236	13.52 ppb	100
20) Chrysene	7.689	228	1057	16.85 ppb	100
22) Benzo[b]fluoranthene	8.651	252	1218	~~19.21~~ ppb	100
23) Benzo(j,k)fluoranthene	8.651	252	1283	~~20.21~~ ppb	100
24) Benzo[a]pyrene	8.944	252	779	13.07 ppb	100
25) Indeno(1,2,3-c,d)pyrene	9.963	276	514	9.55 ppb	100
26) Dibenz[a,h]anthracene	9.998	278	95	1.72 ppb	100
27) Benzo[g,h,i]perylene	10.178	276	610	10.23 ppb	100

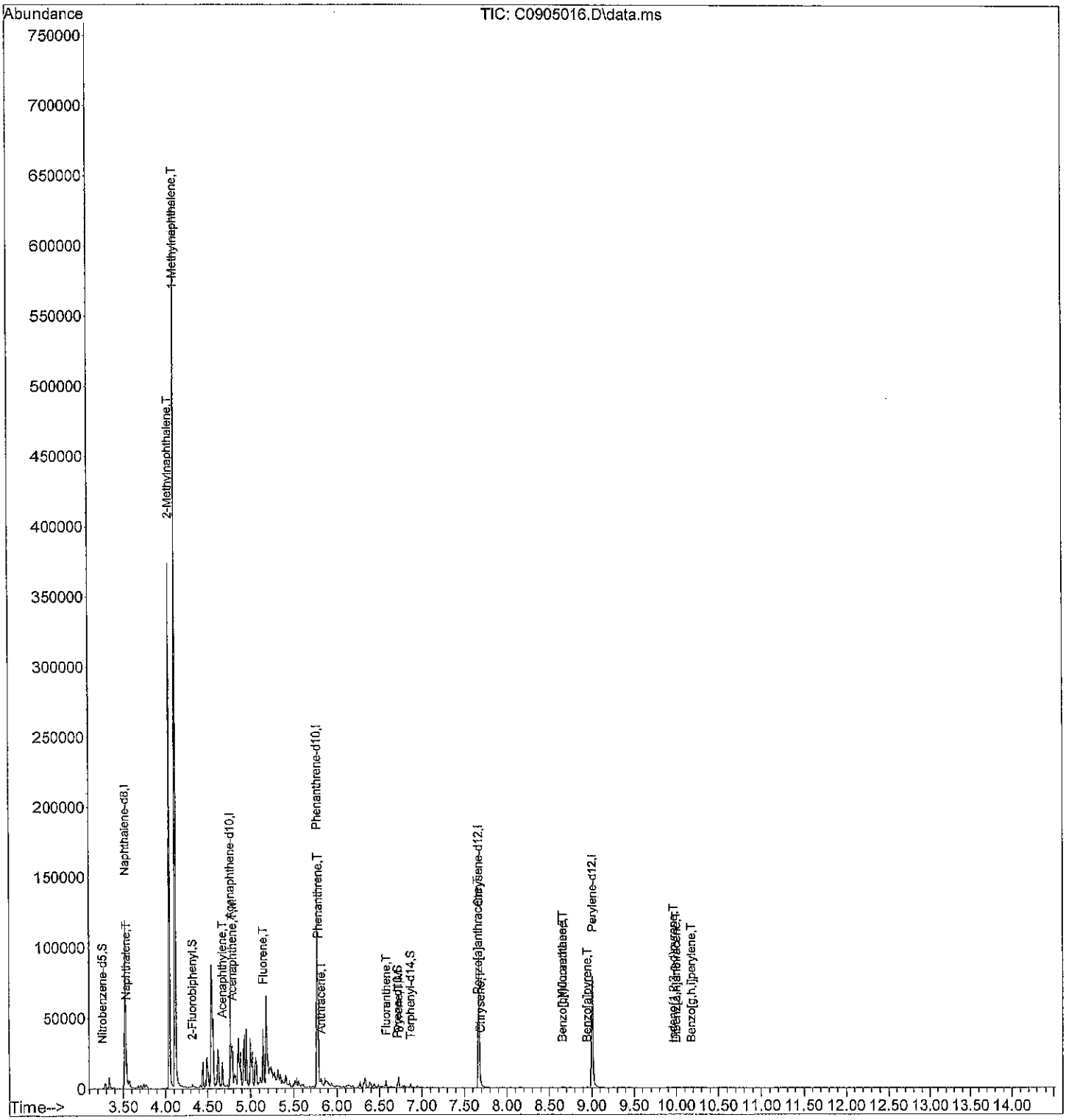
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT 9-6-18

13.49
5.53

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905016.D
Acq On : 5 Sep 2018 5:27 pm
Operator :
Sample : 08-393-01 20X
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 05 17:42:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905019.D
Acq On : 5 Sep 2018 6:34 pm
Operator :
Sample : 08-393-01 100X
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 05 18:48:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

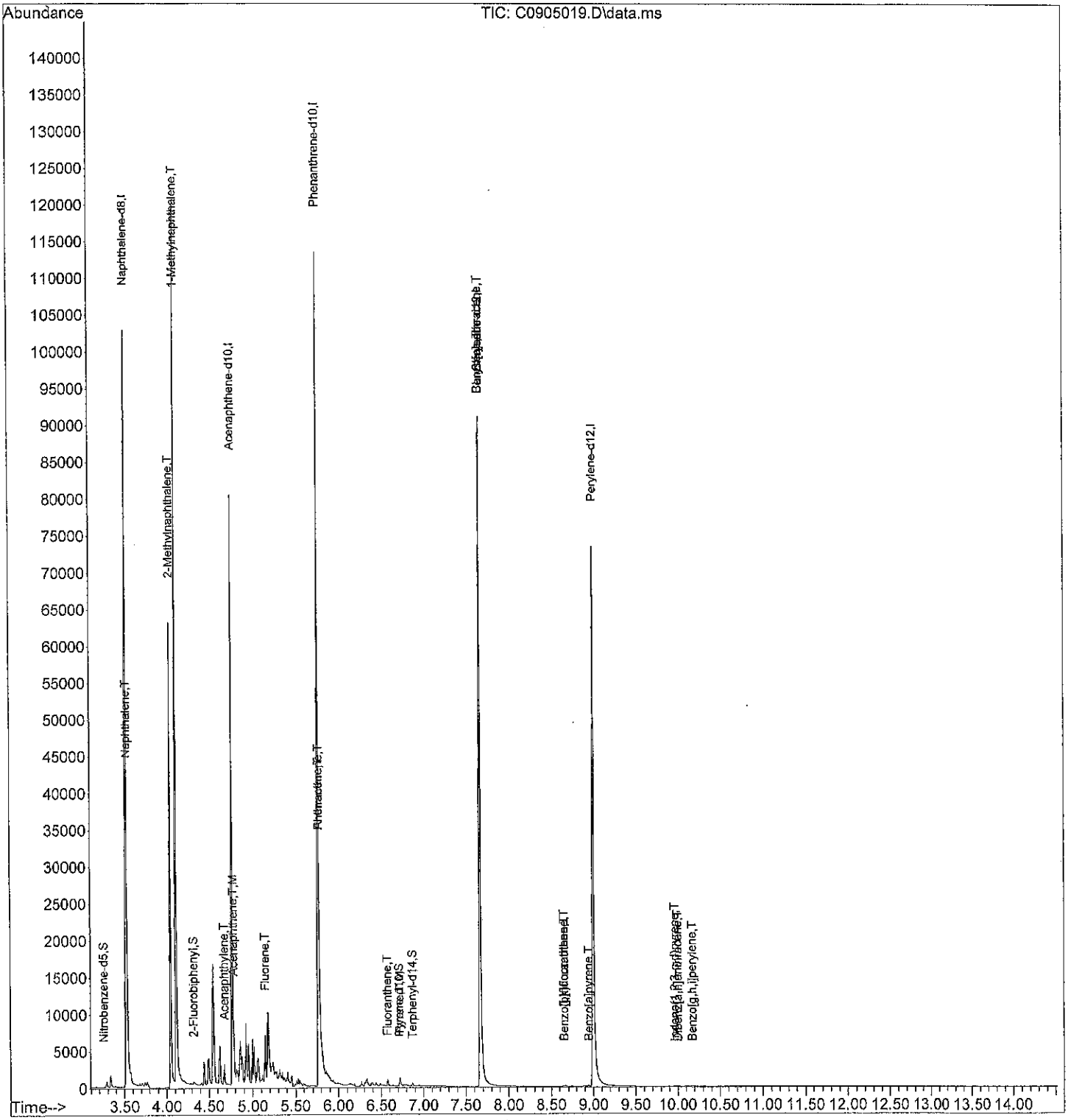
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.524	136	108163	2000.00	ppb	0.00
6) Acenaphthene-d10	4.766	164	55812	2000.00	ppb	0.00
10) Phenanthrene-d10	5.765	188	105404	2000.00	ppb	0.00
17) Chrysene-d12	7.670	240	103493	2000.00	ppb	0.00
21) Perylene-d12	9.000	264	104803	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.251	82	103	2.00	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.20%#			
7) 2-Fluorobiphenyl	4.320	172	292	6.43	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 0.64%#			
11) Pyrene-d10	6.714	212	342	7.04	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 0.70%#			
18) Terphenyl-d14	6.870	244	359	7.55	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 0.75%#			
Target Compounds						Qvalue
3) Naphthalene	3.530	128	2197	39.20	ppb	100
use (4) 2-Methylnaphthalene	4.043	142	46560	1249.67	ppb	100
5) 1-Methylnaphthalene	4.110	142	89478	2546.65	ppb	100
8) Acenaphthylene	4.674	152	1514	25.70	ppb	100
9) Acenaphthene	4.782	153	3444	93.58	ppb	100
12) Fluorene	5.144	166	3703	85.19	ppb	100
13) Phenanthrene	5.777	178	7493	118.63	ppb	100
14) Anthracene	5.777	178	7493	119.64	ppb	100
15) Fluoranthene	6.574	202	688	9.99	ppb	100
16) Pyrene	6.720	202	975	13.68	ppb	100
19) Benzo[a]anthracene	7.666	228	458	0.63	ppb	100
20) Chrysene	7.666	228	458	7.01	ppb	100
22) Benzo[b]fluoranthene	8.649	252	245	3.78	ppb	100
23) Benzo(j,k)fluoranthene	8.649	252	259	3.99	ppb	100
24) Benzo[a]pyrene	8.942	252	142	2.33	ppb	100
25) Indeno(1,2,3-c,d)pyrene	9.963	276	81	1.47	ppb	100
26) Dibenz[a,h]anthracene	9.999	278	18	0.32	ppb	100
27) Benzo[g,h,i]perylene	10.174	276	120	1.97	ppb	100

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

ZT
9-6-18

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905019.D
Acq On : 5 Sep 2018 6:34 pm
Operator :
Sample : 08-393-01 100X
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 05 18:48:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180904\
Data File : C0904029.D
Acq On : 4 Sep 2018 10:13 pm
Operator :
Sample : 08-393-02
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 05 16:18:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) Naphthalene-d8	3.605	136	147442	2000.00	ppb	-0.02	
6) Acenaphthene-d10	4.856	164	75724	2000.00	ppb	-0.02	
10) Phenanthrene-d10	5.855	188	123107	2000.00	ppb	-0.02	
17) Chrysene-d12	7.796	240	105778	2000.00	ppb	-0.02	
21) Perylene-d12	9.162	264	109721	2000.00	ppb	-0.01	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.245	82	952	13.59	ppb	0.00	
Spiked Amount 1000.000	Range 24 - 92		Recovery = 1.36%#				
7) 2-Fluorobiphenyl	4.400	172	41663	676.70	ppb	-0.02	
Spiked Amount 1000.000	Range 25 - 89		Recovery = 67.67%				
11) Pyrene-d10	6.809	212	48591	856.92	ppb	-0.01	
Spiked Amount 1000.000	Range 40 - 110		Recovery = 85.69%				
18) Terphenyl-d14	6.960	244	41775	860.00	ppb	-0.02	
Spiked Amount 1000.000	Range 39 - 92		Recovery = 86.00%				
Target Compounds							Qvalue
3) Naphthalene	3.617	128	408778	5351.10	ppb		100
4) 2-Methylnaphthalene	4.181	142	10907366	214763.21	ppb		100
5) 1-Methylnaphthalene	4.248	142	8446763m	176360.57	ppb		
8) Acenaphthylene	4.771	152	125966	1575.92	ppb		100
9) Acenaphthene	4.879	153	475326m	9519.42	ppb		
12) Fluorene	5.233	166	425909	8389.22	ppb		100
13) Phenanthrene	5.870	178	450375	6105.23	ppb		100
14) Anthracene	5.901	178	22550	308.27	ppb		100
15) Fluoranthene	6.670	202	15153	188.33	ppb		100
16) Pyrene	6.821	202	20951	251.72	ppb		100
19) Benzo[a]anthracene	7.789	228	1670	18.90	ppb		100
20) Chrysene	7.816	228	2002m	29.98	ppb		
22) Benzo[b]fluoranthene	8.799	252	1533m	22.60	ppb		
23) Benzo(j,k)fluoranthene	8.818	252	592m	8.71	ppb		
24) Benzo[a]pyrene	9.099	252	1004	15.74	ppb		100
25) Indeno(1,2,3-c,d)pyrene	10.130	276	922	16.00	ppb		100
26) Dibenz[a,h]anthracene	10.157	278	177m	3.00	ppb		
27) Benzo[g,h,i]perylene	10.352	276	1156	18.11	ppb		100

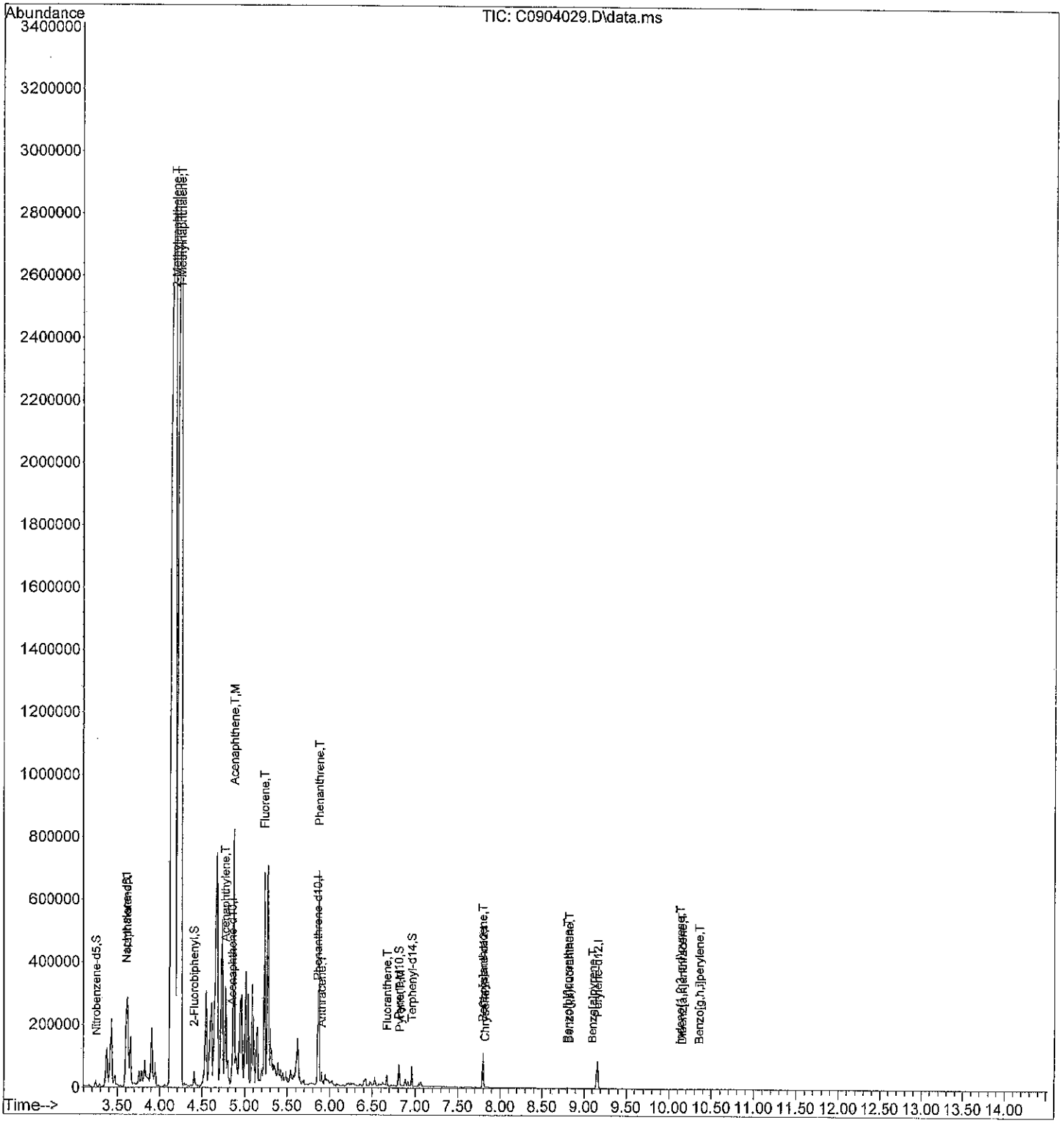
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT 9-5-18

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180904\
Data File : C0904029.D
Acq On : 4 Sep 2018 10:13 pm
Operator :
Sample : 08-393-02
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 05 16:18:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905017.D
Acq On : 5 Sep 2018 5:49 pm
Operator :
Sample : 08-393-02 20X
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 05 18:04:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

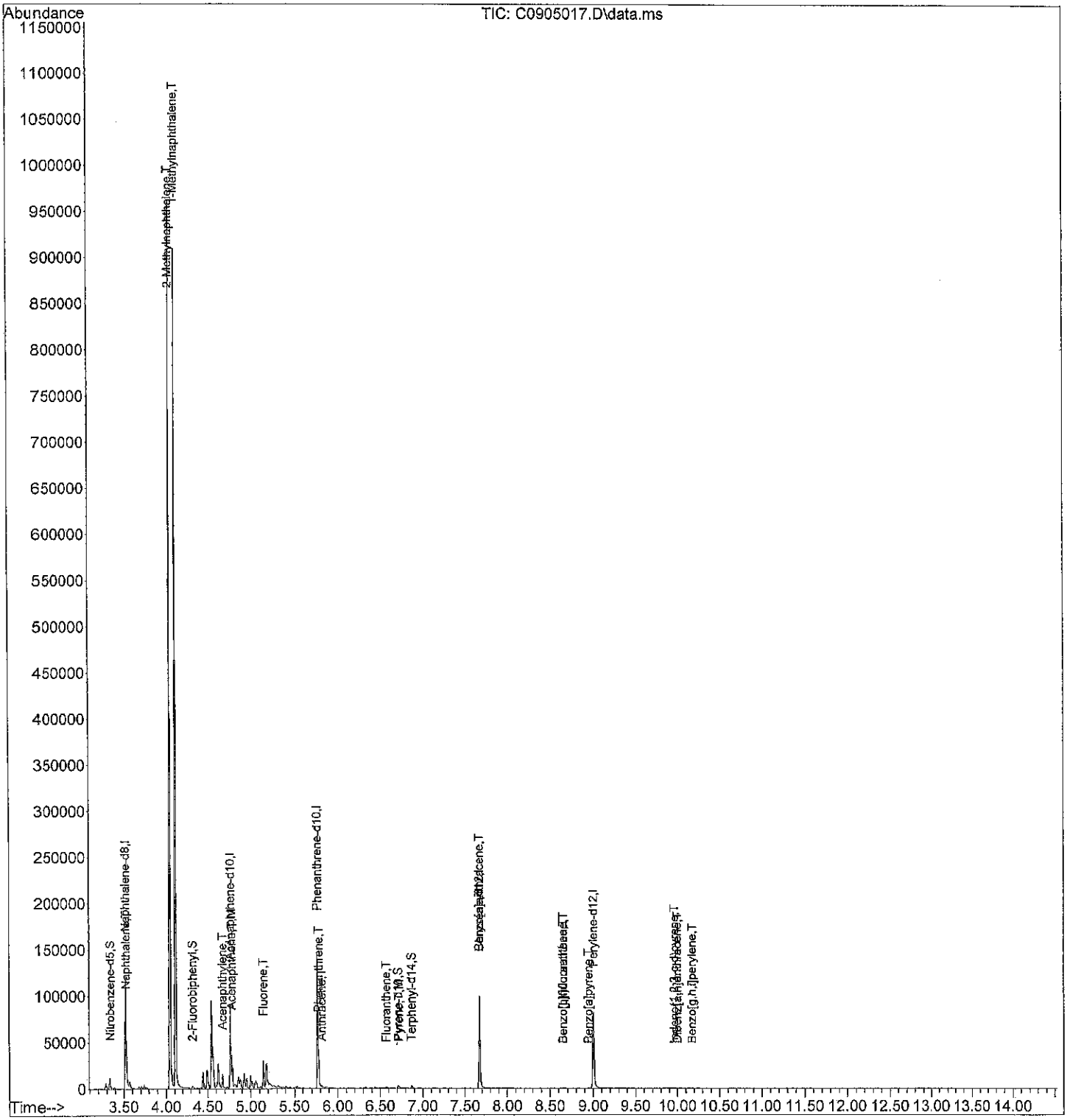
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.524	136	103005	2000.00	ppb	0.00
6) Acenaphthene-d10	4.767	164	56909	2000.00	ppb	0.00
10) Phenanthrene-d10	5.766	188	107727	2000.00	ppb	0.00
17) Chrysene-d12	7.670	240	103476	2000.00	ppb	0.00
21) Perylene-d12	9.005	264	105570	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.344	82	302	6.17	ppb	0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.62%#			
7) 2-Fluorobiphenyl	4.320	172	1699	36.72	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 3.67%#			
11) Pyrene-d10	6.713	212	1989	40.08	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 4.01%#			
18) Terphenyl-d14	6.869	244	1881	39.58	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 3.96%#			
Target Compounds						Qvalue
3) Naphthalene	3.530	128	15373	288.06	ppb	100
4) 2-Methylnaphthalene	4.051	142	687827	19385.73	ppb	100
5) 1-Methylnaphthalene	4.117	142	608838	18196.00	ppb	100
8) Acenaphthylene	4.674	152	5726	95.32	ppb	100
9) Acenaphthene	4.782	153	17712	472.00	ppb	100
12) Fluorene	5.144	166	16378	368.66	ppb	100
13) Phenanthrene	5.781	178	17898	277.26	ppb	100
14) Anthracene	5.816	178	918	14.34	ppb	100
15) Fluoranthene	6.573	202	585	8.31	ppb	100
16) Pyrene	6.724	202	903	12.40	ppb	100
19) Benzo[a]anthracene	7.670	228	449	0.49	ppb	100
20) Chrysene	7.670	228	449	6.87	ppb	100
22) Benzo[b]fluoranthene	8.649	252	58	0.89	ppb	100
23) Benzo(j,k)fluoranthene	8.649	252	87	1.33	ppb	100
24) Benzo[a]pyrene	8.946	252	55	0.90	ppb	100
25) Indeno(1,2,3-c,d)pyrene	9.964	276	51	0.92	ppb	100
26) Dibenz[a,h]anthracene	9.999	278	27	0.48	ppb	100
27) Benzo[g,h,i]perylene	10.174	276	72	1.17	ppb	100

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

ZT
9-6-18

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905017.D
Acq On : 5 Sep 2018 5:49 pm
Operator :
Sample : 08-393-02 20X
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 05 18:04:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905020.D
Acq On : 5 Sep 2018 6:56 pm
Operator :
Sample : 08-393-02 100X
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 05 19:10:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

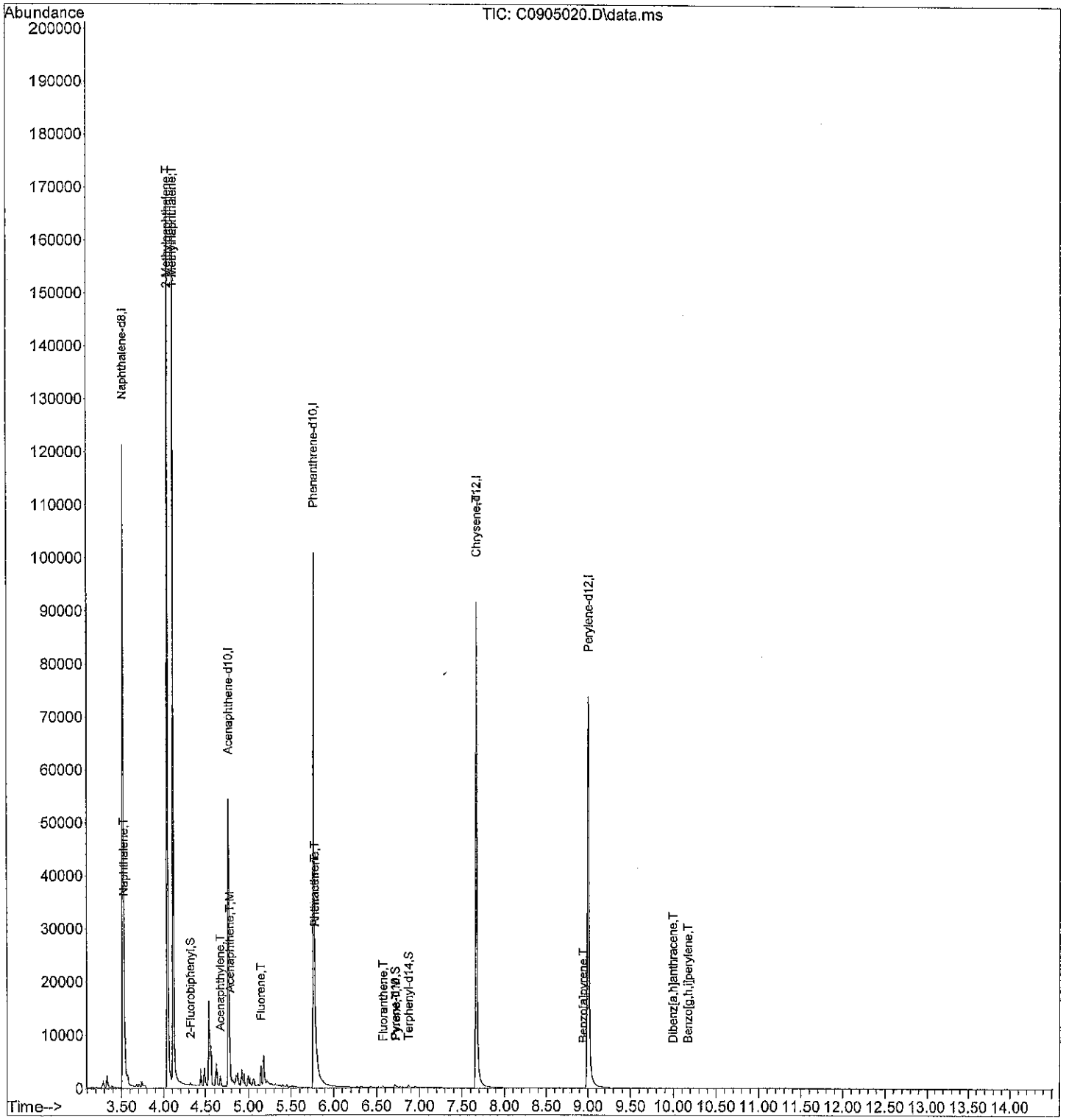
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.520	136	101941	2000.00	ppb	0.00
6) Acenaphthene-d10	4.767	164	54024	2000.00	ppb	0.00
10) Phenanthrene-d10	5.766	188	106641	2000.00	ppb	0.00
17) Chrysene-d12	7.666	240	102208	2000.00	ppb	0.00
21) Perylene-d12	8.998	264	103272	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	4.319	172	310	7.06	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.71%#		
11) Pyrene-d10	6.713	212	372	7.57	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.76%#		
18) Terphenyl-d14	6.870	244	383	8.16	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.82%#		
Target Compounds						Qvalue
3) Naphthalene	3.532	128	3078	58.28	ppb	100
4) 2-Methylnaphthalene	4.042	142	128566	3661.33	ppb	100
5) 1-Methylnaphthalene	4.109	142	120191	3629.57	ppb	100
8) Acenaphthylene	4.667	152	1051	18.43	ppb	100
9) Acenaphthene	4.783	153	3614	101.45	ppb	100
12) Fluorene	5.145	166	2910	66.17	ppb	100
13) Phenanthrene	5.778	178	3155	49.37	ppb	100
14) Anthracene	5.778	178	3155	49.79	ppb	100
15) Fluoranthene	6.574	202	103	1.48	ppb	100
16) Pyrene	6.724	202	180	2.50	ppb	100
19) Benzo[a]anthracene	7.666	228	318	Below Cal		100
20) Chrysene	7.666	228	318	4.93	ppb	100
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	8.939	252	16	0.27	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	9.995	278	3	0.05	ppb	100
27) Benzo[g,h,i]perylene	10.170	276	14	0.23	ppb	100

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

ZT
9-6-18

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905020.D
Acq On : 5 Sep 2018 6:56 pm
Operator :
Sample : 08-393-02 100X
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 05 19:10:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905012.D
Acq On : 5 Sep 2018 3:58 pm
Operator :
Sample : 08-393-03
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 05 16:12:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.520	136	103724	2000.00	ppb	0.00
6) Acenaphthene-d10	4.767	164	57061	2000.00	ppb	0.00
10) Phenanthrene-d10	5.766	188	107494	2000.00	ppb	0.00
17) Chrysene-d12	7.671	240	95784	2000.00	ppb	0.00
21) Perylene-d12	9.005	264	94875	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.311	82	362	7.35	ppb	0.07
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.73%#			
7) 2-Fluorobiphenyl	4.319	172	14393	310.23	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 31.02%			
11) Pyrene-d10	6.712	212	20872	421.55	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 42.16%			
18) Terphenyl-d14	6.869	244	21226	482.56	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 48.26%			
Target Compounds						Qvalue
3) Naphthalene	3.537	128	245	4.56	ppb	100
4) 2-Methylnaphthalene	4.046	142	100	2.80	ppb	100
5) 1-Methylnaphthalene	4.109	142	70	2.08	ppb	100
8) Acenaphthylene	4.597	152	569	9.45	ppb	100
9) Acenaphthene	4.821	153	76	2.02	ppb	100
12) Fluorene	0.000		0	N.D.		
13) Phenanthrene	5.781	178	112	1.74	ppb	100
14) Anthracene	5.781	178	112	~~1.75~~	ppb 0.50	100
15) Fluoranthene	6.579	202	33	0.47	ppb	100
16) Pyrene	6.724	202	100	1.38	ppb	100
19) Benzo[a]anthracene	7.671	228	384	Below Cal		100
20) Chrysene	7.671	228	384	~~6.35~~	ppb 1.31	100
22) Benzo[b]fluoranthene	8.623	252	47	0.80	ppb	100
23) Benzo(j,k)fluoranthene	8.650	252	19	0.32	ppb	100
24) Benzo[a]pyrene	8.943	252	30	0.54	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	9.998	278	26	0.51	ppb	100
27) Benzo[g,h,i]perylene	10.181	276	43	0.78	ppb	100

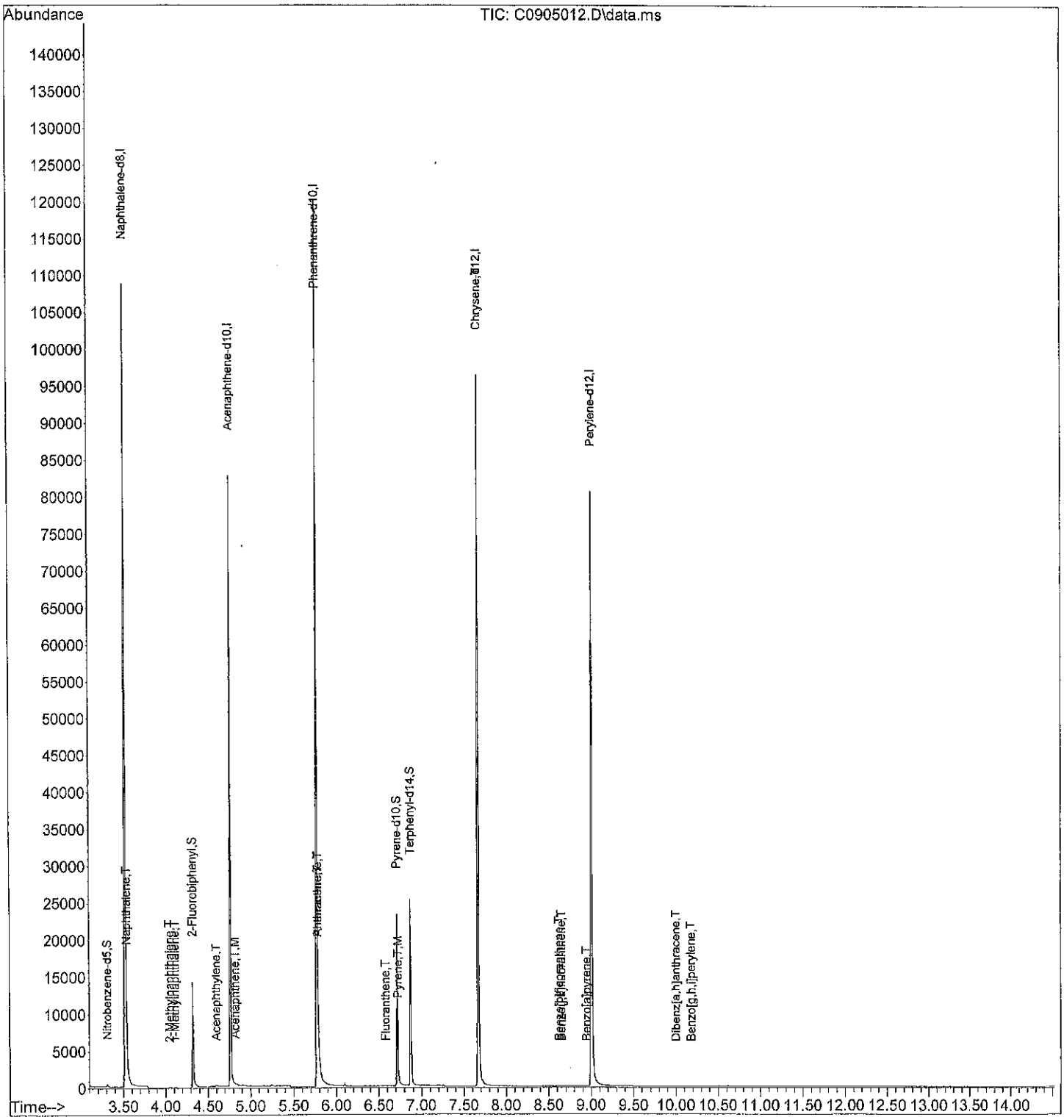
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
9-5-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905012.D
Acq On : 5 Sep 2018 3:58 pm
Operator :
Sample : 08-393-03
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 05 16:12:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905013.D
Acq On : 5 Sep 2018 4:20 pm
Operator :
Sample : 08-393-04
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 05 16:35:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

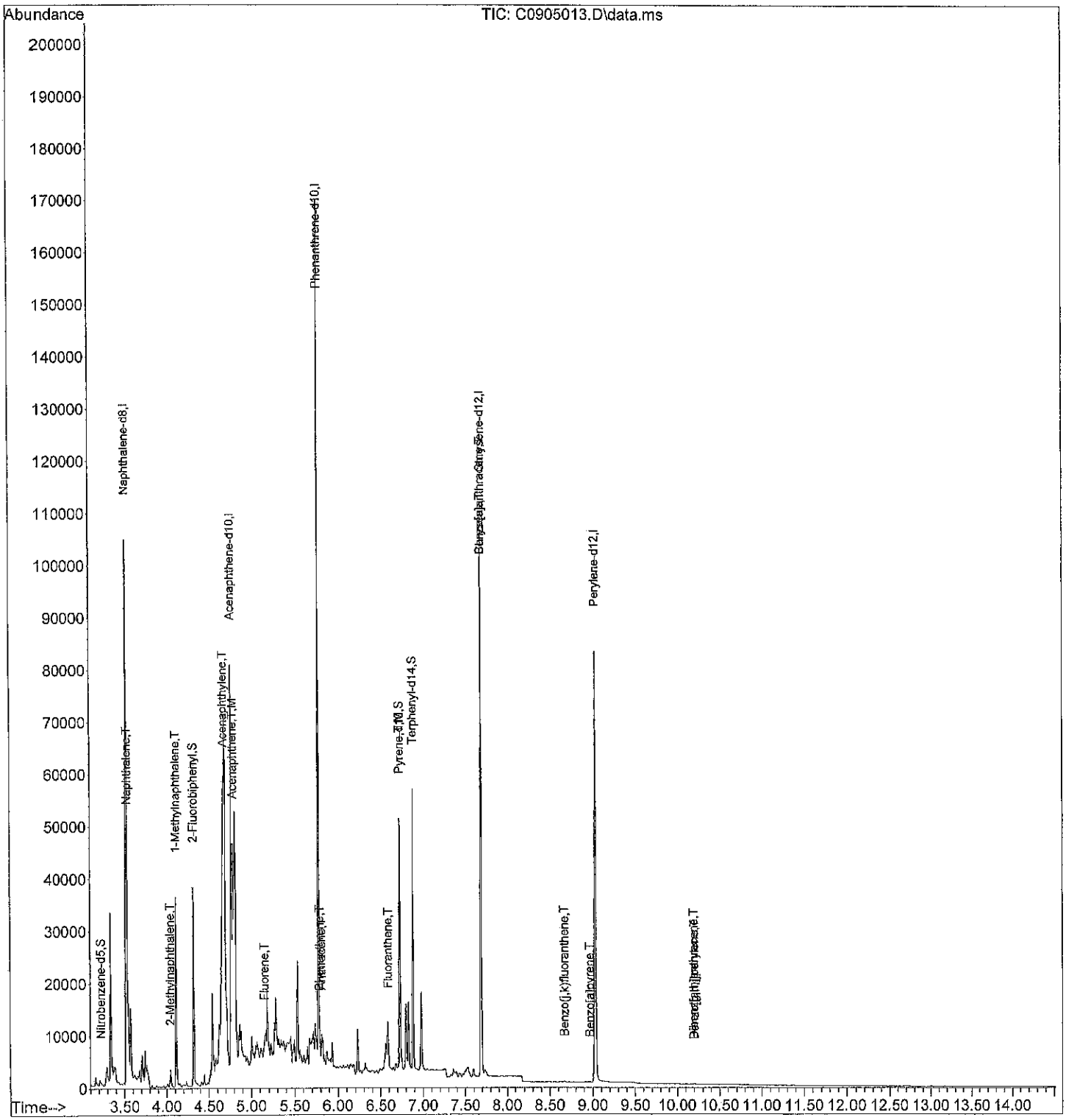
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.520	136	99445	2000.00	ppb	0.00
6) Acenaphthene-d10	4.766	164	58945	2000.00	ppb	0.00
10) Phenanthrene-d10	5.773	188	106891	2000.00	ppb	0.00
17) Chrysene-d12	7.690	240	95832	2000.00	ppb	0.02
21) Perylene-d12	9.025	264	97412	2000.00	ppb	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	3.224	82	558	11.81	ppb	-0.02
Spiked Amount 1000.000	Range 24 - 92		Recovery = 1.18%#			
7) 2-Fluorobiphenyl	4.320	172	26835	559.93	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 55.99%			
11) Pyrene-d10	6.725	212	38323	778.37	ppb	0.01
Spiked Amount 1000.000	Range 40 - 110		Recovery = 77.84%			
18) Terphenyl-d14	6.881	244	34278	778.90	ppb	0.01
Spiked Amount 1000.000	Range 39 - 92		Recovery = 77.89%			
Target Compounds						Qvalue
3) Naphthalene	3.531	128	15988	~~340.30~~	ppb	100
4) 2-Methylnaphthalene	4.043	142	2933	85.62	ppb	100
5) 1-Methylnaphthalene	4.109	142	26264	813.04	ppb	100
8) Acenaphthylene	4.674	152	2134	34.30	ppb	100
9) Acenaphthene	4.789	153	14774	380.11	ppb	100
12) Fluorene	5.151	166	1495	33.91	ppb	100
13) Phenanthrene	5.789	178	3304	51.58	ppb	100
14) Anthracene	5.812	178	5051	79.52	ppb	100
15) Fluoranthene	6.591	202	1689	24.18	ppb	100
16) Pyrene	6.725	202	1201	16.62	ppb	100
19) Benzo[a]anthracene	7.686	228	529	2.39	ppb	100
20) Chrysene	7.686	228	529	~~8.74~~	ppb	100
22) Benzo[b]fluoranthene	0.000		0	~~N.D.~~		
23) Benzo(j,k)fluoranthene	8.670	252	238	~~3.95~~	ppb	100
24) Benzo[a]pyrene	8.967	252	53	0.94	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	10.197	278	10	0.19	ppb	100
27) Benzo[g,h,i]perylene	10.205	276	107	1.89	ppb	100

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

2T
9-6-18
210.66
1.29
2.92
0.86

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905013.D
Acq On : 5 Sep 2018 4:20 pm
Operator :
Sample : 08-393-04
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 05 16:35:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905014.D
Acq On : 5 Sep 2018 4:42 pm
Operator :
Sample : 08-393-05
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 05 16:57:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.524	136	99916	2000.00	ppb	0.00
6) Acenaphthene-d10	4.766	164	56036	2000.00	ppb	0.00
10) Phenanthrene-d10	5.769	188	105798	2000.00	ppb	0.00
17) Chrysene-d12	7.671	240	95283	2000.00	ppb	0.00
21) Perylene-d12	9.006	264	95834	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	3.315	82	228	4.80	ppb	0.07
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.48%#			
7) 2-Fluorobiphenyl	4.324	172	17892	392.71	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 39.27%			
11) Pyrene-d10	6.713	212	37586	771.29	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 77.13%			
18) Terphenyl-d14	6.870	244	34655	792.01	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 79.20%			
Target Compounds						Qvalue
3) Naphthalene	3.535	128	571	11.03	ppb	100
4) 2-Methylnaphthalene	4.047	142	78	2.27	ppb	100
5) 1-Methylnaphthalene	4.109	142	53	1.63	ppb	100
8) Acenaphthylene	4.735	152	31	0.52	ppb	100
9) Acenaphthene	4.782	153	42	1.14	ppb	100
12) Fluorene	0.000		0	N.D.		
13) Phenanthrene	5.781	178	124	1.96	ppb	100
14) Anthracene	5.816	178	62	0.99	ppb	100
15) Fluoranthene	6.580	202	39	0.56	ppb	100
16) Pyrene	6.713	202	91	1.27	ppb	100
19) Benzo[a]anthracene	7.671	228	279	Below Cal		100
20) Chrysene	7.671	228	279	~~4.64~~	ppb	100
22) Benzo[b]fluoranthene	8.620	252	157	2.65	ppb	100
23) Benzo(j,k)fluoranthene	8.620	252	157	~~2.65~~	ppb	100
24) Benzo[a]pyrene	9.002	252	367	6.59	ppb	100
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	10.006	278	15	0.29	ppb	100
27) Benzo[g,h,i]perylene	10.185	276	23	0.41	ppb	100

ZT 9-6-18

0.35

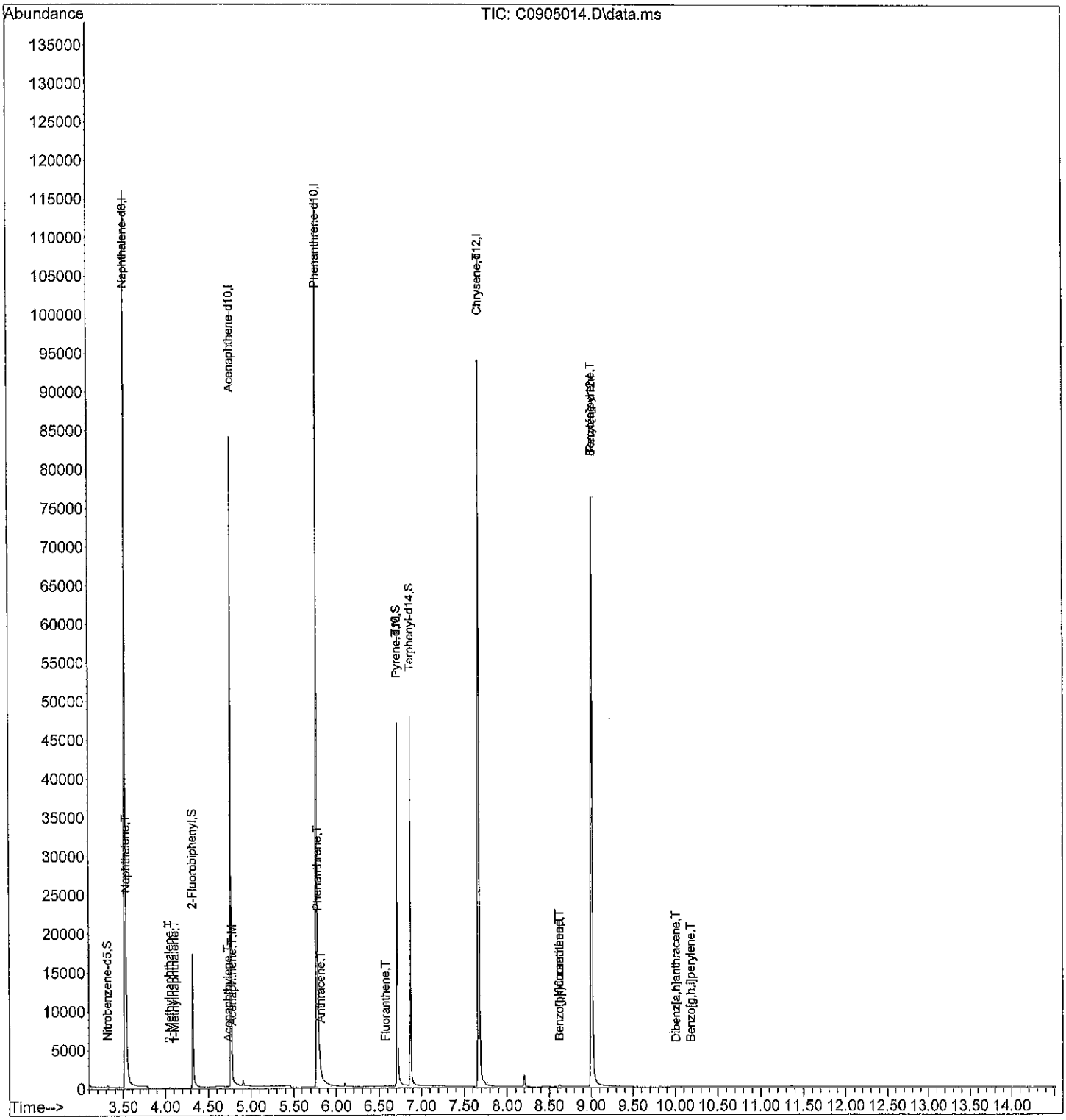
1.04

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905014.D
Acq On : 5 Sep 2018 4:42 pm
Operator :
Sample : 08-393-05
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 05 16:57:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904008.D
Acq On : 4 Sep 2018 1:43 pm
Operator :
Sample : MB0904W1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 13:57:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8	3.584	136	118862	2000.00	ppb	-0.05	
6) Acenaphthene-d10	4.823	164	63344	2000.00	ppb	-0.05	
10) Phenanthrene-d10	5.826	188	117377	2000.00	ppb	-0.05	
17) Chrysene-d12	7.752	240	110794	2000.00	ppb	-0.06	
21) Perylene-d12	9.098	264	111730	2000.00	ppb	-0.07	
System Monitoring Compounds							
2) Nitrobenzene-d5	3.160	82	120	2.12	ppb	-0.08	
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.21%#				
7) 2-Fluorobiphenyl	4.378	172	59381	1152.97	ppb	-0.05	
Spiked Amount 1000.000	Range 25 - 89		Recovery = 115.30%#				
11) Pyrene-d10	6.775	212	47832	884.71	ppb	-0.05	
Spiked Amount 1000.000	Range 40 - 110		Recovery = 88.47%				
18) Terphenyl-d14	6.931	244	59626	1171.92	ppb	-0.05	
Spiked Amount 1000.000	Range 39 - 92		Recovery = 117.19%#				
Target Compounds						Qvalue	
3) Naphthalene	3.595	128	232	3.77	ppb	100	
4) 2-Methylnaphthalene	4.101	142	612	14.95	ppb	100	
5) 1-Methylnaphthalene	4.167	142	243	6.29	ppb	100	
8) Acenaphthylene	4.669	152	217	3.25	ppb	100	
9) Acenaphthene	4.839	153	78	1.87	ppb	100	
12) Fluorene	5.201	166	55	1.14	ppb	100	
13) Phenanthrene	5.838	178	244	3.47	ppb	100	
14) Anthracene	5.838	178	244	~~3.50~~	ppb	100	0.33
15) Fluoranthene	6.641	202	36	0.47	ppb	100	
16) Pyrene	6.786	202	208	2.62	ppb	100	
19) Benzo[a]anthracene	7.748	228	326	Below Cal		100	
20) Chrysene	7.748	228	326	~~4.66~~	ppb	100	1.22
22) Benzo[b]fluoranthene	8.704	252	135	1.95	ppb	100	
23) Benzo(j,k)fluoranthene	8.704	252	135	~~1.95~~	ppb 0.66	100	
24) Benzo[a]pyrene	9.036	252	17	0.26	ppb	100	
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.			
26) Dibenz[a,h]anthracene	0.000		0	N.D.			
27) Benzo[g,h,i]perylene	10.282	276	22	0.34	ppb	100	

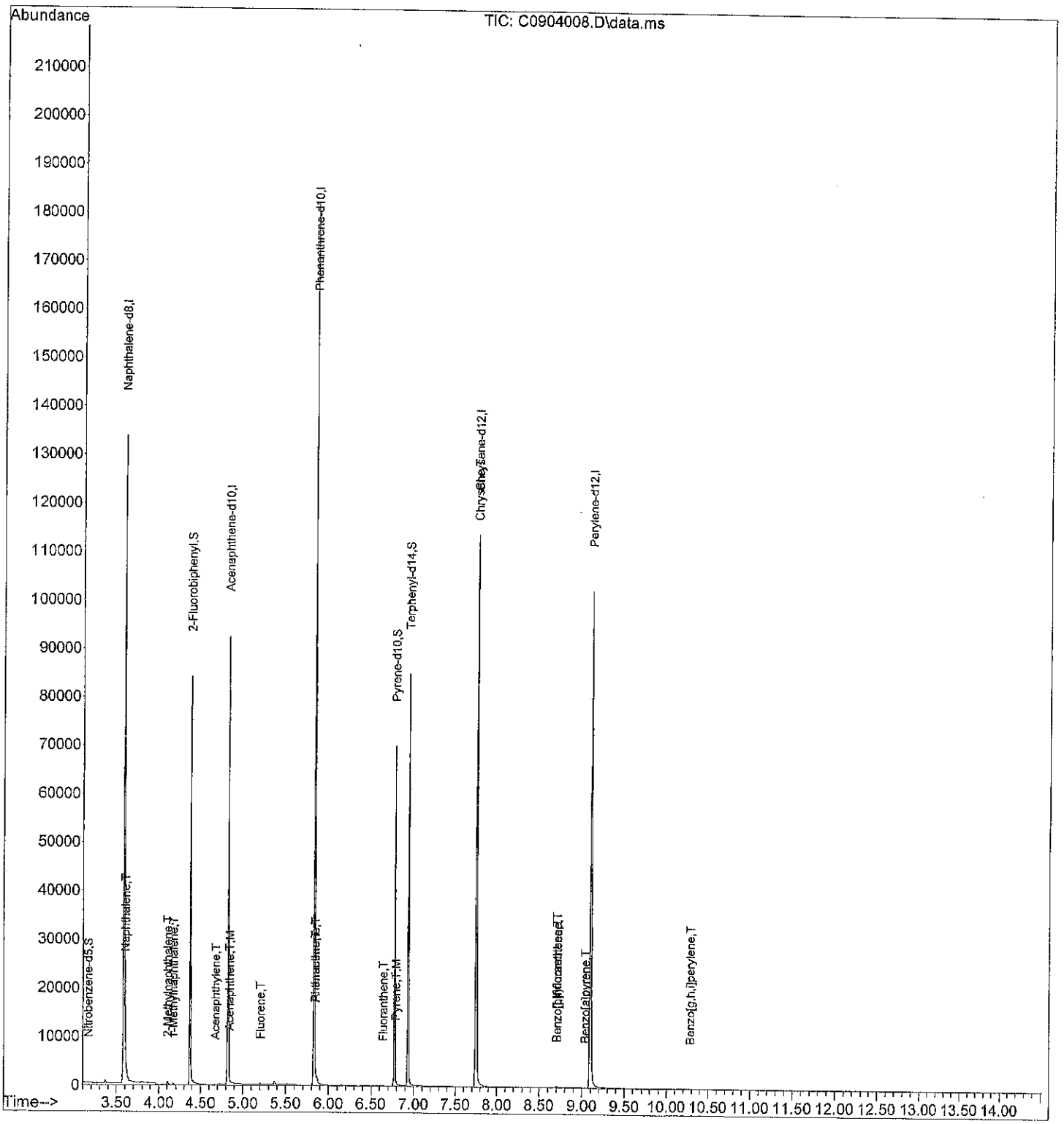
ZT
9-5-18

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904008.D
Acq On : 4 Sep 2018 1:43 pm
Operator :
Sample : MB0904W1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 13:57:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration



CSIM0830.M Tue Sep 04 13:58:06 2018

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904018.D
Acq On : 4 Sep 2018 6:08 pm
Operator :
Sample : SB0904W#1
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 04 18:23:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.582	136	118724	2000.00	ppb	-0.05
6) Acenaphthene-d10	4.824	164	62974	2000.00	ppb	-0.05
10) Phenanthrene-d10	5.831	188	120773	2000.00	ppb	-0.04
17) Chrysene-d12	7.757	240	111275	2000.00	ppb	-0.06
21) Perylene-d12	9.111	264	113074	2000.00	ppb	-0.06
System Monitoring Compounds						
2) Nitrobenzene-d5	3.158	82	312	5.53	ppb	-0.08
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.55%#			
7) 2-Fluorobiphenyl	4.380	172	35481	692.96	ppb	-0.04
Spiked Amount 1000.000	Range 25 - 89		Recovery = 69.30%			
11) Pyrene-d10	6.780	212	44120	793.11	ppb	-0.04
Spiked Amount 1000.000	Range 40 - 110		Recovery = 79.31%			
18) Terphenyl-d14	6.936	244	40414	790.88	ppb	-0.05
Spiked Amount 1000.000	Range 39 - 92		Recovery = 79.09%			
Target Compounds						Qvalue
3) Naphthalene	3.594	128	21081	342.71	ppb	100
4) 2-Methylnaphthalene	4.103	142	14079	344.27	ppb	100
5) 1-Methylnaphthalene	4.170	142	13733	356.09	ppb	100
8) Acenaphthylene	4.724	152	25493	383.51	ppb	100
9) Acenaphthene	4.847	153	15556	374.62	ppb	100
12) Fluorene	5.210	166	18231	366.04	ppb	100
13) Phenanthrene	5.843	178	26280	363.13	ppb	100
14) Anthracene	5.878	178	27240	379.58	ppb	100
15) Fluoranthene	6.640	202	31222	395.53	ppb	100
16) Pyrene	6.791	202	32260	395.09	ppb	100
19) Benzo[a]anthracene	7.749	228	30067	428.01	ppb	100
20) Chrysene	7.776	228	29090	414.09	ppb	100
22) Benzo[b]fluoranthene	8.748	252	28784	411.72	ppb	100
23) Benzo(j,k)fluoranthene	8.775	252	29793	425.51	ppb	100
24) Benzo[a]pyrene	9.048	252	27214	414.01	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.070	276	24175	407.20	ppb	100
26) Dibenz[a,h]anthracene	10.109	278	25305	416.03	ppb	100
27) Benzo[g,h,i]perylene	10.289	276	27080	411.61	ppb	100

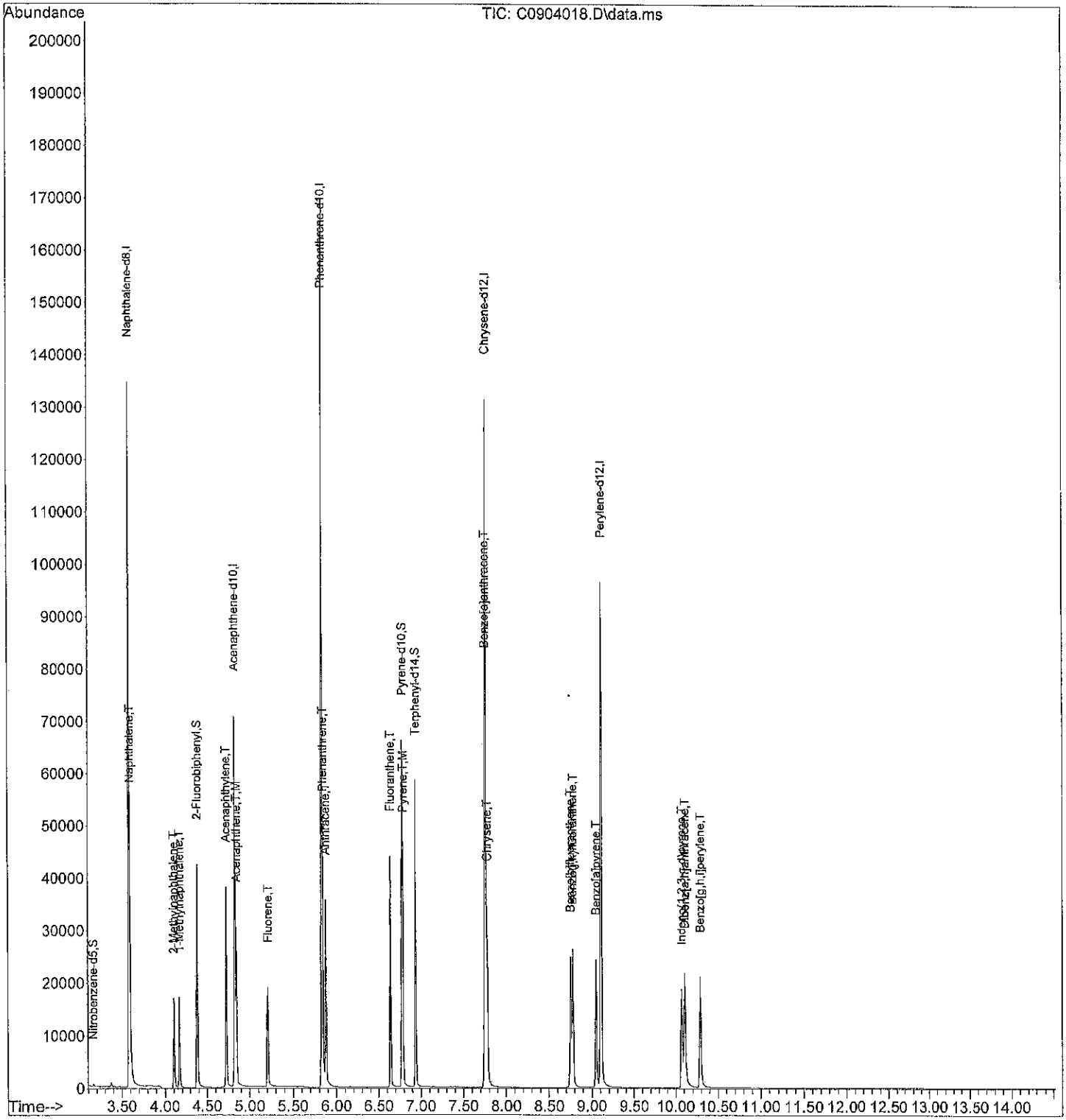
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-5-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904018.D
Acq On : 4 Sep 2018 6:08 pm
Operator :
Sample : SB0904W2
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 04 18:23:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904019.D
Acq On : 4 Sep 2018 6:30 pm
Operator :
Sample : SB0904WP DUP
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 04 18:45:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.584	136	118653	2000.00	ppb	-0.05
6) Acenaphthene-d10	4.826	164	65852	2000.00	ppb	-0.05
10) Phenanthrene-d10	5.828	188	122523	2000.00	ppb	-0.05
17) Chrysene-d12	7.758	240	111769	2000.00	ppb	-0.06
21) Perylene-d12	9.104	264	113717	2000.00	ppb	-0.07
System Monitoring Compounds						
2) Nitrobenzene-d5	3.189	82	126	2.24	ppb	-0.05
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.22%#			
7) 2-Fluorobiphenyl	4.381	172	30015	560.59	ppb	-0.04
Spiked Amount 1000.000	Range 25 - 89		Recovery = 56.06%			
11) Pyrene-d10	6.775	212	43950	778.77	ppb	-0.05
Spiked Amount 1000.000	Range 40 - 110		Recovery = 77.88%			
18) Terphenyl-d14	6.937	244	39574	771.02	ppb	-0.05
Spiked Amount 1000.000	Range 39 - 92		Recovery = 77.10%			
Target Compounds						Qvalue
3) Naphthalene	3.595	128	16640	270.68	ppb	100
4) 2-Methylnaphthalene	4.104	142	11092	271.39	ppb	100
5) 1-Methylnaphthalene	4.170	142	11593	300.78	ppb	100
8) Acenaphthylene	4.726	152	22225	319.73	ppb	100
9) Acenaphthene	4.849	153	13207	304.15	ppb	100
12) Fluorene	5.203	166	17115	338.72	ppb	100
13) Phenanthrene	5.843	178	24866	338.69	ppb	100
14) Anthracene	5.878	178	26384	362.40	ppb	100
15) Fluoranthene	6.641	202	30490	380.74	ppb	100
16) Pyrene	6.786	202	31555	380.93	ppb	100
19) Benzo[a]anthracene	7.746	228	29152	412.93	ppb	100
20) Chrysene	7.777	228	29131	412.84	ppb	100
22) Benzo[b]fluoranthene	8.749	252	28244	401.71	ppb	100
23) Benzo(j,k)fluoranthene	8.772	252	29446	418.17	ppb	100
24) Benzo[a]pyrene	9.045	252	26339	398.43	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.071	276	23288	390.05	ppb	100
26) Dibenz[a,h]anthracene	10.106	278	24629	402.62	ppb	100
27) Benzo[g,h,i]perylene	10.286	276	26585	401.80	ppb	100

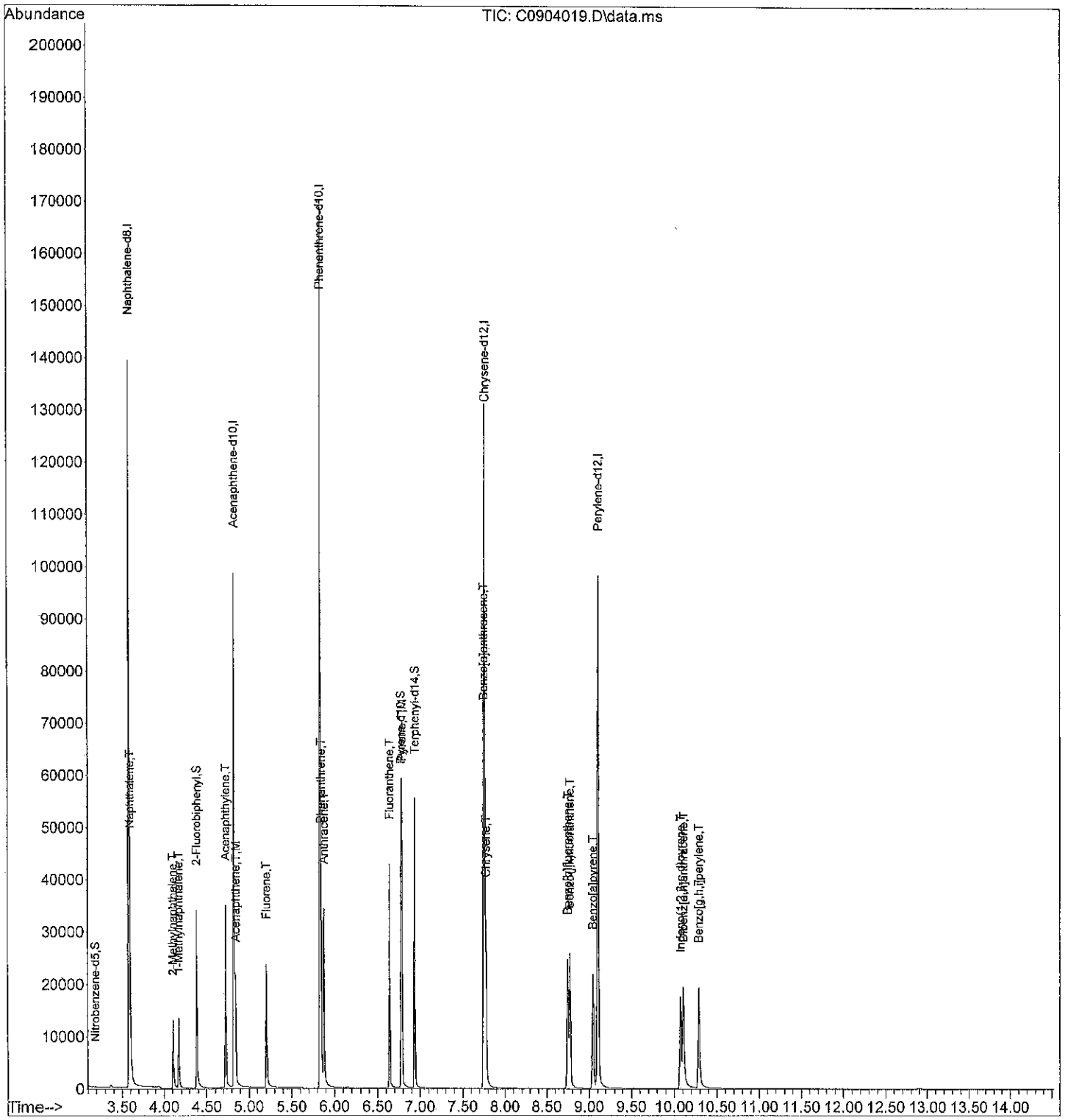
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-5-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904019.D
Acq On : 4 Sep 2018 6:30 pm
Operator :
Sample : SB0904W2 DUP
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 04 18:45:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration



Response Factor Report Corey

Method Path : C:\MSDCHEM\1\METHODS\
Method File : CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Wed Sep 05 11:58:51 2018
Response Via : Initial Calibration

Calibration Files
10 =C0830007.D 20 =C0830008.D 50 =C0830009.D 100 =C0830010.D 200 =C0830011.D 500 =C0905002.D 1000=C0830013.D
5000=C0830014.D

		Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1)	I	Naphthalene-d8	----------ISTD----------									
2)	S	Nitrobenzene-d5	0.424	2.951	0.747	1.216	0.675	0.325	0.313	0.950		98.58
3)	T	Naphthalene	1.038	1.035	1.069	1.028	1.041	1.036	1.033	1.009	1.036	1.61
4)	T	2-Methylnaphth...	0.704	0.671	0.718	0.691	0.699	0.687	0.664	0.678	0.689	2.59
5)	T	1-Methylnaphth...	0.645	0.646	0.682	0.658	0.657	0.655	0.625	0.629	0.650	2.76
6)	I	Acenaphthene-d10	----------ISTD----------									
7)	S	2-Fluorobiphenyl	1.670	1.646	1.696	1.569	1.611	1.606	1.545	1.665	1.626	3.22
8)	T	Acenaphthylene	2.175	2.338	2.181	2.000	2.118	2.088	2.009	1.980	2.111	5.69
9)	T,M	Acenaphthene	1.347	1.488	1.370	1.240	1.296	1.318	1.274	1.216	1.319	6.50
10)	I	Phenanthrene-d10	----------ISTD----------									
11)	S	Pyrene-d10	0.934	0.913	0.954	0.919	0.913	0.933	0.905	0.900	0.921	1.95
12)	T	Fluorene	0.875	0.845	0.878	0.843	0.810	0.827	0.783	0.739	0.825	5.69
13)	T	Phenanthrene	1.327	1.230	1.264	1.190	1.176	1.171	1.125	1.104	1.198	6.11
14)	T	Anthracene	1.211	1.193	1.240	1.183	1.183	1.201	1.152	1.145	1.188	2.58
15)	T	Fluoranthene	1.382	1.292	1.370	1.301	1.300	1.306	1.273	1.233	1.307	3.71
16)	T,M	Pyrene	1.442	1.338	1.404	1.341	1.339	1.359	1.309	1.286	1.352	3.70
17)	I	Chrysene-d12	----------ISTD----------									
18)	S	Terphenyl-d14	1.123	0.905	0.955	0.877	0.885	0.897	0.875	0.830	0.918	9.76
19)	T	Benzo[a]anthra...	1.976	1.589	1.479	1.341	1.310	1.294	1.237	1.243	1.433	17.46
20)	T	Chrysene	1.344	1.254	1.321	1.246	1.264	1.281	1.210	1.181	1.263	4.25
21)	I	Perylene-d12	----------ISTD----------									
22)	T	Benzo[b]fluora...	1.311	1.212	1.261	1.218	1.187	1.280	1.199	1.225	1.237	3.49
23)	T	Benzo(j,k)fluo...	1.281	1.223	1.296	1.197	1.254	1.216	1.217	1.222	1.238	2.83
24)	T	Benzo[a]pyrene	1.218	1.141	1.189	1.130	1.132	1.172	1.138	1.182	1.163	2.76
25)	T	Indeno(1,2,3-c...	1.132	1.010	1.062	1.000	1.020	1.059	1.023	1.095	1.050	4.37
26)	T	Dibenz[a,h]ant...	1.109	1.044	1.098	1.007	1.057	1.093	1.072	1.127	1.076	3.62
27)	T	Benzo[g,h,i]pe...	1.251	1.154	1.200	1.126	1.137	1.164	1.132	1.146	1.164	3.63

(#) = Out of Range

Compound List Report Corey

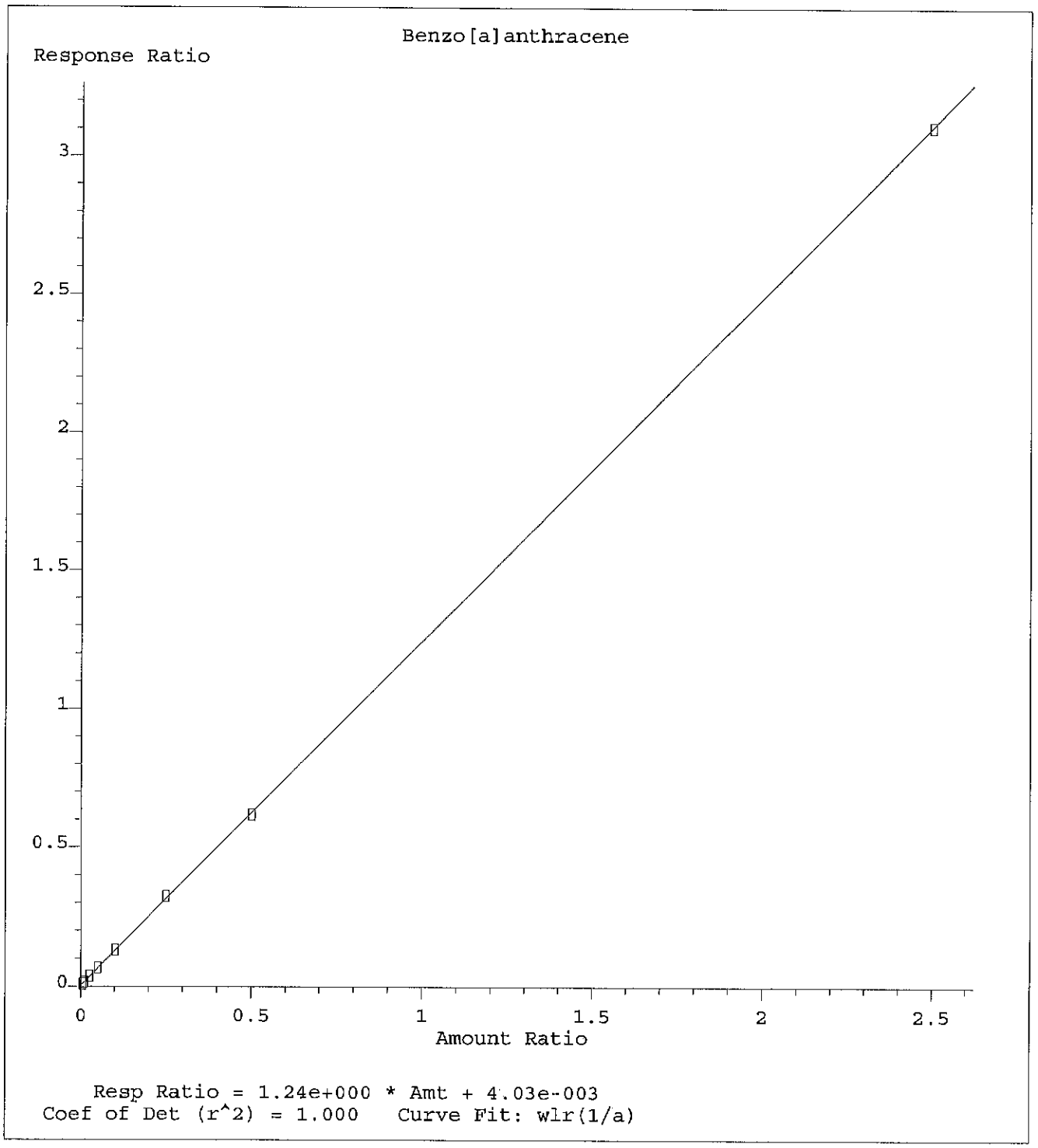
Method Path : C:\MSDCHEM\1\METHODS\
Method File : CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Wed Sep 05 11:58:51 2018
Response Via : Initial Calibration

Total Cpnds : 27

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	3.517	1.000	A	0	A	R
2	S	Nitrobenzene-d5	82	3.242	0.922	A	0	A	R
3	T	Naphthalene	128	3.535	1.005	A	0	A	R
4	T	2-Methylnaphthalene	142	4.040	1.149	A	0	A	R
5	T	1-Methylnaphthalene	142	4.106	1.167	A	0	A	R
6	I	Acenaphthene-d10	164	4.763	1.000	A	0	A	R
7	S	2-Fluorobiphenyl	172	4.321	0.907	A	0	A	R
8	T	Acenaphthylene	152	4.670	0.981	A	0	A	R
9	T	Acenaphthene	153	4.786	1.005	A	0	A	R
10	I	Phenanthrene-d10	188	5.764	1.000	A	0	A	R
11	S	Pyrene-d10	212	6.710	1.164	A	0	A	R
12	T	Fluorene	166	5.140	0.892	A	0	A	R
13	T	Phenanthrene	178	5.776	1.002	A	0	A	R
14	T	Anthracene	178	5.811	1.008	A	0	A	R
15	T	Fluoranthene	202	6.571	1.140	A	0	A	R
16	T	Pyrene	202	6.722	1.166	A	0	A	R
17	I	Chrysene-d12	240	7.667	1.000	A	0	A	R
18	S	Terphenyl-d14	244	6.867	0.896	A	0	A	R
19	T	Benzo[a]anthracene	228	7.659	0.999	L	0	A	R
20	T	Chrysene	228	7.687	1.003	A	0	A	R
21	I	Perylene-d12	264	8.998	1.000	A	0	A	R
22	T	Benzo[b]fluoranthene	252	8.643	0.961	A	0	A	R
23	T	Benzo(j,k)fluoranthene	252	8.670	0.964	A	0	A	R
24	T	Benzo[a]pyrene	252	8.939	0.993	A	0	A	R
25	T	Indeno(1,2,3-c,d)pyrene	276	9.953	1.106	A	0	A	R
26	T	Dibenz[a,h]anthracene	278	9.992	1.110	A	0	A	R
27	T	Benzo[g,h,i]perylene	276	10.168	1.130	A	0	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

CSIM0830.M Thu Sep 06 11:03:50 2018



Method Name: C:\MSDCHEM\1\METHODS\CSIM0830.M
Calibration Table Last Updated: Wed Sep 05 11:58:51 2018

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830007.D
Acq On : 30 Aug 2018 11:02 am
Operator :
Sample : 10 PPB
Misc : SV5-047-29
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 30 11:16:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	143494	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	71270	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	131245	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	119153	2000.00	ppb	-0.14
21) Perylene-d12	9.428	264	119411	2000.00	ppb	-0.16
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	4.556	172	595	9.32	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.93%#		
11) Pyrene-d10	6.983	212	613	9.66	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.97%#		
18) Terphenyl-d14	7.146	244	669	11.77	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery =	1.18%#		
Target Compounds						Qvalue
3) Naphthalene	3.780	128	745	9.82	ppb	100
4) 2-Methylnaphthalene	4.287	142	505	9.58	ppb	100
5) 1-Methylnaphthalene	4.353	142	463	9.23	ppb	100
8) Acenaphthylene	4.912	152	775	9.14	ppb	100
9) Acenaphthene	5.028	153	480	9.19	ppb	100
12) Fluorene	5.390	166	574	9.80	ppb	100
13) Phenanthrene	6.033	178	871	10.16	ppb	100
14) Anthracene	6.068	178	795	9.28	ppb	100
15) Fluoranthene	6.838	202	907	9.67	ppb	100
16) Pyrene	6.995	202	946	9.80	ppb	100
19) Benzo[a]anthracene	8.017	228	1177	7.06	ppb	100
20) Chrysene	8.044	228	801	9.63	ppb	100
22) Benzo[b]fluoranthene	9.053	252	783	9.27	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	765	9.29	ppb	100
24) Benzo[a]pyrene	9.365	252	727	9.11	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	676	9.08	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	662	8.78	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	747	9.36	ppb	100

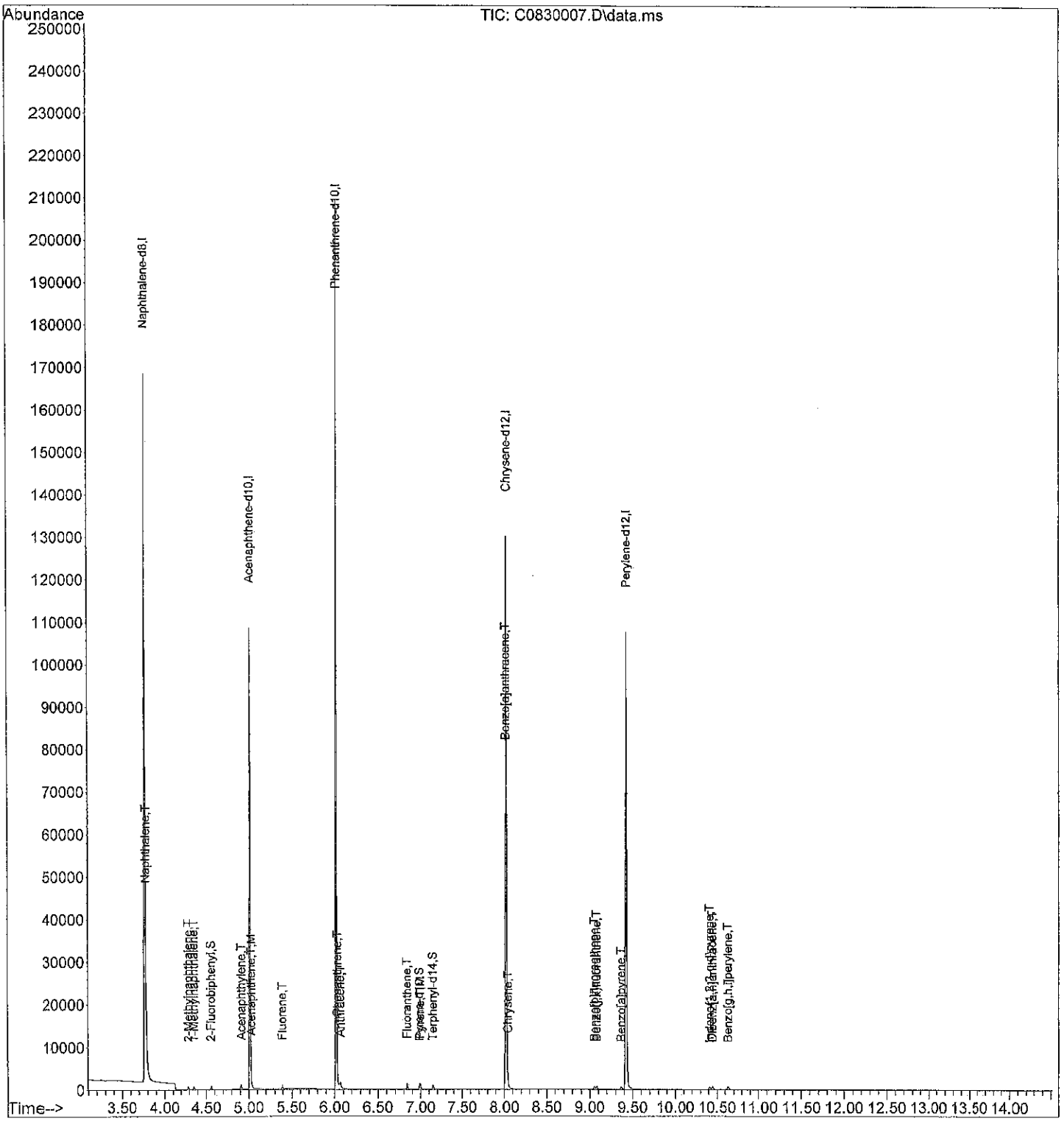
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (QT Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830007.D
Acq On : 30 Aug 2018 11:02 am
Operator :
Sample : 10 PPB
Misc : SV5-047-29
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 30 11:16:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830008.D
Acq On : 30 Aug 2018 11:23 am
Operator :
Sample : 20 PPB
Misc : SV5-047-28
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 30 11:38:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	143234	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.014	164	68528	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	130385	2000.00	ppb	-0.10
17) Chrysene-d12	8.025	240	119131	2000.00	ppb	-0.14
21) Perylene-d12	9.424	264	118529	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	608	29.74	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery =	2.97%#		
7) 2-Fluorobiphenyl	4.558	172	1128	18.39	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery =	1.84%#		
11) Pyrene-d10	6.987	212	1190	18.87	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery =	1.89%#		
18) Terphenyl-d14	7.150	244	1078	18.98	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery =	1.90%#		
Target Compounds						Qvalue
3) Naphthalene	3.782	128	1482	19.57	ppb	100
4) 2-Methylnaphthalene	4.285	142	961	18.26	ppb	100
5) 1-Methylnaphthalene	4.352	142	925	18.48	ppb	100
8) Acenaphthylene	4.906	152	1602 ~~2182~~	26.77	ppb	100
9) Acenaphthene	5.029	153	1020	20.30	ppb	100
12) Fluorene	5.391	166	1102	18.94	ppb	100
13) Phenanthrene	6.033	178	1604	18.83	ppb	100
14) Anthracene	6.068	178	1555	18.27	ppb	100
15) Fluoranthene	6.842	202	1684	18.07	ppb	100
16) Pyrene	6.999	202	1744	18.19	ppb	100
19) Benzo[a]anthracene	8.017	228	1893	15.70	ppb	100
20) Chrysene	8.044	228	1494	17.96	ppb	100
22) Benzo[b]fluoranthene	9.057	252	1437	17.13	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	1450	17.73	ppb	100
24) Benzo[a]pyrene	9.365	252	1352	17.08	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	1197	16.20	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	1237	16.53	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	1368	17.27	ppb	100

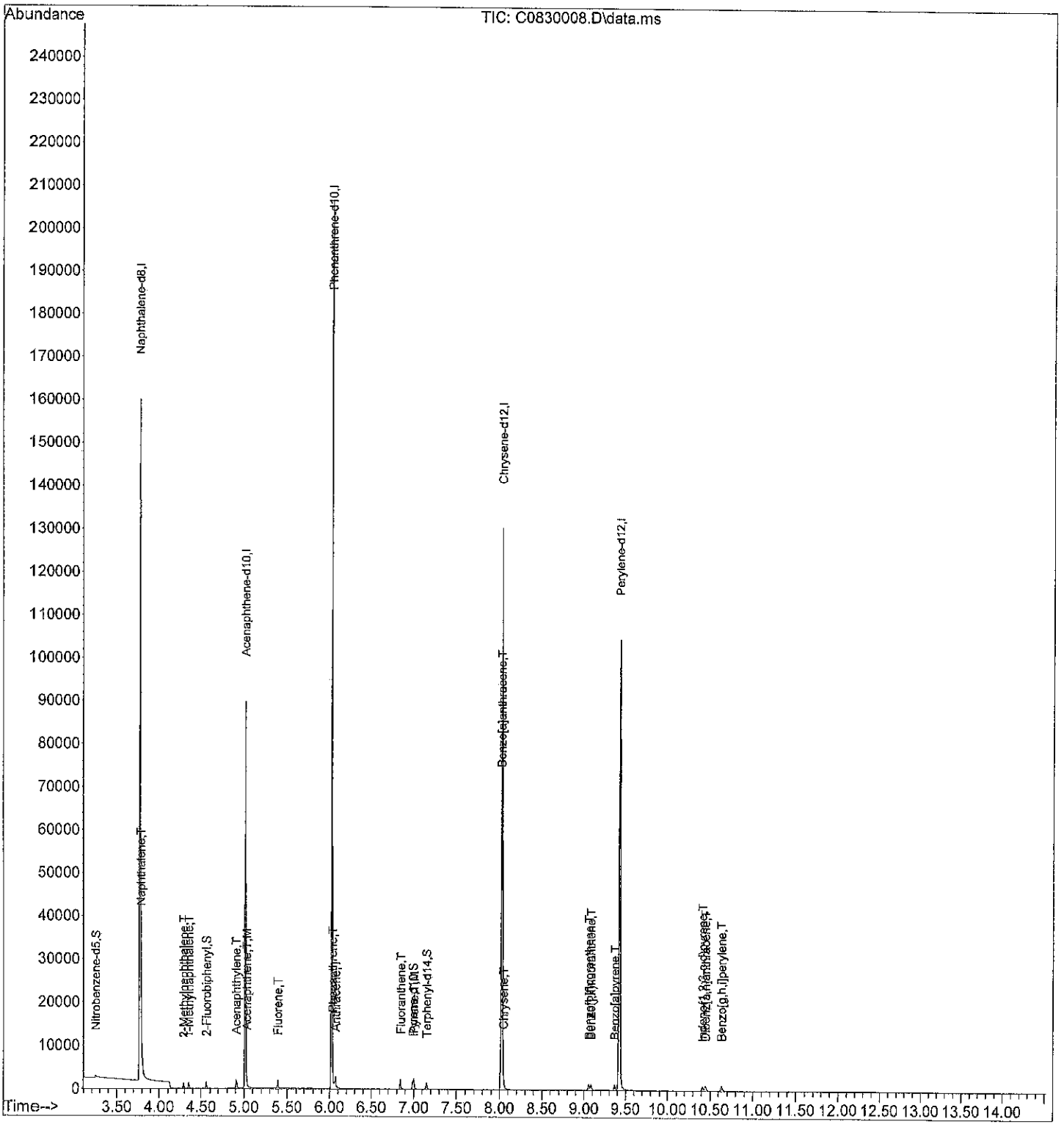
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830008.D
Acq On : 30 Aug 2018 11:23 am
Operator :
Sample : 20 PPB
Misc : SV5-047-28
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 30 11:38:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830009.D
Acq On : 30 Aug 2018 11:45 am
Operator :
Sample : 50 PPB
Misc : SV5-047-27
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 30 12:00:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	138246	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.012	164	69005	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	127889	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	117749	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	117571	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	10200	516.90	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 51.69%			
7) 2-Fluorobiphenyl	4.556	172	2926	47.36	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 4.74%#			
11) Pyrene-d10	6.988	212	3050	49.32	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 4.93%#			
18) Terphenyl-d14	7.150	244	2811	50.06	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 5.01%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	3696	50.57	ppb	100
4) 2-Methylnaphthalene	4.287	142	2482	48.87	ppb	100
5) 1-Methylnaphthalene	4.353	142	2357	48.79	ppb	100
8) Acenaphthylene	4.904	152	3763	45.84	ppb	100
9) Acenaphthene	5.028	153	2364	46.73	ppb	100
12) Fluorene	5.390	166	2807	49.20	ppb	100
13) Phenanthrene	6.032	178	4042	48.38	ppb	100
14) Anthracene	6.067	178	3964	47.48	ppb	100
15) Fluoranthene	6.843	202	4380	47.91	ppb	100
16) Pyrene	6.999	202	4490	47.74	ppb	100
19) Benzo[a]anthracene	8.016	228	4353	46.00	ppb	100
20) Chrysene	8.044	228	3888	47.30	ppb	100
22) Benzo[b]fluoranthene	9.056	252	3705	44.53	ppb	100
23) Benzo(j,k)fluoranthene	9.084	252	3810	46.98	ppb	100
24) Benzo[a]pyrene	9.364	252	3494	44.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.409	276	3121	42.60	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	3227	43.48	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	3526	44.87	ppb	100

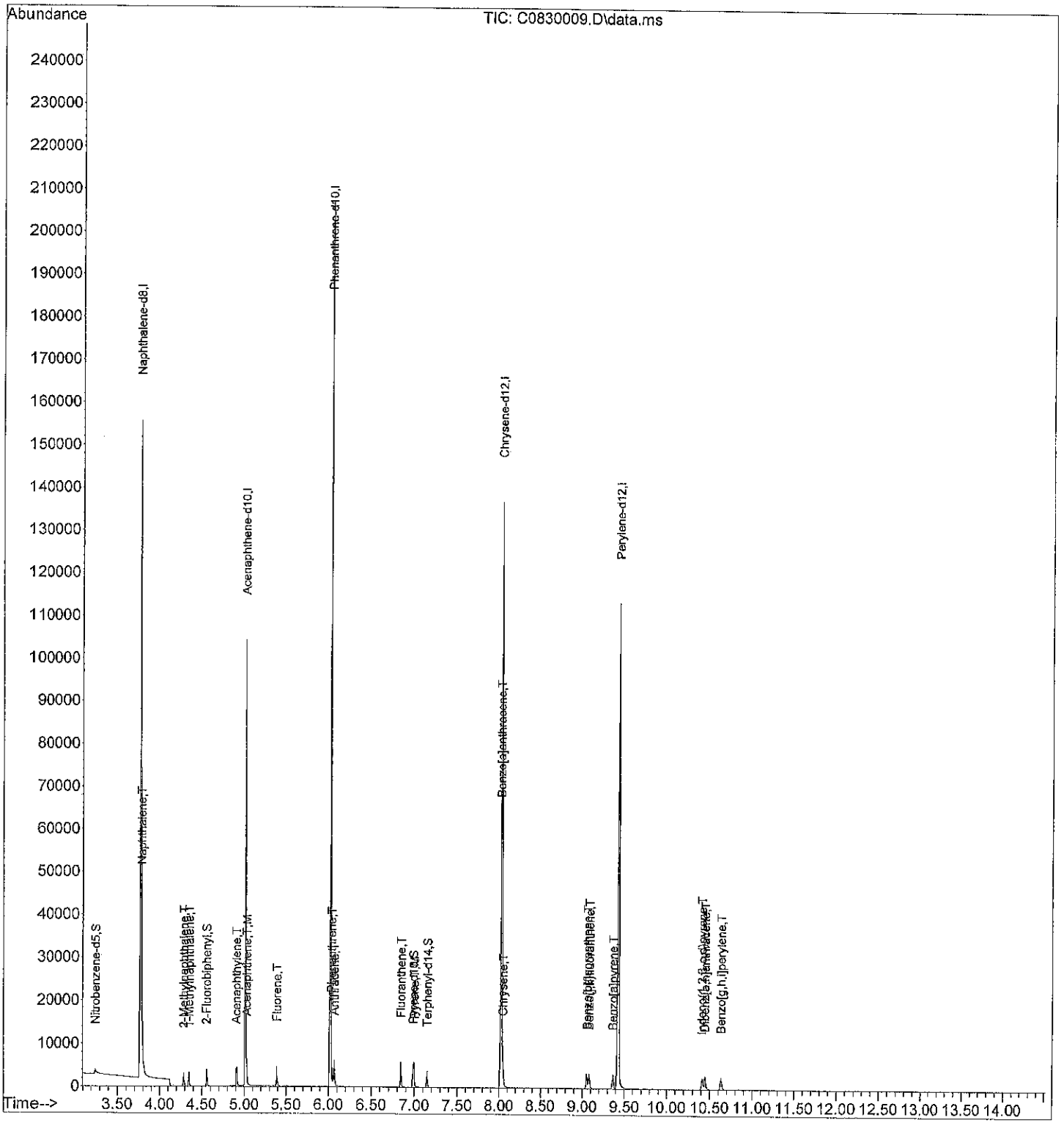
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830009.D
Acq On : 30 Aug 2018 11:45 am
Operator :
Sample : 50 PPB
Misc : SV5-047-27
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 30 12:00:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830010.D
Acq On : 30 Aug 2018 12:07 pm
Operator :
Sample : 100 PPB
Misc : SV5-047-26
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 30 12:22:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	135124	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	70294	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.020	188	127515	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	118297	2000.00	ppb	-0.14
21) Perylene-d12	9.427	264	117723	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	5045	261.57	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 26.16%			
7) 2-Fluorobiphenyl	4.556	172	5515	87.63	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 8.76%#			
11) Pyrene-d10	6.982	212	5857	94.98	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 9.50%#			
18) Terphenyl-d14	7.145	244	5188	91.97	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 9.20%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	6944	97.20	ppb	100
4) 2-Methylnaphthalene	4.287	142	4667	94.02	ppb	100
5) 1-Methylnaphthalene	4.353	142	4445	94.14	ppb	100
8) Acenaphthylene	4.905	152	7031	84.08	ppb	100
9) Acenaphthene	5.028	153	4359	84.59	ppb	100
12) Fluorene	5.390	166	5372	94.43	ppb	100
13) Phenanthrene	6.032	178	7585	91.05	ppb	100
14) Anthracene	6.067	178	7540	90.58	ppb	100
15) Fluoranthene	6.837	202	8296	91.01	ppb	100
16) Pyrene	6.994	202	8551	91.18	ppb	100
19) Benzo[a]anthracene	8.012	228	7930	89.21	ppb	100
20) Chrysene	8.044	228	7368	89.21	ppb	100
22) Benzo[b]fluoranthene	9.052	252	7170	86.07	ppb	100
23) Benzo(j,k)fluoranthene	9.079	252	7044	86.74	ppb	100
24) Benzo[a]pyrene	9.364	252	6654	84.62	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.410	276	5887	80.24	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	5930	79.80	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	6626	84.22	ppb	100

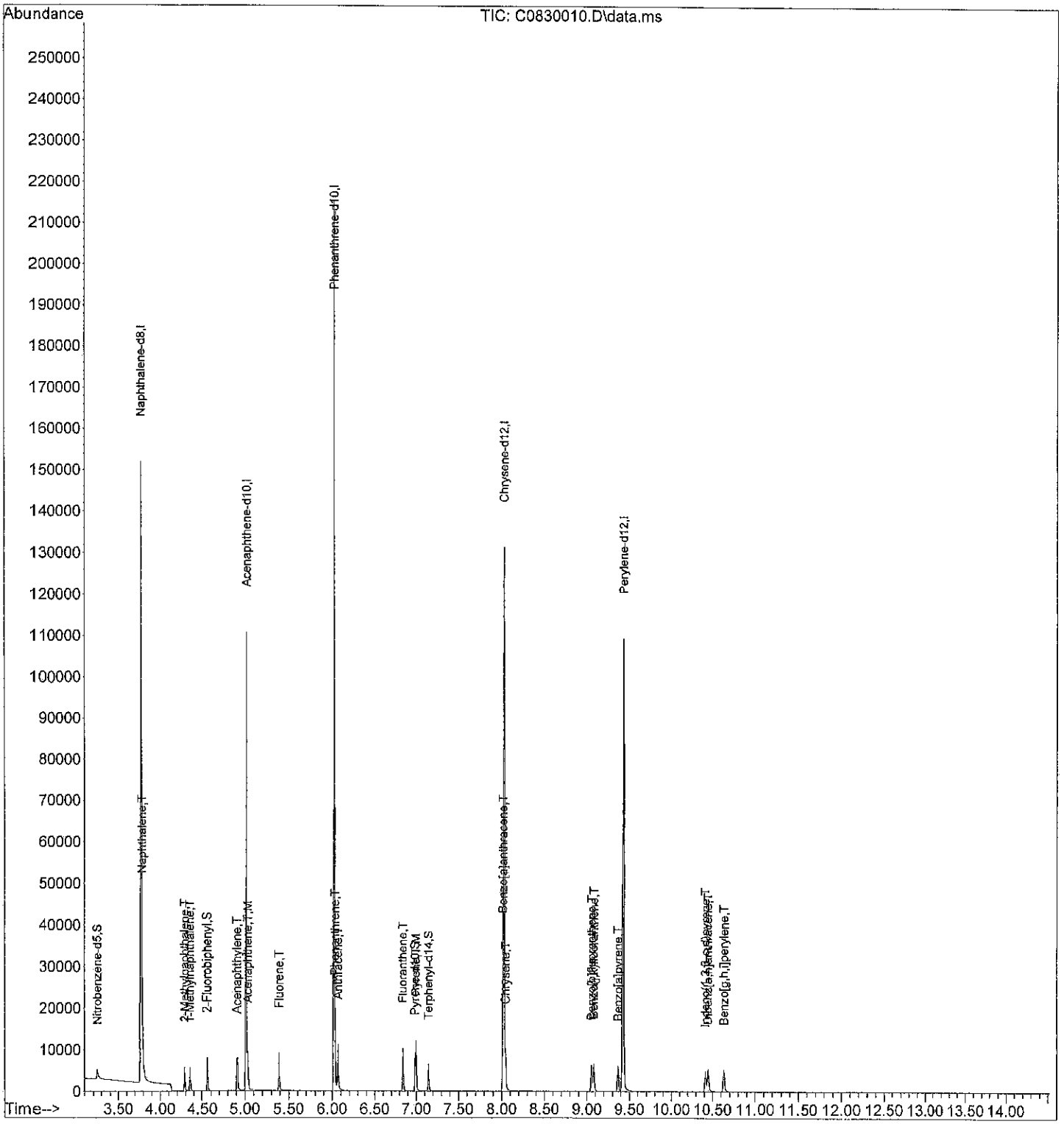
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830010.D
Acq On : 30 Aug 2018 12:07 pm
Operator :
Sample : 100 PPB
Misc : SV5-047-26
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 30 12:22:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830011.D
Acq On : 30 Aug 2018 12:29 pm
Operator :
Sample : 200 PPB
Misc : SV5-047-25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 30 12:43:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.769	136	132200	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.014	164	67339	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	125973	2000.00	ppb	-0.10
17) Chrysene-d12	8.022	240	116882	2000.00	ppb	-0.15
21) Perylene-d12	9.424	264	116674	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.247	82	16073	851.78	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 85.18%			
7) 2-Fluorobiphenyl	4.559	172	10851	179.99	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 18.00%#			
11) Pyrene-d10	6.982	212	11496	188.71	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 18.87%#			
18) Terphenyl-d14	7.150	244	10348	185.66	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 18.57%#			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	13762	196.90	ppb	100
4) 2-Methylnaphthalene	4.286	142	9235	190.17	ppb	100
5) 1-Methylnaphthalene	4.352	142	8690	188.12	ppb	100
8) Acenaphthylene	4.906	152	14265	178.08	ppb	100
9) Acenaphthene	5.029	153	8726	176.76	ppb	100
12) Fluorene	5.391	166	10198	181.45	ppb	100
13) Phenanthrene	6.033	178	14813	179.98	ppb	100
14) Anthracene	6.068	178	14898	181.16	ppb	100
15) Fluoranthene	6.843	202	16374	181.83	ppb	100
16) Pyrene	6.993	202	16866	182.04	ppb	100
19) Benzo[a]anthracene	8.014	228	15307	181.09	ppb	100
20) Chrysene	8.045	228	14771	181.02	ppb	100
22) Benzo[b]fluoranthene	9.054	252	13845	167.70	ppb	100
23) Benzo(j,k)fluoranthene	9.081	252	14636	181.86	ppb	100
24) Benzo[a]pyrene	9.362	252	13209	169.49	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	11896	163.60	ppb	100
26) Dibenz[a,h]anthracene	10.445	278	12332	167.45	ppb	100
27) Benzo[g,h,i]perylene	10.633	276	13262	170.08	ppb	100

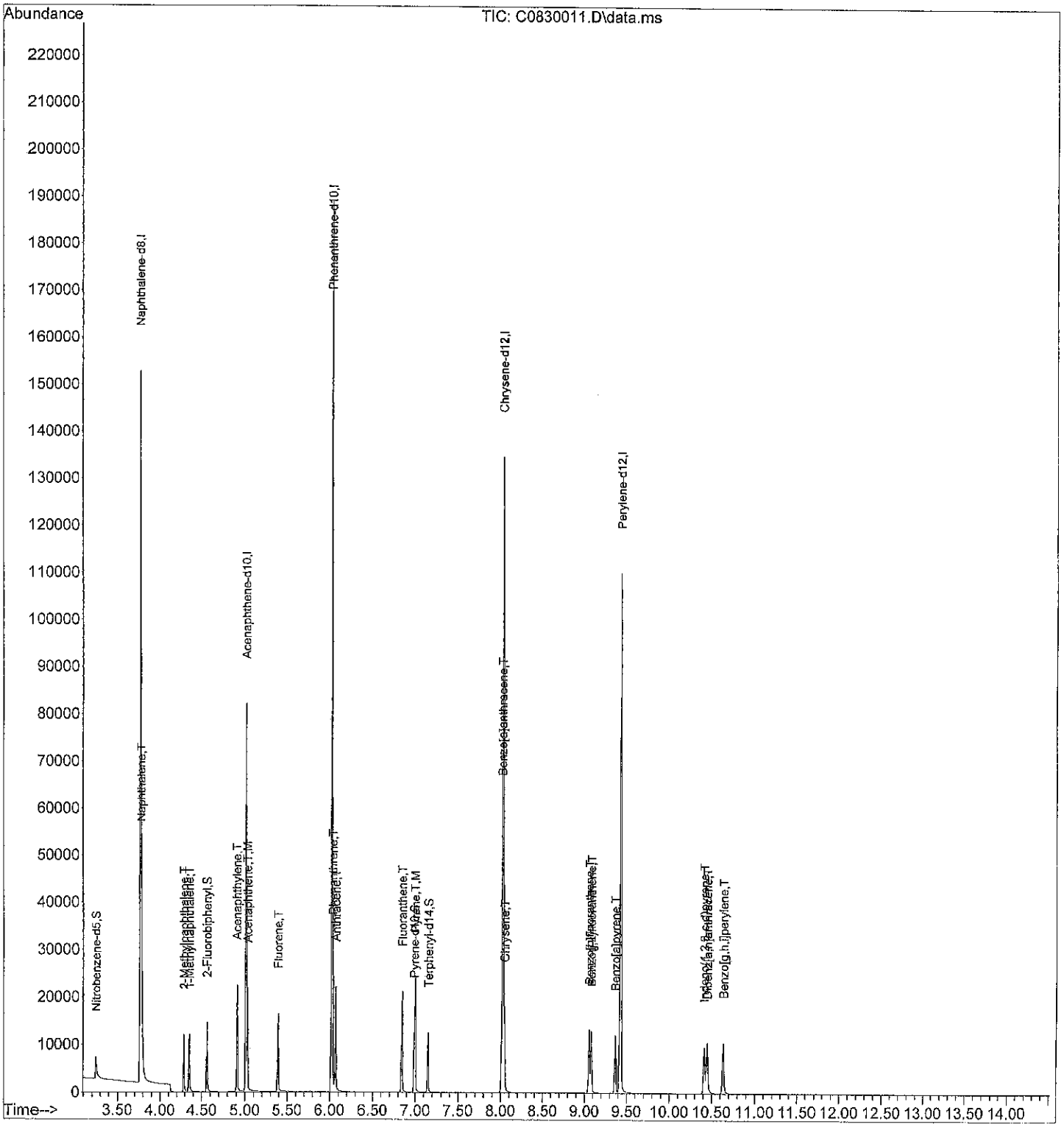
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
F-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830011.D
Acq On : 30 Aug 2018 12:29 pm
Operator :
Sample : 200 PPB
Misc : SV5-047-25
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 30 12:43:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830012.D
Acq On : 30 Aug 2018 12:51 pm
Operator :
Sample : 500 PPB
Misc : SV5-047-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 30 13:05:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	130439	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	65226	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.021	188	121626	2000.00	ppb	-0.10
17) Chrysene-d12	8.024	240	113679	2000.00	ppb	-0.14
21) Perylene-d12	9.423	264	112904	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	22027	1183.07	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 118.31%#			
7) 2-Fluorobiphenyl	4.556	172	26186	448.42	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 44.84%			
11) Pyrene-d10	6.982	212	28370	482.35	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 48.23%			
18) Terphenyl-d14	7.145	244	25502	470.45	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 47.04%			
Target Compounds						Qvalue
3) Naphthalene	3.780	128	33788	489.94	ppb	100
4) 2-Methylnaphthalene	4.286	142	22400	467.49	ppb	100
5) 1-Methylnaphthalene	4.353	142	21356	468.55	ppb	100
8) Acenaphthylene	4.905	152	34044	438.77	ppb	100
9) Acenaphthene	5.029	153	21490	449.42	ppb	100
12) Fluorene	5.391	166	25138	463.26	ppb	100
13) Phenanthrene	6.032	178	35602	448.03	ppb	100
14) Anthracene	6.068	178	36505	459.77	ppb	100
15) Fluoranthene	6.837	202	39718	456.83	ppb	100
16) Pyrene	6.994	202	41312	461.83	ppb	100
19) Benzo[a]anthracene	8.012	228	36775	457.80	ppb	100
20) Chrysene	8.044	228	36399	458.63	ppb	100
22) Benzo[b]fluoranthene	9.053	252	36118	452.08	ppb	100
23) Benzo(j,k)fluoranthene	9.080	252	34331	440.82	ppb	100
24) Benzo[a]pyrene	9.365	252	33067	438.45	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.406	276	29897	424.90	ppb	100
26) Dibenz[a,h]anthracene	10.441	278	30851	432.90	ppb	100
27) Benzo[g,h,i]perylene	10.632	276	32845	435.28	ppb	100

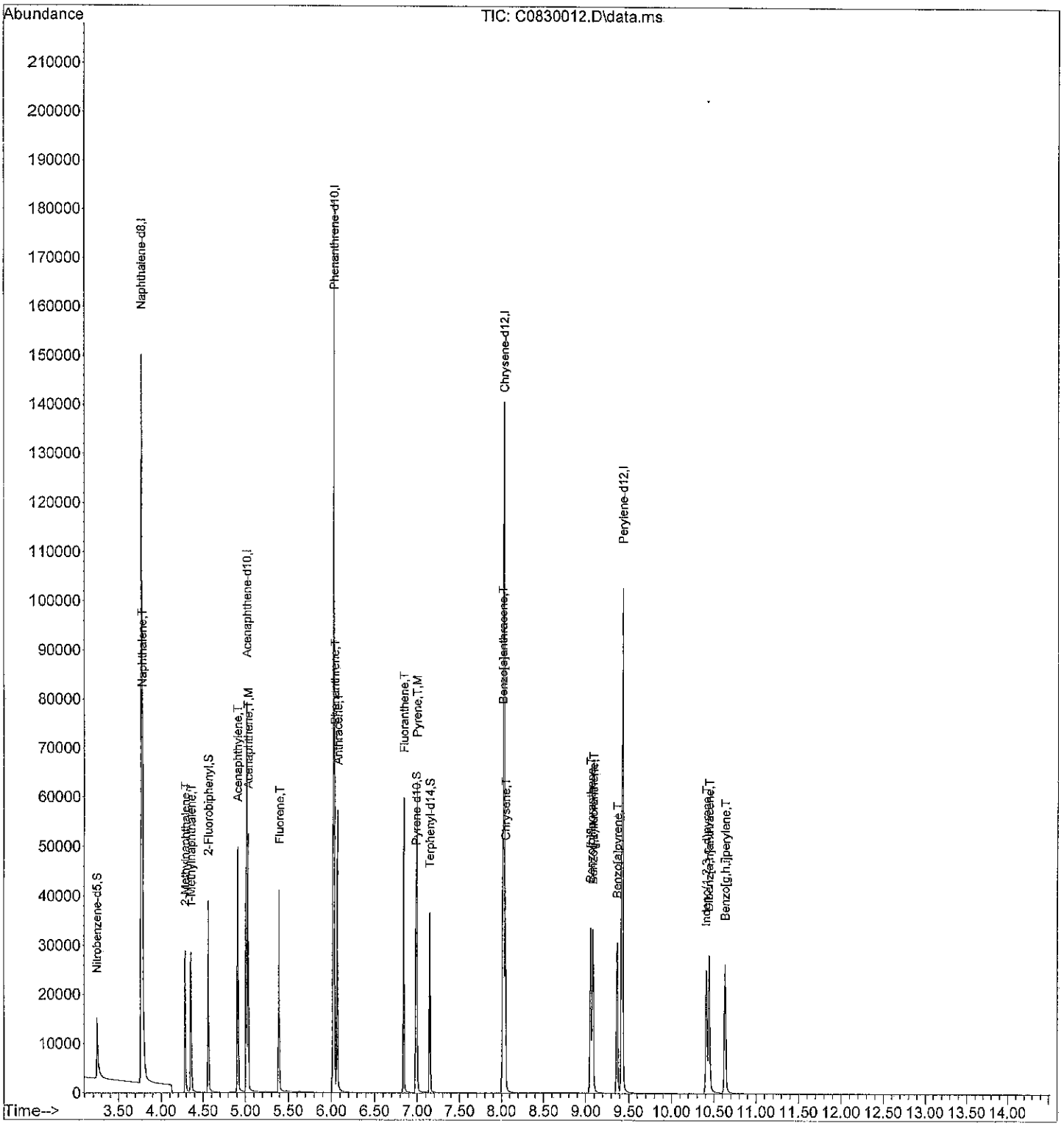
(#) = qualifier out of range (m) = manual integration (+) = signals summed

2T
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830012.D
Acq On : 30 Aug 2018 12:51 pm
Operator :
Sample : 500 PPB
Misc : SV5-047-24
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 30 13:05:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830013.D
Acq On : 30 Aug 2018 1:12 pm
Operator :
Sample : 1000 PPB
Misc : SV5-047-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 30 13:27:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.768	136	132708	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.006	164	66236	2000.00	ppb	-0.11
10) Phenanthrene-d10	6.018	188	125299	2000.00	ppb	-0.11
17) Chrysene-d12	8.025	240	120159	2000.00	ppb	-0.14
21) Perylene-d12	9.426	264	119904	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.245	82	21534	1136.81	ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 113.68%#			
7) 2-Fluorobiphenyl	4.555	172	51176	862.99	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 86.30%			
11) Pyrene-d10	6.988	212	56678	935.40	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 93.54%			
18) Terphenyl-d14	7.150	244	52571	917.51	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 91.75%			
Target Compounds						Qvalue
3) Naphthalene	3.779	128	68555	977.08	ppb	100
4) 2-Methylnaphthalene	4.286	142	44071	904.04	ppb	100
5) 1-Methylnaphthalene	4.352	142	41504	895.03	ppb	100
8) Acenaphthylene	4.906	152	66528	844.35	ppb	100
9) Acenaphthene	5.029	153	42206	869.20	ppb	100
12) Fluorene	5.391	166	49043	877.30	ppb	100
13) Phenanthrene	6.033	178	70504	861.25	ppb	100
14) Anthracene	6.068	178	72184	882.48	ppb	100
15) Fluoranthene	6.842	202	79763	890.52	ppb	100
16) Pyrene	6.999	202	82000	889.82	ppb	100
19) Benzo[a]anthracene	8.014	228	74306	881.63	ppb	100
20) Chrysene	8.045	228	72713	866.78	ppb	100
22) Benzo[b]fluoranthene	9.055	252	71862	846.97	ppb	100
23) Benzo(j,k)fluoranthene	9.083	252	72961	882.15	ppb	100
24) Benzo[a]pyrene	9.364	252	68252	852.16	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.409	276	61324	820.66	ppb	100
26) Dibenz[a,h]anthracene	10.444	278	64245	848.85	ppb	100
27) Benzo[g,h,i]perylene	10.635	276	67895	847.26	ppb	100

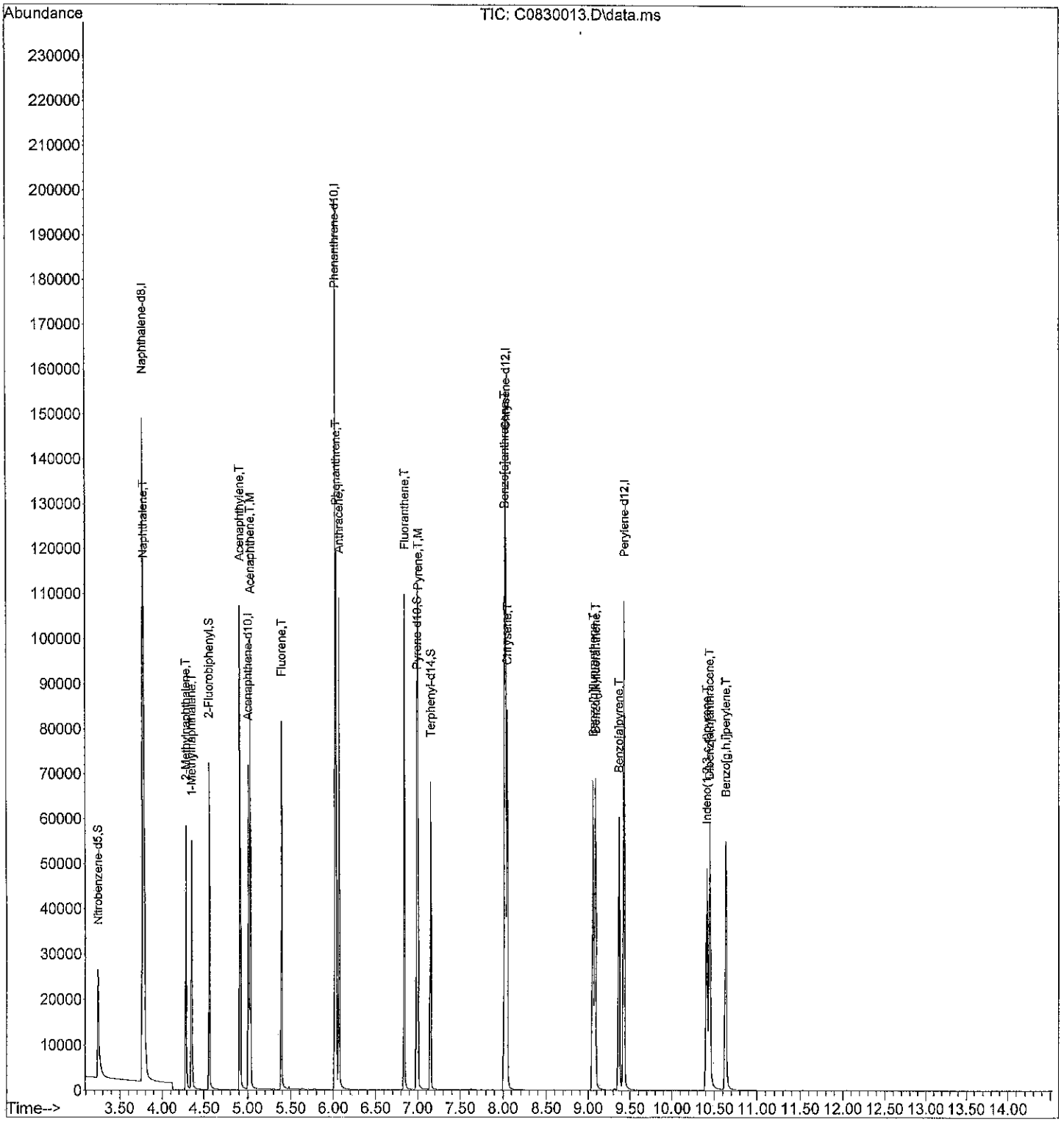
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830013.D
Acq On : 30 Aug 2018 1:12 pm
Operator :
Sample : 1000 PPB
Misc : SV5-047-23
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 30 13:27:24 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830014.D
Acq On : 30 Aug 2018 1:34 pm
Operator :
Sample : 5000 PPB
Misc : SV5-047-22
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 30 13:49:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8	3.768	136	131768	2000.00 ppb	-0.10
6) Acenaphthene-d10	5.012	164	66604	2000.00 ppb	-0.10
10) Phenanthrene-d10	6.021	188	125823	2000.00 ppb	-0.10
17) Chrysene-d12	8.028	240	121605	2000.00 ppb	-0.14
21) Perylene-d12	9.427	264	120485	2000.00 ppb	-0.17
System Monitoring Compounds					
2) Nitrobenzene-d5	3.246	82	103211	5487.55 ppb	-0.10
Spiked Amount 1000.000	Range 24 - 92		Recovery = 548.76%#		
7) 2-Fluorobiphenyl	4.559	172	277320	4650.68 ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 465.07%#		
11) Pyrene-d10	6.988	212	283127	4653.19 ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 465.32%#		
18) Terphenyl-d14	7.151	244	252328	4351.44 ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 435.14%#		
Target Compounds					Qvalue
3) Naphthalene	3.780	128	332467	4772.28 ppb	100
4) 2-Methylnaphthalene	4.286	142	223347	4614.25 ppb	100
5) 1-Methylnaphthalene	4.353	142	207101	4497.97 ppb	100
8) Acenaphthylene	4.912	152	329663	4160.87 ppb	100
9) Acenaphthene	5.035	153	202518	4147.67 ppb	100
12) Fluorene	5.390	166	232399	4139.92 ppb	100
13) Phenanthrene	6.036	178	347300	4224.80 ppb	100
14) Anthracene	6.071	178	360262	4386.03 ppb	100
15) Fluoranthene	6.843	202	387985	4313.64 ppb	100
16) Pyrene	7.000	202	404617	4372.40 ppb	100
19) Benzo[a]anthracene	8.016	228	377967	4459.92 ppb	100
20) Chrysene	8.051	228	359123	4230.05 ppb	100
22) Benzo[b]fluoranthene	9.064	252	369064	4328.86 ppb	100
23) Benzo(j,k)fluoranthene	9.091	252	368166	4429.91 ppb	100
24) Benzo[a]pyrene	9.372	252	355926	4422.47 ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.425	276	329785	4392.02 ppb	100
26) Dibenz[a,h]anthracene	10.456	278	339612	4465.53 ppb	100
27) Benzo[g,h,i]perylene	10.651	276	345182	4286.76 ppb	100

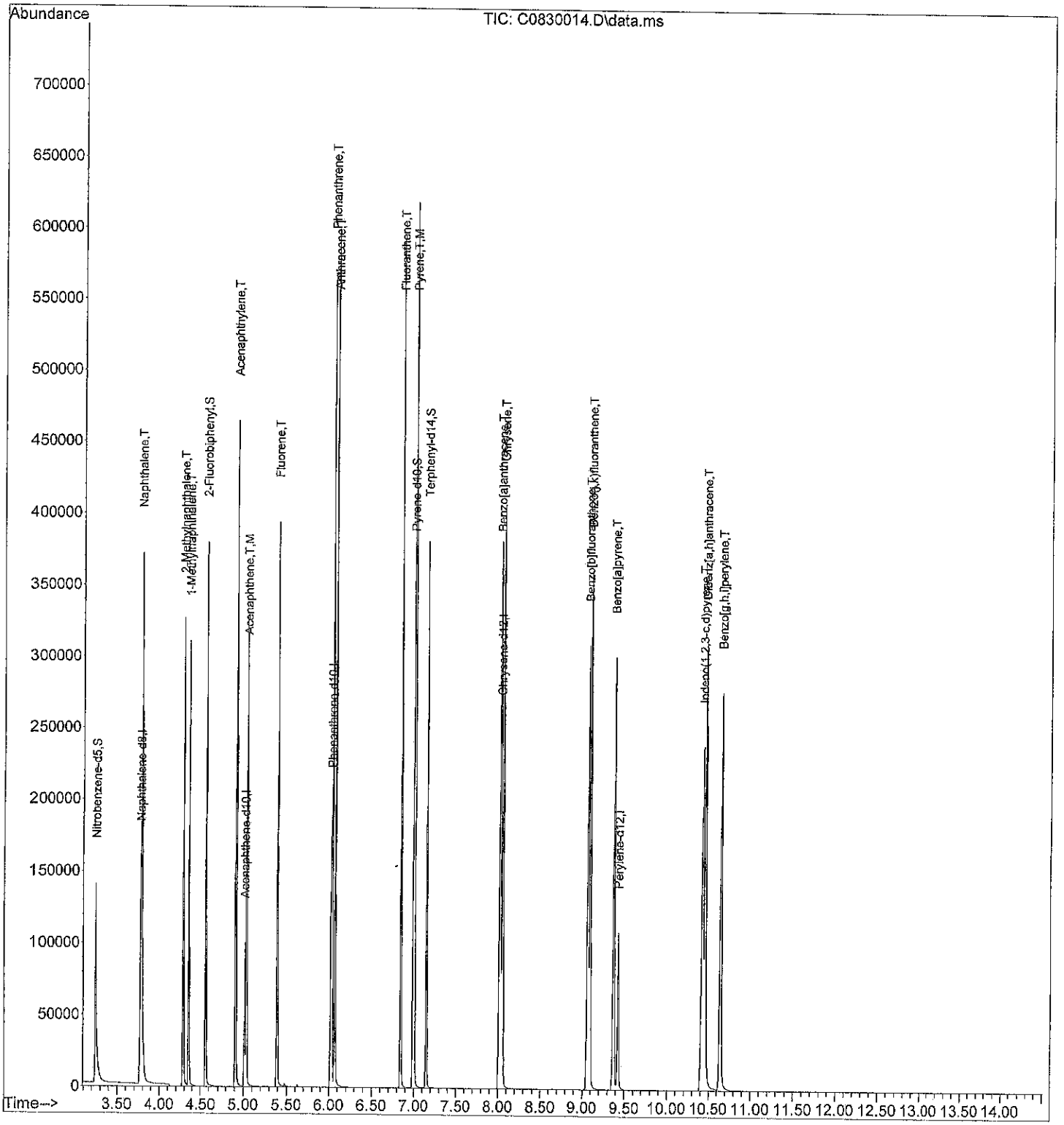
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
8-30-18

Quantitation Report (Not Reviewed)

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830014.D
Acq On : 30 Aug 2018 1:34 pm
Operator :
Sample : 5000 PPB
Misc : SV5-047-22
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 30 13:49:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Aug 22 14:19:05 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	93	0.00
2	S	Nitrobenzene-d5	500.000	385.568	22.9#	101	0.00
3	T	Naphthalene	500.000	510.997	-2.2	95	0.00
4	T	2-Methylnaphthalene	500.000	494.756	1.0	92	0.00
5	T	1-Methylnaphthalene	500.000	523.905	-4.8	97	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	93	0.00
7	S	2-Fluorobiphenyl	500.000	561.866	-12.4	106	0.00
8	T	Acenaphthylene	500.000	502.317	-0.5	95	0.00
9	T,M	Acenaphthene	500.000	498.060	0.4	93	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	94	0.00
11	S	Pyrene-d10	500.000	521.177	-4.2	97	0.00
12	T	Fluorene	500.000	511.134	-2.2	96	0.00
13	T	Phenanthrene	500.000	484.729	3.1	93	0.00
14	T	Anthracene	500.000	489.372	2.1	91	0.00
15	T	Fluoranthene	500.000	498.236	0.4	94	0.00
16	T,M	Pyrene	500.000	526.531	-5.3	99	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	95	0.00
18	S	Terphenyl-d14	500.000	509.840	-2.0	99	0.00
19	T	Benzo[a]anthracene	500.000	502.185	-0.4	93	0.00
20	T	Chrysene	500.000	478.109	4.4	90	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	96	0.00
22	T	Benzo[b]fluoranthene	500.000	486.610	2.7	90	0.00
23	T	Benzo(j,k)fluoranthene	500.000	507.827	-1.6	99	0.00
24	T	Benzo[a]pyrene	500.000	466.208	6.8	88	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	491.991	1.6	93	0.00
26	T	Dibenz[a,h]anthracene	500.000	504.959	-1.0	95	0.00
27	T	Benzo[g,h,i]perylene	500.000	500.739	-0.1	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.770	136	121192	2000.00	ppb	-0.10
6) Acenaphthene-d10	5.013	164	60983	2000.00	ppb	-0.10
10) Phenanthrene-d10	6.017	188	114380	2000.00	ppb	-0.11
17) Chrysene-d12	8.021	240	108137	2000.00	ppb	-0.15
21) Perylene-d12	9.424	264	107919	2000.00	ppb	-0.17
System Monitoring Compounds						
2) Nitrobenzene-d5	3.242	82	22201	385.57	ppb	-0.11
Spiked Amount 1000.000	Range 24 - 92		Recovery = 38.56%			
7) 2-Fluorobiphenyl	4.558	172	27859	561.87	ppb	-0.10
Spiked Amount 1000.000	Range 25 - 89		Recovery = 56.19%			
11) Pyrene-d10	6.987	212	27458	521.18	ppb	-0.12
Spiked Amount 1000.000	Range 40 - 110		Recovery = 52.12%			
18) Terphenyl-d14	7.150	244	25318	509.84	ppb	-0.12
Spiked Amount 1000.000	Range 39 - 92		Recovery = 50.98%			
Target Compounds						Qvalue
3) Naphthalene	3.781	128	32086	511.00	ppb	100
4) 2-Methylnaphthalene	4.285	142	20654	494.76	ppb	100
5) 1-Methylnaphthalene	4.352	142	20625	523.90	ppb	100
8) Acenaphthylene	4.905	152	32335	502.32	ppb	100
9) Acenaphthene	5.028	153	20028	498.06	ppb	100
12) Fluorene	5.391	166	24110	511.13	ppb	100
13) Phenanthrene	6.033	178	33223	484.73	ppb	100
14) Anthracene	6.068	178	33260	489.37	ppb	100
15) Fluoranthene	6.842	202	37247	498.24	ppb	100
16) Pyrene	6.999	202	40717	526.53	ppb	100
19) Benzo[a]anthracene	8.014	228	34207	502.19	ppb	100
20) Chrysene	8.045	228	32640	478.11	ppb	100
22) Benzo[b]fluoranthene	9.053	252	32469	486.61	ppb	100
23) Benzo(j,k)fluoranthene	9.081	252	33936	507.83	ppb	100
24) Benzo[a]pyrene	9.362	252	29248	466.21	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.407	276	27877	491.99	ppb	100
26) Dibenz[a,h]anthracene	10.442	278	29314	504.96	ppb	100
27) Benzo[g,h,i]perylene	10.629	276	31442	500.74	ppb	100

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

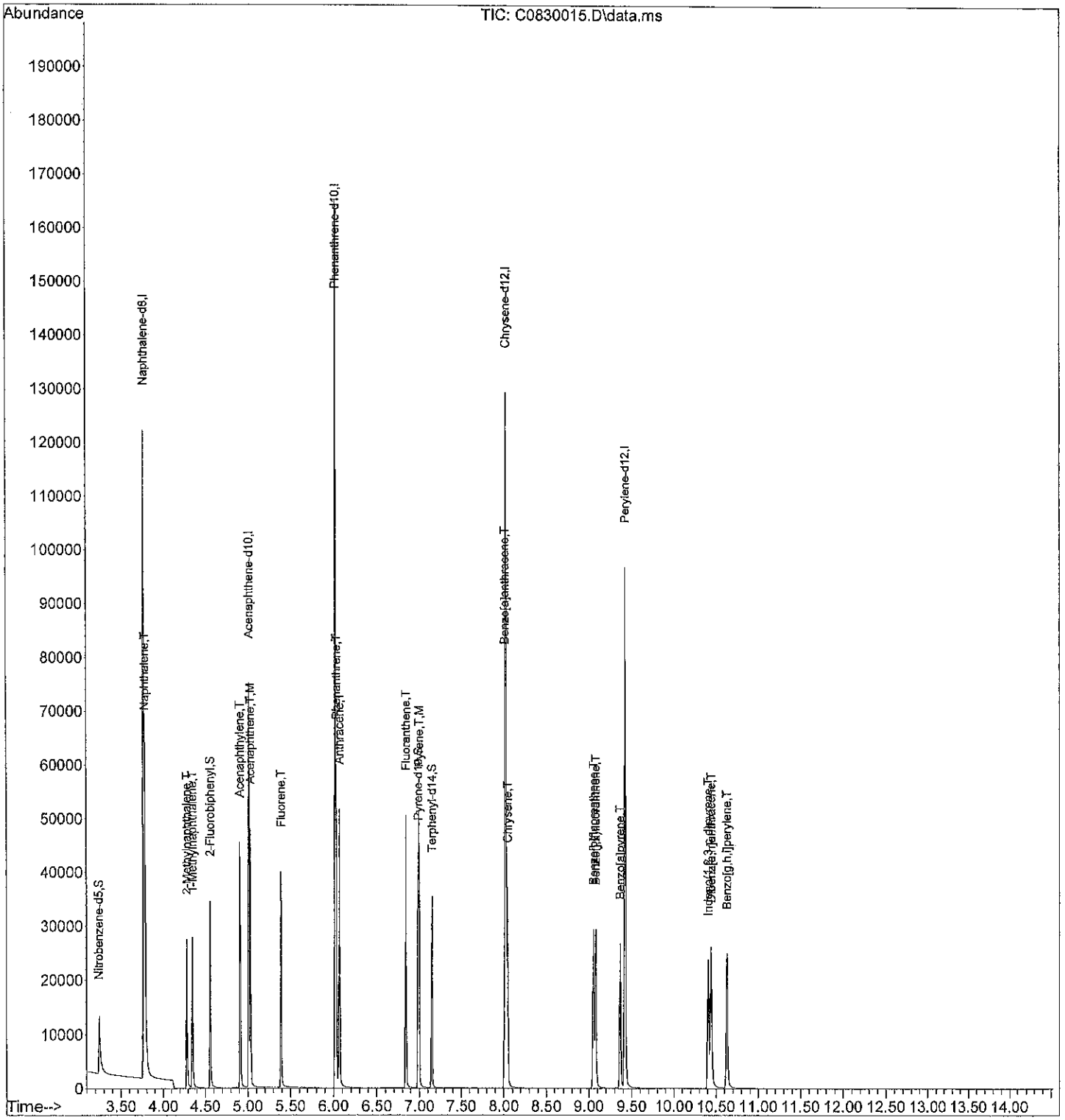
ZT

8-30-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830015.D
Acq On : 30 Aug 2018 2:20 pm
Operator :
Sample : PAH ICV
Misc : SV5-052-26
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 30 14:34:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Thu Aug 30 14:26:23 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C180904\
Data File : C0904002.D
Acq On : 4 Sep 2018 11:30 am
Operator :
Sample : PAH CCV0904-1
Misc : SV5-053-06
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 11:44:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	96	-0.05
2	S	Nitrobenzene-d5	500.000	0.000	100.0#	0	-3.24#
3	T	Naphthalene	500.000	513.334	-2.7	99	-0.05
4	T	2-Methylnaphthalene	500.000	527.283	-5.5	102	-0.04
5	T	1-Methylnaphthalene	500.000	529.817	-6.0	101	-0.04
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	101	-0.05
7	S	2-Fluorobiphenyl	500.000	500.974	-0.2	103	-0.05
8	T	Acenaphthylene	500.000	475.820	4.8	97	-0.05
9	T,M	Acenaphthene	500.000	487.548	2.5	99	-0.04
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	101	-0.05
11	S	Pyrene-d10	500.000	516.271	-3.3	103	-0.05
12	T	Fluorene	500.000	501.890	-0.4	101	-0.05
13	T	Phenanthrene	500.000	502.284	-0.5	104	-0.05
14	T	Anthracene	500.000	501.245	-0.2	101	-0.05
15	T	Fluoranthene	500.000	520.293	-4.1	105	-0.05
16	T,M	Pyrene	500.000	520.640	-4.1	105	-0.05
17	I	Chrysene-d12	2000.000	2000.000	0.0	104	-0.07
18	S	Terphenyl-d14	500.000	507.024	-1.4	108	-0.05
19	T	Benzo[a]anthracene	500.000	502.143	-0.4	102	-0.07
20	T	Chrysene	500.000	501.916	-0.4	103	-0.07
21	I	Perylene-d12	2000.000	2000.000	0.0	95	-0.07
22	T	Benzo[b]fluoranthene	500.000	536.734	-7.3	99	-0.07
23	T	Benzo(j,k)fluoranthene	500.000	543.023	-8.6	105	-0.07
24	T	Benzo[a]pyrene	500.000	487.347	2.5	92	-0.08
25	T	Indeno(1,2,3-c,d)pyrene	500.000	466.429	6.7	88	-0.09
26	T	Dibenz[a,h]anthracene	500.000	455.862	8.8	85	-0.09
27	T	Benzo[g,h,i]perylene	500.000	476.017	4.8	91	-0.09

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904002.D
Acq On : 4 Sep 2018 11:30 am
Operator :
Sample : PAH CCV0904-1
Misc : SV5-053-06
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 11:44:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.582	136	125592	2000.00	ppb	-0.05
6) Acenaphthene-d10	4.824	164	65906	2000.00	ppb	-0.05
10) Phenanthrene-d10	5.827	188	123217	2000.00	ppb	-0.05
17) Chrysene-d12	7.749	240	118560	2000.00	ppb	-0.07
21) Perylene-d12	9.099	264	107357	2000.00	ppb	-0.07
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.00%#			
7) 2-Fluorobiphenyl	4.376	172	26845	500.97	ppb	-0.05
Spiked Amount 1000.000	Range 25 - 89		Recovery = 50.10%			
11) Pyrene-d10	6.773	212	29301	516.27	ppb	-0.05
Spiked Amount 1000.000	Range 40 - 110		Recovery = 51.63%			
18) Terphenyl-d14	6.930	244	27605	507.02	ppb	-0.05
Spiked Amount 1000.000	Range 39 - 92		Recovery = 50.70%			
Target Compounds						Qvalue
3) Naphthalene	3.593	128	33403	513.33	ppb	100
4) 2-Methylnaphthalene	4.103	142	22811	527.28	ppb	100
5) 1-Methylnaphthalene	4.170	142	21615	529.82	ppb	100
8) Acenaphthylene	4.724	152	33102	475.82	ppb	100
9) Acenaphthene	4.847	153	21188	487.55	ppb	100
12) Fluorene	5.202	166	25503	501.89	ppb	100
13) Phenanthrene	5.838	178	37086	502.28	ppb	100
14) Anthracene	5.873	178	36699	501.25	ppb	100
15) Fluoranthene	6.634	202	41901	520.29	ppb	100
16) Pyrene	6.785	202	43372	520.64	ppb	100
19) Benzo[a]anthracene	7.741	228	37501	502.14	ppb	100
20) Chrysene	7.769	228	37568	501.92	ppb	100
22) Benzo[b]fluoranthene	8.740	252	35627	536.73	ppb	100
23) Benzo(j,k)fluoranthene	8.768	252	36099	543.02	ppb	100
24) Benzo[a]pyrene	9.037	252	30415	487.35	ppb	100
25) Indeno(1,2,3-c,d)pyrene	10.059	276	26291	466.43	ppb	100
26) Dibenz[a,h]anthracene	10.098	278	26326	455.86	ppb	100
27) Benzo[g,h,i]perylene	10.277	276	29734	476.02	ppb	100

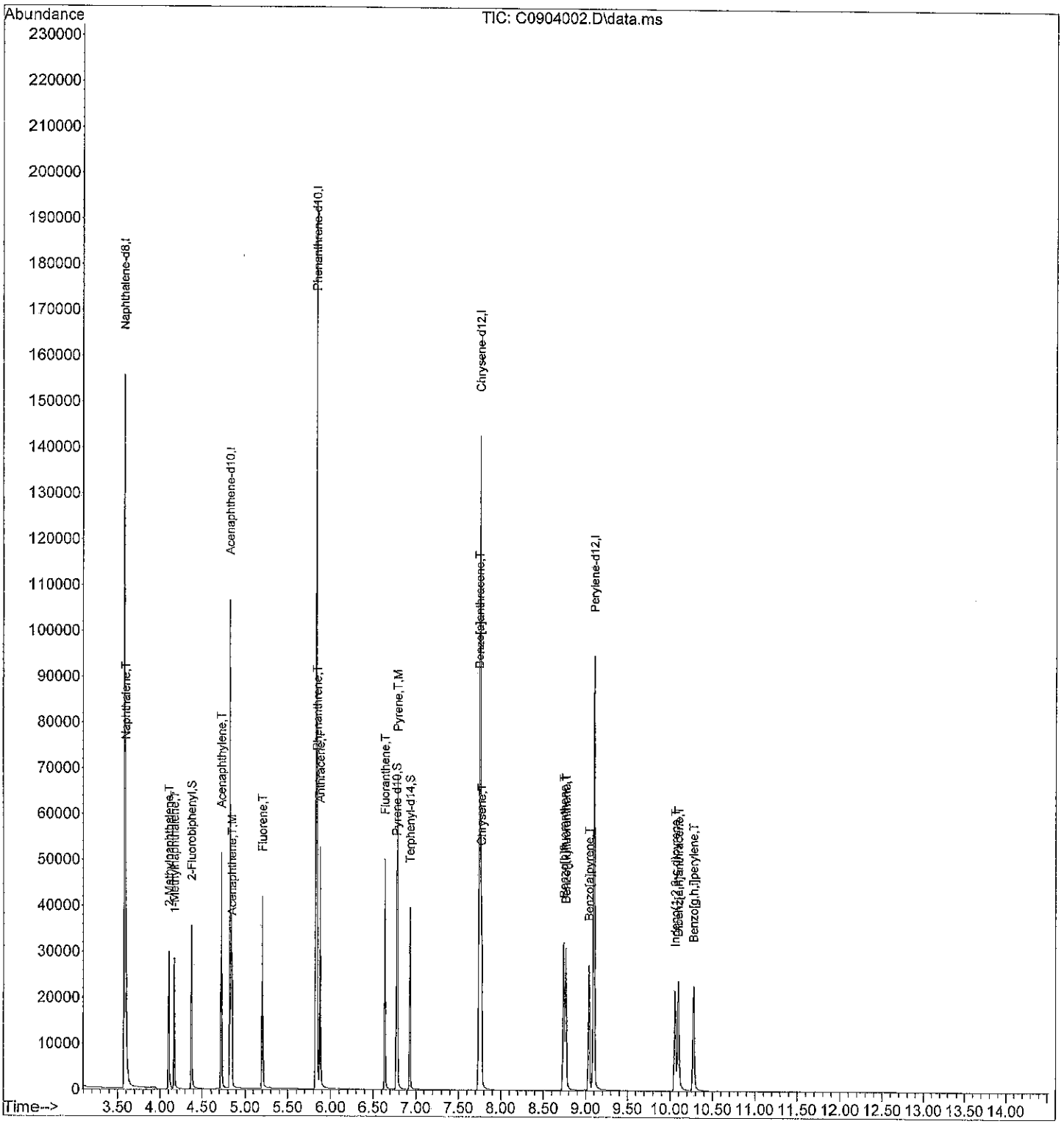
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ET
9-4-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904002.D
Acq On : 4 Sep 2018 11:30 am
Operator :
Sample : PAH CCV0904-1
Misc : SV5-053-06
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 11:44:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Sat Sep 01 21:10:10 2018
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\SEMIVOLS\COREY\DATA\C180905\
Data File : C0905003.D
Acq On : 5 Sep 2018 12:05 pm
Operator :
Sample : PAH CCV0905-2
Misc : SV5-053-08
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 05 12:19:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	2000.000	2000.000	0.0	86	0.00
2	S	Nitrobenzene-d5	500.000	0.000	100.0#	0	-3.24#
3	T	Naphthalene	500.000	507.076	-1.4	87	0.00
4	T	2-Methylnaphthalene	500.000	503.347	-0.7	86	0.00
5	T	1-Methylnaphthalene	500.000	508.869	-1.8	86	0.00
6	I	Acenaphthene-d10	2000.000	2000.000	0.0	92	0.00
7	S	2-Fluorobiphenyl	500.000	534.160	-6.8	100	0.00
8	T	Acenaphthylene	500.000	473.158	5.4	88	-0.01
9	T,M	Acenaphthene	500.000	486.012	2.8	90	0.00
10	I	Phenanthrene-d10	2000.000	2000.000	0.0	98	0.00
11	S	Pyrene-d10	500.000	484.056	3.2	93	0.00
12	T	Fluorene	500.000	464.747	7.1	91	0.00
13	T	Phenanthrene	500.000	474.310	5.1	95	0.00
14	T	Anthracene	500.000	462.314	7.5	89	0.00
15	T	Fluoranthene	500.000	497.494	0.5	97	0.00
16	T,M	Pyrene	500.000	490.653	1.9	95	0.00
17	I	Chrysene-d12	2000.000	2000.000	0.0	102	0.01
18	S	Terphenyl-d14	500.000	492.795	1.4	103	0.00
19	T	Benzo[a]anthracene	500.000	480.991	3.8	95	0.00
20	T	Chrysene	500.000	469.437	6.1	94	0.00
21	I	Perylene-d12	2000.000	2000.000	0.0	101	0.00
22	T	Benzo[b]fluoranthene	500.000	482.644	3.5	95	0.00
23	T	Benzo(j,k)fluoranthene	500.000	471.440	5.7	97	0.00
24	T	Benzo[a]pyrene	500.000	466.414	6.7	94	0.00
25	T	Indeno(1,2,3-c,d)pyrene	500.000	474.108	5.2	95	0.00
26	T	Dibenz[a,h]anthracene	500.000	451.017	9.8	90	0.00
27	T	Benzo[g,h,i]perylene	500.000	459.693	8.1	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905003.D
Acq On : 5 Sep 2018 12:05 pm
Operator :
Sample : PAH CCV0905-2
Misc : SV5-053-08
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 05 12:19:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.518	136	111597	2000.00	ppb	0.00
6) Acenaphthene-d10	4.767	164	60142	2000.00	ppb	0.00
10) Phenanthrene-d10	5.766	188	118810	2000.00	ppb	0.00
17) Chrysene-d12	7.678	240	115682	2000.00	ppb	0.01
21) Perylene-d12	9.001	264	114392	2000.00	ppb	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery = 0.00%#			
7) 2-Fluorobiphenyl	4.320	172	26120	534.16	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery = 53.42%			
11) Pyrene-d10	6.714	212	26490	484.06	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery = 48.41%			
18) Terphenyl-d14	6.876	244	26179	492.79	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery = 49.28%			
Target Compounds						Qvalue
3) Naphthalene	3.536	128	29319	507.08	ppb	100
4) 2-Methylnaphthalene	4.043	142	19349	503.35	ppb	100
5) 1-Methylnaphthalene	4.110	142	18447	508.87	ppb	100
8) Acenaphthylene	4.659	152	30038	473.16	ppb	100
9) Acenaphthene	4.782	153	19274	486.01	ppb	100
12) Fluorene	5.145	166	22771	464.75	ppb	100
13) Phenanthrene	5.777	178	33768	474.31	ppb	100
14) Anthracene	5.812	178	32638	462.31	ppb	100
15) Fluoranthene	6.580	202	38632	497.49	ppb	100
16) Pyrene	6.725	202	39412	490.65	ppb	100
19) Benzo[a]anthracene	7.666	228	35069	480.99	ppb	100
20) Chrysene	7.693	228	34284	469.44	ppb	100
22) Benzo[b]fluoranthene	8.650	252	34136	482.64	ppb	100
23) Benzo(j,k)fluoranthene	8.673	252	33394	471.44	ppb	100
24) Benzo[a]pyrene	8.942	252	31016	466.41	ppb	100
25) Indeno(1,2,3-c,d)pyrene	9.956	276	28475	474.11	ppb	100
26) Dibenz[a,h]anthracene	9.995	278	27753	451.02	ppb	100
27) Benzo[g,h,i]perylene	10.171	276	30596	459.69	ppb	100

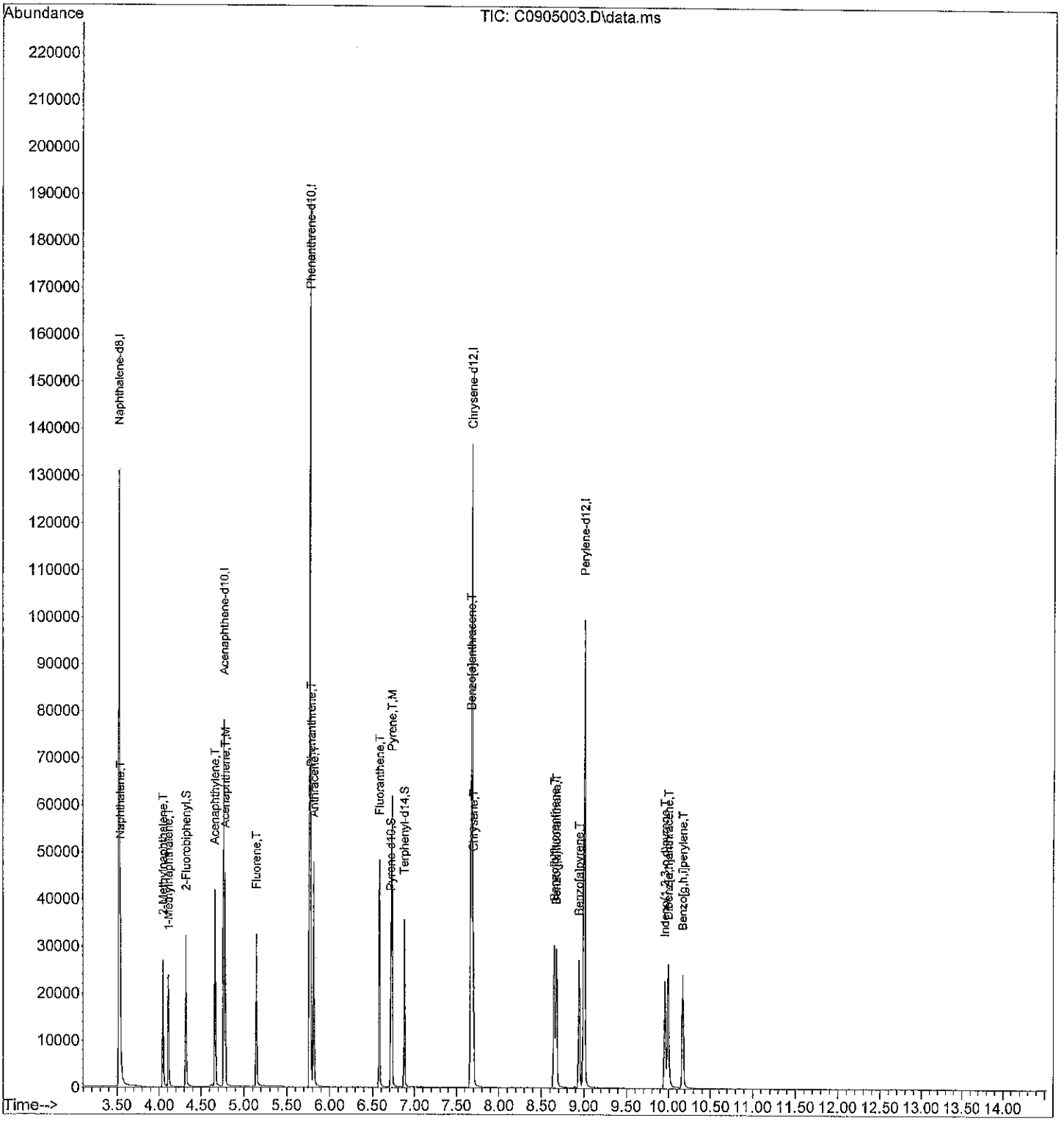
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ZT
9-5-18

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905003.D
Acq On : 5 Sep 2018 12:05 pm
Operator :
Sample : PAH CCV0905-2
Misc : SV5-053-08
ALS Vial : 3 Sample Multiplier: 1

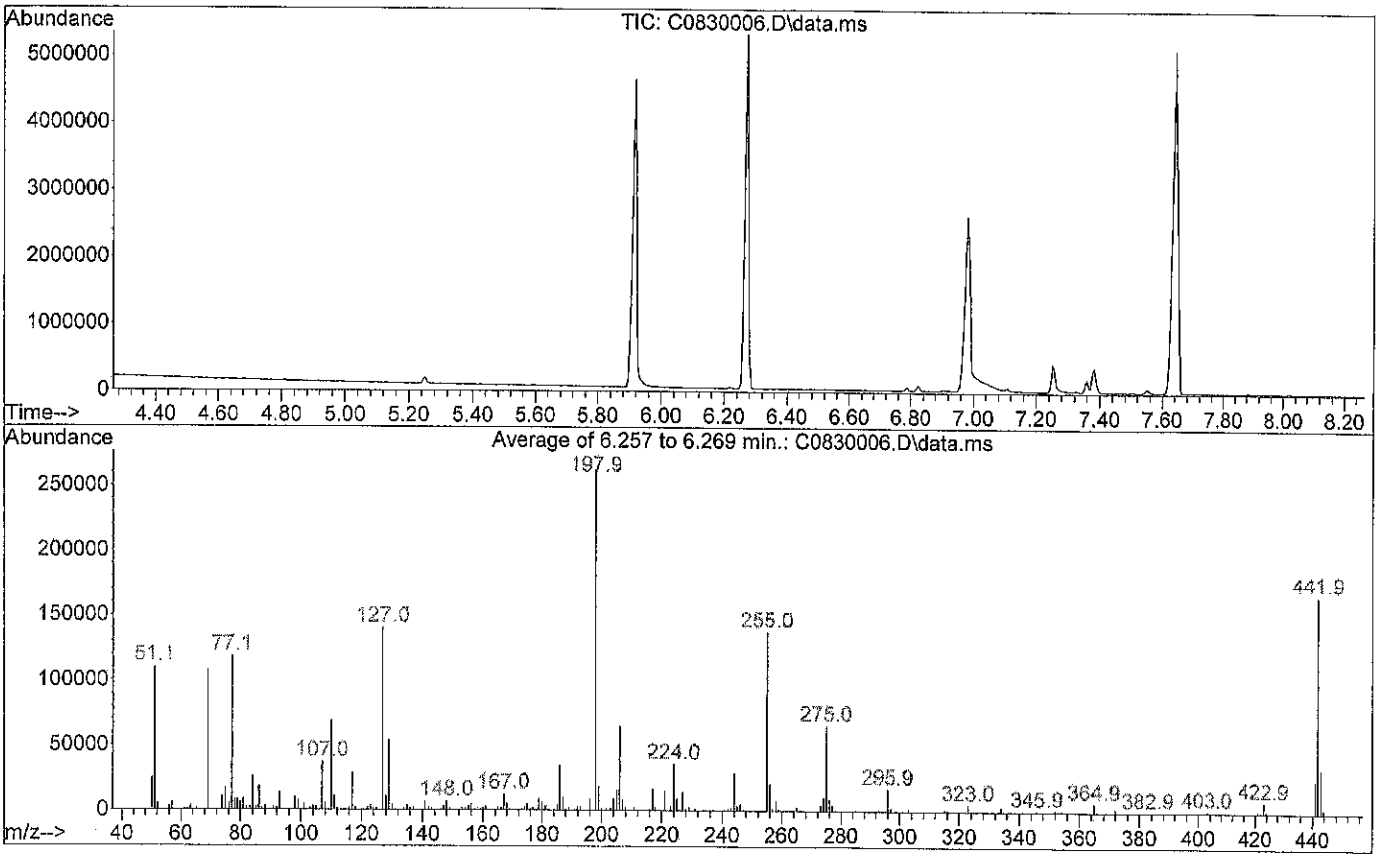
Quant Time: Sep 05 12:19:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed Sep 05 11:58:51 2018
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\CSIM0830.M
Title : PAH'S BY SIMS
Last Update : Wed Aug 22 14:19:05 2018



Spectrum Information: Average of 6.257 to 6.269 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	41.9	110317	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.3	108584	PASS
70	69	0.00	2	0.8	877	PASS
127	198	10	80	53.4	140594	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	263077	PASS
199	198	5	9	7.0	18361	PASS
275	198	10	60	25.1	66002	PASS
365	198	0.10	100	2.7	7080	PASS
441	443	0.01	100	73.9	25438	PASS
442	198	40	110	63.8	167853	PASS
443	442	15	24	20.5	34413	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 30 10:55:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

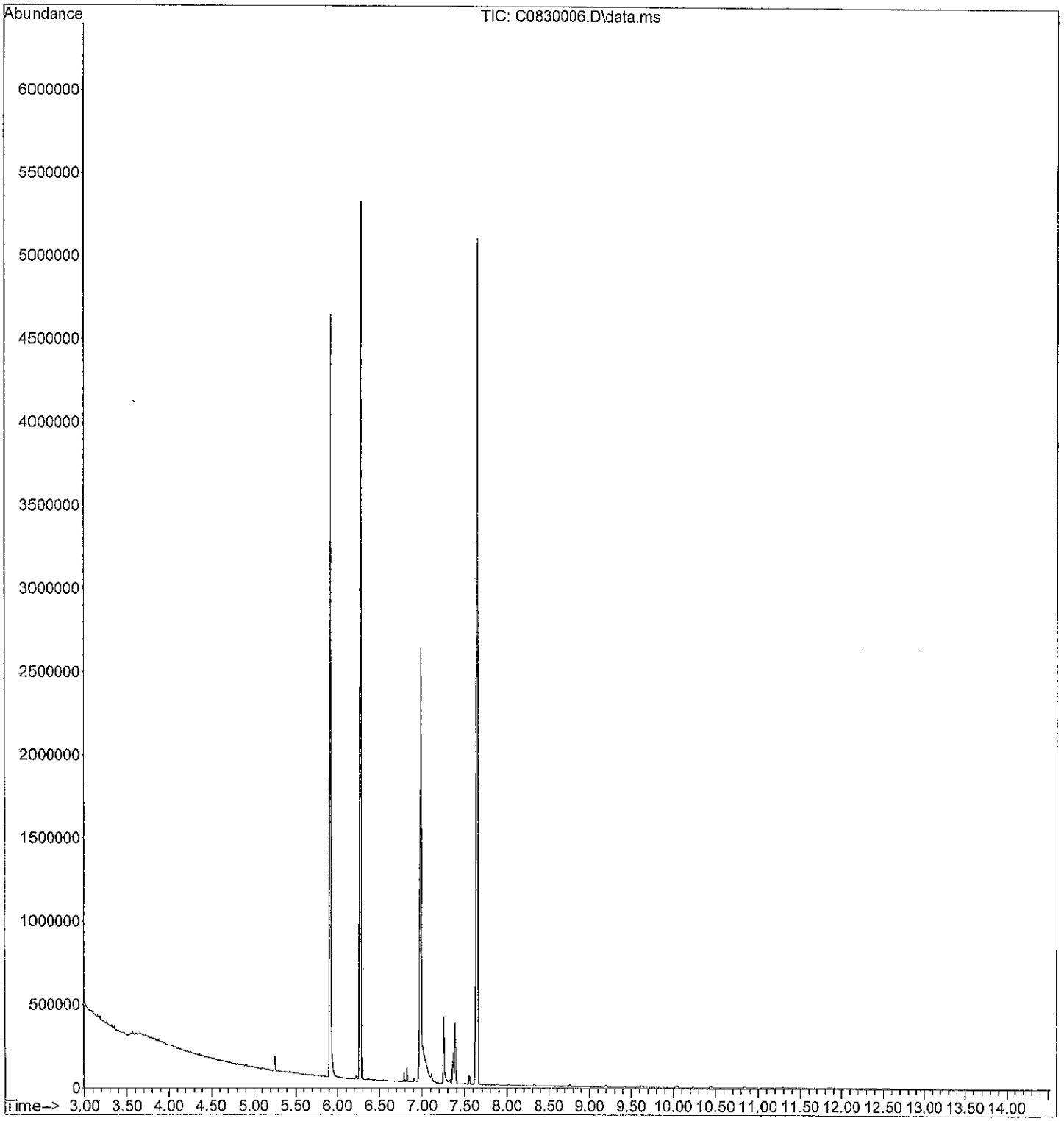
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	0.000	136	0	0.00	ppb	-4.61
6) Acenaphthene-d10	0.000	164	0	0.00	ppb	-5.84
10) Phenanthrene-d10	0.000	188	0	0.00	ppb	-6.87
17) Chrysene-d12	0.000	240	0	0.00	ppb	-9.11
21) Perylene-d12	0.000	264	0	0.00	ppb	-10.62
System Monitoring Compounds						
2) Nitrobenzene-d5	4.091	82	482	0.00	ppb	0.00
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	0.000	172	0	0.00	ppb	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.00%#		
11) Pyrene-d10	0.000	212	0	0.00	ppb	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.00%#		
18) Terphenyl-d14	0.000	244	0	0.00	ppb	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Naphthalene	0.000		0	N.D.		
4) 2-Methylnaphthalene	0.000		0	N.D.		
5) 1-Methylnaphthalene	0.000		0	N.D.		
8) Acenaphthylene	0.000		0	N.D.		
9) Acenaphthene	5.920	153	1484	Below MDL		
12) Fluorene	6.274	166	3428	Below MDL		
13) Phenanthrene	0.000		0	N.D.		
14) Anthracene	0.000		0	N.D.		
15) Fluoranthene	7.646	202	22700	Below MDL		
16) Pyrene	0.000		0	N.D.		
19) Benzo[a]anthracene	0.000		0	N.D.		
20) Chrysene	0.000		0	N.D.		
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	0.000		0	N.D.		
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	0.000		0	N.D.		
28) Pentachlorophenol	0.000		0	N.D.		
29) Benzidine	0.000		0	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180830\
Data File : C0830006.D
Acq On : 30 Aug 2018 10:40 am
Operator :
Sample : DFTPP
Misc : SV5-051-01
ALS Vial : 6 Sample Multiplier: 1

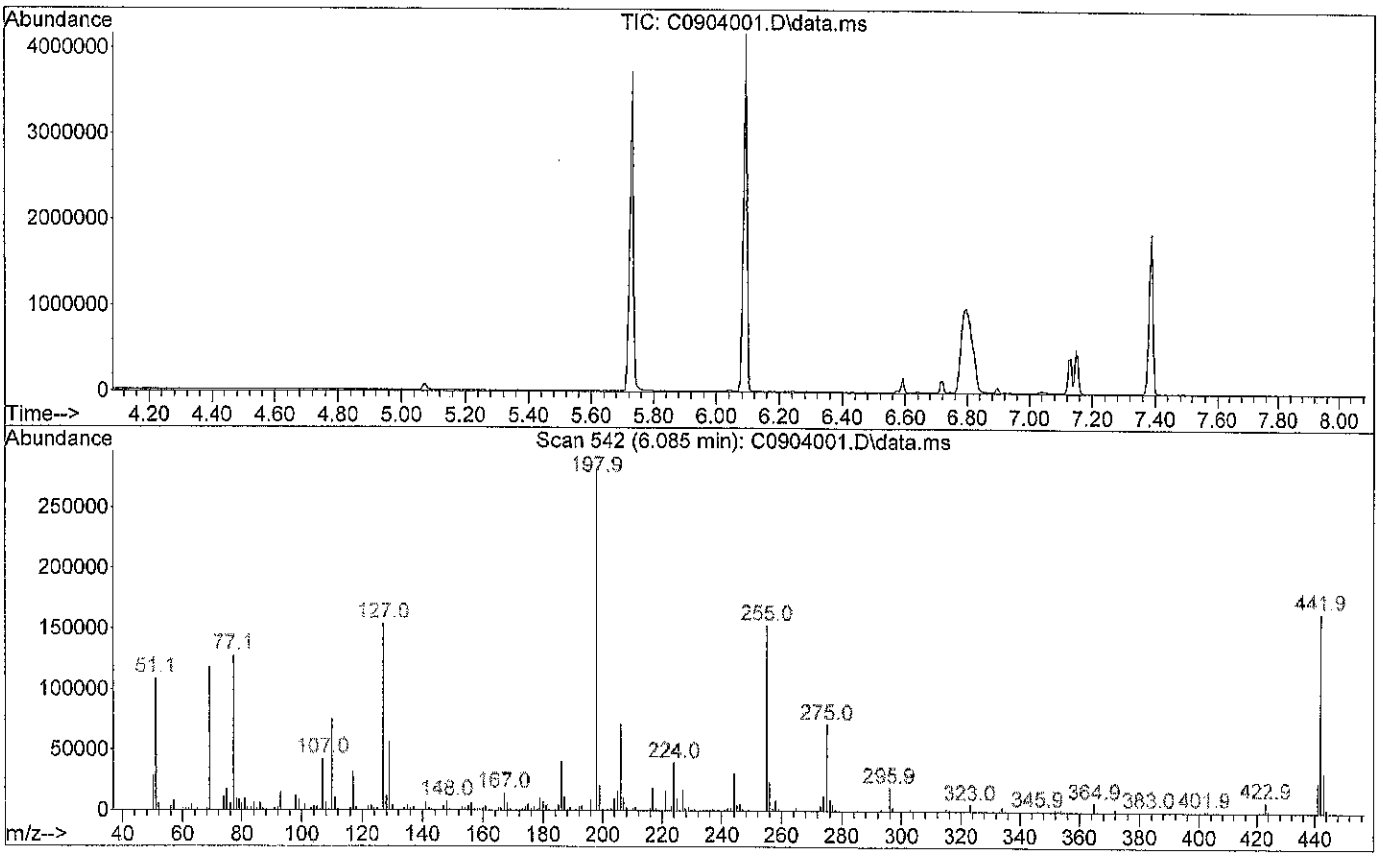
Quant Time: Aug 30 10:55:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C180904\
Data File : C0904001.D
Acq On : 4 Sep 2018 11:08 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Title : PAH'S BY SIMS
Last Update : Wed May 02 13:33:26 2012



Spectrum Information: Scan 542

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	38.5	108760	PASS
68	69	0.00	2	1.5	1776	PASS
69	198	0.00	100	42.0	118544	PASS
70	69	0.00	2	0.5	640	PASS
127	198	25	75	54.7	154368	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	282176	PASS
199	198	5	9	7.3	20528	PASS
275	198	10	30	25.5	71952	PASS
365	198	0.75	100	2.7	7637	PASS
441	443	0.01	100	75.8	25360	PASS
442	198	40	110	58.7	165760	PASS
443	442	15	24	20.2	33464	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904001.D
Acq On : 4 Sep 2018 11:08 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 11:22:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

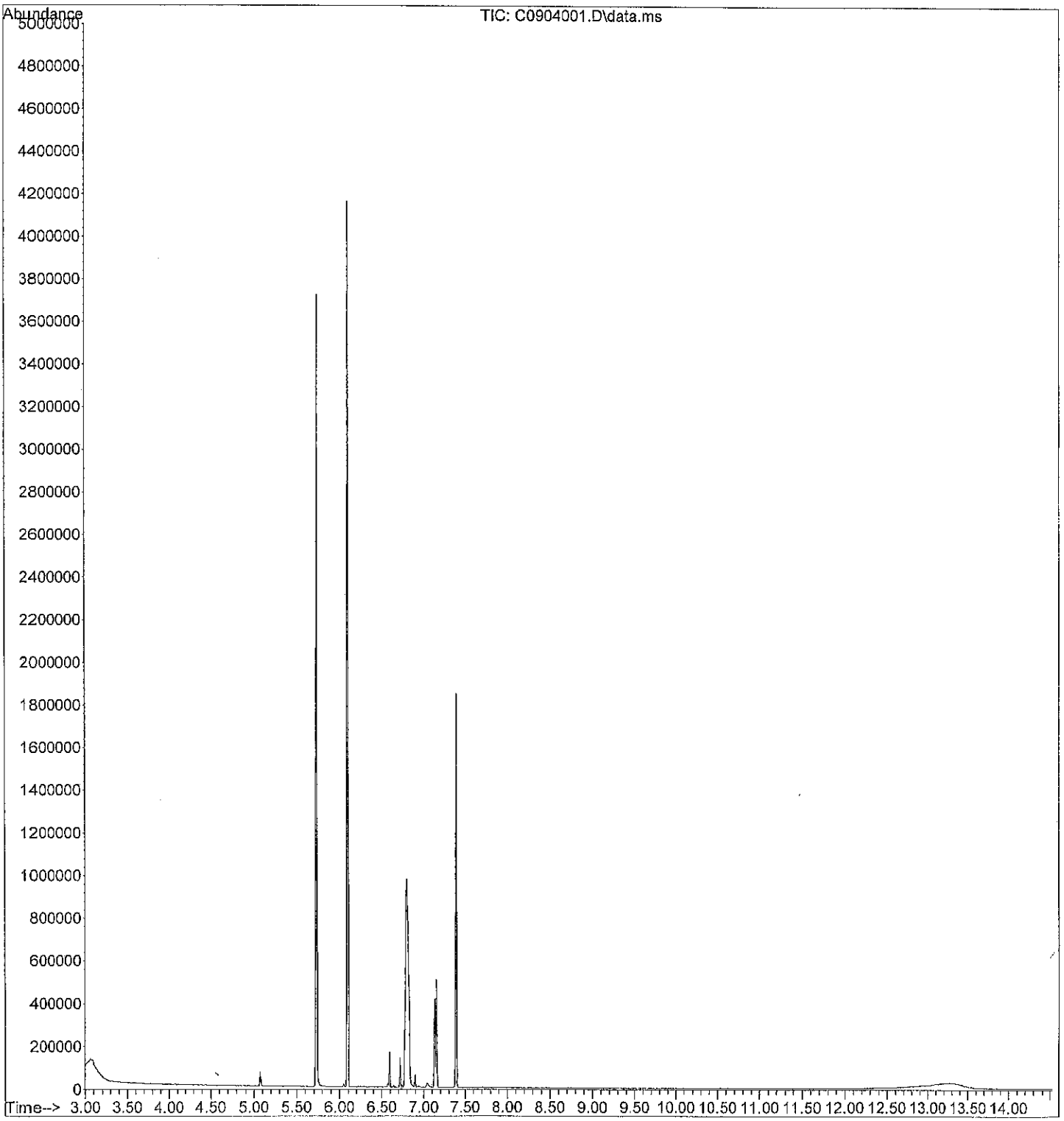
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	0.000	136	0	0.00	ppb	-4.61
6) Acenaphthene-d10	0.000	164	0	0.00	ppb	-5.84
10) Phenanthrene-d10	0.000	188	0	0.00	ppb	-6.87
17) Chrysene-d12	0.000	240	0	0.00	ppb	-9.11
21) Perylene-d12	0.000	264	0	0.00	ppb	-10.62
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	0.000	172	0	0.00	ppb	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.00%#		
11) Pyrene-d10	0.000	212	0	0.00	ppb	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.00%#		
18) Terphenyl-d14	0.000	244	0	0.00	ppb	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Naphthalene	0.000		0	N.D.		
4) 2-Methylnaphthalene	0.000		0	N.D.		
5) 1-Methylnaphthalene	0.000		0	N.D.		
8) Acenaphthylene	0.000		0	N.D.		
9) Acenaphthene	5.731	153	1149	Below MDL		
12) Fluorene	6.091	166	2297	Below MDL		
13) Phenanthrene	6.834	178	5517	Below MDL		
14) Anthracene	6.834	178	5517	Below MDL		
15) Fluoranthene	0.000		0	N.D.		
16) Pyrene	0.000		0	N.D.		
19) Benzo[a]anthracene	0.000		0	N.D.		
20) Chrysene	0.000		0	N.D.		
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	0.000		0	N.D.		
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	0.000		0	N.D.		
28) Pentachlorophenol	0.000		0	N.D.		
29) Benzidine	7.389	184	1970	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180904\
Data File : C0904001.D
Acq On : 4 Sep 2018 11:08 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

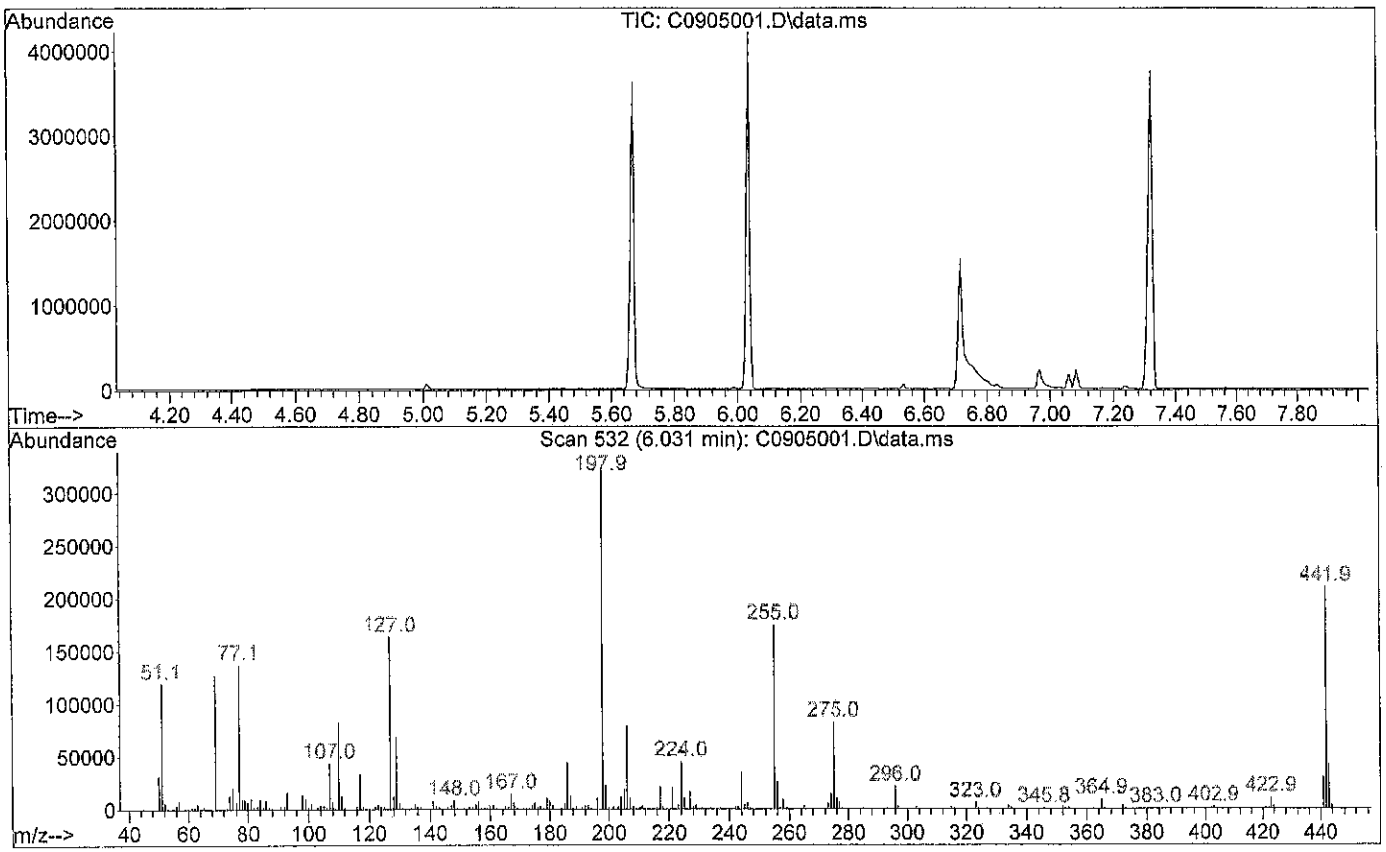
Quant Time: Sep 04 11:22:54 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration



Data Path : X:\SEMIVOLS\COREY\DATA\C180905\
Data File : C0905001.D
Acq On : 5 Sep 2018 11:16 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Title : PAH'S BY SIMS
Last Update : Wed May 02 13:33:26 2012



Spectrum Information: Scan 532

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	37.0	119656	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.5	127744	PASS
70	69	0.00	2	0.5	682	PASS
127	198	25	75	50.7	163968	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	323712	PASS
199	198	5	9	7.0	22672	PASS
275	198	10	30	25.6	82712	PASS
365	198	0.75	100	2.9	9264	PASS
441	443	0.01	100	72.5	30592	PASS
442	198	40	110	65.1	210880	PASS
443	442	15	24	20.0	42216	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905001.D
Acq On : 5 Sep 2018 11:16 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 05 11:30:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration

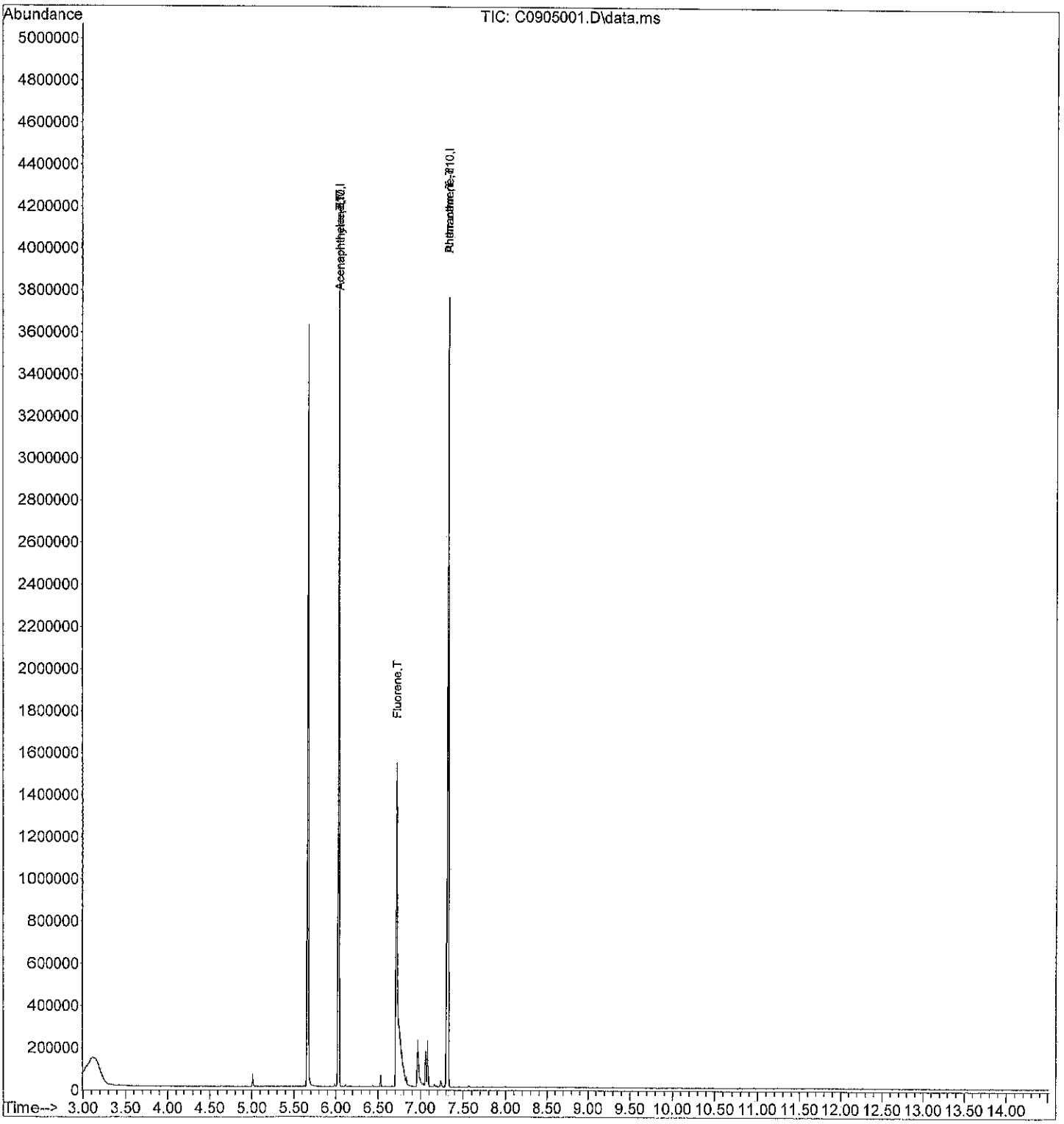
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	0.000	136	0	0.00	ppb	-4.61
6) Acenaphthene-d10	6.037	164	177	2000.00	ppb	0.20
10) Phenanthrene-d10	7.323	188	1224	2000.00	ppb	0.45
17) Chrysene-d12	0.000	240	0	0.00	ppb	-9.11
21) Perylene-d12	0.000	264	0	0.00	ppb	-10.62
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppb	
Spiked Amount 1000.000	Range 24 - 92		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	0.000	172	0	0.00	ppb	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.00%#		
11) Pyrene-d10	0.000	212	0	0.00	ppb	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.00%#		
18) Terphenyl-d14	0.000	244	0	0.00	ppb	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Naphthalene	0.000		0	N.D.		
4) 2-Methylnaphthalene	0.000		0	N.D.		
5) 1-Methylnaphthalene	0.000		0	N.D.		
8) Acenaphthylene	6.037	152	362	1834.88	ppb	100
9) Acenaphthene	6.037	153	2434	20408.96	ppb	100
12) Fluorene	6.717	166	37836	85909.86	ppb	100
13) Phenanthrene	7.323	178	2212	2944.33	ppb	100
14) Anthracene	7.323	178	2212	3265.29	ppb	100
15) Fluoranthene	0.000		0	N.D.		
16) Pyrene	0.000		0	N.D.		
19) Benzo[a]anthracene	0.000		0	N.D.		
20) Chrysene	0.000		0	N.D.		
22) Benzo[b]fluoranthene	0.000		0	N.D.		
23) Benzo(j,k)fluoranthene	0.000		0	N.D.		
24) Benzo[a]pyrene	0.000		0	N.D.		
25) Indeno(1,2,3-c,d)pyrene	0.000		0	N.D.		
26) Dibenz[a,h]anthracene	0.000		0	N.D.		
27) Benzo[g,h,i]perylene	0.000		0	N.D.		
28) Pentachlorophenol	6.037	266	610	No Calib		
29) Benzidine	7.368	184	415	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\C180905\
Data File : C0905001.D
Acq On : 5 Sep 2018 11:16 am
Operator :
Sample : DFTPP
Misc : SV5-053-04
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 05 11:30:45 2018
Quant Method : C:\MSDCHEM\1\METHODS\SIMSCAN.M
Quant Title : PAH'S BY SIMS
QLast Update : Wed May 02 13:33:26 2012
Response via : Initial Calibration



GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C180830\C0830006.D
Tune Time : 30 Aug 2018 10:40 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C180830\C0830015.D

	(PRY)	(NPT)	(ACE)	(PHN)
		121192	60983	114380
		(CRY)	(PRY)	
		108137	107919	

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0830007.D								
	10 PPB	0*	1*	1*	1*	143494	71270	131245
			119153		119411			
C0830008.D								
	20 PPB	3*	2*	2*	2*	143234	68528	130385
			119131		118529			
C0830009.D								
	50 PPB	52	5*	5*	5*	138246	69005	127889
			117749		117571			
C0830010.D								
	100 PPB	26	9*	9*	9*	135124	70294	127515
			118297		117723			
C0830011.D								
	200 PPB	85	18*	19*	19*	132200	67339	125973
			116882		116674			
C0830012.D								
	500 PPB	118*	45	48	47	130439	65226	121626
			113679		112904			
C0830013.D								
	1000 PPB	114*	86	94	92	132708	66236	125299
			120159		119904			
C0830014.D								
	5000 PPB	549*	465*	465*	435*	131768	66604	125823
			121605		120485			
C0830015.D								
	PAH ICV	39	56	52	51	121192	60983	114380
			108137		107919			
C0830016.D								
	MB0828S1	53	103*	103	101*	107959	53726	101445
			95211		95310			
C0830017.D								
	MB0830W1	6*	83	88	120*	106146	54709	101553
			93775		92888			
C0830018.D								
	MB0830W1 R	5*	84	87	122*	108426	55177	103760
			95224		94472			
C0830019.D								
	SB0830W1	2*	51	84	83	109744	57343	105297
			97562		96490			
C0830020.D								

SB0830W1 D	4*	87	100	99*	108891	54183	101848
			93880		93749		
C0830021.D							
08-326-03	4*	67	84	87	109039	54476	104563
			95999		93580		
C0830022.D							
08-326-03	7*	82	88	97*	107315	55704	105332
			95594		92082		
C0830023.D							
08-326-03	6*	77	89	100*	106899	56517	104342
			94834		91698		
C0830024.D							
08-309-01	4*	53	85	87	100263	50866	96942
			90293		90810		
C0830025.D							
08-309-02	4*	42	86	83	101871	88226	101787
			93978		93939		
C0830026.D							
08-309-03	5*	43	94	90	106302	97373	106634
			97950		99247		
C0830027.D							
08-326-01	6*	30	96	100*	113703	132308*	111615
			98196		98039		
C0830028.D							
08-326-02	5*	69	86	95*	105371	58111	109904
			97201		94417		
C0830029.D							
08-326-05	7*	70	86	87	100873	54644	104033
			94541		93609		
C0830030.D							
08-348-01	7*	74	96	85	106995	60990	111661
			109776		113052		
C0830031.D							
08-348-02	6*	70	89	91	102577	53273	104991
			92703		93260		
C0830032.D							
08-348-03	5*	69	88	94*	117415	66500	114526
			93117		91977		
C0830033.D							
08-348-04	7*	76	93	95*	102653	55318	106363
			96143		95202		
C0830034.D							
08-348-05	6*	59	83	84	103304	56299	107518
			97538		97305		
C0830035.D							
08-326-04	7*	50	72	88	91338	75692	95256
			84384		82318		

(fails) - fails 12hr time check * - fails criteria

Created: Fri Aug 31 14:46:26 2018 Corey

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C180904\C0904001.D
Tune Time : 4 Sep 2018 11:08 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C180904\C0904002.D

	(PRY)	(NPT)	(ACE)	(PHN)
		125592	65906	123217
		(CRY)	(PRY)	
		118560	107357	

File	Sample	Surrogate Recovery %				Internal Standard Responses		
C0904003.D								
	08-364-10	0*	3*	5*	6*	115743	60249	114565
			110911		103957			
C0904004.D								
	08-364-13	1*	5*	4*	5*	120563	63781	119131
			114257		115145			
C0904005.D								
	MB0901S1 5	0*	686*	49	625*	126413	63592	119976
			116106		110879			
C0904006.D								
	08-368-01	0*	616*	44	579*	120303	63457	116844
			110965		114058			
C0904007.D								
	08-389-06	0*	630*	46	603*	122776	65793	119104
			111976		113866			
C0904008.D								
	MB0904W1	0*	115*	88	117*	118862	63344	117377
			110794		111730			
C0904009.D								
	SB0904W1	1*	55	78	82	115630	63129	116578
			107673		108305			
C0904010.D								
	SB0904W1 D	0*	96*	86	95*	115037	61995	112612
			105986		106232			
C0904011.D								
	08-389-04	0*	623*	44	580*	119586	63192	114262
			107634		111215			
C0904012.D								
	08-389-03	0*	665*	44	588*	123264	66033	121367
			112915		115839			
C0904013.D								
	08-389-02	0*	664*	48	614*	119042	64646	115608
			110664		117671			
C0904014.D								
	08-385-01	0*	106*	85	114*	115597	62288	115173
			107231		109632			
C0904015.D								
	08-385-02	0*	90*	88	100*	113816	61492	115999
			109835		112031			
C0904016.D								

```
        08-385-03      0*  79   81   87      115892      60662      116151
                              108589     110656
-------------------------------------------------------------------------------
C0904017.D
        08-385-04      0*  76   95   95*     112438      59400      114208
                              105728     106219
-------------------------------------------------------------------------------
C0904018.D
        SB0904W2       1*  69   79   79      118724      62974      120773
                              111275     113074
-------------------------------------------------------------------------------
C0904019.D
        SB0904W2 D     0*  56   78   77      118653      65852      122523
                              111769     113717
-------------------------------------------------------------------------------
C0904020.D
        SB0904W3       0*  61   76   76      118190      64122      120424
                              110712     112218
-------------------------------------------------------------------------------
C0904021.D
        SB0904W3 D     1*  59   73   72      118801      62692      120849
                              111119     112244
-------------------------------------------------------------------------------
C0904022.D
        08-385-05      1*  66   84   82      112556      61882      117726
                              108437     109130
-------------------------------------------------------------------------------
C0904023.D
        08-385-06      1*  57   73   73      117247      61529      117213
                              108857     109536
-------------------------------------------------------------------------------
C0904024.D
        08-385-07      0*  72   87   85      112059      59400      113429
                              104184     105779
-------------------------------------------------------------------------------
C0904025.D
        08-389-05      0* 703*   4* 593*     111306      59203      108815
                              106708     114416
-------------------------------------------------------------------------------
C0904026.D
        08-389-01      0* 117*   1* 115*     122167      67039      125953
                              114854     122042
-------------------------------------------------------------------------------
C0904027.D
        08-389-01      0* 635*   7* 562*     110855      59170      109344
                              107569     117422
-------------------------------------------------------------------------------
C0904028.D
        08-393-01      5*   5*  24*  75      140460     126863      163047
                              112249     118138
-------------------------------------------------------------------------------
C0904029.D
        08-393-02      1*  68   86   86      147442      75724      123107
                              105778     109721
-------------------------------------------------------------------------------
(fails) - fails 12hr time check   * - fails criteria

    Created: Wed Sep 05 10:36:52 2018  Corey
```

GC/MS QA-QC Check Report

Tune File : X:\SEMIVOLS\COREY\DATA\C180905\C0905001.D
Tune Time : 5 Sep 2018 11:16 am

Daily Calibration File : X:\SEMIVOLS\COREY\DATA\C180905\C0905003.D

	(PRY)	(NPT)	(ACE)	(PHN)
		111597	60142	118810
		(CRY)	(PRY)	
		115682	114392	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
C0905004.D							
	MB0904W2	0* 3398* 262* 2681*			106652	58699	108989
		101383		98863			
C0905005.D							
	08-372-01	1* 3462* 266* 2812*			100151	55014	103260
		94780		93871			
C0905006.D							
	08-374-01	2* 128* 146* 145*			138338	60091	109228
		98886		97479			
C0905007.D							
	08-374-02	2* 78 89 89			102537	58326	106792
		97250		96602			
C0905008.D							
	08-374-03	2* 71 84 84			103897	59107	106780
		98216		100098			
C0905009.D							
	08-374-04	0* 69 85 84			98298	54723	103054
		92787		92096			
C0905010.D							
	08-375-01	2* 50 62 62			102738	58434	106203
		95751		97706			
C0905011.D							
	08-375-02	0* 83 84 83			99567	56071	106017
		95826		95784			
C0905012.D							
	08-393-03	1* 31 42 48			103724	57061	107494
		95784		94875			
C0905013.D							
	08-393-04	1* 56 78 78			99445	58945	106891
		95832		97412			
C0905014.D							
	08-393-05	0* 39 77 79			99916	56036	105798
		95283		95834			
C0905015.D							
	08-374-01	0* 6* 8* 8*			105438	58554	110894
		104708		106395			
C0905016.D							
	08-393-01	1* 4* 4* 4*			101798	55096	104186
		99340		102531			
C0905017.D							

```
         08-393-02      1*    4*    4*    4*      103005       56909      107727
                                103476      105570
-------------------------------------------------------------------------------
C0905018.D
         08-374-01      0*    1*    1*    1*      103340       55990      110984
                                104368      105070
-------------------------------------------------------------------------------
C0905019.D
         08-393-01      0*    1*    1*    1*      108163       55812      105404
                                103493      104803
-------------------------------------------------------------------------------
C0905020.D
         08-393-02      0*    1*    1*    1*      101941       54024      106641
                                102208      103272
-------------------------------------------------------------------------------
C0905021.D
         MB0905S1 5     0* 530*   44  585*      100793       51119      102360
                                94385       96719
-------------------------------------------------------------------------------
C0905022.D
         08-260-02      1* 565*    2* 601*       94855       51032       94824
                                90238       96440
-------------------------------------------------------------------------------
C0905023.D
         08-260-06      0* 542*    2* 545*       95606       56120      101464
                                94096       97861
-------------------------------------------------------------------------------
C0905024.D
         08-260-04      0* 534*   40  509*       97300       54885      101194
                                94314      101192
-------------------------------------------------------------------------------
C0905025.D
         08-324-02      1* 3043* 247* 2796*      95648       53232       98015
                                91211       92509
-------------------------------------------------------------------------------
(fails) - fails 12hr time check    * - fails criteria

    Created: Thu Sep 06 08:47:08 2018  Corey
```

Sequence Name: C:\msdchem\1\sequence\C180830.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\C180830\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	C0830001 SIMSCAN DFTPP
2)	Sample 2	C0830002 CSIM0822 PAH CCV0830-1
3)	Sample 3	C0830003 CSIM0822 SB0830W1
4)	Sample 4	C0830004 CSIM0822 SBD0830W1
5)	Sample 5	C0830005 CSIM0822 PAH CCV0830-2
6)	Sample 6	C0830006 SIMSCAN DFTPP
7)	Sample 7	C0830007 CSIM0830 10 PPB
8)	Sample 8	C0830008 CSIM0830 20 PPB
9)	Sample 9	C0830009 CSIM0830 50 PPB
10)	Sample 10	C0830010 CSIM0830 100 PPB
11)	Sample 11	C0830011 CSIM0830 200 PPB
12)	Sample 12	C0830012 CSIM0830 500 PPB
13)	Sample 13	C0830013 CSIM0830 1000 PPB
14)	Sample 14	C0830014 CSIM0830 5000 PPB
15)	Sample 15	C0830015 CSIM0830 PAH ICV
16)	Sample 16	C0830016 CSIM0830 MB0828S1
17)	Sample 17	C0830017 CSIM0830 MB0830W1
18)	Sample 18	C0830018 CSIM0830 MB0830W1 RR
19)	Sample 19	C0830019 CSIM0830 SB0830W1
20)	Sample 20	C0830020 CSIM0830 SB0830W1 DUP
21)	Sample 21	C0830021 CSIM0830 08-326-03
22)	Sample 22	C0830022 CSIM0830 08-326-03 MS
23)	Sample 23	C0830023 CSIM0830 08-326-03 MSD
24)	Sample 24	C0830024 CSIM0830 08-309-01
25)	Sample 25	C0830025 CSIM0830 08-309-02
26)	Sample 26	C0830026 CSIM0830 08-309-03
27)	Sample 27	C0830027 CSIM0830 08-326-01
28)	Sample 28	C0830028 CSIM0830 08-326-02
29)	Sample 29	C0830029 CSIM0830 08-326-05
30)	Sample 30	C0830030 CSIM0830 08-348-01
31)	Sample 31	C0830031 CSIM0830 08-348-02
32)	Sample 32	C0830032 CSIM0830 08-348-03
33)	Sample 33	C0830033 CSIM0830 08-348-04
34)	Sample 34	C0830034 CSIM0830 08-348-05
35)	Sample 35	C0830035 CSIM0830 08-326-04
36)	Sample 36	C0830036 CSIM0830 BLANK TEST
37)	Sample 37	C0830037 CSIM0830 BLANK TEST
38)	Sample 38	C0830038 CSIM0830 BLANK TEST
39)	Sample 39	C0830039 CSIM0830 BLANK TEST
40)	Sample 40	C0830040 CSIM0830 BLANK TEST
41)	Sample 41	C0830041 CSIM0830 BLANK TEST
42)	Sample 42	C0830042 CSIM0830 BLANK TEST
43)	Sample 43	C0830043 CSIM0830 BLANK TEST

Sequence Name: C:\msdchem\1\sequence\C180830.S

	Line	Type	Vial	DataFile	Method	Sample Name
44)		Sample	44	C0830044	CSIM0830	BLANK TEST
45)		Sample	45	C0830045	CSIM0830	BLANK TEST
46)		Sample	46	C0830046	CSIM0830	CCV TEST

Sequence Name: C:\msdchem\1\sequence\C180904.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\C180904\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	C0904001 SIMSCAN DFTPP
2)	Sample 2	C0904002 CSIM0830 PAH CCV0904-1
3)	Sample 3	C0904003 CSIM0830 08-364-10 20X
4)	Sample 4	C0904004 CSIM0830 08-364-13 20X
5)	Sample 5	C0904005 CSIM0830 MB0901S1 5X
6)	Sample 6	C0904006 CSIM0830 08-368-01 5X
7)	Sample 7	C0904007 CSIM0830 08-389-06 5X
8)	Sample 8	C0904008 CSIM0830 MB0904W1
9)	Sample 9	C0904009 CSIM0830 ~~SB0904W1~~
10)	Sample 10	C0904010 CSIM0830 ~~SB0904W1 DUP~~
11)	Sample 11	C0904011 CSIM0830 08-389-04 5X
12)	Sample 12	C0904012 CSIM0830 08-389-03 5X
13)	Sample 13	C0904013 CSIM0830 08-389-02 5X
14)	Sample 14	C0904014 CSIM0830 08-385-01
15)	Sample 15	C0904015 CSIM0830 08-385-02
16)	Sample 16	C0904016 CSIM0830 08-385-03
17)	Sample 17	C0904017 CSIM0830 08-385-04
18)	Sample 18	C0904018 CSIM0830 SB0904W2
19)	Sample 19	C0904019 CSIM0830 SB0904W2 DUP
20)	Sample 20	C0904020 CSIM0830 SB0904W3
21)	Sample 21	C0904021 CSIM0830 SB0904W3 DUP
22)	Sample 22	C0904022 CSIM0830 08-385-05
23)	Sample 23	C0904023 CSIM0830 08-385-06
24)	Sample 24	C0904024 CSIM0830 08-385-07
25)	Sample 25	C0904025 CSIM0830 08-389-05
26)	Sample 26	C0904026 CSIM0830 08-389-01 5X
27)	Sample 27	C0904027 CSIM0830 08-389-01
28)	Sample 28	C0904028 CSIM0830 08-393-01
29)	Sample 29	C0904029 CSIM0830 08-393-02
30)	Sample 30	C0904030 CSIM0830 M

Sequence Name: C:\msdchem\1\sequence\C180905.S
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\C180905\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

	Line		Sample Name/Misc Info
1)	Sample	1	C0905001 SIMSCAN DFTPP
2)	Sample	2	C0905002 CSIM0830 PAH CCV0905-1
3)	Sample	3	C0905003 CSIM0830 PAH CCV0905-2
4)	Sample	4	C0905004 CSIM0830 MB0904W2
5)	Sample	5	C0905005 CSIM0830 08-372-01
6)	Sample	6	C0905006 CSIM0830 08-374-01
7)	Sample	7	C0905007 CSIM0830 08-374-02
8)	Sample	8	C0905008 CSIM0830 08-374-03
9)	Sample	9	C0905009 CSIM0830 08-374-04
10)	Sample	10	C0905010 CSIM0830 08-375-01
11)	Sample	11	C0905011 CSIM0830 08-375-02
12)	Sample	12	C0905012 CSIM0830 08-393-03
13)	Sample	13	C0905013 CSIM0830 08-393-04
14)	Sample	14	C0905014 CSIM0830 08-393-05
15)	Sample	15	C0905015 CSIM0830 08-374-01 20X
16)	Sample	16	C0905016 CSIM0830 08-393-01 20X
17)	Sample	17	C0905017 CSIM0830 08-393-02 20X
18)	Sample	18	C0905018 CSIM0830 08-374-01 100X
19)	Sample	19	C0905019 CSIM0830 08-393-01 100X
20)	Sample	20	C0905020 CSIM0830 08-393-02 100X
21)	Sample	21	C0905021 CSIM0830 MB0905S1 5X
22)	Sample	22	C0905022 CSIM0830 08-260-02 5X
23)	Sample	23	C0905023 CSIM0830 08-260-06 5X
24)	Sample	24	C0905024 CSIM0830 08-260-04
25)	Sample	25	C0905025 CSIM0830 08-324-02
26)	Sample	26	C0905026 CSIM0830 PAH TEST

OnSite Environmental Inc.

EPA 8270 EXTRACTION LOGBOOK

Date Extracted: 9/4/18 Time Ext. _____ am/pm

Analysis: PAH by SPE

Matrix: Water

Surrogate Std. ID: SVS-050-023

Spike Std. ID: SVS-050-02

	OSE TRAVELER #	pH	SAMPLE W/V	INTER VOLUME	SAMPLE FIN VOL	AMT SUR	AMT SPIKE	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
	MB0904W1	T	1000 mL	30mL	1mL	100µL	—	—	hm	
	SB0904W1		↓	↓	↓	↓	100µL	↓	↓	
	SB0904W1dup		↓	↓	↓	↓	↓	↓	↓	
1067	08-385-01e		1574/507	↓	↓	↓	—	↓	↓	
1048	02e		1572/524	↓	↓	↓	↓	↓	↓	
1040	03e		1568/528	↓	↓	↓	↓	↓	↓	
1030	04e		1574/544	↓	↓	↓	↓	↓	↓	
1008	05h		1575/567	↓	↓	↓	↓	↓	↓	
1004	06h		1574/570	↓	↓	↓	↓	↓	↓	
1063	07f		1579/516	↓	↓	↓	↓	↓	↓	
972	08-393-01c		1576/604	↓	↓	↓	↓	↓	↓	
1070	02c		1577/509	↓	↓	↓	↓	↓	↓	
1027 ~~1037~~	03c		1562/525	↓	↓	↓	↓	↓	↓	
1024	04c		1578/554	↓	↓	↓	↓	↓	↓	
1049	05c		1576/527	↓	↓	↓	↓	↓	↓	
1009	08-374-01e		1573/564	↓	↓	↓	↓	↓	↓	poss. 2x surr.
1036	02e		1575/539	↓	↓	↓	↓	↓	↓	
1040	03e		1579/534	↓	↓	↓	↓	↓	↓	
1029	04e		1579/550	↓	↓	↓	↓	↓	↓	
1040	08-375-01e		1566/526	↓	↓	↓	↓	↓	↓	
1044	02e	↓	1571/527	↓	↓	↓	↓	↓	↓	

Clean-up (L)Alumina

Work continued from Page

	Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
	BNA CCV	SV501901	SV5018 12/12	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	12-14-17
	1,4 Dioxane ICV	SV501902	SV417401	10 ppm	10 µl	200 µl	500 ppb			
5	PAH CCV	SV501903	SV501009	10 ppm	10 µl	200 µl	500 ppb			
	PAH CCV	SV501904	SV501009	10 ppm	1		1			12-15-17
	BNA CCV	SV501905	SV5018 12/12	200 ppm	20/20 µl		20 ppm			1
	PAH CCV	SV501906	SV501009	10 ppm	10 µl		500 ppb			12-19-17
	PAH CCV	SV501907	SV501009	1	1		1			12-20-17
10	BNA CCV	SV501908	SV5018 12/12	200 ppm	20/100 µl		20 ppm			1
	PAH CCV	SV501909	SV501009	10 ppm	10 µl		500 ppb			12-21-17
	PAH CCV	SV501910	SV501009	10 ppm	10 µl		500 ppb			12-27-17
	PAH CCV	SV501911	SV501009	10 ppm	10 µl	↓	500 ppb	↓		12-29-17
	DFTPP	SV501912	SV420404	1000 ppm	50 µl	1.0 mL	50 ppm		ZT	1-2-18
15	Cal Mix #5	SV501913							ZT	1-2-18
20	PAH Stock	SV501914	SV501903	2000 ppm	1.0 mL	20 mL	100 ppm	MeCl2	ZT	1-2-18
	PAH Matrix Spike	SV501915	SV501914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	1	1
	PAH CCV	SV501916	SV501009	10 ppm	10 µl	200 µl	500 ppb	MeCl2	ZT	1-3-18
	BNA CCV	SV501917	SV5018 12/12	200 ppm	20/100 µl	1	20 ppm	1	1	1
25	BNA CCV	SV501918	SV5018 12/12	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	01-3-18
	PAH CCV	SV501919	SV501009	10 ppm	10 µl	200 µl	500 ppb			1-3-18
	PAH CCV	SV501920	SV501009	10 ppm						1-4-18
	PAH CCV	SV501921	SV501009	10 ppm						1-5-18
	PAH ICV	SV501922	SV501010	10 ppm						1
30	PAH CCV	SV501923	SV501009	10 ppm						11-8-18
	PAH CCV	SV501924								1
	PAH CCV	SV501925								11-9-18
	PAH CCV	SV501926								11-10-18
	BNA CCV	SV501927	SV5018 12/12	200 ppm	20/20 µl	200 µl	20 ppm			1
35										

31995 Recieved 2/24/17
8270 Calibration Mix #5, Revised
Lot# A0121340
Expire: 08/2022 Store: 10°C or colder
2000 µg/mL each in Methylene Chloride
1 mL ZT
RESTEK
Sonication required. Mix is photosensitive.

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Work continued from Page

Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
BNA 60	SV502001	SV5018 12/12	200 ppm	60/60 ul	200 ul	60 ppm	MeCl2	ZT	1-10-18
50	02			50/60		50			
35	03			35/35		35			
20	04			40/40	400 ul	20			
10	05			10/10	200 ul	10			
5	06	SV502004	20 ppm	50		5			
2	07			20		2			
1	08			10		1			
BNA ICV	SV502009	SV5 009-17 015-15	200 ppm	20/20		20			
BNA CCV	SV502010	SV5018 12/12	200 ppm	20/200 ul	200 ul	20 ppm			1-11-18
BNA CCV	SV502011	SV5018 12/12	800 ppm	20/20 ul	200 ul	20 ppm			1-15-18
PAH CCV	SV502012	SV501009	10 ppm	10 ul	200 ul	500 ppb			1
PAH CCV	SV502013	SV501009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	Kan	1-16-18
BNA CCV	SV502014	SV5018 10/12	200 ppm	20/200 ul	200 ul	20 ppm	1	1	1
8270 Surr. Stock	SV502015							ZT	1-17-18
8270 Surr.	SV502016	SV502015	4000 ppm	2 mL	100 mL	80 ppm	Acetone	ZT	1-17-18
PAH INST.	SV502017	SV501719	4000 ppm	40 ul	4 mL	40 ppm	MeCl2	ZT	1
PAH ICV	SV502018	SV501010	10 ppm	10 ul	200 ul	500 ppb	MeCl2	1	1
BNA CCV	SV502019	SV5018 12/12	200 ppm	20/20 ul	200 ul	20 ppm	1	1	1
Revised B/N Surr.	SV502020							ZT	1-17-18
PAH MDL Surr.	SV502021	SV502020	1000 ppm	5 ul	10 mL	0.5 ppm	Acetone	ZT	1-17-18

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)
FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280
Signal Word Warning

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-8270-SS 1 mL
Method 8270 - Surrogate Standard
4.0 mg/mL in CH2Cl2
Lot: 217041222 6 comp(s)
Exp: Apr 19, 2027 Storage: Ambient (>5 °C)
FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280
Signal Word Warning

31887
Revised B/N Surrogate Mix
Lot# A0124675
Expire: 01/2023 Store: 10°C or colder 1 mL
1000 µg/mL each in Methylene Chloride
RESTEK
Sonication required. Mix is photosensitive
Recieved 9-21-17

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Work continued from Page	Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH	MDL	SV502101	SV501914	100 ppm	50 ul	10 mL	500 ppb	Acetone	ZT	1-17-18
Matrix	Spike		SV420422	2000 ppm	5 ul	10 mL	1000 ppb	"	"	"
BNA	CCV	SV502102	SV501810/12	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	ZT	1-18-18
BNA	CCV	SV502103	"	"	"	"	"	"	"	"
PAH	CCV	SV502104	SV501009	10 ppm	10 ul	200 ul	500 ppb	"	"	"
1000	PAH	SV502105	SV501009	10 ppm	100 ul	1.0 mL	1000 ppb	"	"	"
	50	-06	SV502105	1000 ppb	50 ul	"	50	"	"	"
	20	-07	"	"	20	"	20	"	"	"
	10	-08	"	"	10	"	10	"	"	"
BNA	INT.	SV502109	SV501719	4000 ppm	500 ul	4 mL	500 ppm	"	"	1-19-18
BNA	60	SV502110	SV501810/12	200 ppm	60/60 ul	200 ul	60 ppm	MeCl2	ZT	"
	50	11	"	"	50/50	"	50	"	"	"
	35	12	"	"	35/35	"	35	"	"	"
	20	13	"	"	40/40	400 ul	20	"	"	"
	10	14	"	"	10/10	200 ul	10	"	"	"
	5	15	SV502113	20 ppm	50	"	5	"	"	"
	2	16	"	"	20	"	2	"	"	"
	1	17	"	"	10	"	1	"	"	"
BNA	ICV	18	SVS 001-17 017-15	200 ppm	20/20	"	20	"	"	"
PAH	CCV	SV502119	SV501009	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	1-19-18
PAH	CCV	SV502120	"	"	"	"	"	"	"	1
PAH	CCV	SV502121	"	"	"	"	"	"	KM	1-22-18
PAH	ICV	SV502122	SV501010	10 ppm	"	"	"	"	"	"
~~BAH CCV~~ ~~PAH CCV~~		SV502123 SV502124	SV501009	"	"	"	"	"	"	"
"		SV502124	"	"	"	"	"	"	"	1-23-18
BNA	CCV	SV502125	SV501810/12	200 ppm	20/20 ul	200 ul	20 ppm	"	"	"
BN	surr revised	SV502126 31887 Revised B/N Surrogate Mix Lot# A0124675 Expire: 01/2023 Store: 10°C or colder 1 mL 1000 µg/mL each in Methylene Chloride RESTEK Sonication required. Mix is photosensitive. Recieved 9-21-17								
PAH	SURR	SV502127	SV502126	1000 ppm	1.0 ml	100 ml	10 ppm	Acetone	"	"
PAH	CCV	SV502128	SV501009	200 ppm	10 ul	200 ul	500 ppb	MeCl2	"	1-24-18

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ANALYTE	LAB ID	STOCK ID	STOCK CONC.	STOCK VOL.	FINAL VOL.	FINAL CON.	SOLVENT	ANALYST	DATE
Cal Mix #5 PAH	SV502301	31995 8270 Calibration Mix #5, Revised Lot# A0122625 Expire: 10/2022 Store: 10°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK Sonication required. Mix is photosensitive. Recieved 2-24-17 ZT						ZT	2-2-18
PAH CCV Mix	SV502302	SV502301	2000 ppm	50 µl	10 mL	10 ppm	$MeCl_2$	ZT	2-2-18
		SV502020	1000 ppm	100 µl	⊥	⊥	⊥	⊥	⊥
PAH INSI	SV502303	SV501719	4000 ppm	40 µl	4 mL	40 ppm	$MeCl_2$	ZT	⊥
PAH Ical									
5000	SV502304	SV502302	10 ppm	500 µl	1.0 mL	500 ppb	$MeCl_2$	ZT	2-2-18
1000	05	⊥	⊥	100	⊥	1000	⊥	⊥	⊥
500	06			50		500			
200	07			20		200			
100	08			10		100			
50	09	SV502305	1000 ppb	50		50			
20	10	⊥	⊥	20		20			
10	11			10	⊥	10	⊥	⊥	⊥
PAH ICV	SV502312	SV501010	10 ppm	10 ⊥	200 µl	500 ⊥	⊥	⊥	⊥
PAH ICV	SV502313	SV501010	⊥	⊥	⊥	⊥	⊥	⊥	2-5-18
PAH CCV	SV502314	SV502302	10 ppm	10 µl	200 µl	500 ppb	$MeCl_2$	ZT	2-6-18
BNA CCV	SV502315	SV501812	200 ppm	20/20 µl	200 µl	20 ppm	⊥	⊥	⊥
PAH CCV	SV502316	SV502302	10 ppm	10 µl	200 µl	500 ppb	⊥	⊥	2-7-18
BNA CCV	SV502317	SV501812	200 ppm	20/20 µl	200 µl	20 ppm	⊥	⊥	⊥
PAH CCV	SV502318	SV502302	10 ppm	10 µl	⊥	500 ppb	⊥	⊥	⊥
PAH INSI	SV502319	SV501719	4000 ppm	40 µl	4 mL	40 ppm	⊥	⊥	⊥
PAH ICV	SV502320	SV501010	10 ppm	10 µl	200 µl	500 ppb	⊥	⊥	⊥
1,4 dioxane Std. (ICV)	SV502321	31853 1,4-dioxane Lot# A0128697 Expire: 06/2022 Store: 0°C or colder 1 mL 2000 µg/mL each in Methylene Chloride RESTEK						ZT	2-8-18
1,4 dioxane	SV502322	SV502321	2000 ppm	10 µl	2 mL	10 ppm	$MeCl_2$	ZT	2-8-18
ICV Stock		SV502020	1000 ppm	20 µl	⊥	⊥	⊥	⊥	⊥

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NOTEBOOK INSERT LABEL

Polynuclear Aromatic Hydrocarbons Mix CRM47543
Lot: ~~LC07521V~~ XA26145V EXP: APR/~~2017~~ 2020 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED:
SUPELCO Solutions within 595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

	Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
	PAH										
	ICV		SV503401							ZT	4-18-18
5	Stock										
	Solution										
	PAH	ICV	SV503402	SV503401	2000 ppm	50 ul	10 ml	10 ppm	MeCl2	ZT	4-18-18
	Stock			SV502020	1000 ppm	100 ul	"	"	"	"	
	PAH	ICV	SV503403	SV503402	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	4-18-18
10	PAH	CCV	SV503404	SV502302	10 ppm	10 ul	200 ul	500 ppb			4-19-18
	BNA	CCV	SV503405	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			4-19-18
	PAH	CCV	SV503406	SV502302	10 ppm	10 ul	200 ul	500 ppb			"
	PAH	ICV	SV503407	SV503402	10 ppm	10 ul	200 ul	500 ppb			
	PAH	CCV	SV503408	SV502302	10 ppm	10 ul	200 ul	500 ppb			4-20-18
15	BNA	CCV	SV503409	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			"
	BNA	60	SV503410	SV502645	200 ppm	60/60 ul	200 ul	60 ppm			4-22-18
		50	-11			50/50	"	50			
		35	-12			35/35	"	35			
		20	-13			40/40	400 ul	20			
20		10	-14			10/10	200 ul	10			
		5	-15	SV503413	20 ppm	50	"	5			
		2	-16	"	"	20	"	2			
		1	-17	"	"	10	"	1			
	BNA	ICV	SV503418	SV501849	200 ppm	20/20 ul	"	20			
25	BNA	CCV	SV503419	SV502645	200 ppm	20/20 ul	200 ul	20 ppm			4-23-18
	PAH	CCV	SV503420	SV502302	10 ppm	10 ul	200 ul	500 ppb			"
	PAH	CCV	SV503421	SV502302	10 ppm	10 ul	200 ul	"			
	PAH	CCV	SV503422	SV502302	10 ppm	10 ul	200 ul				4-24-18
	PAH	CCV	SV503423	SV502302	10 ppm	10 ul	200 ul				4-25-18
30	~~PAH CCV~~		~~SV5035~~								

41.29

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Analyte		Lab ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst ~~Date~~	Date
PAH	CCV	SVS044461	SVS02302	10 ppm	10 ul	200 ul	500 ppb	$MeCl_2$	ZT	6-15-18
PAH	CCV	SVS044462	SVS02302	10 ppm	10 ul	200 ul	500 ppb	"	"	"
PAH	ICV	SVS044463	SVS03402	10 ppm	10 ul	200 ul	"	"	"	"
PAH	CCV	SVS044464	SVS02301	2000 ppm	50 ul	10 mL	10 ppm	"	"	"
MIX			SVS02020	1000 ppm	100 ul	"	"	"	"	"
PAH	5000	SVS044465	SVS044404	10 ppm	500 ul	1.0 mL	5000 ppb	"	"	"
	1000	66	"	"	100	"	1000	"	"	"
	500	67	"	"	50	"	500	"	"	"
	200	68	"	"	20	"	200	"	"	"
	100	69	"	"	10	"	100	"	"	"
	50	70	SVS044406	1000 ppb	50	"	50	"	"	"
	20	71	"	"	20	"	20	"	"	"
	10	72	"	"	10	"	10	"	"	"
PAH	1000	SVS044473	SVS044404	10 ppm	100 ul	1.0 mL	1000 ppb	"	"	6-18-18
	50	SVS044474	SVS044473	1000 ppb	50	"	50	"	"	"
	20	75	"	"	20	"	20	"	"	"
	10	76	"	"	10	"	10	"	"	"
PAH	5000	SVS044477	SVS044404	10 ppm	500 ul	"	500 ppb	"	"	"
PAH	ICV	SVS044478	SVS03402	10 ppm	10 ul	200 ul	500 ppb	"	"	"
PAH	ICV	SVS044479	"	"	"	"	"	"	"	"
DCTPD		SVS-044-20	SVS-033-20	1000 ppm	50 µl	1 ml	50 ppm	$MeCl_2$	um	6-19-18
PAH	CCV	~~SVS044421~~ SVS044480	SVS-044-4	10 ppm	10 µl	200 µl	500 ppb	"	"	"
BNA	CCV	SVS044422	SVS-043-9	200 ppm	20/20 µl	200 µl	20 ppm	"	"	"
BNA	CCV	SVS044423	SVS043-9	200 ppm	20/20 µl	200 ul	20 ppm	"	ZT	6-20-18
PAH	CCV	SVS044424	SVS044404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
BNA	CCV	SVS044425	SVS043-9	200 ppm	20/20 ul	200 ul	20 ppm	"	"	6-21-18
PAH	CCV	SVS044426	SVS044404	10 ppm	10 ul	200 ul	500 ppb	"	"	"
BNA	60	SVS044427	SVS043-9	200 ppm	60/60 ul	200 ul	60 ppm	"	"	"
	50	28	"	"	50/50	"	50	"	"	"
	35	29	"	"	35/35	"	35	"	"	"
	20	30	"	"	40/40	400 ul	20	"	"	"
	10	31	"	"	10/10	200 ul	10	"	"	"
BNA	ICV	32	SVS043-9	"	20/20 ul	"	20 ppm	"	"	"

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	Analyte	LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
	1,4-diox Stock	SVS04701	SVS02020	1000 ppm	20 ul	1	1			
5	100 1,4-Diox	SVS04702	SVS02322 047-01	10 ppm	10 ul	1 mL	100 ppb			
	200	03			20		200			
	500	04			50		500			
	1000	05			100		1000			
	2000	06			200		2000			
10	1,4-Diox ICV	07	SVS02322		10 ul	200 ul	500 ppb			
	PAH CCV	SVS04708	SVS04404	10 ppm	10 ul	200 ul	500 ppb			7-12-18
	BNA CCV	SVS04709	SVS0438/9	200 ppm	20/200 ul	200 ul	20 ppm			1
	PAH CCV	SVS04710	SVS04404	10 ppm	10 ul	200 ul	500 ppb			7-13-18
	PAH ICV	SVS04711	SVS03402	10 ppm	10 ul	200 ul	500 ppb			
15	PAH INST.	SVS04712	SVS03025	4000 ppm	40 ul	4 mL	40 ppm			
	TCLP Std.	SVS04713							ZT	

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TCLP-BNA 1 mL
Semi-Volatile Spiking Solution
2.0 mg/mL in CH2Cl2
Lot: 215091295 13 comp(s)
Exp: Sep 29, 2018 Storage: Refrig (0-5 °C)

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H350 H360, H350 P338
P360 P331 P233 P282
P202 P264 P284 P280

Signal Word Warning

20	TCLP Spike	SVS04714	SVS04713	2000 ppm	1.0 mL	10 mL	200 ppm	Acetone	ZT	7-13-18
	PAH CCV	SVS04715	SVS04404	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	7-16-18
	BNA CCV	SVS04716	SVS0438/9	200 ppm	20/200 ul		20 ppm			1
	DFTPP	SVS04717	SVS03320	1000 ppm	50 ul	1 mL	50 ppm			7-17-18
	PAH CCV	SVS04718	SVS04404	10 ppm	10 ul	200 ul	500 ppb			
25	BNA CCV	SVS04719	SVS0438/9	200 ppm	20/200 ul		20 ppm			
	BNA CCV	SVS04720	SVS0438/9	200 ppm	20/200 ul		1			7-18-18
	PAH CCV	SVS04721	SVS04404	10 ppm	10 ul		500 ppb			
	PAH 5000	SVS04722	SVS04404	10 ppm	500 ul	1.0 mL	5000 ppb			
	1000	23			100		1000			
30	500	24			50		500			
	200	25			20		200			
	100	26			10		100			
	50	27	SVS04723	1000 ppb	50		50			
	20	28			20		20			
35	10	29			10		10			

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	Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
	8270		SVS05001	SVS04911	2000 ppm	2.0 mL	50 mL	80 ppm	MeAcetone	ZT	8-6-18
	Spike			SVS04912	1000 ppm	"	"	40 ppm	"	"	
5	PAH	Spike	SVS05002	SVS01914	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	ZT	
	INSTD		SVS05003								
	Stock										
10	BNA	INST	SVS05004	SVS05003	4000 ppm	500 µl	4 mL	500 ppm	MeCl2	ZT	8-6-18
	BNA	60	SVS05005	SVS04389	200 ppm	60/60 µl	200 µl	60 ppm			
		50	06			50/50		50			
		35	07			35/35	"	35			
		20	08			40/40	400 µl	20			
15		10	09	"	"	10/10	200 µl	10			
		5	10	SVS05008	20 ppm	50		5			
		2	11	"	"	20		2			
		1	12	"	"	10		1			
	BNA	ICV	SVS05013	SVS03912	200 ppm	20/20 µl		20 ppm			
20	BNA	CCV	SVS05014	SVS04389	200 ppm	20/50 µl		20 ppm			8-7-18
	PAH	CCV	SVS05015	SVS04404	10 ppm	50 µl		500 ppb			
	PAH	INST.	SVS05016	SVS03025	4000 ppm	40 µl	4 mL	40 ppm			
	PAH	CCV	SVS05017	SVS04404	10 ppm	10 µl	200 µl	500 ppb			
	PAH	ICV	SVS05018	SVS03402	10 ppm	50 µl					
25	PAH	CCV	SVS05019	SVS04404	10 ppm	10 µl					8-8-18
	PAH	CCV	SVS05020	SVS04404	10 ppm	10 µl					8-9-18
	BNA	CCV	SVS05021	SVS04389	200 ppm	20/20 µl		20 ppm			
	PAH										
	Surr.		SVS05022							ZT	8-14-18
30	Stock										
	PAH	Surr.	SVS05023	SVS05022	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	8-14-18
	BNA	CCV	SVS05024	SVS04389	200 ppm	20/20 µl	200 µl	20 ppm	MeCl2	ZT	
35	PAH	CCV	SVS05025	SVS04404	10 ppm	10 µl	200 µl	500 ppb			

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Z-014J
Internal Standard Mix
4.0 mg/mL in CH2Cl2
Lot: 217111166
Exp: Nov 14, 2027
1 mL
6 comp(s)
Storage: Ambient (>5 °C)/Sonicate

FOR LABORATORY USE ONLY
H315 H335 H332 H302
H351 H350 P338 P360
P331 P233 P262 P202
P264 P284 P280

Signal Word: Warning

31887
Revised B/N Surrogate Mix
Lot# A0124675
Expire: 01/2023 Store: 10°C or colder
1000 µg/mL each in Methylene Chloride
1 mL
RESTEK
Rec. 1-26-18 ZT
Agitation required. Mix is photosensitive.

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Analyte	LAB ID	Stock ID	Stock conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date	
PAH CCV	SV505201	SV504404	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	8-22-18	
BNA CCV	SV505202	SV5051 5/6	200 ppm	20/20 ul	1	20 ppm				
PAH INST	SV505203	SV505003	4000 ppm	40 ul	4 mL	40 ppm				
PAH CCV	SV505204	SV504404	10 ppm	10 ul	200 ul	500 ppb				
1,4 Diox CCV	SV505205	SV504701	10 ppm	"	"	"				
PAH ICV	SV505206	SV503402	"	"	"	"		VM	8-22-18	
1,4 dioxane Spike	SV505207	SV502321	2000 ppm	125 ul	50 mL	5 ppm	Acetone	ZT	8-22-18	
1,4 dioxane		SV502321	2000 ppm	10 ul	2 mL	10 ppm	MeCl2			
ICV Stock	SV505208	SV502020	1000 ppm	20 ul	1	1				
ICV Diox	SV505209	SV505208	10 ppm	10 ul	200 ul	500 ppb				
PAH CCV	SV505210	SV504404	10 ppm	10 ul	200 ul	500 ppb			8-23-18	
BNA CCV	SV505211	SV5051 5/6	200 ppm	20/20 ul	"	20 ppm			"	
PAH CCV	SV505212	SV504404	10 ppm	10 ul	"	500 ppb			8-24-18	
BNA CCV	SV505213	SV5051 5/6	200 ppm	20/20 ul	"	20 ppm				
1,4 Diox CCV	SV505214	SV504701	10 ppm	10 ul	"	500 ppb				
PAH CCV	SV505215	SV504404	10 ppm	10 ul	"	500 ppb			8-27-18	
BNA CCV	SV505216	SV5051 5/6	200 ppm	20/20 ul	"	20 ppm			"	
BNA CCV	SV505217	"	"	"	"	"			8-28-18	
PAH CCV	SV505218	SV504404	10 ppm	10 ul	"	500 ppb				
1,4 Diox CCV	SV505219	SV504701	10 ppm	10 ul	"	"				
BNA CCV	SV505220	SV5051 5/6	200 ppm	20/20 ul	"	20 ppm		MM	8-29-18	
PAH CCV	SV505221	SV504404	10 ppm	10 ul	"	500 ppb			"	
PAH CCV	SV505222	SV504404	"	"	"	"			8-30-18	
BNA CCV	SV505223	SV5051 5/6	200 ppm	20/20 ul	"	20 ppm			"	
PAH INST.	SV505224	SV505003	4000 ppm	40 ul	4 mL	40 ppm		ZT	8-30-18	
PAH CCV	SV505225	SV504404	10 ppm	10 ul	200 ul	500 ppb				
PAH ICV	SV505226	SV503402	10 ppm	10 ul	"	"				
BNA CCV	SV505227	SV5051 5/6	200 ppm	20/20 ul	"	20 ppm		MM	8-31-18	
PAH CCV	SV505228	SV504404	10 ppm	10 ul	"	500 ppb		"	"	
BNA INST	SV505229	SV505003	4000 ppm	500 ul	4 mL	500 ppm		ZT	8-31-18	
BNA CCV	SV505230	SV5051 5/6	200 ppm	20/20 ul	200 ul	20 ppm			"	
BNA CCV	SV505231	SV5051 5/6	"	"	"	"			9-1-18	

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Analyte		LAB ID	Stock ID	Stock Conc.	Stock Vol.	Final Vol.	Final Conc.	Solvent	Analyst	Date
PAH	CCV	SV505301	SV044404	10 ppm	10 ul	200 ul	500 ppb	MeCl2	ZT	9-1-18
PAH	CCV	SV505302	1	1	1	1	1	1	1	1
PAH	ICV	SV505303	SV034402	1	1	1	1	1	1	1
DFTPP		SV505304	SV033320	1000 ppm	50 ul	1 mL	50 ppm	1	1	9-4-18
BNA	CCV	SV505305	SV05115/6	200 ppm	20/20 ul	200 ul	20 ppm	1	1	1
PAH	CCV	SV505306	SV044404	10 ppm	10 ul	1	500 ppb	1	1	1
BNA	CCV	SV505307	SV05115/6	200 ppm	20/20 ul	1	20 ppm	1	mm	9-5-18
PAH	CCV	SV505308	SV044404	10 ppm	10 ul	1	1	1	1	1
BNA	60	SV505309	SV05115/6	200 ppm	60/60 ul	200 ul	60 ppm	1	ZT	9-5-18
	50	10	1	1	50/50	1	50	1	1	1
	35	11	1	1	35/35	1	35	1	1	1
	20	12	1	1	20/20	400 ul	20	1	1	1
	10	13	1	1	10/10	200 ul	10	1	1	1
	5	14	SV505312	20 ppm	50	1	5	1	1	1
	2	15	1	1	20	1	2	1	1	1
	1	16	1	1	10	1	1	1	1	1
BNA	ICV	17	SV05311/2	200 ppm	20/20	1	20	1	1	1
PAH	CCV	SV505318	SV044404	10 ppm	10 ul	200 ul	500 ppb	1	1	9-6-18
PAH Surr. Stock		SV505319	31887 Revised B/N Surrogate Mix Lot# A0134896 Expire: 01/2024 Store: 10°C or colder 1000 µg/mL each in Methylene Chloride 1 mL RESTEK Rec. 9-3-18 ZT						ZT	9-6-18
PAH Surr.		SV505320	SV505319	1000 ppm	1 mL	100 mL	10 ppm	Acetone	ZT	9-6-18
BNA	CCV	SV505321	SV05115/6	200 ppm	20/20 ul	200 ul	20 ppm	MeCl2	1	1

Work continued to Page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE WITNESS DATE

Pentachlorophenol by EPA 8151A Data Package

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration data
- Administrative Forms

Quantitation Report (QT Reviewed)

Data File : F0905007.D
Sample : 08-393-01

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 14:44:46
Operator :
Misc :
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 16:59:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.734	8.390	10612590	11871718	86.156	83.496m
	Spiked Amount 100.000			Recovery	=	86.16%	83.50%
	Target Compounds						
1) A	Dalapon	3.877f	3.454f	6760141	1814241	91.872	19.040 #
2) A	2,4,6-Tri...	7.086	6.753	643117	594243	0.671	0.533
4) A	Dicamba	0.000	0.000	0	0	N.D.	N.D.
5) A	MCPP	0.000	8.707	0	12061110	N.D.	33471.696 #
6) A	MCPA	9.336	0.000	730765	0	1989.740	N.D. #
7) A	Dichlorprop	9.778f	0.000	798186	0	6.772	N.D. #
8) A	2,4-D	10.059	0.000	6216942	0	44.939	N.D. #
9) A	Pentachlo...	0.000	9.976f	0	680224	N.D.	0.174 #
10) A	2,4,5-TP	0.000	10.677	0	2528593	N.D.	3.318 #
11) A	2,4,5-T	0.000	0.000	0	0	N.D.	N.D.
12) A	2,4-DB	12.006f	0.000	5779335	0	84.858	N.D. #
13) a	Bentazon	0.000	0.000	0	0	N.D.	N.D.
14) A	Dinoseb	0.000	12.087	0	1932000	N.D.	5.621 #

KMS 9/5/18

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

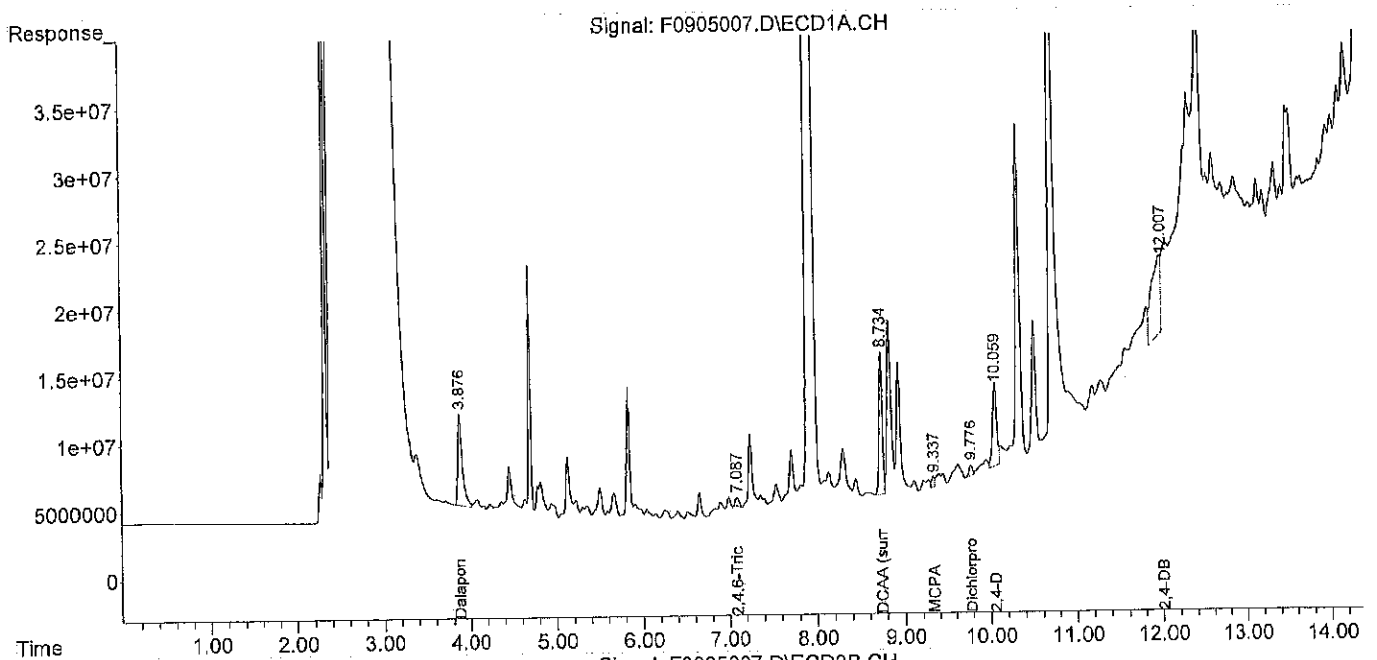
Quantitation Report (QT Reviewed)

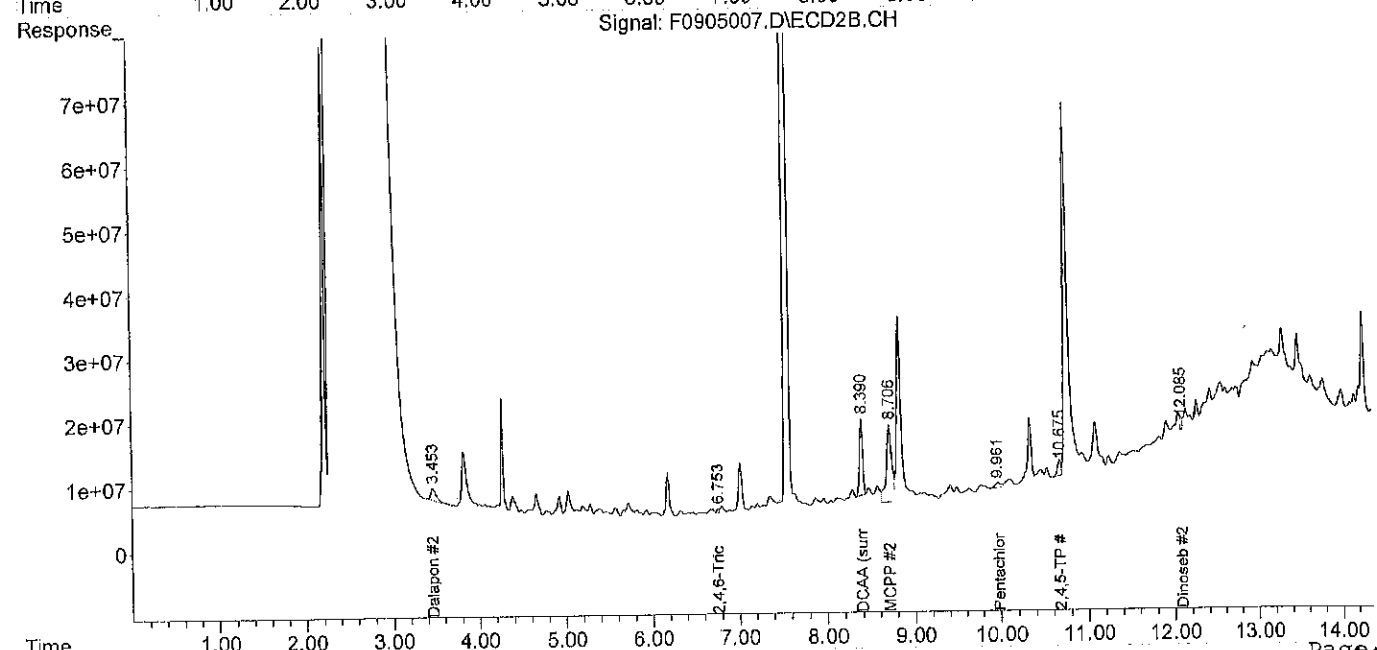
Data File : F0905007.D
Sample : 08-393-01

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 14:44:46
Operator :
Misc :
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 16:59:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0905011.D
Sample : 08-393-02

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 16:03:36
Operator :
Misc :
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 09:34:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.728	8.391	11140039	10758362	90.438	75.666m
	Spiked Amount 100.000			Recovery	=	90.44%	75.67%
	Target Compounds						
1)	A Dalapon	0.000	3.449f	0	357799	N.D.	3.755 #
2)	A 2,4,6-Tri...	7.081	6.752	1017502	532166	1.061	0.477 #
4)	A Dicamba	0.000	0.000	0	0	N.D.	N.D.
5)	A MCPP	0.000	8.704	0	3758769	N.D.	12111.137 #
6)	A MCPA	0.000	8.970	0	5959935	N.D.	12884.968 #
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.
8)	A 2,4-D	10.053f	0.000	1348275	0	9.746	N.D. #
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.
10)	A 2,4,5-TP	11.089	10.669f	103535	1755199	0.179	2.303 #
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.
12)	A 2,4-DB	0.000	11.730f	0	2152550	N.D.	25.332 #
13)	a Bentazon	13.019f	0.000	298097	0	6.173	N.D. #
14)	A Dinoseb	13.152f	0.000	1646404	0	7.655	N.D. #

KMS 9-6-18

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

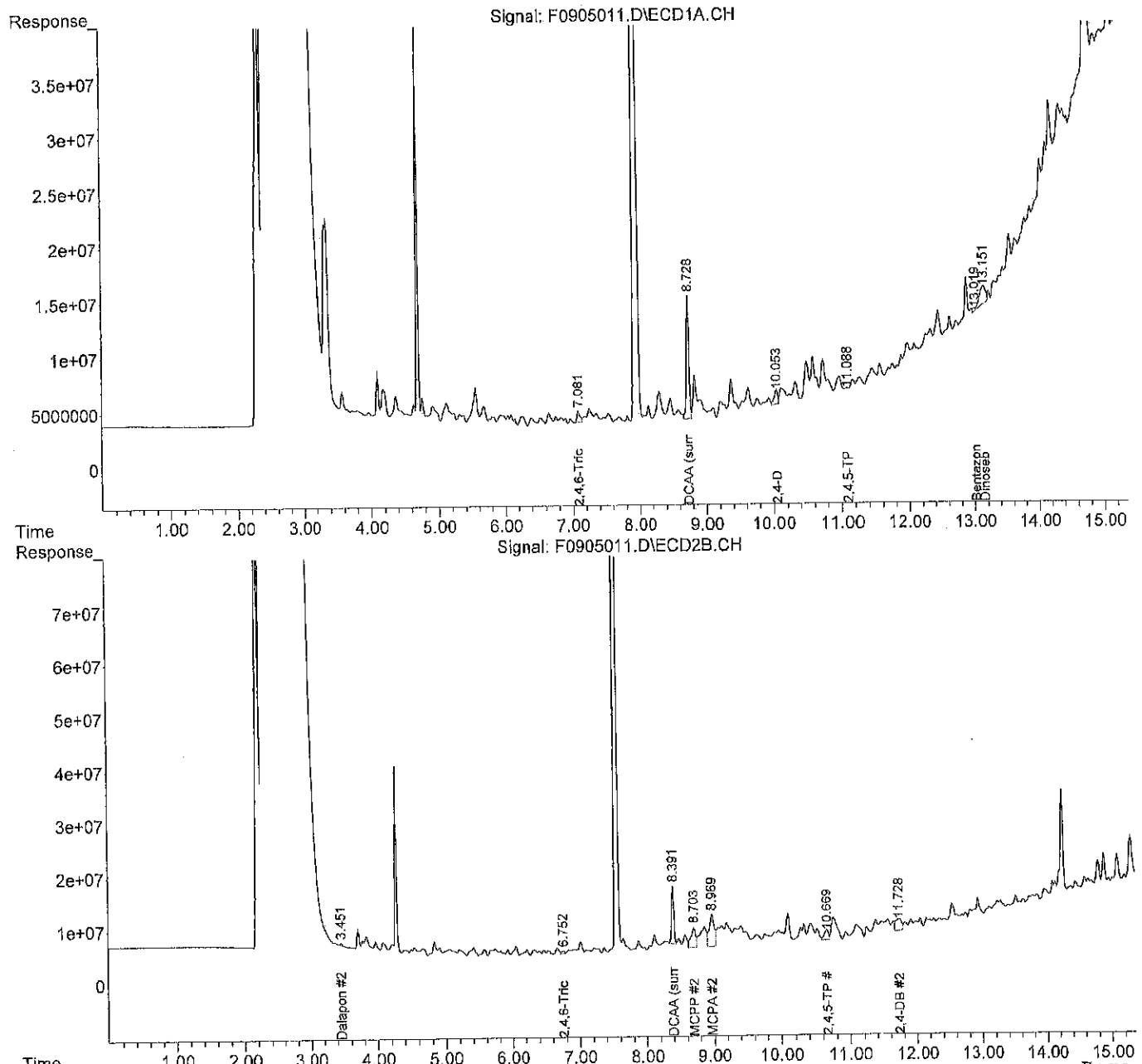
Quantitation Report (QT Reviewed)

Data File : F0905011.D
Sample : 08-393-02

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 16:03:36
Operator :
Misc :
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 09:34:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : F0905012.D
Sample : 08-393-03

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 16:23:58
Operator :
Misc :
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 09:35:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.728	8.395	8202480	8276497	66.590	58.210m	
	Spiked Amount 100.000			Recovery	=	66.59%	58.21%	
	Target Compounds							
1)	A Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2)	A 2,4,6-Tri...	0.000	6.751	0	275132	N.D.	0.247	#
4)	A Dicamba	0.000	8.636f	0	523639	N.D.	0.991	#
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A MCPA	9.321	0.000	346308	0	1119.359	N.D.	#
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A 2,4-D	0.000	9.719f	0	1626435	N.D.	9.039	#
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A 2,4,5-TP	11.082	10.705f	3740101	1459156	6.454	1.915	#
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A 2,4-DB	12.017f	0.000	2430215	0	35.683	N.D.	#
13)	a Bentazon	0.000	0.000	0	0	N.D.	N.D.	
14)	A Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

KMS 9-6-18

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

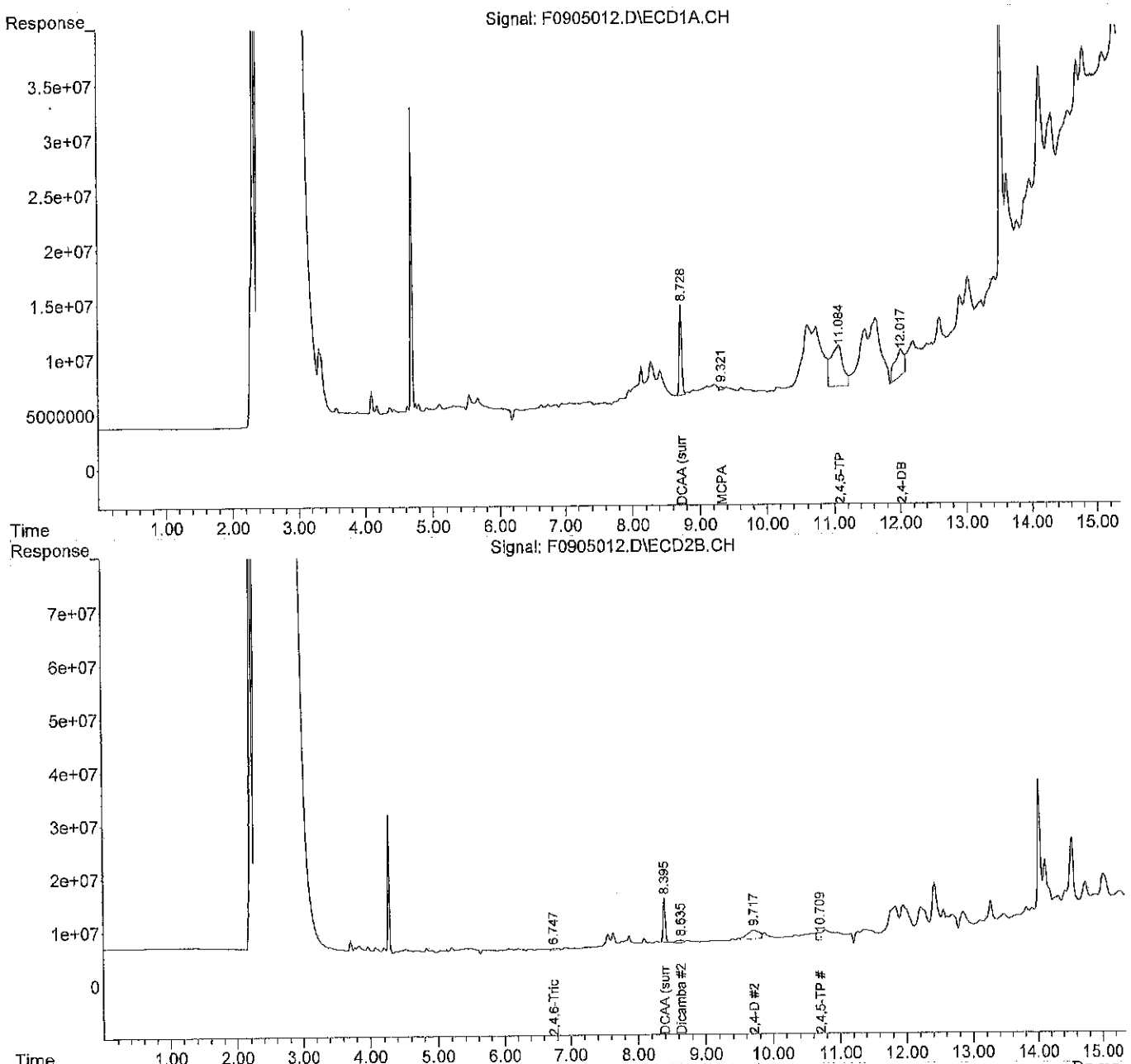
Quantitation Report (QT Reviewed)

Data File : F0905012.D
Sample : 08-393-03

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 16:23:58
Operator :
Misc :
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 09:35:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data File : F0905014.D
Sample : 08-393-04

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 17:04:55
Operator :
Misc :
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 09:36:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.726	8.393	11143902	11051239	90.469	77.725m	
	Spiked Amount 100.000			Recovery	=	90.47%	77.72%	
	Target Compounds							
1)	A Dalapon	0.000	0.000	0	0	N.D.	N.D.	
2)	A 2,4,6-Tri...	7.083	6.757	389404	832356	0.406	0.746	#
4)	A Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A MCPA	9.327	8.970	1604512	2211184	3967.841	5259.210	#
7)	A Dichlorprop	0.000	9.369	0	1073243	N.D.	7.667	#
8)	A 2,4-D	10.051f	0.000	364551	0	2.635	N.D.	#
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A 2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A 2,4-DB	0.000	11.701f	0	936404	N.D.	11.020	#
13)	a Bentazon	13.002	0.000	844555	0	17.490	N.D.	#
14)	A Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

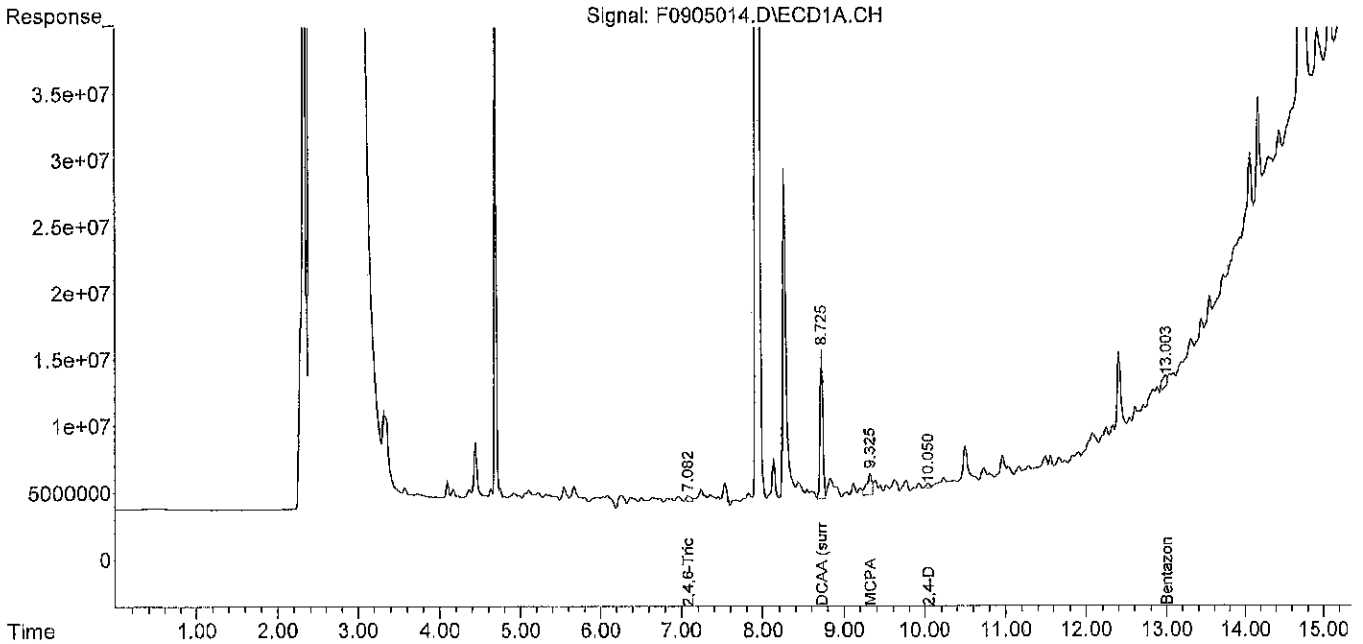
Quantitation Report (QT Reviewed)

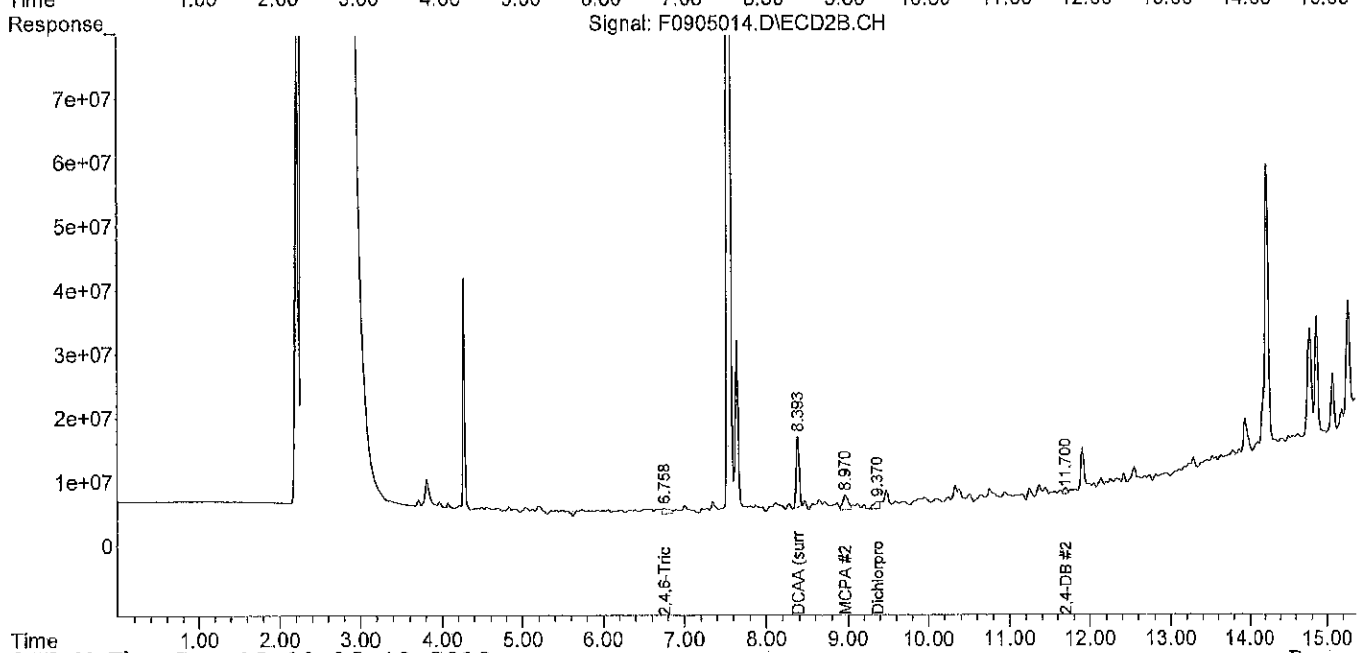
Data File : F0905014.D
Sample : 08-393-04

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 17:04:55
Operator :
Misc :
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 09:36:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0905015.D
Sample : 08-393-05

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 17:25:23
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 09:37:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.729	8.395	10298574	10030988	83.607	70.550m	
	Spiked Amount 100.000			Recovery	=	83.61%	70.55%	
	Target Compounds							
1)	A Dalapon	0.000	3.457	0	920631	N.D.	9.662	#
2)	A 2,4,6-Tri...	7.087	0.000	275221	0	0.287	N.D.	#
4)	A Dicamba	0.000	0.000	0	0	N.D.	N.D.	
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A MCPA	9.331	0.000	2859433	0	6808.890	N.D.	#
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.	
8)	A 2,4-D	0.000	9.733	0	2087918	N.D.	11.604	#
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.	
10)	A 2,4,5-TP	0.000	0.000	0	0	N.D.	N.D.	
11)	A 2,4,5-T	0.000	0.000	0	0	N.D.	N.D.	
12)	A 2,4-DB	0.000	11.709	0	2470623	N.D.	29.075	#
13)	a Bentazon	0.000	0.000	0	0	N.D.	N.D.	
14)	A Dinoseb	0.000	0.000	0	0	N.D.	N.D.	

KMS 9-6-18

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

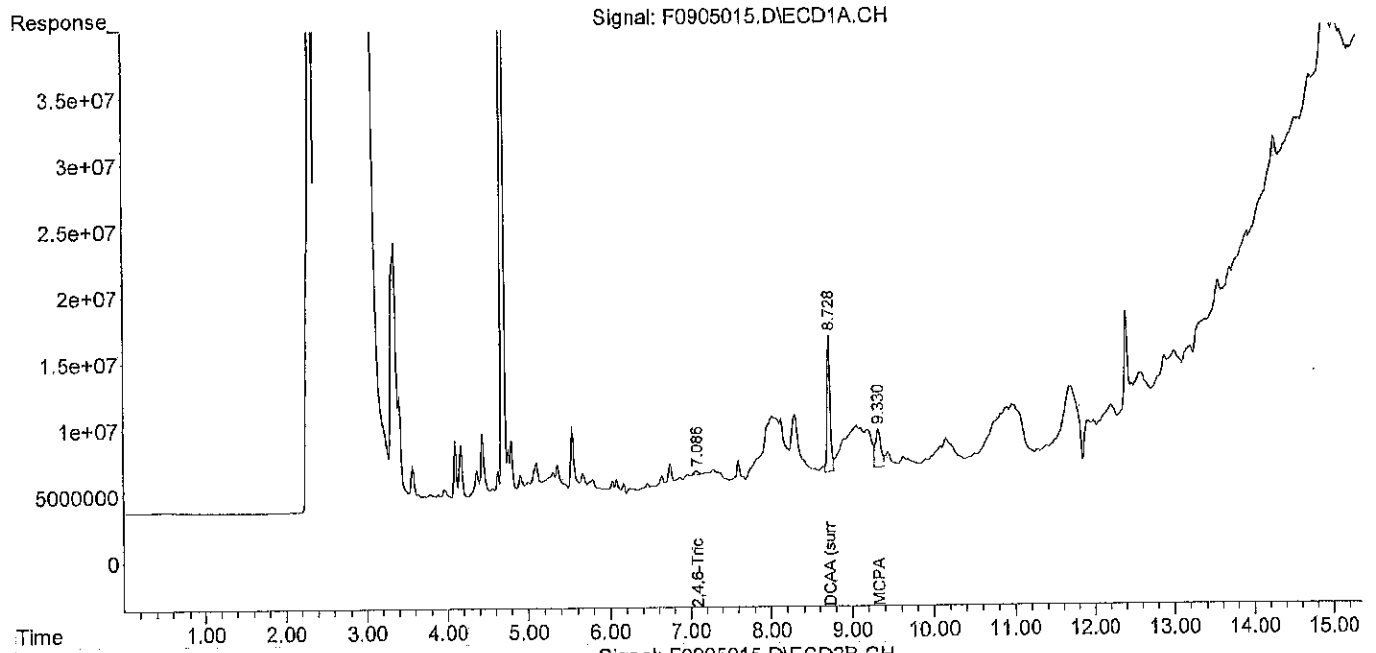
Quantitation Report (QT Reviewed)

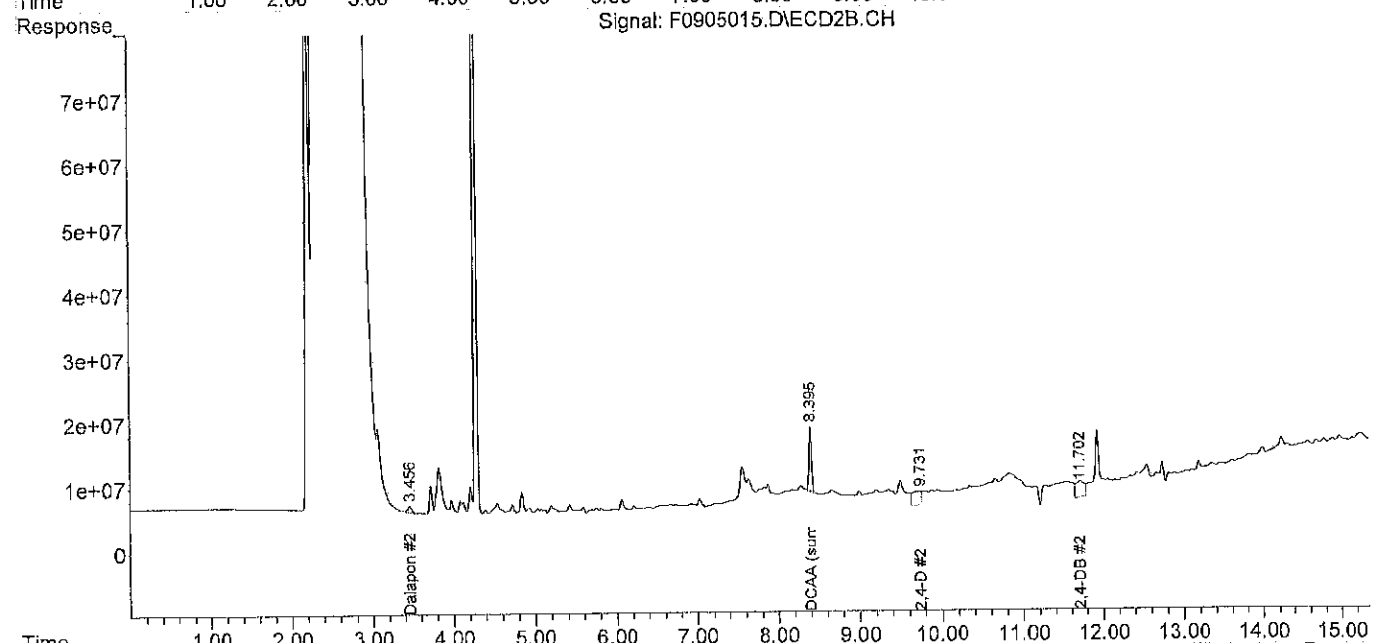
Data File : F0905015.D
Sample : 08-393-05

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 17:25:23
Operator :
Misc :
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 09:37:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0905004.D
Sample : MB0905W1

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 13:36:39
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 14:14:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.737	8.392	6144534	6070136	49.883m	42.692m
	Spiked Amount 100.000			Recovery =		49.88%	42.69%
	Target Compounds						
1)	A Dalapon	0.000	0.000	0	0	N.D.	N.D.
2)	A 2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4)	A Dicamba	0.000	0.000	0	0	N.D.	N.D.
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.
6)	A MCPA	0.000	0.000	0	0	N.D.	N.D.
7)	A Dichlorprop	0.000	0.000	0	0	N.D.	N.D.
8)	A 2,4-D	0.000	0.000	0	0	N.D.	N.D.
9)	A Pentachlo...	0.000	0.000	0	0	N.D.	N.D.
10)	A 2,4,5-TP	0.000	10.695	0	5791330	N.D.	7.599m#
11)	A 2,4,5-T	11.410f	0.000	109728	0	0.226m	N.D. #
12)	A 2,4-DB	12.003f	0.000	110788	0	1.627m	N.D. #
13)	a Bentazon	0.000	0.000	0	0	N.D.	N.D.
14)	A Dinoseb	0.000	0.000	0	0	N.D.	N.D.

KMS 9.5.18

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

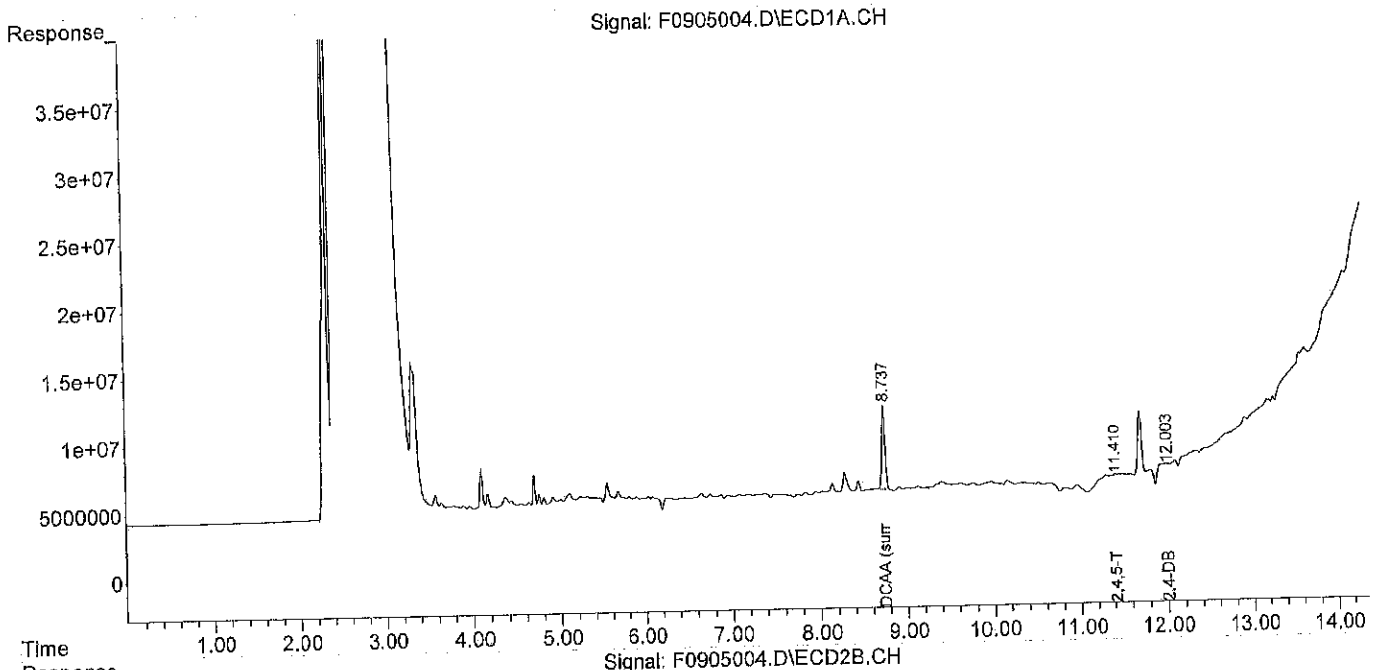
Quantitation Report (QT Reviewed)

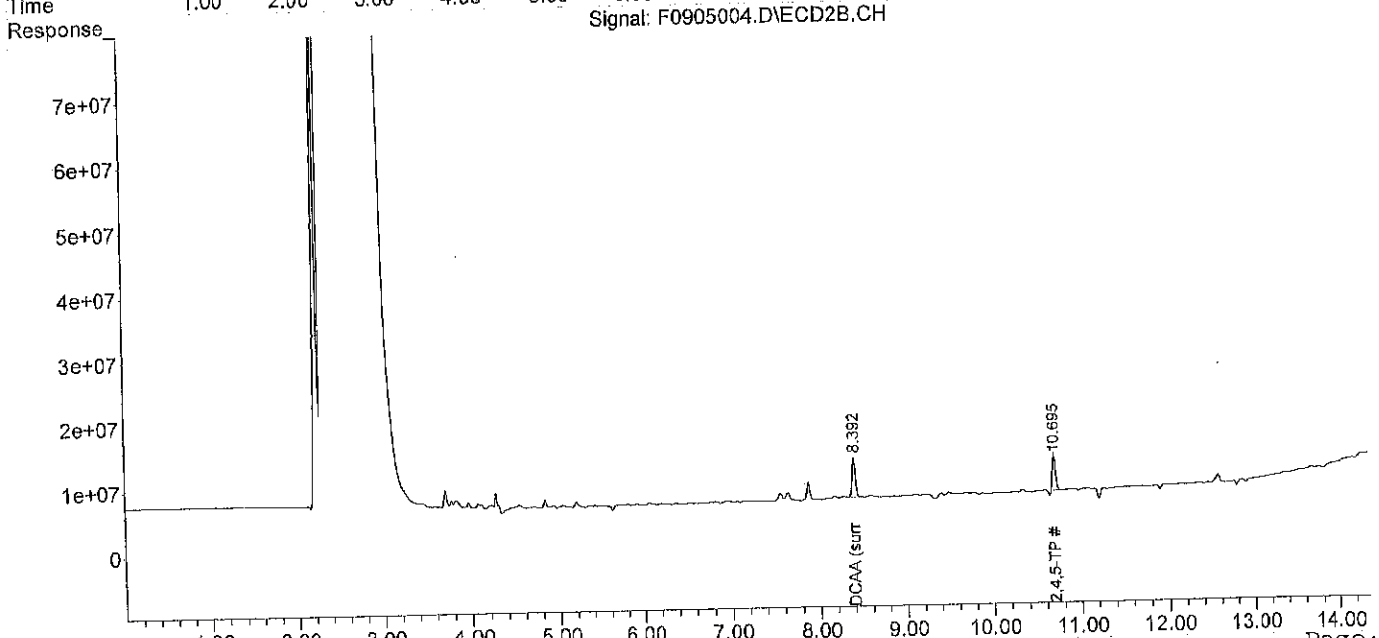
Data File : F0905004.D
Sample : MB0905W1

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 13:36:39
Operator :
Misc :
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 14:14:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0905005.D
Sample : SB0905W1

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 13:55:50
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 14:17:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

KMS 9-5-18

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.727	8.390	10836502	11449968	87.974	80.530m
	Spiked Amount 100.000			Recovery	=	87.97%	80.53%
	Target Compounds						
1) A	Dalapon	3.874f	3.474	3147505	2985099	42.775	31.327 #
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.
4) A	Dicamba	8.973	8.617	53225570	54849388	123.419m	103.828m
5) A	MCPP	9.151	8.702	7394887	8450979	23946.631	24183.423
6) A	MCPA	9.328	8.967	8485418	7856061	19545.709	16742.091m
7) A	Dichlorprop	9.795	9.374	25603268	26736742	217.217	190.990m
8) A	2,4-D	10.066	9.730	16330297	18298191	118.043	101.697m
9) A	Pentachlo...	10.398	9.990	42521344	45851407	13.580	11.735m
10) A	2,4,5-TP	11.089	10.685	142.3E6	154.3E6	245.647	202.528m
11) A	2,4,5-T	11.417	11.128	79004144	87595406	162.741	135.686m
12) A	2,4-DB	12.025	11.711	17701273	17365614	259.908m	204.366m
13) a	Bentazon	12.972f	12.625f	919241	1744086	19.036	24.100 #
14) A	Dinoseb	13.137	12.080	40124489	50665318	186.571m	147.418m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

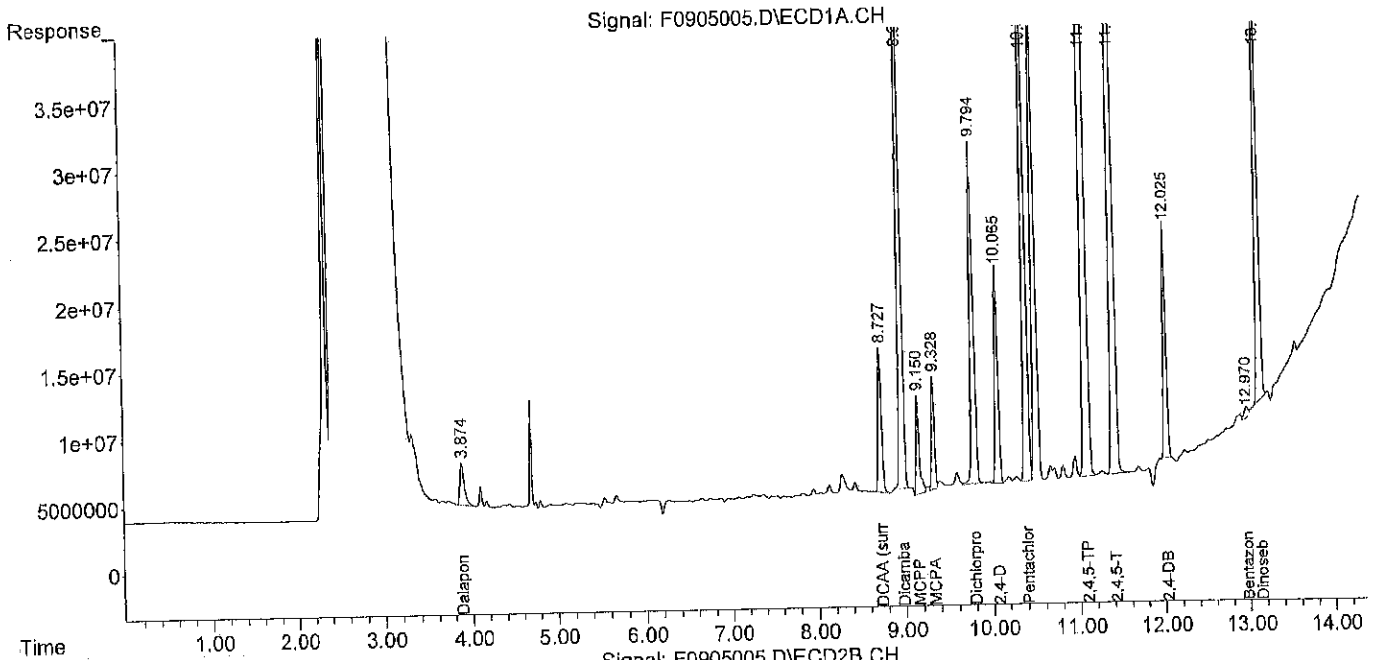
Quantitation Report (QT Reviewed)

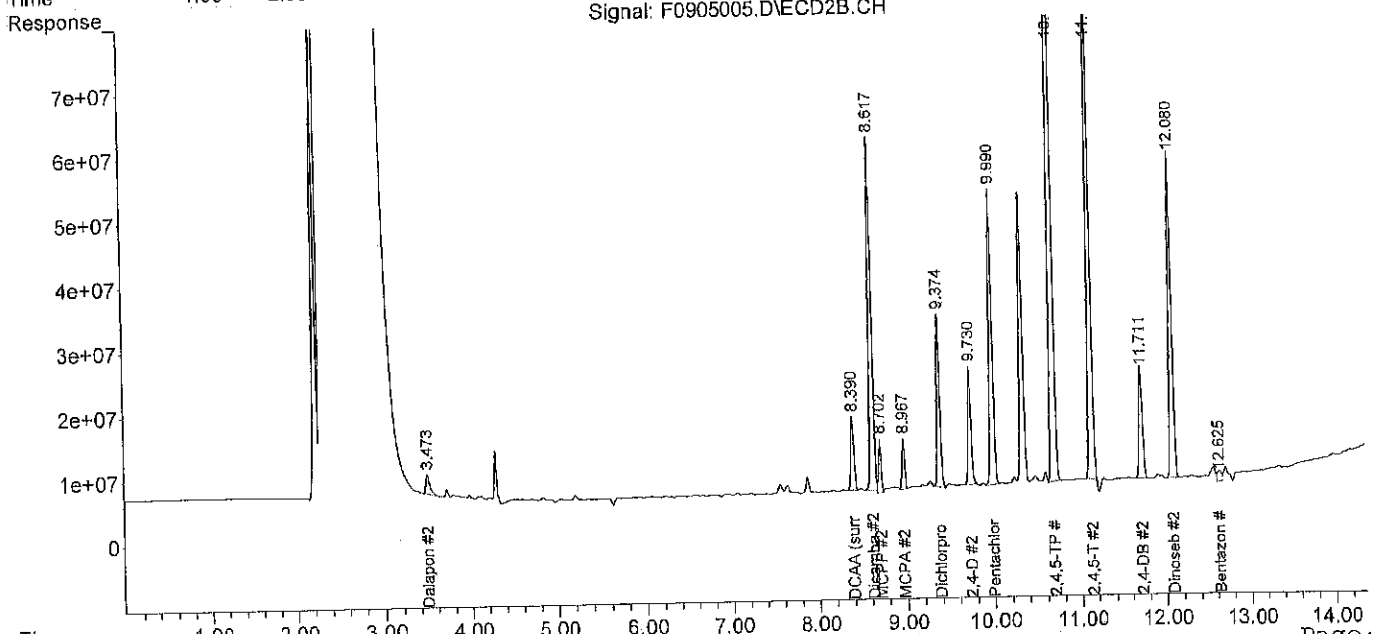
Data File : F0905005.D
Sample : SB0905W1

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 13:55:50
Operator :
Misc :
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 14:17:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0905006.D
Sample : SB0905W1 DUP

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 14:15:03
Operator :
Misc :
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 14:33:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.724	8.390	12614263	12680536	102.406m	89.185
	Spiked Amount 100.000			Recovery	=	102.41%	89.19%
	Target Compounds						
1) A	Dalapon	3.874f	3.475	6786318	6937372	92.228	72.805
2) A	2,4,6-Tri...	0.000	6.748	0	621748	N.D.	0.557 #
4) A	Dicamba	8.972	8.617	72544671	76122536	168.215	144.098m
5) A	MCPP	9.148	8.701	8131554	8821262	26103.805	25136.100
6) A	MCPA	9.326	8.967	10614154	9385690	24365.013	19853.681m
7) A	Dichlorprop	9.792	9.372	27610527	28398731	234.246	202.862m
8) A	2,4-D	10.063	9.729	24197896	26448889	174.913	146.997m
9) A	Pentachlo...	10.394	9.988	51181672	54878412	16.345	14.046m
10) A	2,4,5-TP	11.086	10.682	154.7E6	170.0E6	266.950	223.049m
11) A	2,4,5-T	11.414	11.127	109.9E6	122.3E6	226.322	189.490m
12) A	2,4-DB	12.022	11.708	19934018	19883015	292.692m	233.992m
13) a	Bentazon	12.974f	12.624f	1183844	1613984	24.516	22.302
14) A	Dinoseb	13.132	12.078	41791083	52532544	194.320m	152.851m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

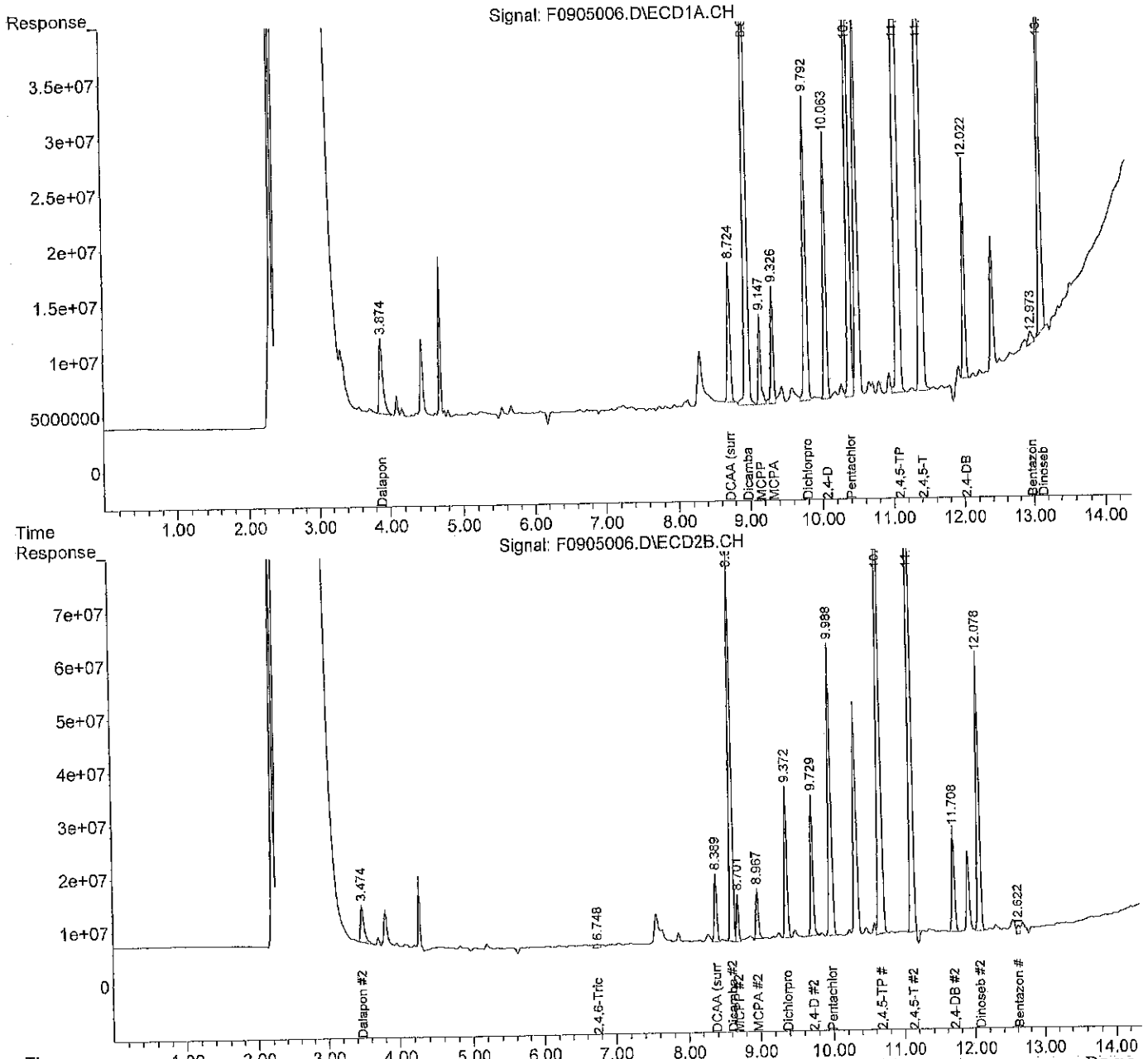
Quantitation Report (QT Reviewed)

Data File : F0905006.D
Sample : SB0905W1 DUP

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 14:15:03
Operator :
Misc :
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 14:33:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Response Factor Report Frank

Method Path : C:\msdchem\1\METHODS\
Method File : H180817.M
Title : Herbicides
Last Update : Mon Aug 27 09:31:20 2018
Response Via : Initial Calibration

Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

	Compound	1	2	3	4	5	6	Avg		%RSD
3) S	DCAA (surr)	1.221	1.556	1.327	1.248	1.173	1.135	1.232	E5	12.57
9) A	Pentachloroph...	3.353	3.873	3.189	3.051	2.906	2.848	3.131	E6	11.56

Signal #2 Calibration Files
1 =F0817009.D 2 =F0817010.D 3 =F0817011.D
4 =F0817012.D 5 =F0817013.D 6 =F0817014.D

	Compound	1	2	3	4	5	6	Avg		%RSD
3) S	DCAA (surr)			1.811	1.471	1.363	1.345	1.422	E5	14.67
9) A	Pentachloroph...	4.312	4.842	4.063	3.914	3.723	3.557	3.907	E6	12.88

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

H180817.M Wed Aug 29 11:44:27 2018

Quantitation Report (Not Reviewed)

Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3)	S DCAA (surr)	8.737	8.407	244148	510653	1.982	3.592	#
	Spiked Amount 100.000			Recovery	=	1.98%	3.59%	
	Target Compounds							
1)	A Dalapon	0.000	3.477	0	234822	N.D.	2.464	#
2)	A 2,4,6-Tri...	7.081	6.758	1003548	1175072	1.046	1.053	
4)	A Dicamba	8.982	8.631	928730	1429532	2.154	2.706	#
5)	A MCPP	0.000	0.000	0	0	N.D.	N.D.	
6)	A MCPA	0.000	0.000	0	0	N.D.	N.D.	
7)	A Dichlorprop	9.805	9.393	233714	269658	1.983	1.926	
8)	A 2,4-D	10.078	9.750	265427	374007	1.919	2.079	
9)	A Pentachlo...	10.409	10.006	670577	862436	0.214	0.221	
10)	A 2,4,5-TP	11.100	10.699	1184588	1619682	2.044	2.125	
11)	A 2,4,5-T	11.431	11.145	899426	1294334	1.853	2.005	
12)	A 2,4-DB	12.040	0.000	95151	0	1.397	N.D.	#
13)	a Bentazon	13.011	12.651	96634	189139	2.001	2.614	#
14)	A Dinoseb	13.149	12.093	312688	735842	1.454	2.141	#

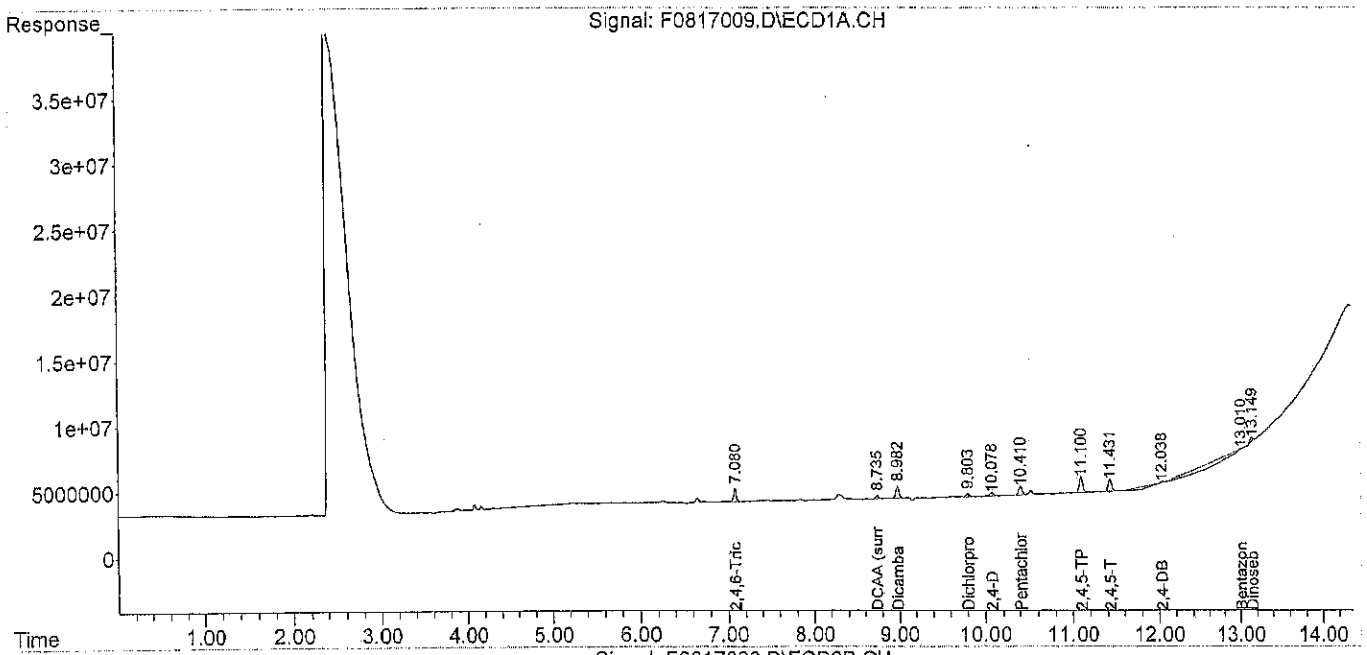
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

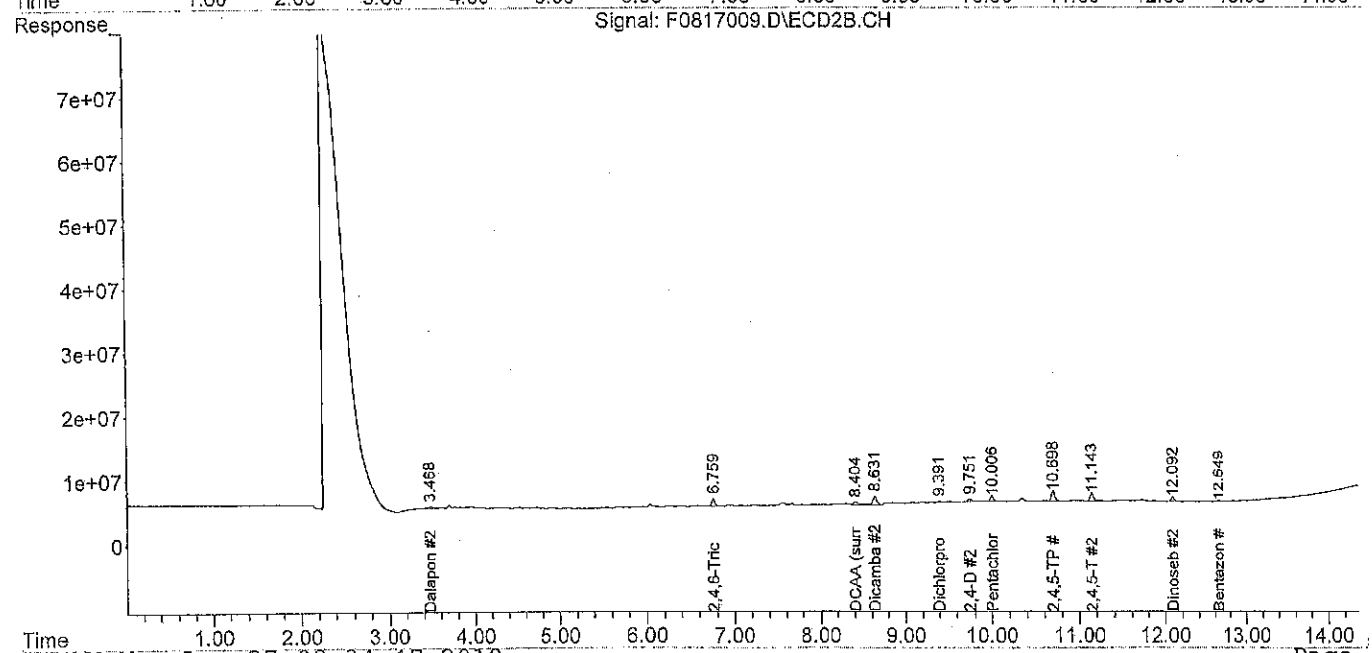
Data File : F0817009.D
Sample : HERB IC 2.0 ppm PS4-51-08

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:04:18
Operator :
Misc : [S,A]
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.735	8.403	777921	1240643	6.315	8.726	#
Spiked Amount	100.000			Recovery	=	6.31%	8.73%	
	Target Compounds							
1) A	Dalapon	3.864	3.473	433588	563057	5.893	5.909	
2) A	2,4,6-Tri...	7.081	6.758	2812928	3339271	2.933	2.993	
4) A	Dicamba	8.981	8.630	2737180	3628346	6.347	6.868	
5) A	MCPP	0.000	0.000	0	0	N.D.	N.D.	
6) A	MCPA	9.335	0.000	121656	0	610.762	N.D.	#
7) A	Dichlorprop	9.805	9.392	768391	819685	6.519	5.855	
8) A	2,4-D	10.078	9.747	828605	1081324	5.990	6.010	
9) A	Pentachlo...	10.408	10.005	1936680	2420924	0.618	0.620	
10) A	2,4,5-TP	11.099	10.698	3379558	4663673	5.832	6.120	
11) A	2,4,5-T	11.430	11.144	2665633	3722944	5.491	5.767	
12) A	2,4-DB	12.037	11.727	381563	513964	5.603	6.049	
13) a	Bentazon	13.009	12.653	238341	417110	4.936	5.764	
14) A	Dinoseb	13.144	12.092	1241096	2116004	5.771	6.157	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

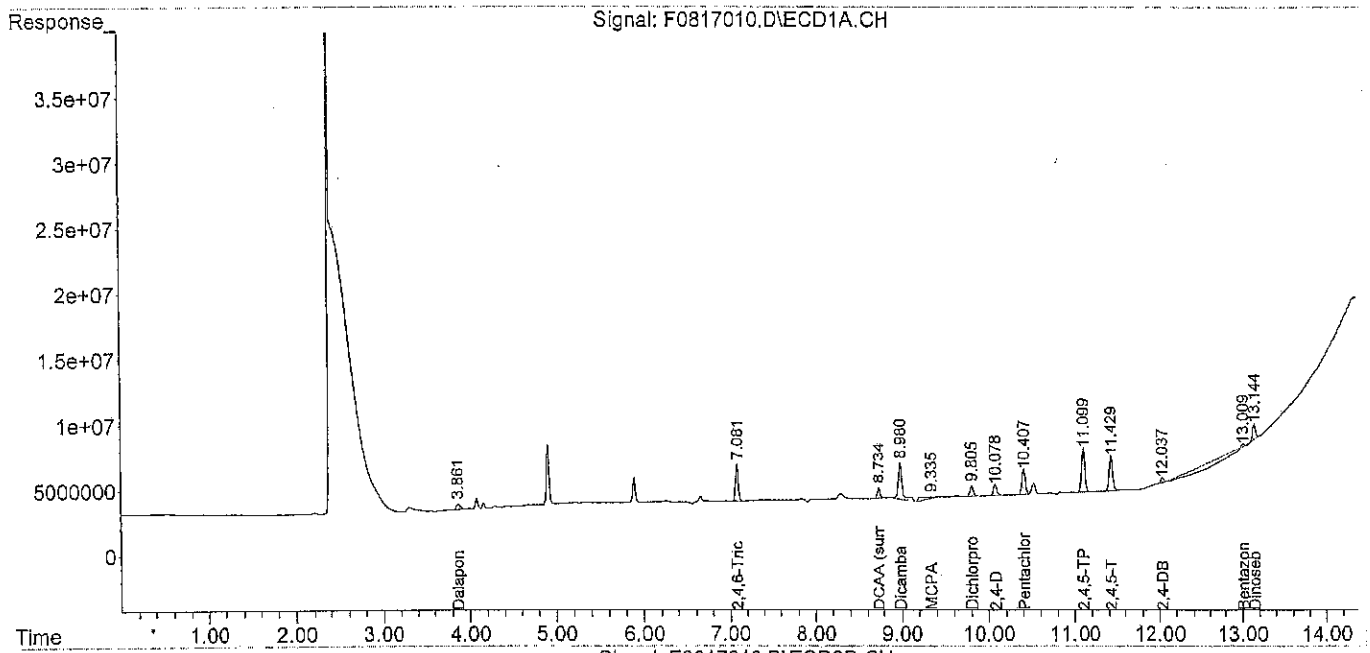
Quantitation Report (Not Reviewed)

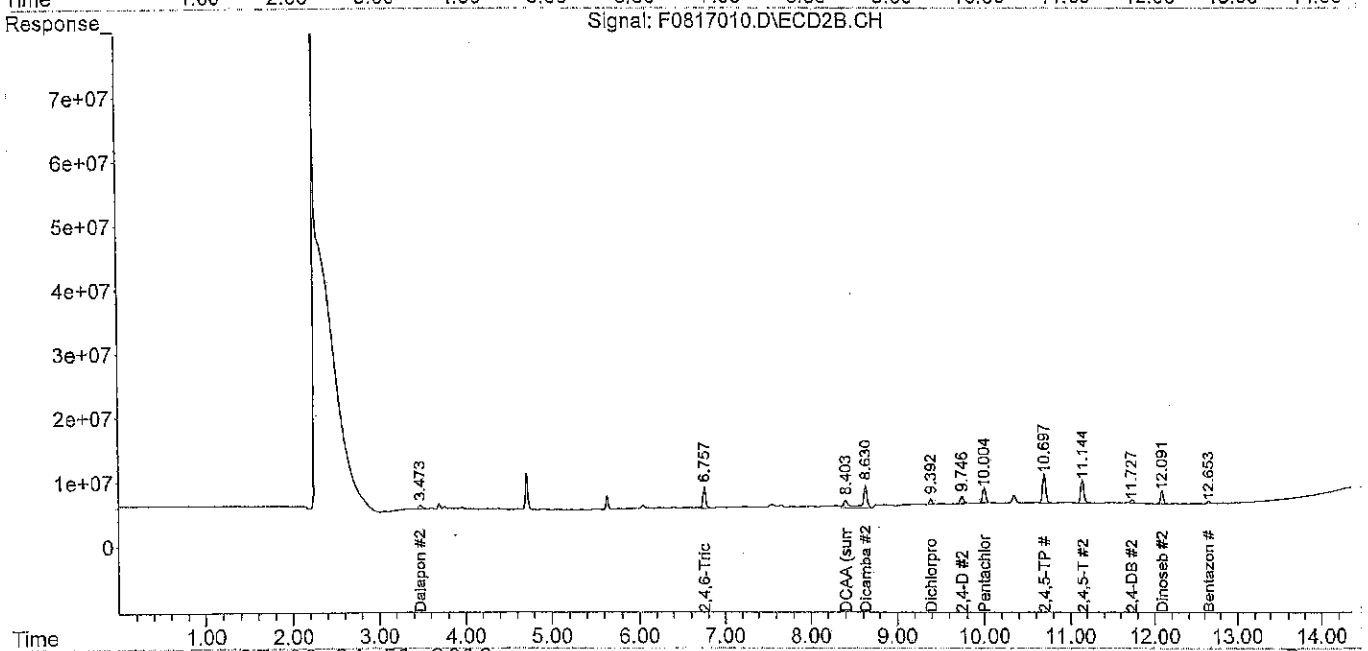
Data File : F0817010.D
Sample : HERB IC 5.0 ppm PS4-51-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:23:36
Operator :
Misc : [S,A]
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:49 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.734	8.403	1326771	1811094	10.771	12.738
Spiked Amount	100.000			Recovery	=	10.77%	12.74%
	Target Compounds						
1) A	Dalapon	3.865	3.473	770736	929282	10.474	9.752
2) A	2,4,6-Tri...	7.082	6.759	4640576	5380756	4.839	4.823
4) A	Dicamba	8.980	8.629	4250607	5592040	9.856	10.586
5) A	MCPP	9.157	8.711	10189	334	2322.111m	2441.300m
6) A	MCPA	9.335	8.976	225902	100237	846.768m	965.094m
7) A	Dichlorprop	9.805	9.388	1247076	1498144	10.580	10.702
8) A	2,4-D	10.077	9.746	1412974	1817263	10.214	10.100
9) A	Pentachlo...	10.408	10.004	3189050	4062901	1.018	1.040
10) A	2,4,5-TP	11.099	10.698	5638516	7542591	9.730	9.897
11) A	2,4,5-T	11.428	11.142	4671215	6321650	9.622	9.792
12) A	2,4-DB	12.036	11.728	660054	840753	9.692	9.894
13) a	Bentazon	13.008	12.652	442679	674246	9.167	9.317
14) A	Dinoseb	13.141	12.091	2282616	3508038	10.614	10.207

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

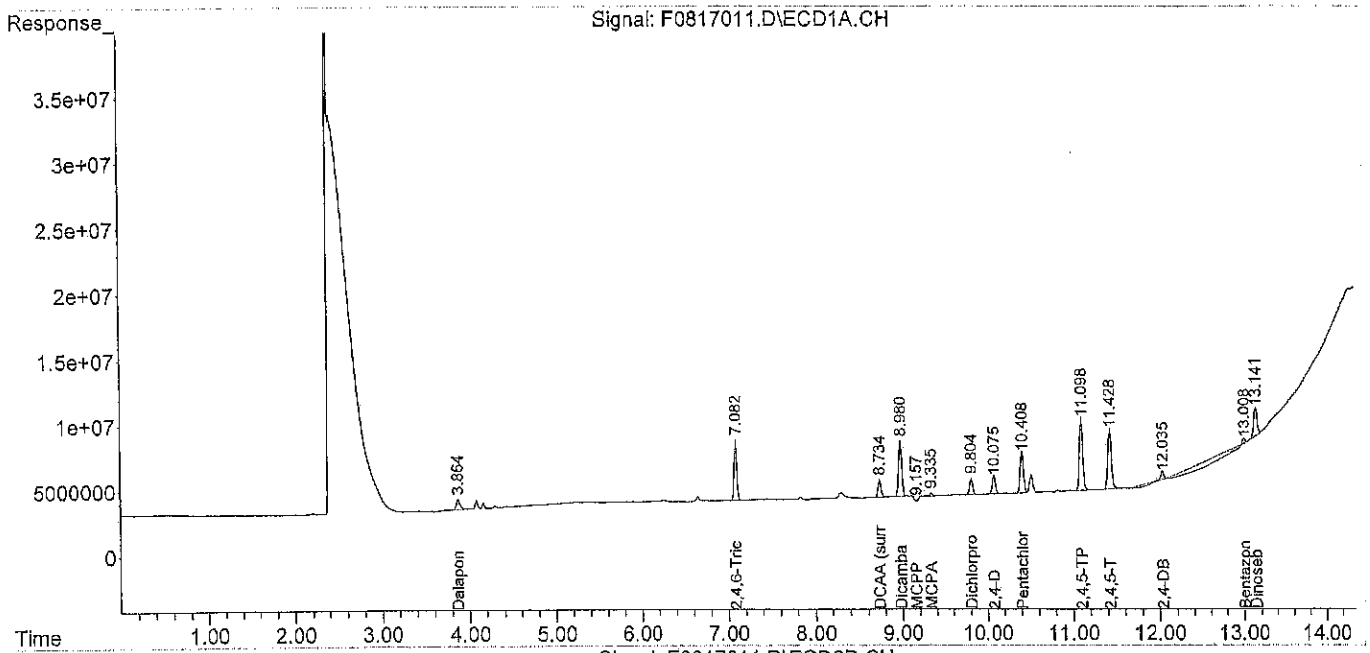
Quantitation Report (QT Reviewed)

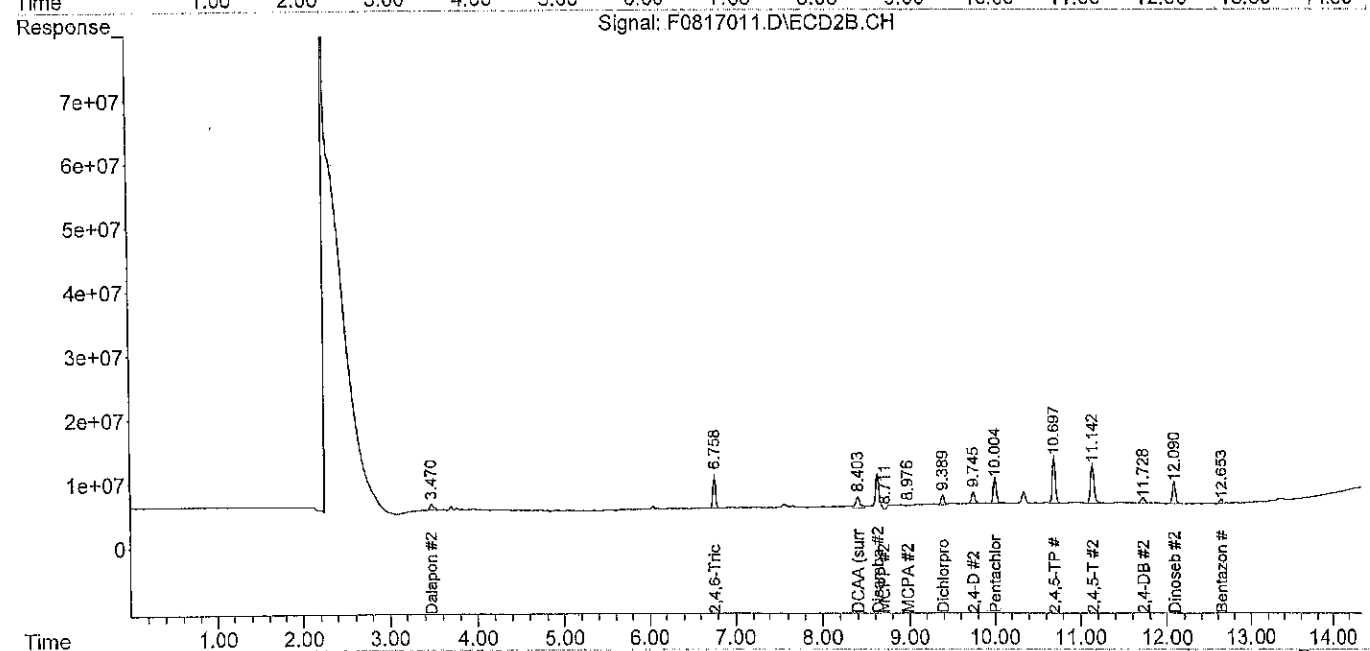
Data File : F0817011.D
Sample : HERB IC 10 ppm PS4-51-10

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 12:42:52
Operator :
Misc : [S,A]
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:16 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.735	8.403	3120475	3677033	25.333	25.861
Spiked Amount	100.000			Recovery	=	25.33%	25.86%
	Target Compounds						
1) A	Dalapon	3.865	3.473	1855417	2249731	25.216	23.610
2) A	2,4,6-Tri...	7.083	6.759	11354167	13199763	11.839	11.831
4) A	Dicamba	8.980	8.630	10068427	12558353	23.347	23.773
5) A	MCPP	9.157	8.712	199811	265631	2877.380	3123.865
6) A	MCPA	9.336	8.980	1048400	969997	2708.842	2734.370
7) A	Dichlorprop	9.805	9.388	2966815	3776783	25.170	26.979
8) A	2,4-D	10.076	9.745	3455529	4654121	24.978	25.867
9) A	Pentachlo...	10.407	10.004	7628348	9784346	2.436	2.504
10) A	2,4,5-TP	11.098	10.697	13752088	18343572	23.732	24.070
11) A	2,4,5-T	11.427	11.142	11707613	15290891	24.117	23.686
12) A	2,4-DB	12.035	11.726	1698799	2078253	24.944	24.458
13) a	Bentazon	13.005	12.653	1192894	1651396	24.703	22.819
14) A	Dinoseb	13.142	12.091	5347366	8238683	24.864	23.972

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

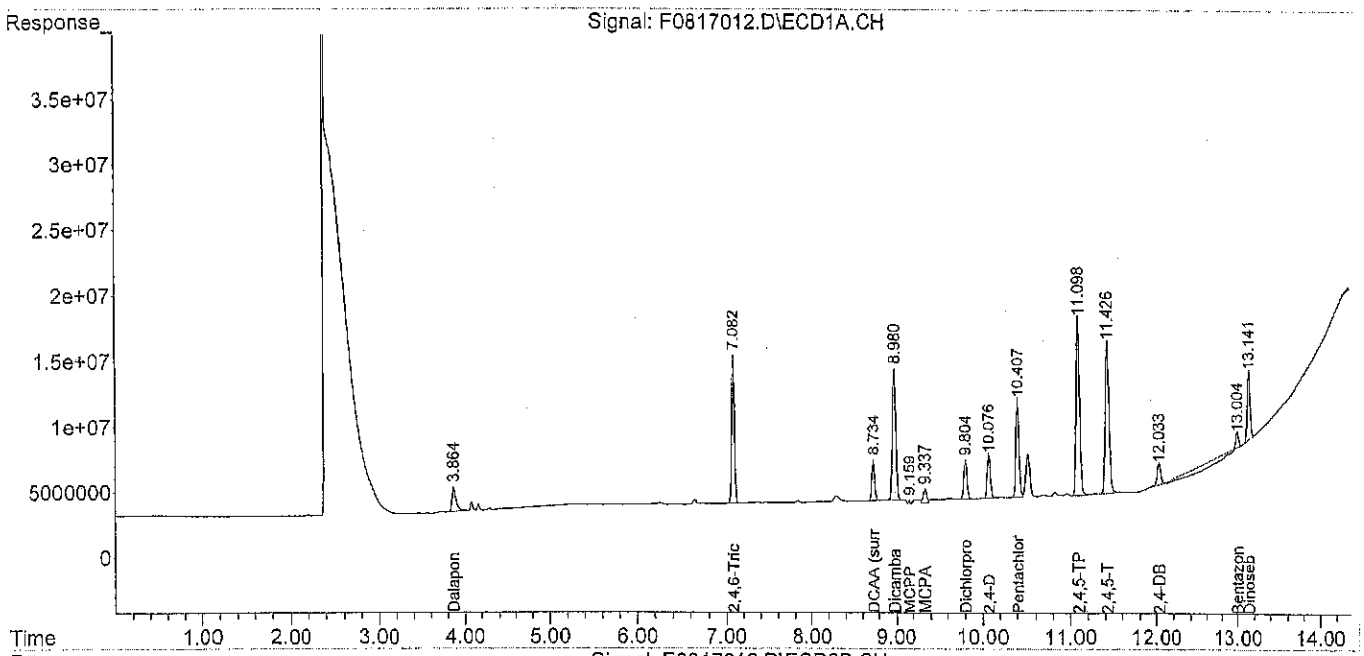
Quantitation Report (Not Reviewed)

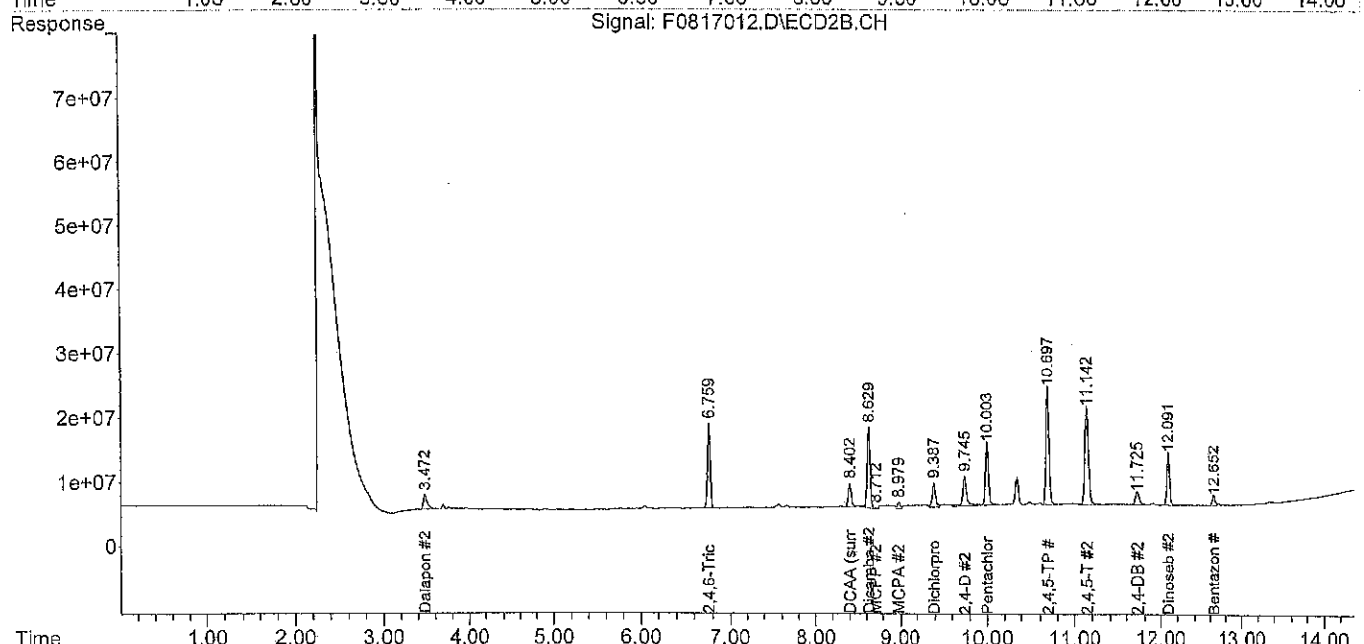
Data File : F0817012.D
Sample : HERB IC 25 ppm PS4-51-11

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:02:10
Operator :
Misc : [S,A]
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:53 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.733	8.401	5864299	6814069	47.608	47.925
	Spiked Amount 100.000			Recovery	=	47.61%	47.92%
	Target Compounds						
1) A	Dalapon	3.864	3.472	3513619	4289384	47.751	45.015
2) A	2,4,6-Tri...	7.082	6.758	22083231	25328645	23.026	22.701
4) A	Dicamba	8.980	8.630	19506123	23646638	45.231	44.762
5) A	MCPP	9.156	8.712	972672	1022364	5140.540	5070.816
6) A	MCPA	9.335	8.978	2036145	2152226	4945.026	5139.277
7) A	Dichlorprop	9.803	9.386	5516326	7047700	46.800	50.344
8) A	2,4-D	10.074	9.744	6672898	8962952	48.235	49.814
9) A	Pentachlo...	10.406	10.003	14530907	18616464	4.641	4.765
10) A	2,4,5-TP	11.097	10.697	26647731	35111974	45.986	46.073
11) A	2,4,5-T	11.426	11.141	22911810	30006336	47.196	46.480
12) A	2,4-DB	12.034	11.725	3454487	3993012	50.722	46.991
13) a	Bentazon	12.999f	12.648	2477630	3371122	51.308	46.583
14) A	Dinoseb	13.135f	12.090	10836859	15985248	50.389	46.511

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

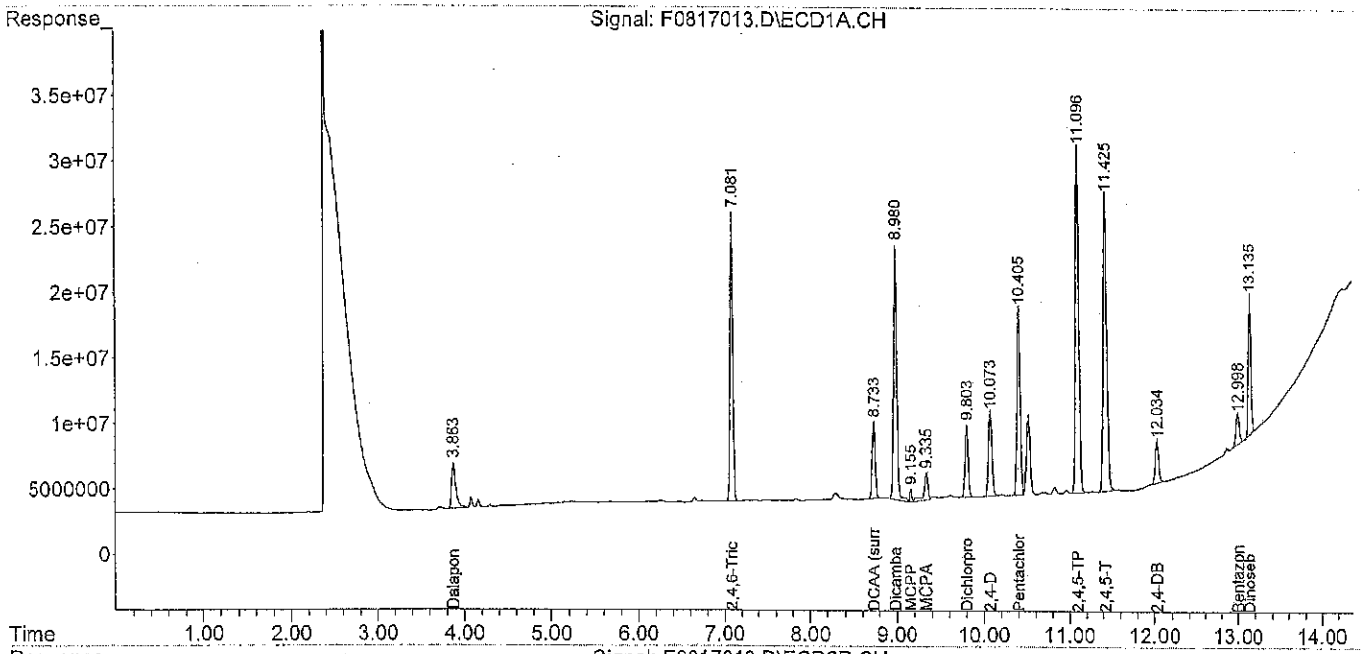
Quantitation Report (Not Reviewed)

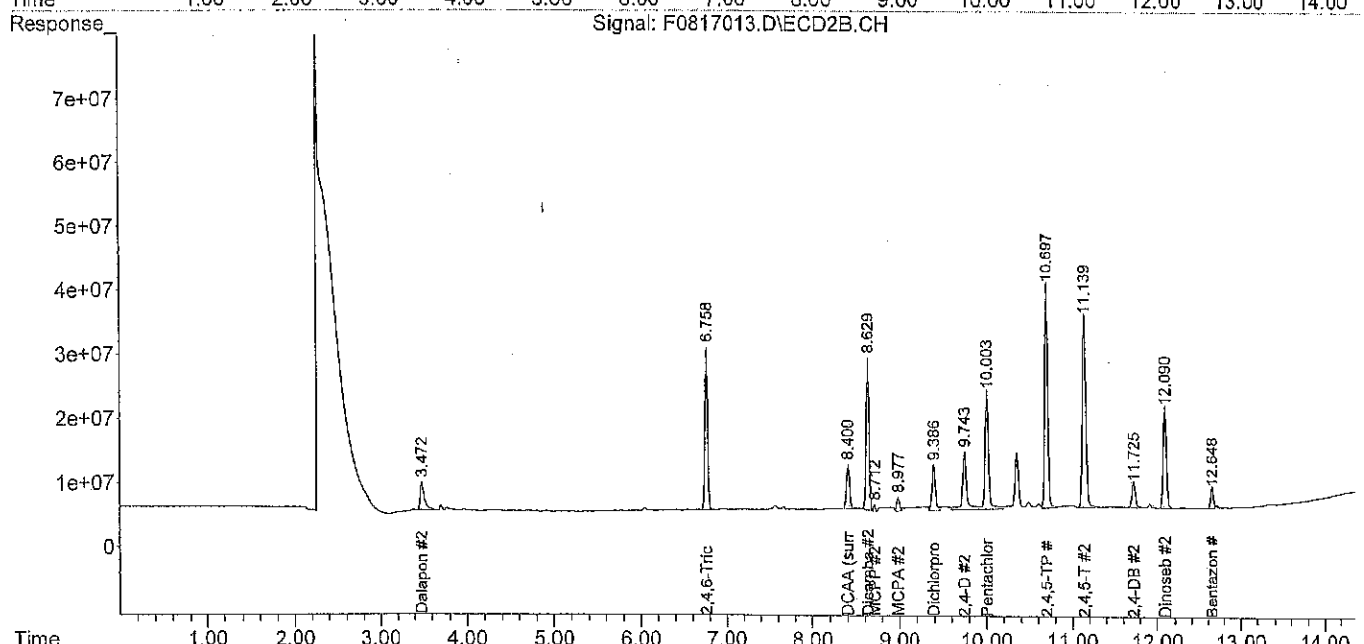
Data File : F0817013.D
Sample : HERB IC 50 ppm PS4-51-12

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:21:32
Operator :
Misc : [S,A]
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:34:58 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.731	8.400	11348388	13451287	92.129	94.605
Spiked Amount	100.000			Recovery	=	92.13%	94.61%
	Target Compounds						
1) A	Dalapon	3.865	3.473	6866529	8704228	93.318	91.347
2) A	2,4,6-Tri...	7.081	6.758	44483672	50899710	46.383	45.620
4) A	Dicamba	8.979	8.629	39334858	46144001	91.209	87.349
5) A	MCPP	9.154	8.710	2488021	2706431	9577.916	9403.643
6) A	MCPA	9.333	8.977	4187625	4322945	9815.820	9554.981
7) A	Dichlorprop	9.801	9.385	10771858	12839484	91.388	91.717
8) A	2,4-D	10.072	9.742	13053849	16533000	94.359	91.887
9) A	Pentachlo...	10.404	10.001	28483043	35567736	9.096	9.103
10) A	2,4,5-TP	11.096	10.695	54693437	69891107	94.384	91.709
11) A	2,4,5-T	11.424	11.139	47347378	60940230	97.531	94.397
12) A	2,4-DB	12.033	11.723	6898744	7999385	101.294	94.140
13) a	Bentazon	13.003	12.650	4877862	6590466	101.014	91.069
14) A	Dinoseb	13.139	12.089	21937455	32320424	102.005	94.041

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

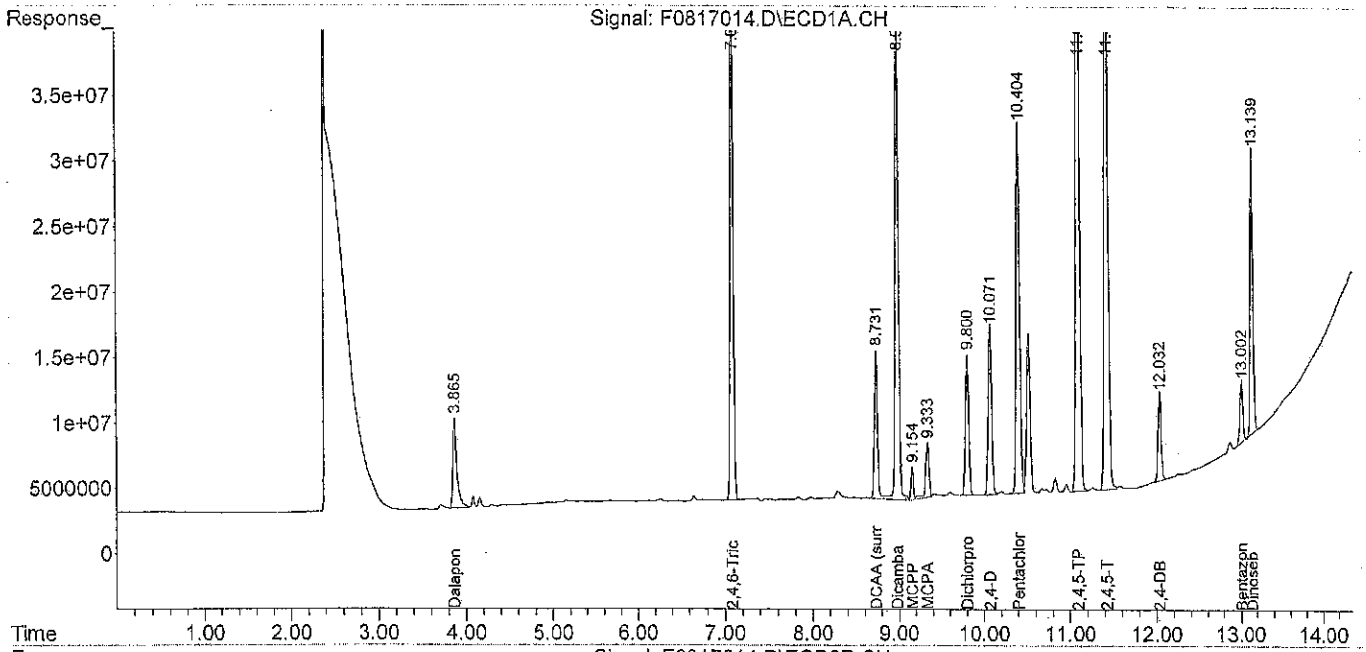
Quantitation Report (Not Reviewed)

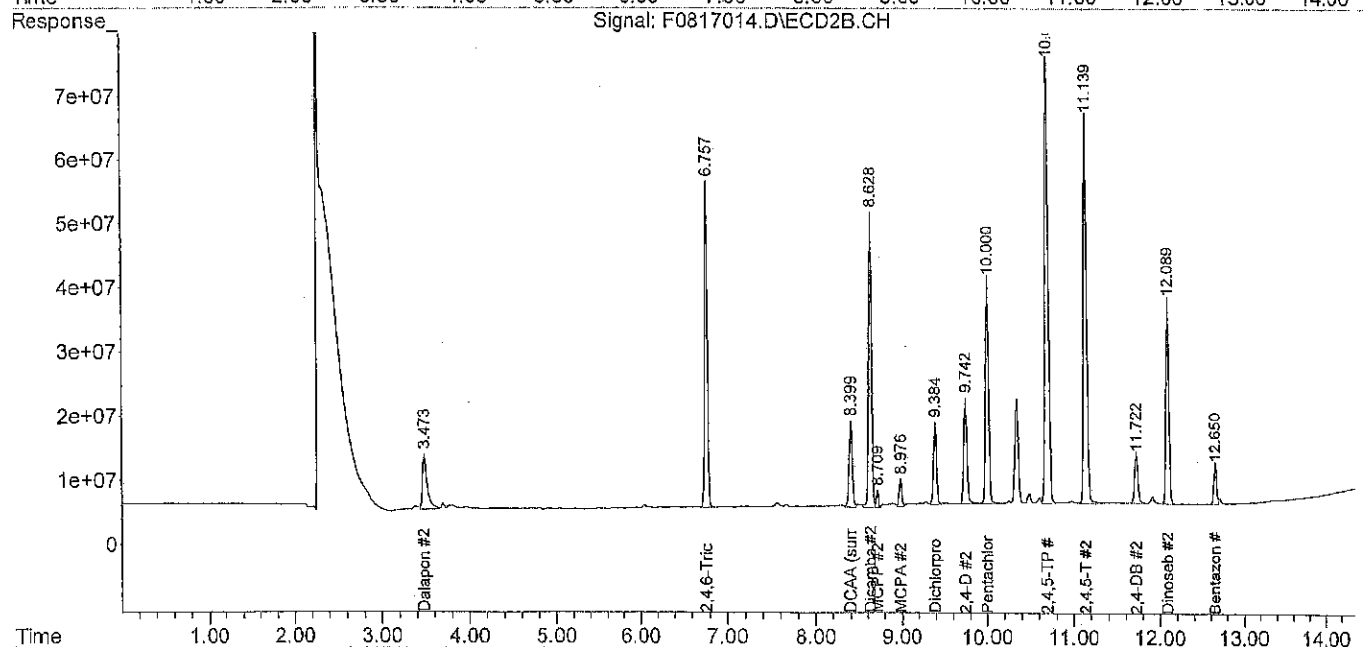
Data File : F0817014.D
Sample : HERB IC 100 ppm PS4-51-13

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 13:40:48
Operator :
Misc : [S,A]
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:03 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.732	8.400	26255998	30148769	213.154	212.042
Spiked Amount	100.000			Recovery	=	213.15%	212.04%
	Target Compounds						
1) A	Dalapon	3.867	3.475	16477193	21035245	223.929	220.756
2) A	2,4,6-Tri...	7.082	6.759	110.5E6	127.8E6	115.239	114.526
4) A	Dicamba	8.979	8.628	94350654	111.8E6	218.779	211.657
5) A	MCPP	9.156	8.711	6752926	7530404	22066.787	21814.934
6) A	MCPA	9.333	8.978	10206538	10786773	23442.201	22703.782
7) A	Dichlorprop	9.800	9.383	24717008	29583680	209.698	211.326
8) A	2,4-D	10.071	9.741	30823171	38043250	222.804	211.436
9) A	Pentachlo...	10.404	10.001	67787156	80426329	21.649	20.584
10) A	2,4,5-TP	11.096	10.696	134.4E6	169.3E6	231.873	222.207
11) A	2,4,5-T	11.424	11.139	116.5E6	151.0E6	239.955	233.880
12) A	2,4-DB	12.031	11.722	16678647	19089306	244.893	224.651
13) a	Bentazon	13.002	12.651	11612604	15572024	240.481	215.178
14) A	Dinoseb	13.139f	12.089	50893105	75489719	236.643	219.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

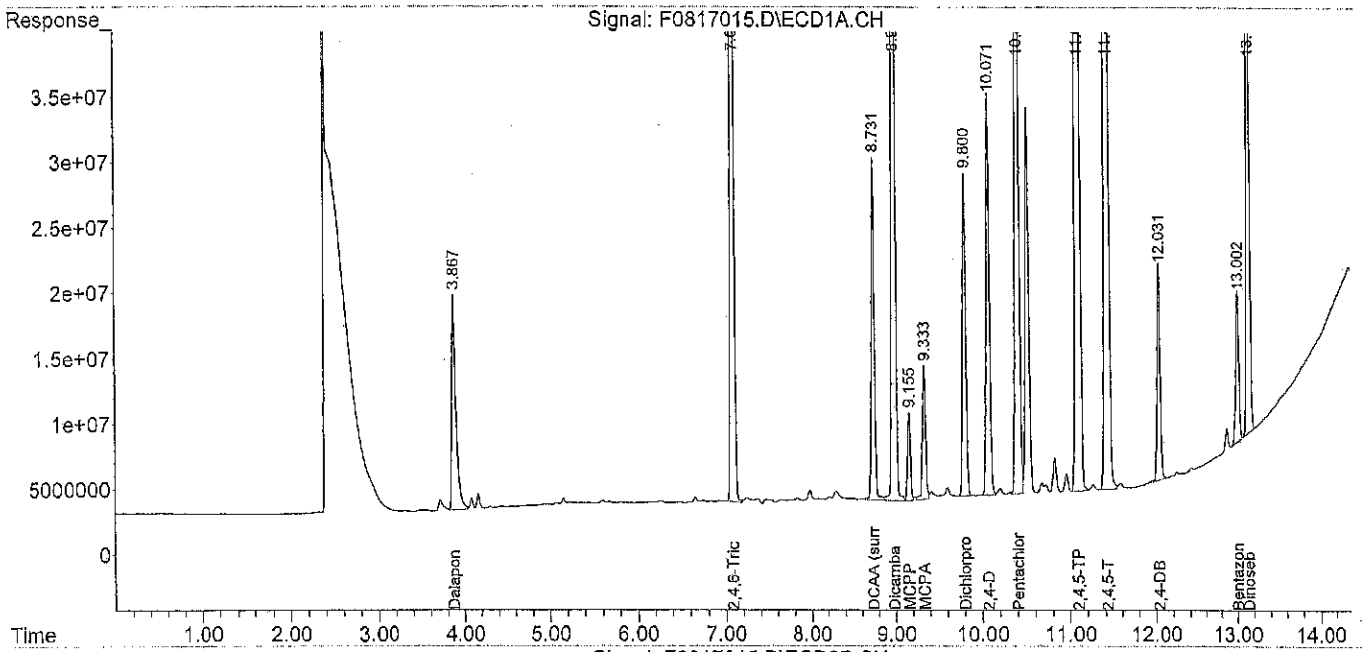
Quantitation Report (Not Reviewed)

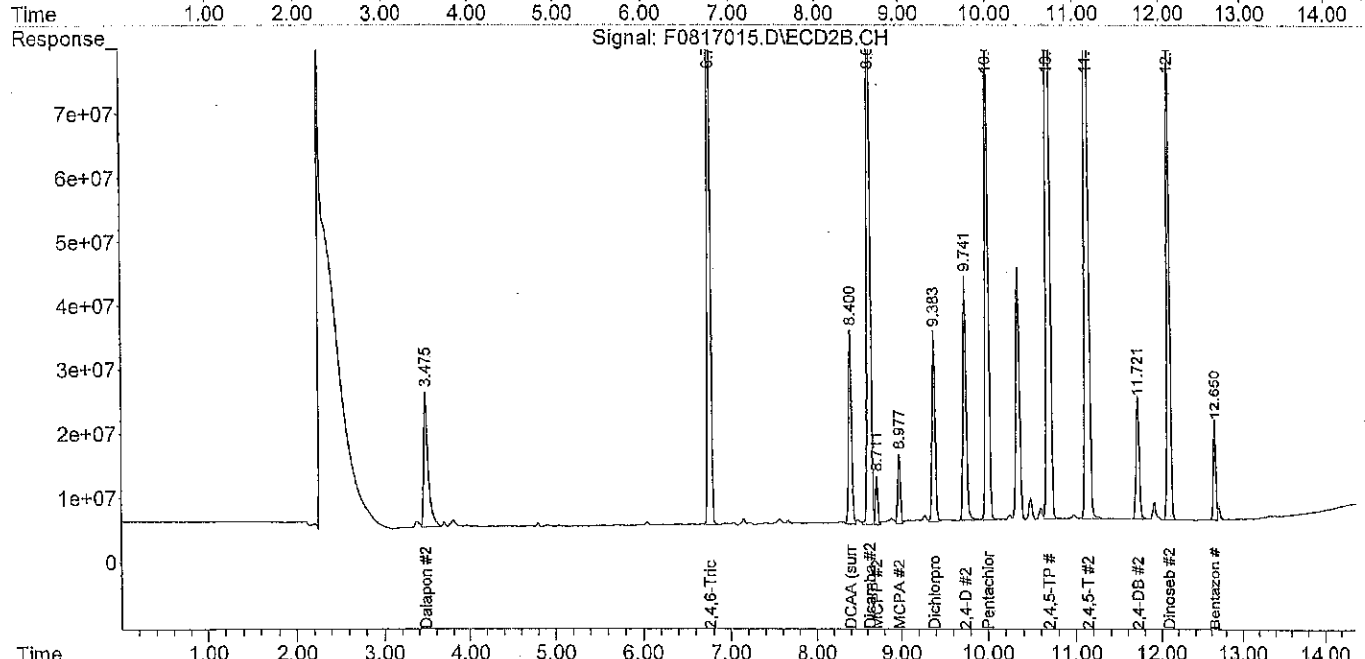
Data File : F0817015.D
Sample : HERB IC 250 ppm PS4-51-14

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:00:06
Operator :
Misc : [S,A]
ALS Vial : 15 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:07 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.732	8.401	57240466	66758932	464.695	469.528
	Spiked Amount 100.000			Recovery	=	464.70%	469.53%
	Target Compounds						
1) A	Dalapon	3.873	3.481	36111007	46193314	490.756	484.780
2) A	2,4,6-Tri...	7.084	6.760	262.5E6	307.4E6	273.730	275.508
4) A	Dicamba	8.979	8.628	224.8E6	264.5E6	521.275	500.754
5) A	MCPP	9.157	8.714	16801253	19124519	51491.177	51644.689
6) A	MCPA	9.336	8.981	23691471	25451703	53971.106	52535.373
7) A	Dichlorprop	9.799	9.382f	56064531	66294862	475.648	473.566
8) A	2,4-D	10.070	9.740	70747424	85752556	511.395	476.593
9) A	Pentachlo...	10.403	10.000	155.9E6	181.5E6	49.780	46.448
10) A	2,4,5-TP	11.095	10.695	318.2E6	393.8E6	549.044	516.783
11) A	2,4,5-T	11.422	11.138	283.9E6	357.8E6	584.755	554.208
12) A	2,4-DB	12.030f	11.721	41104828	44301446	603.543	521.358
13) a	Bentazon	12.999f	12.648	26780768	35928681	554.593	496.471
14) A	Dinoseb	13.135f	12.088	117.1E6	166.6E6	544.262	484.649

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

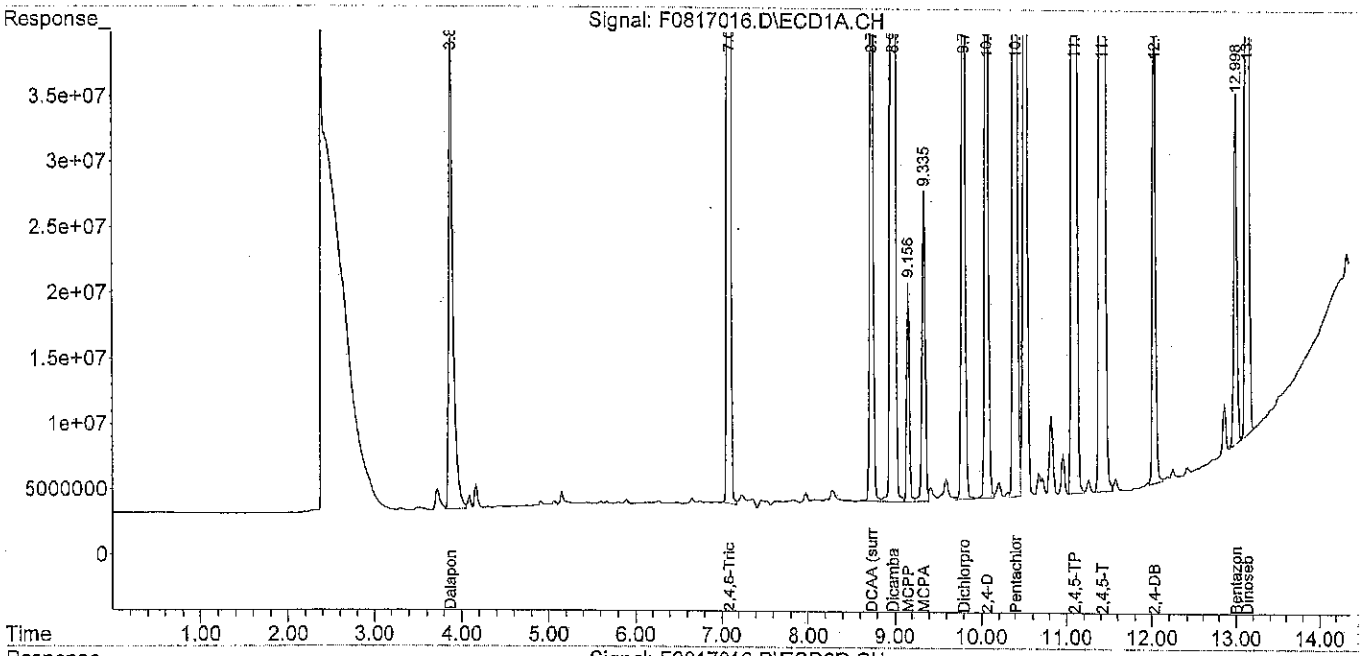
Quantitation Report (Not Reviewed)

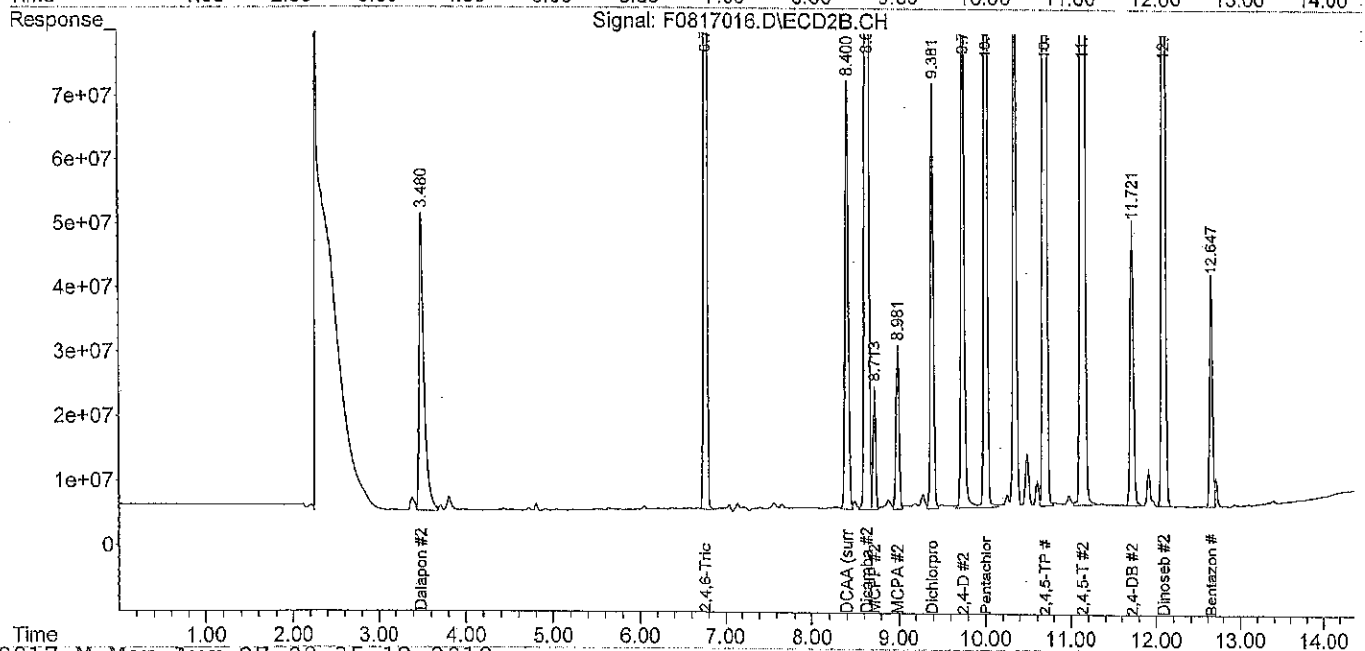
Data File : F0817016.D
Sample : HERB IC 500 ppm PS4-51-15

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:19:25 (#1); 17-Aug-18, 14:19:26 (#2)
Operator :
Misc : [S,A]
ALS Vial : 16 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:11 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.753f	0.000	960161	0	7.795	N.D.	#
Spiked Amount	100.000			Recovery	=	7.80%	0.00%	
	Target Compounds							
1) A	Dalapon	3.866	3.474	6807754	8572406	92.519	89.964	
2) A	2,4,6-Tri...	0.000	0.000	0	0	N.D.	N.D.	
4) A	Dicamba	8.980	8.629	39483953	47293331	91.555	89.525	
5) A	MCPP	9.156	8.710	2639608	2834563	10021.806	9733.305	
6) A	MCPA	9.334	8.978	4386424	4659850	10265.887	10240.318	
7) A	Dichlorprop	9.802	9.385	10278317	12258239	87.201	87.565	
8) A	2,4-D	10.074	9.744	12265306	15653918	88.659	87.001	
9) A	Pentachlo...	0.000	9.994f	0	240126	N.D.	0.061	#
10) A	2,4,5-TP	11.097	10.697	51725738	66892655	89.263	87.774	
11) A	2,4,5-T	11.424	11.140	48874445	63677945	100.677	98.638	
12) A	2,4-DB	12.030	11.724	8907892	8593975	130.795	101.137	
13) a	Bentazon	13.001f	12.651	57292593	7187699	1186.451	99.321	#
14) A	Dinoseb	13.139	12.090	23459537	34548327	109.082	100.523	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

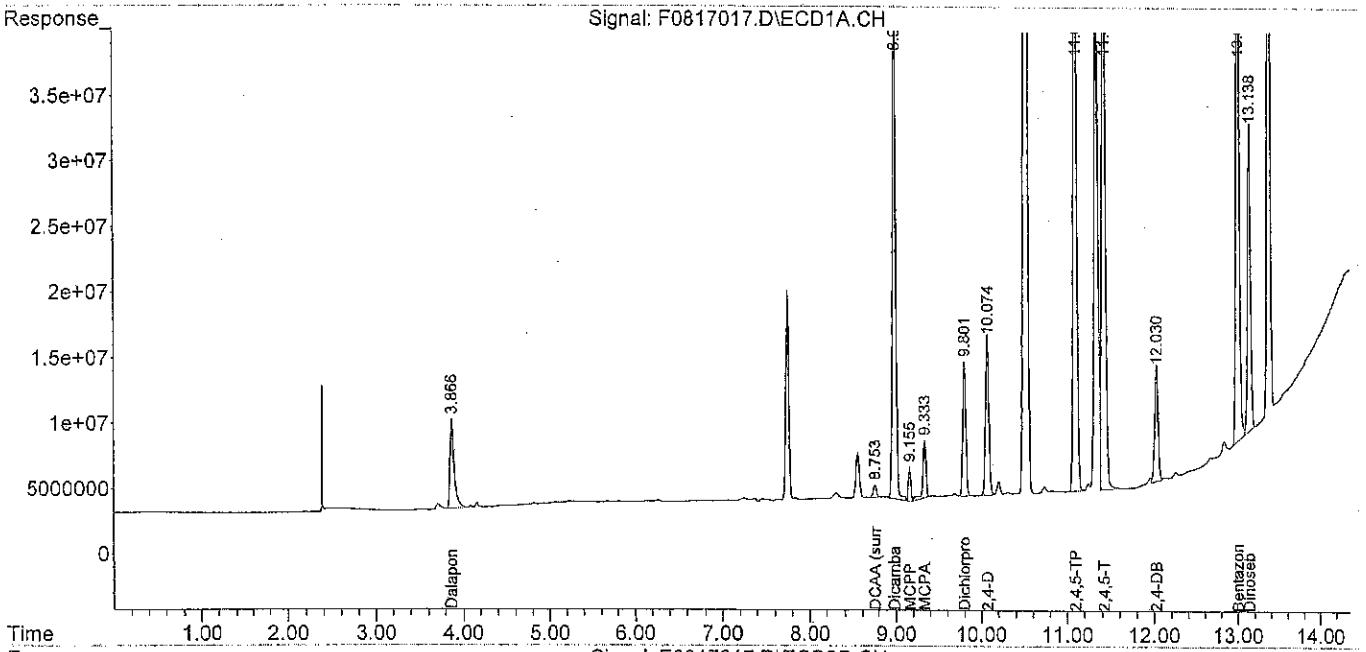
Quantitation Report (Not Reviewed)

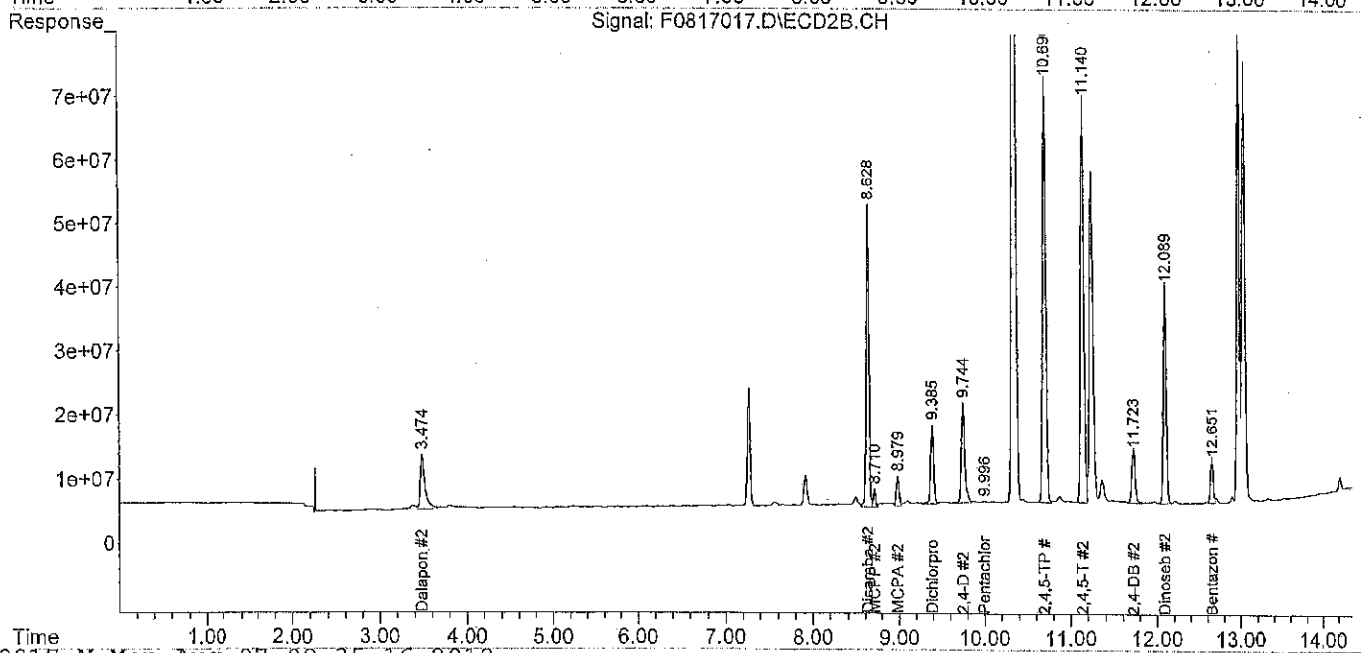
Data File : F0817017.D
Sample : HERB ICV PS4-055-09

Data Path : X:\PEST\FRANK\DATA\F180817\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 17-Aug-18, 14:38:48
Operator :
Misc :
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 27 09:35:15 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Mon Aug 27 09:31:20 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Data File : F0905003.D
Sample : HERBCCV 0905-1 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 09:48:37
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 10:08:12 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	93.089	6.9	101	0.00
9 A	Pentachlorophenol	10.000	10.452	-4.5	115	0.00

Signal #2

3 S	DCAA (surr)	100.000	95.625	4.4	101	0.00
9 A	Pentachlorophenol	10.000	8.857	11.4	97	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Thu Sep 06 09:59:56 2018

Evaluate Continuing Calibration Report

Data File : F0905010.D
Sample : HERBCCV 0905-2 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 15:42:33
Operator :
Misc :
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 17:02:45 2018
Quant Method : C:\msdchem\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	120.767	-20.8#	131	0.00
9 A	Pentachlorophenol	10.000	10.820	-8.2	119	0.00

Signal #2

3 S	DCAA (surr)	100.000	102.169	-2.2	108	0.00
9 A	Pentachlorophenol	10.000	9.280	7.2	102	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Thu Sep 06 10:01:04 2018

Evaluate Continuing Calibration Report

Data File : F0905018.D
Sample : HERBCCV 0905-3 (PS4-51-06)

Data Path : X:\PEST\FRANK\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 18:26:44
Operator :
Misc :
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 18:42:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.02min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
3 S	DCAA (surr)	100.000	108.290	-8.3	118	0.00
9 A	Pentachlorophenol	10.000	10.652	-6.5	117	0.00

Signal #2

3 S	DCAA (surr)	100.000	92.433	7.6	98	0.00
9 A	Pentachlorophenol	10.000	9.102	9.0	100	0.00

Evaluate Continuing Calibration Report - Not Founds

Signal #2

(#) = Out of Range SPCC's out = 0 CCC's out = 0

H180817.M Thu Sep 06 10:01:53 2018

Quantitation Report (Not Reviewed)

Data File : F0905003.D
Sample : HERBCCV 0905-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 09:48:37
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 10:03:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
3) S	DCAA (surr)	8.726	8.390	11466618	13596205	93.089 ✓	95.625 ✓	
Spiked Amount	100.000			Recovery	=	93.09%	95.63%	
	Target Compounds							
1) A	Dalapon	3.865	3.468	8000409	8601456	108.727	90.269	
2) A	2,4,6-Tri...	7.078	6.750	54216988	53637365	56.532	48.074	
4) A	Dicamba	8.973	8.618	37884616	46090331	87.846	87.248	
5) A	MCPP	9.148	8.701	2804250	2887615	10503.927	9869.799	
6) A	MCPA	9.326	8.967	4540456	4530747	10614.604	9977.694	
7) A	Dichlorprop	9.794	9.375	12458641	11189901	105.698	79.933	
8) A	2,4-D	10.065	9.732	14686766	15334587	106.163	85.226	
9) A	Pentachlo...	10.396	9.991	32727260	34605399	10.452 ✓	8.857 ✓	
10) A	2,4,5-TP	11.088	10.685	63134636	68046541	108.951	89.288	
11) A	2,4,5-T	11.416	11.129	51729770	58194523	106.558	90.144	
12) A	2,4-DB	12.025	11.712	7545416	7236296	110.790	85.160	
13) a	Bentazon	12.997	12.643	5563178	6088090	115.206	84.127	#
14) A	Dinoseb	13.136	12.080	19369452	23159271	90.064	67.385	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 9/5/18

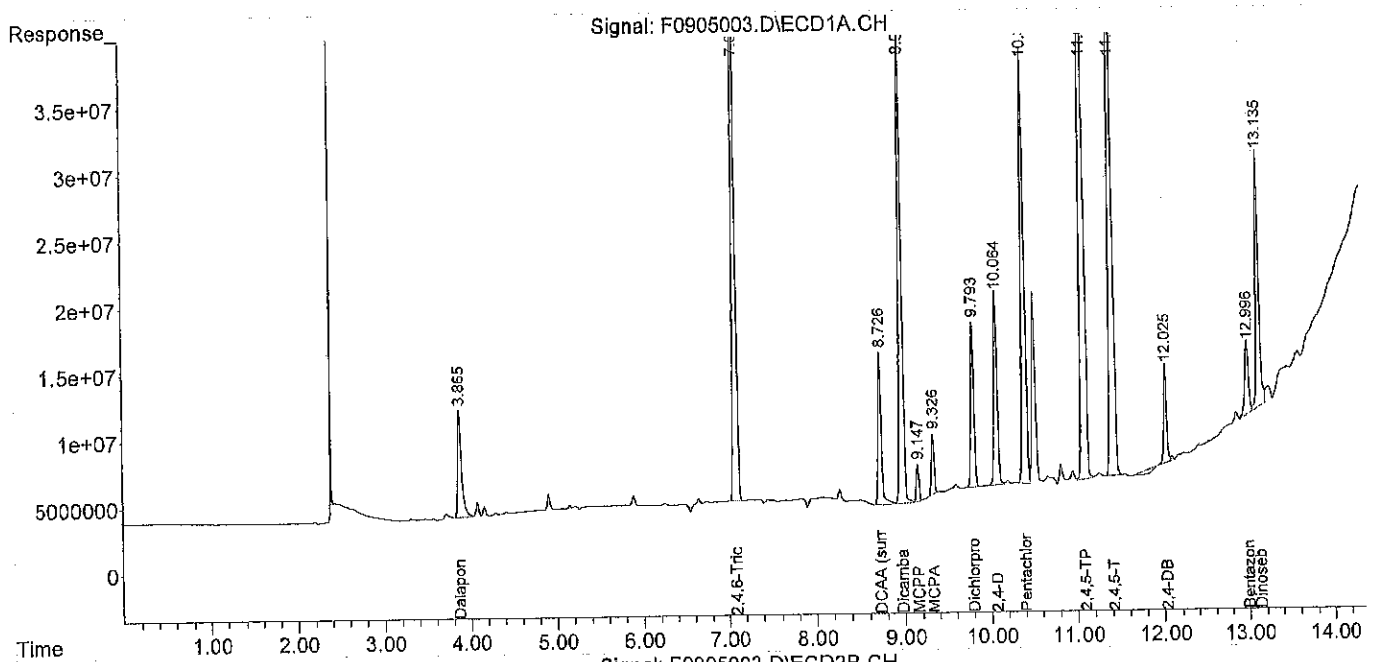
Quantitation Report (Not Reviewed)

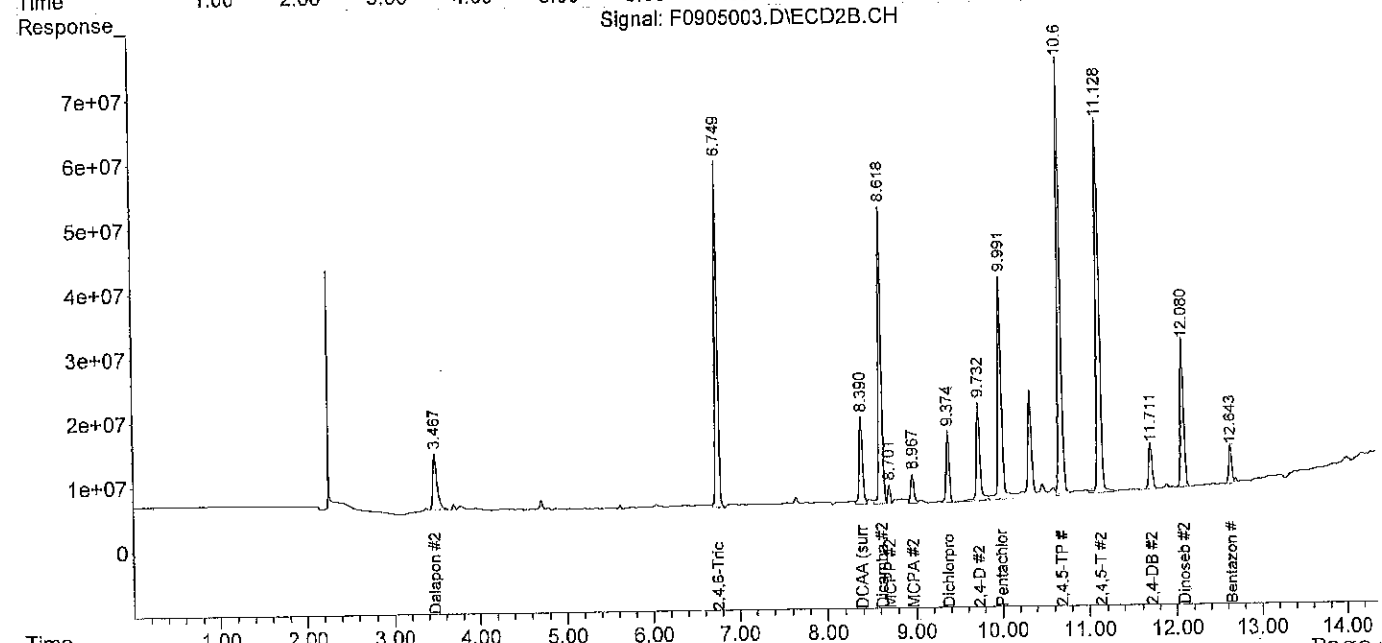
Data File : F0905003.D
Sample : HERBCCV 0905-1 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 09:48:37
Operator :
Misc :
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 10:03:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (Not Reviewed)

Data File : F0905010.D
Sample : HERBCCV 0905-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 15:42:33
Operator :
Misc :
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 15:57:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

KWS 9-5-18

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3)	S DCAA (surr)	8.730	8.395	14875962	14526655	120.767	102.169 ✓
	Spiked Amount 100.000			Recovery	=	120.77%	102.17%
	Target Compounds						
1)	A Dalapon	3.869	3.471	8071856	9140848	109.698	95.929
2)	A 2,4,6-Tri...	7.082	6.754	55388704	54445682	57.754	48.798
4)	A Dicamba	8.976	8.623	49907448	48776317	115.725	92.332
5)	A MCPP	9.153	8.705	7072785	2724054	23003.425	9448.984 #
6)	A MCPA	9.332	8.972	7133436	4127307	16484.922	9157.011 #
7)	A Dichlorprop	9.797	9.380	24394062	12333318	206.958	88.101 #
8)	A 2,4-D	10.068	9.736	34401020	16863973	248.666 ✓	93.726 #
9)	A Pentachlo...	10.400	9.995	33879293	36256773	10.820 ✓	9.280 ✓
10)	A 2,4,5-TP	11.092	10.689	72165831	72575474	124.536	95.231
11)	A 2,4,5-T	11.419	11.133	56539653	62500855	116.466	96.814
12)	A 2,4-DB	12.028	11.716	8384830	9217823	123.115	108.479
13)	a Bentazon	13.002	12.648	5762267	6444736	119.329	89.055 #
14)	A Dinoseb	13.140	12.084	20335279	26266721	94.555	76.427

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

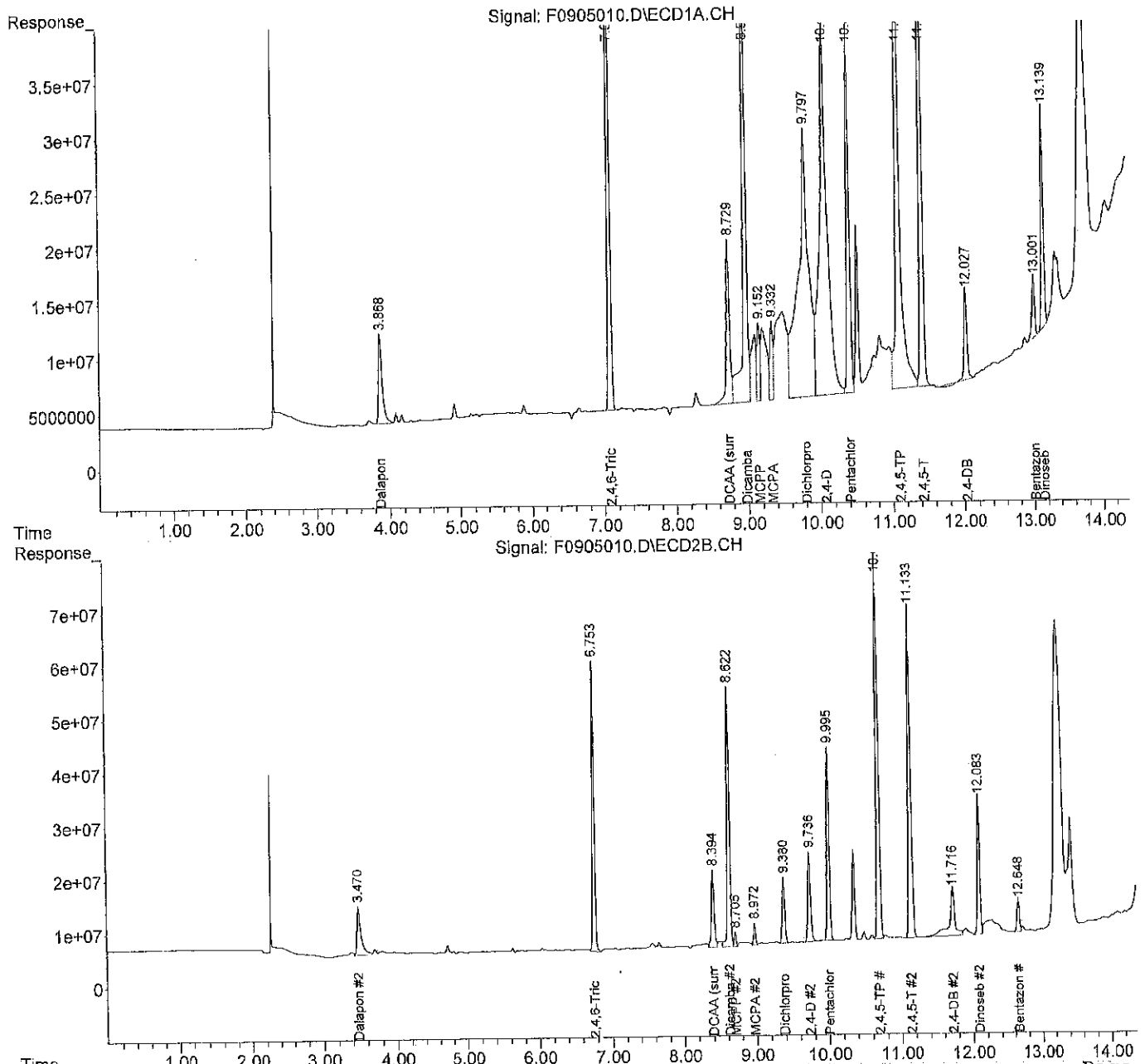
Quantitation Report (Not Reviewed)

Data File : F0905010.D
Sample : HERBCCV 0905-2 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 15:42:33
Operator :
Misc :
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 15:57:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



Quantitation Report (Not Reviewed)

Data File : F0905018.D
Sample : HERBCCV 0905-3 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 18:26:44
Operator :
Misc :
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 18:42:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
3) S	DCAA (surr)	8.727	8.395	13338959	13142338	108.290	92.433
	Spiked Amount 100.000			Recovery	=	108.29%	92.43%
	Target Compounds						
1) A	Dalapon	3.868	3.471	7750852	9100094	105.336	95.502
2) A	2,4,6-Tri...	7.081	6.754	52190758	50592841	54.419	45.345
4) A	Dicamba	8.974	8.622	46237211	45873072	107.214	86.836
5) A	MCPP	9.150	8.705	2801156	2806249	10494.867	9660.458
6) A	MCPA	9.329	8.972	4589638	4339520	10725.947	9588.699
7) A	Dichlorprop	9.795	9.379	12580944	12275635	106.736	87.689
8) A	2,4-D	10.066	9.736	15378985	16795264	111.166	93.344
9) A	Pentachlo...	10.397	9.995	33353604	35563773	10.652	9.102
10) A	2,4,5-TP	11.089	10.689	65111185	70912486	112.362	93.049
11) A	2,4,5-T	11.418	11.132	56527280	62709751	116.441	97.138
12) A	2,4-DB	12.025	11.716	8616753	8383009	126.520	98.655
13) a	Bentazon	12.992	12.642	5674675	6560525	117.515	90.655
14) A	Dinoseb	13.128	12.083	23475363	28971578	109.156	84.297

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KMS 9-6-18

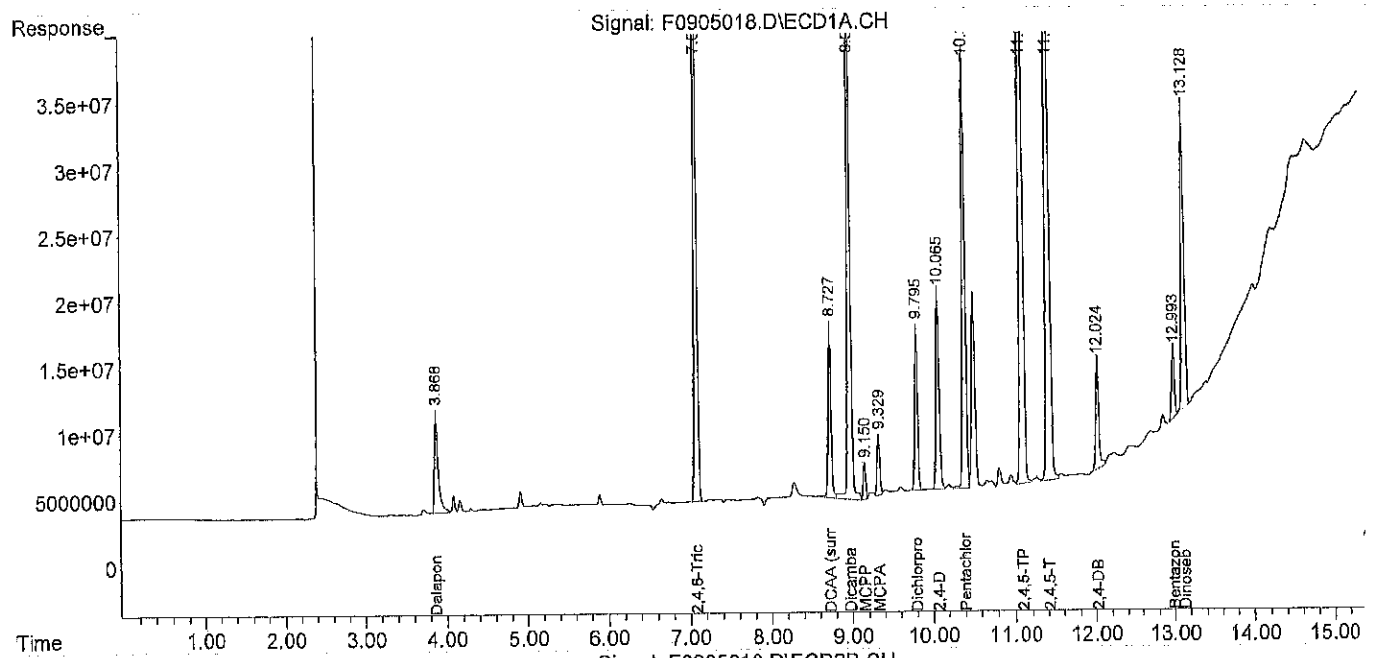
Quantitation Report (Not Reviewed)

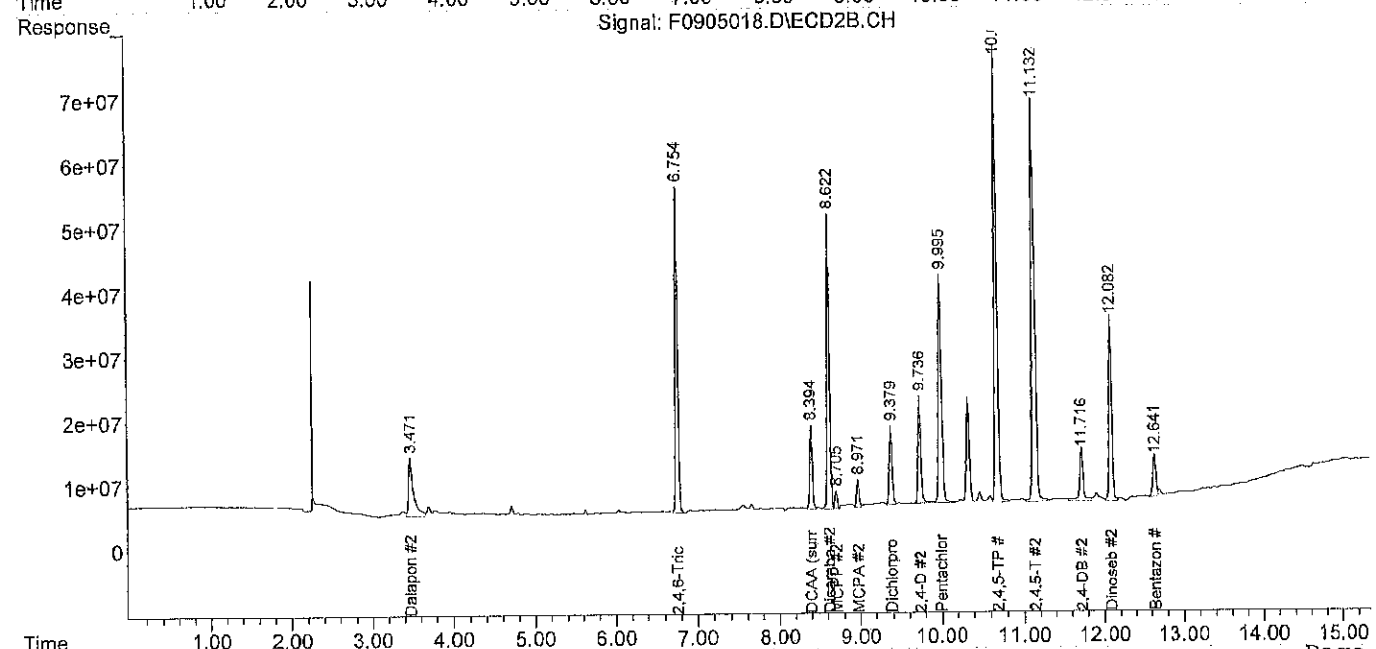
Data File : F0905018.D
Sample : HERBCCV 0905-3 (PS4-51-06)

Data Path : C:\MSDCHEM\1\DATA\F180905\
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05-Sep-18, 18:26:44
Operator :
Misc :
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 18:42:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\H180817.M
Quant Title : Herbicides
QLast Update : Thu Aug 30 12:01:59 2018
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Sequence Name: C:\msdchem\1\sequence\F180905.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180905\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info		
1)	Sample 1	F0905001	H180817	HEX
2)	Sample 2	F0905002	H180817	HEX
3)	Sample 3	F0905003	H180817	HERBCCV 0905-1 (PS4-51-06)
4)	Sample 4	F0905004	H180817	MB0905W1
5)	Sample 5	F0905005	H180817	SB0905W1
6)	Sample 6	F0905006	H180817	SB0905W1 DUP
7)	Sample 7	F0905007	H180817	08-393-01
8)	Sample 8	F0905008	H180817	HEX
9)	Sample 9	F0905009	H180817	HEX
10)	Sample 10	F0905010	H180817	HERBCCV 0905-2 (PS4-51-06)
11)	Sample 11	F0905011	H180817	08-393-02
12)	Sample 12	F0905012	H180817	08-393-03
13)	Sample 13	F0905013	H180817	HEX
14)	Sample 14	F0905014	H180817	08-393-04
15)	Sample 15	F0905015	H180817	08-393-05
16)	Sample 16	F0905016	H180817	HEX
17)	Sample 17	F0905017	H180817	HEX
18)	Sample 18	F0905018	H180817	HERBCCV 0905-3 (PS4-51-06)

Sequence Name: C:\msdchem\1\sequence\F180817.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\F180817\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line		Sample Name/Misc Info
1)	Sample 1	F0817001 PC180813 HEX
2)	Sample 2	F0817002 PC180813 HEX
3)	Sample 3	F0817003 PC180813 HEX
4)	Sample 4	F0817004 PC180813 PCBCCV 0817-1 (PS4-53-07)
5)	Sample 5	F0817005 H180817 hex
6)	Sample 6	F0817006 H180817 hex
7)	Sample 7	F0817007 H180817 hex
8)	Sample 8	F0817008 H180817 hex
9)	Calibration 9	F0817009 H180817 HERB IC 2.0 ppm PS4-51-08
10)	Calibration 10	F0817010 H180817 HERB IC 5.0 ppm PS4-51-09
11)	Calibration 11	F0817011 H180817 HERB IC 10 ppm PS4-51-10
12)	Calibration 12	F0817012 H180817 HERB IC 25 ppm PS4-51-11
13)	Calibration 13	F0817013 H180817 HERB IC 50 ppm PS4-51-12
14)	Calibration 14	F0817014 H180817 HERB IC 100 ppm PS4-51-13
15)	Calibration 15	F0817015 H180817 HERB IC 250 ppm PS4-51-14
16)	Calibration 16	F0817016 H180817 HERB IC 500 ppm PS4-51-15
17)	Sample 17	F0817017 H180817 HERB ICV PS4-055-09
18)	Sample 18	F0817018 PC180817 HEX
19)	Sample 19	F0817019 PC180817 HEX
20)	Calibration 20	F0817020 PC180817 PCB IC 0.020 ppm PS4-054-08
21)	Calibration 21	F0817021 PC180817 PCB IC 0.050 ppm PS4-054-09
22)	Calibration 22	F0817022 PC180817 PCB IC 0.10 ppm PS4-054-10
23)	Calibration 23	F0817023 PC180817 PCB IC 0.25 ppm PS4-054-11
24)	Calibration 24	F0817024 PC180817 PCB IC 0.50 ppm PS4-054-12
25)	Calibration 25	F0817025 PC180817 PCB IC 0.75 ppm PS4-054-13
26)	Calibration 26	F0817026 PC180817 PCB IC 1.0 ppm PS4-054-14
27)	Calibration 27	F0817027 PC180817 PCB IC 2.0 ppm PS4-054-15
28)	Calibration 28	F0817028 PC180817 AR1221 SPQ PS4-055-01
29)	Calibration 29	F0817029 PC180817 AR1232 SPQ PS4-055-02
30)	Calibration 30	F0817030 PC180817 AR1242 SPQ PS4-055-03
31)	Calibration 31	F0817031 PC180817 AR1248 SPQ PS4-055-04
32)	Calibration 32	F0817032 PC180817 AR1254 SPQ PS4-055-05
33)	Calibration 33	F0817033 PC180817 AR1262 SPQ PS4-055-06
34)	Calibration 34	F0817034 PC180817 AR1268 SPQ PS4-055-07
35)	Sample 35	F0817035 PC180817 PCB ICV PS4-055-08

Environmental Inc.

PCB'S EXTRACTION LOG

Date: 9/5/18 Time Ext. _____ am/pm

Surrogate Std. I.D: PS43404

Analysis: Herb

Spike Std. I.D: PS45303

Matrix: Water

LAB ID	pH	SAMPLE W/V	INTER VOLUME	ALIQUOT TAKEN	ALIQUOT FIN VOL	SAMPLE FIN VOL	AMT SUR	AMT SPK	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
MB0905 ml	<2	1000ml	180ml			10 mL	100ul	N/A	—	RD/mm	
SB0905 ml		↓	↓			↓	↓	25ul	↓	↓	
SBD0905 ml		↓	↓			↓	↓	25ul	↓	↓	
08-393-01		1573 513	↓			↓	↓	N/A	↓	↓	Emulsion
-02		1571 510	↓			↓	↓	↓	↓	↓	↓
-03		1565 509	↓			↓	↓	↓	↓	↓	↓
-04		1571 511	↓			↓	↓	↓	↓	↓	↓
-05	↓	1568 506	↓	↓	↓	↓	↓	↓	↓	↓	↓

Clean-up (A)Acid cleanup (S)Silica gel cleanup (F)Florisil cleanup (H)Mercury Cleanup