UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Final Analytical Report

Site Name	West Virginia Chemical Leak
Sample Collection Date(s)	01/28/14 21:15- 02/08/14 10:55
Contact	Dennis Matlock
Report Date	02/28/14 14:47
Project #	DAS R34317
Work Order	1401014

Analyses included in this report:

HPLC Identification Scan
VOCs by CLP Equivalent
SVOCs by SW846 8270D
VOCs by CLP Equivalent (trace)

Approved for Release

C. Capozale

1401014 FINAL DAS R34317 02 28 14 1448

OASQA Representative

Freedom_0005790_0001

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

Report Narrative

VOA Analysis Note:
Ethyl ether was detected in the field blanks as a tentatively identified compound (TIC). Please ensure that the source water used to prepare field blanks is free of volatile organics.

The following samples were initially analyzed within the seven day holding time for un-acidified samples using the trace level method. However, results are reported from subsequent analyses by the low-mid method. These re-runs and dilutions were analyzed past the recommended holding time. Quantified results are qualified as estimated (J). Non-detects have not been qualified as estimated (UJ) because they were confirmed against the initial analyses.

1401014-12, Sta. MW-5, final analysis at 12 days
1401014-13, Sta. MW-6, final analysis at 12 days
1401014-14, Sta. MW-3, final analysis at 10 days
1401014-15, Sta. MW-4, final analysis at 10 days

In addition, sample 1401014-10, Sta. TB03, was analyzed nine days after collection, two days past the seven day technical holding time for un-acidified samples.

The acetone, chloroform and methylene chloride results for sample 1401014-16, Sta. FB02, are qualified as estimated (J) because the associated surrogate compound recovery was outside limits (115%).

The matrix spike and matrix spike duplicate were prepared with a 10 X dilution of sample 1401014-12, Sta. MW-5, in order to bring responses within the calibration range.

HPLC ID Scan Notes:
Samples for WO 1401014 were evaluated qualitatively, as an On Demand Analysis by HPLC Identification Scan with a photodiode array detector (PDA). No quantitation was performed. OASQA On Demand procedures were followed where applicable. Analysis was based on SW-846 Methods 8321B and 8000C.
Samples were analyzed concurrently with WO 1401010 and results were compared with the reference materials in the work order.
Samples were extracted or diluted, and injected directly onto the HPLC system. Final analysis was on a Phenomenex Ultracarb ODS20 column (part# 00G-0206-R0, s/n 411297-2) with a linear methanol/water gradient. The PDA detector scanned from 210-300nm with a slitwidth of 2.4nm.
Sample 1401014-06 had the chromatographic fingerprint and spectra that were consistent with the Crude PPH sample from WO 1401010.
Sample 1401014-13 has 3 peaks with spectra similar to PPH but with slightly different retention times.
Sample 1401014-15 contained 5 peaks, 3 of which were spectrally similar to PPH but with slightly different retention times, and 2 that indicated unrelated aromatic compounds.
The method blank indicated no interferences. The 1,2-dinitrobenzene surrogate was detected in all samples at an appropriate retention time, indicating no major effects of the samples on chromatography.

SVOAs Analysis Note:
Samples were extracted first under a neutral pH of 7 for 18-24 hours and then made acidic (pH < 2) and extracted for another 18-24 hours.

Analysis for PPH and MCHM was performed on-demand.

Samples 1401014-12, -13, -14, -15, and -16 were extracted outside of technical hold time of 7 days and are qualifed as estimated (UJ) for nondetects and estimated (J) for detects.

Results for 2,4-dinitrophenol, benzaldehyde, 4-nitroaniline, atrazine and carbazole are qualified as estimated (UJ) in all samples due to exceeding limits in the initial calibration.

Freedom_0005790_0002

Results for 4-chloroaniline are qualified as estimated (UJ) in all samples due to exceeding limits in all CCVs.

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Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Matrix	Date Sampled	Date Received
CU	1401014-01	Surface Water	1/29/14 14:00	1/30/14 11:45
CD	1401014-02	Surface Water	1/29/14 14:55	1/30/14 11:45
CD1	1401014-03	Surface Water	1/29/14 15:05	1/30/14 11:45
FB01	1401014-04	Water	1/29/14 14:30	1/30/14 11:45
TB01	1401014-05	Surface Water	1/28/14 21:15	1/30/14 11:45
Pipe-1	1401014-06	Water	1/31/14 12:45	2/04/14 11:45
Seep-1	1401014-07	Groundwater	2/01/14 11:45	2/04/14 11:45
TB02	1401014-08	Water	1/31/14 18:45	2/04/14 11:45
MW-2	1401014-09	Groundwater	2/06/14 18:16	2/07/14 12:15
TB03	1401014-10	Water	2/03/14 20:15	2/07/14 12:15
TB04	1401014-11	Water	2/06/14 22:10	2/11/14 11:45
MW-5	1401014-12	Groundwater	2/07/14 12:16	2/11/14 11:45
MW-6	1401014-13	Groundwater	2/07/14 15:00	2/11/14 11:45
MW-3	1401014-14	Groundwater	2/08/14 10:55	2/11/14 11:45
MW-4	1401014-15	Groundwater	2/08/14 09:10	2/11/14 11:45
FB02	1401014-16	Water	2/08/14 10:18	2/11/14 11:45

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701 Mapes Road
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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/29/2014
CarrierName: FedEx
AirbillNo: 7977 6428 0770

CHAIN OF CUSTODY RECORD
Project Code: CT6665
DAS #: R34317

No: 3-012914-144215-0001
Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
CU	R34317-01	Surface Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1000 (4 C), 1001 (4 C), 1002 (4 C), 1003 (4 C), 1004 (4 C) (5)	CU	01/29/2014 14:00	WO 1401014-01
CD	R34317-02	Surface Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1005 (4 C), 1006 (4 C), 1007 (4 C), 1008 (4 C), 1009 (4 C) (5)	CD	01/29/2014 14:55	-02
CD1	R34317-03	Surface Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1010 (4 C), 1011 (4 C), 1012 (4 C), 1013 (4 C), 1014 (4 C) (5)	CD1	01/29/2014 15:05	-03
FB01	R34317-04	Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1015 (4 C), 1016 (4 C), 1017 (4 C), 1018 (4 C), 1019 (4 C) (5)	FB01	01/29/2014 14:30	-04
TB01	R34317-05	Surface Water/ Gene Nance	Grab	TVOA+TIC(14)	1020 (4 C), 1021 (4 C), 1022 (4 C) (3)	TB01	01/28/2014 21:15	-05

Special Instructions: [illegible]

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key TVOA+TIC=TCL Trace Volatiles + TIC, MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible] / Tech	1-29-14/1830	[illegible] / EPA R III	1/30/14 1145	Temp Blank 3°C 1/30/14

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Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/3/2014
CarrierName: FedEx
AirbillNo: 7977 9894 8823

CHAIN OF CUSTODY RECORD

Project Code: CT6665
DAS #: R34317

No: 3-020314-133918-0002
Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
Pipe-1	R34317-06	Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1023 (4 C), 1024 (4 C), 1025 (4 C), 1026 (4 C), 1027 (4 C), 1028 (4 C), 1029 (4 C), 1030 (4 C), 1031 (4 C), 1032 (4 C) (10)	Pipe-1	01/31/2014 12:45	1401014-06
Seep-1	R34317-07	Ground Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1033 (4 C), 1034 (4 C), 1035 (4 C), 1036 (4 C), 1037 (4 C) (5)	Seep-1	02/01/2014 11:45	-07
TB02	R34317-08	Water/ Gene Nance	Grab	TVOA+TIC(14)	1038 (4 C), 1039 (4 C), 1040 (4 C) (3)	TB02	01/31/2014 18:45	-08

Sample(s) to be used for Lab QC: Pipe-1 Tag 1023, Pipe-1 Tag 1024, Pipe-1 Tag 1025, Pipe-1 Tag 1026, Pipe-1 Tag 1027, Pipe-1 Tag 1028, Pipe-1 Tag 1029, Pipe-1 Tag 1030, Pipe-1 Tag 1031, Pipe-1 Tag 1032

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TVOA+TIC=TCL Trace Volatiles + TIC, MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible]	2-3-14/ 1600	[illegible]	2/4/14 1145	Temp Blk - 3°C Pipe 1 - Broken Amber Bottle

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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

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USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/6/2014
CarrierName: FedEx
AirbillNo: 8026 6102 7709

CHAIN OF CUSTODY RECORD

Project Code: CT6665
DAS #: R34317

No: 3-020614-163813-0003
Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-2	R34317-09	Ground Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1041 (4 C), 1042 (4 C), 1043 (4 C), 1044 (4 C), 1045 (4 C) (5)	MW-2	02/06/2014 18:16	1401014-09
TB03	R34317-10	Water/ Gene Nance	Grab	TVOA+TIC(14)	1046 (4 C), 1047 (4 C), 1048 (4 C) (3)	TB03	02/03/2014 20:15	1401014-10

Special Instructions:

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: TVOA+TIC=TCL Trace Volatiles + TIC, MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible]	2/6/14 1945	[illegible]	2/7/14 1215	Temp Blk 3°C

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Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2014
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AirbillNo: 8032 8714 0634

CHAIN OF CUSTODY RECORD

Project Code: CT5665
DAS #: R34317

No: 3-021014-134639-0006
Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
TB04	R34317-11	Water/ Gene Nance	Grab	TVOA+TIC(14)	1051 (4 C), 1052 (4 C) (2)	TB04	02/06/2014 22:10	1401014-11
TB04	R34317-11	Water/ Gene Nance	Grab	TVOA+TIC(14)	1050 (4 C) (1)	TB04	02/06/2014 22:10	-11
MW-5	R34317-12	Ground Water/ Gene Nance	Grab	TVOA+TIC(14)	1054 (4 C), 1055 (4 C), 1056 (4 C), 1074 (4 C), 1075 (4 C), 1076 (4 C) (6)	MW-5	02/07/2014 12:16	-12
MW-6	R34317-13	Ground Water/ Gene Nance	Grab	TVOA+TIC(14)	1059 (4 C), 1060 (4 C), 1061 (4 C) (3)	MW-6	02/07/2014 15:00	-13
MW-3	R34317-14	Ground Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1064 (4 C), 1065 (4 C), 1066 (4 C), 1067 (4 C), 1068 (4 C) (5)	MW-3	02/08/2014 10:55	-14
MW-4	R34317-15	Ground Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1069 (4 C), 1070 (4 C), 1071 (4 C), 1072 (4 C), 1073 (4 C) (5)	MW-4	02/08/2014 09:10	-15
FB02	R34317-16	Water/ Gene Nance	Grab	TVOA+TIC(14)	1079 (4 C), 1080 (4 C), 1081 (4 C) (3)	FB02	02/08/2014 10:18	-16

Sample(s) to be used for Lab QC: MW-5 Tag 1054, MW-5 Tag 1055, MW-5 Tag 1056, MW-5 Tag 1074, MW-5 Tag 1075, MW-5 Tag 1076

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key: TVOA+TIC=TCL Trace Volatiles + TIC, MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible]	2/10/14 1600	[illegible]	2/11/14 1145	[illegible]

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Fort Meade, Maryland 20755-5350

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2014
CarrierName: FedEx
AirbillNo: 8032 8714 0634

CHAIN OF CUSTODY RECORD
Project Code: CT6665
DAS #: R34317

No: 3-021014-130543-0005
Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-5	R34317-12	Ground Water/ Gene Nance	Grab	MCHM/PPH(14)	1057 (4 C), 1058 (4 C), 1077 (4 C), 1078 (4 C) (4)	MW-5	02/07/2014 12:15	1420174-12
MW-6	R34317-13	Ground Water/ Gene Nance	Grab	MCHM/PPH(14)	1062 (4 C), 1063 (4 C) (2)	MW-6	02/07/2014 15:00	-13
FB02	R34317-16	Water/ Gene Nance	Grab	MCHM/PPH(14)	1082 (4 C), 1083 (4 C) (2)	FB02	02/08/2014 10:15	-16

Sample(s) to be used for Lab QC: MW-5 Tag 1057, MW-5 Tag 1058, MW-5 Tag 1077, MW-5 Tag 1078

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key: MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible]	2/10/14 1600	[illegible]	2/10/14 1645	Temp blk [illegible]

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701 Mapes Road
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CU
Lab ID: 1401014-01
Sample Matrix: Surface Water
Date Collected: 01/29/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 13:58	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	**61.7**		4.76	10	02/03/14	02/06/14 10:43	EPA 8270D/R3QA201
PPH	**0.491**		0.476	1	02/03/14	02/05/14 18:46	EPA 8270D/R3QA201
Acenaphthene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Acenaphthylene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Acetophenone	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Anthracene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Atrazine	U	UJ	4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Benzo(a)anthracene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Benzo(ghi)perylene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Benzo(a)pyrene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
1,1-Biphenyl	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	**1.64**	J	4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Butyl benzyl phthalate	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Carbazole	U	UJ	4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Caprolactam	U		9.52	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2-Chloronaphthalene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2-Chlorophenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Chrysene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Dibenzofuran	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Diethyl phthalate	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2,4-Dichlorophenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2,4-Dimethylphenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Dimethyl phthalate	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201

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701 Mapes Road
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CU
Lab ID: 1401014-01
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U		9.52	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Di-n-octyl phthalate	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Fluoranthene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Fluorene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Hexachlorobenzene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Hexachlorobutadiene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Hexachloroethane	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Isophorone	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2-Methylnaphthalene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2-Methylphenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
4-Methylphenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Naphthalene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2-Nitroaniline	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
3-Nitroaniline	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Nitrobenzene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2-Nitrophenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
4-Nitrophenol	U		19.0	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Pentachlorophenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Phenanthrene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Phenol	U		9.52	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
Pyrene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U		4.76	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U		9.52	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U		9.52	1	02/03/14	02/06/14 11:38	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	40.6		**85 %**	*21-110*	02/03/14	02/06/14 11:38	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CU
Lab ID: 1401014-01
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	42.3		**89 %**	*39-106*	02/03/14	02/06/14 11:38	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	19.1		**80 %**	*43-108*	02/03/14	02/06/14 11:38	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	20.1		**85 %**	*43-116*	02/03/14	02/06/14 11:38	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	41.8		**88 %**	*10-123*	02/03/14	02/06/14 11:38	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	22.0		**92 %**	*33-141*	02/03/14	02/06/14 11:38	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	U		5.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Benzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Bromobenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Bromoform	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Bromomethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
2-Butanone	U		5.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Chloroethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Chloroform	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Chloromethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Cyclohexane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		1.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Dibromomethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CU
Lab ID: 1401014-01
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Freon 113	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Hexachlorobutadiene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
2-Hexanone	U		5.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Methylene Chloride	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Naphthalene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Styrene	U		1.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Toluene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Trichloroethene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
m-Xylene/p-Xylene	U		1.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210
o-Xylene	U		1.0	1	01/30/14	01/30/14 15:11	CLP trace/R3QA210

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701 Mapes Road
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CU
Lab ID: 1401014-01
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	4.750		**95 %**	*86-115*	01/30/14	01/30/14 15:11	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.390		**108 %**	*76-114*	01/30/14	01/30/14 15:11	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.420		**88 %**	*88-110*	01/30/14	01/30/14 15:11	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD
Lab ID: 1401014-02
Sample Matrix: Surface Water
Date Collected: 01/29/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 14:39	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	**145**		4.76	10	02/03/14	02/06/14 11:34	EPA 8270D/R3QA201
PPH	**0.913**		0.476	1	02/03/14	02/05/14 19:36	EPA 8270D/R3QA201
Acenaphthene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Acenaphthylene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Acetophenone	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Anthracene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Atrazine	U	UJ	4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Benzo(a)anthracene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Benzo(ghi)perylene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Benzo(a)pyrene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
1,1-Biphenyl	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	**0.581**	J	4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Butyl benzyl phthalate	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Carbazole	U	UJ	4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Caprolactam	U		9.52	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2-Chloronaphthalene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2-Chlorophenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Chrysene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Dibenzofuran	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Diethyl phthalate	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2,4-Dichlorophenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2,4-Dimethylphenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Dimethyl phthalate	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201

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701 Mapes Road
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD
Lab ID: 1401014-02
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U		9.52	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Di-n-octyl phthalate	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Fluoranthene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Fluorene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Hexachlorobenzene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Hexachlorobutadiene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Hexachloroethane	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Isophorone	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2-Methylnaphthalene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2-Methylphenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
4-Methylphenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Naphthalene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2-Nitroaniline	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
3-Nitroaniline	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Nitrobenzene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2-Nitrophenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
4-Nitrophenol	U		19.0	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Pentachlorophenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Phenanthrene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Phenol	U		9.52	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
Pyrene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U		4.76	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U		9.52	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U		9.52	1	02/03/14	02/06/14 12:15	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	40.9		**86 %**	*21-110*	02/03/14	02/06/14 12:15	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD
Lab ID: 1401014-02
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	42.8		**90 %**	*39-106*	02/03/14	02/06/14 12:15	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	19.0		**80 %**	*43-108*	02/03/14	02/06/14 12:15	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	20.2		**85 %**	*43-116*	02/03/14	02/06/14 12:15	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	42.6		**90 %**	*10-123*	02/03/14	02/06/14 12:15	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	23.0		**97 %**	*33-141*	02/03/14	02/06/14 12:15	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	U		5.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Benzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Bromobenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Bromoform	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Bromomethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
2-Butanone	U		5.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Chloroethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Chloroform	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Chloromethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Cyclohexane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		1.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Dibromomethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD
Lab ID: 1401014-02
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Freon 113	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Hexachlorobutadiene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
2-Hexanone	U		5.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Methylene Chloride	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Naphthalene	**0.1**	J	0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Styrene	U		1.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Toluene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Trichloroethene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
m-Xylene/p-Xylene	U		1.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210
o-Xylene	U		1.0	1	01/30/14	01/30/14 15:39	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
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701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak	**Project #:** DAS R34317
Station ID: CD	**Lab ID:** 1401014-02
Sample Matrix: Surface Water	**Date Collected:** 01/29/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	5.090		**102 %**	*86-115*	01/30/14	01/30/14 15:39	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.640		**113 %**	*76-114*	01/30/14	01/30/14 15:39	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.600		**92 %**	*88-110*	01/30/14	01/30/14 15:39	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD1
Lab ID: 1401014-03
Sample Matrix: Surface Water
Date Collected: 01/29/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 15:21	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	**124**		4.76	10	02/03/14	02/06/14 12:25	EPA 8270D/R3QA201
PPH	**0.803**		0.476	1	02/03/14	02/05/14 20:27	EPA 8270D/R3QA201
Acenaphthene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Acenaphthylene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Acetophenone	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Anthracene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Atrazine	U	UJ	4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Benzo(a)anthracene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Benzo(ghi)perylene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Benzo(a)pyrene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
1,1-Biphenyl	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	**0.571**	J	4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Butyl benzyl phthalate	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Carbazole	U	UJ	4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Caprolactam	U		9.52	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2-Chloronaphthalene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2-Chlorophenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Chrysene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Dibenzofuran	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Diethyl phthalate	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2,4-Dichlorophenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2,4-Dimethylphenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Dimethyl phthalate	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD1
Lab ID: 1401014-03
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U		9.52	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Di-n-octyl phthalate	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Fluoranthene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Fluorene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Hexachlorobenzene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Hexachlorobutadiene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Hexachloroethane	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Isophorone	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2-Methylnaphthalene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2-Methylphenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
4-Methylphenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Naphthalene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2-Nitroaniline	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
3-Nitroaniline	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Nitrobenzene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2-Nitrophenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
4-Nitrophenol	U		19.0	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Pentachlorophenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Phenanthrene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Phenol	U		9.52	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
Pyrene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U		4.76	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U		9.52	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U		9.52	1	02/03/14	02/06/14 12:53	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	37.6		**79 %**	*21-110*	02/03/14	02/06/14 12:53	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD1
Lab ID: 1401014-03
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	38.4		**81 %**	*39-106*	02/03/14	02/06/14 12:53	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	16.9		**71 %**	*43-108*	02/03/14	02/06/14 12:53	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	17.8		**75 %**	*43-116*	02/03/14	02/06/14 12:53	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	38.3		**80 %**	*10-123*	02/03/14	02/06/14 12:53	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	20.6		**87 %**	*33-141*	02/03/14	02/06/14 12:53	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	U		5.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Benzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Bromobenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Bromoform	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Bromomethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
2-Butanone	U		5.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Chloroethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Chloroform	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Chloromethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Cyclohexane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		1.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Dibromomethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD1
Lab ID: 1401014-03
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Freon 113	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Hexachlorobutadiene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
2-Hexanone	U		5.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Methylene Chloride	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Naphthalene	**0.05**	J	0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Styrene	U		1.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Toluene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Trichloroethene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
m-Xylene/p-Xylene	U		1.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210
o-Xylene	U		1.0	1	01/30/14	01/30/14 16:07	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: CD1
Lab ID: 1401014-03
Sample Matrix: Surface Water
Date Collected: 01/29/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	5.540		**111 %**	*86-115*	01/30/14	01/30/14 16:07	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.820	*A*	**116 %**	*76-114*	01/30/14	01/30/14 16:07	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.510		**90 %**	*88-110*	01/30/14	01/30/14 16:07	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB01
Lab ID: 1401014-04
Sample Matrix: Water
Date Collected: 01/29/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 16:02	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	U		0.476	1	02/03/14	02/05/14 21:17	EPA 8270D/R3QA201
PPH	U		0.476	1	02/03/14	02/05/14 21:17	EPA 8270D/R3QA201
Acenaphthene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Acenaphthylene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Acetophenone	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Anthracene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Atrazine	U	UJ	4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Benzo(a)anthracene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Benzo(ghi)perylene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Benzo(a)pyrene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
1,1-Biphenyl	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Butyl benzyl phthalate	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Carbazole	U	UJ	4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Caprolactam	U		9.52	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2-Chloronaphthalene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2-Chlorophenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Chrysene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Dibenzofuran	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Diethyl phthalate	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2,4-Dichlorophenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2,4-Dimethylphenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Dimethyl phthalate	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB01
Lab ID: 1401014-04
Sample Matrix: Water
Date Collected: 01/29/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U		9.52	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Di-n-octyl phthalate	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Fluoranthene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Fluorene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Hexachlorobenzene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Hexachlorobutadiene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Hexachloroethane	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Isophorone	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2-Methylnaphthalene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2-Methylphenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
4-Methylphenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Naphthalene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2-Nitroaniline	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
3-Nitroaniline	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Nitrobenzene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2-Nitrophenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
4-Nitrophenol	U		19.0	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Pentachlorophenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Phenanthrene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Phenol	U		9.52	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
Pyrene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U		4.76	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U		9.52	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U		9.52	1	02/03/14	02/06/14 13:30	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	41.7		**88 %**	*21-110*	02/03/14	02/06/14 13:30	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB01
Lab ID: 1401014-04
Sample Matrix: Water
Date Collected: 01/29/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	42.2		**89 %**	*39-106*	02/03/14	02/06/14 13:30	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	19.0		**80 %**	*43-108*	02/03/14	02/06/14 13:30	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	19.5		**82 %**	*43-116*	02/03/14	02/06/14 13:30	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	39.3		**82 %**	*10-123*	02/03/14	02/06/14 13:30	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	22.0		**93 %**	*33-141*	02/03/14	02/06/14 13:30	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**0.4**	J	5.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Benzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Bromobenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Bromoform	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Bromomethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
2-Butanone	U		5.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Chloroethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Chloroform	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Chloromethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Cyclohexane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		1.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Dibromomethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB01
Lab ID: 1401014-04
Sample Matrix: Water
Date Collected: 01/29/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Freon 113	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Hexachlorobutadiene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
2-Hexanone	U		5.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Methylene Chloride	**0.09**	J	0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Naphthalene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Styrene	U		1.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Toluene	**0.2**	J	0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Trichloroethene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
m-Xylene/p-Xylene	U		1.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210
o-Xylene	U		1.0	1	01/30/14	01/30/14 14:44	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB01
Lab ID: 1401014-04
Sample Matrix: Water
Date Collected: 01/29/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	4.880		**98 %**	*86-115*	01/30/14	01/30/14 14:44	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.390		**108 %**	*76-114*	01/30/14	01/30/14 14:44	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.650		**93 %**	*88-110*	01/30/14	01/30/14 14:44	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: TB01
Lab ID: 1401014-05
Sample Matrix: Surface Water
Date Collected: 01/28/2014

Volatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	U		5.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Benzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Bromobenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Bromoform	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Bromomethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
2-Butanone	U		5.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Chloroethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Chloroform	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Chloromethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Cyclohexane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		1.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Dibromomethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,1-Dichloroethene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Freon 113	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: TB01
Lab ID: 1401014-05
Sample Matrix: Surface Water
Date Collected: 01/28/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Hexachlorobutadiene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
2-Hexanone	U		5.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Methylene Chloride	**0.1**	J	0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Naphthalene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Styrene	U		1.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Toluene	**0.2**	J	0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Trichloroethene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
m-Xylene/p-Xylene	U		1.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210
o-Xylene	U		1.0	1	01/30/14	01/30/14 14:16	CLP trace/R3QA210

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	4.990		**100 %**	*86-115*	01/30/14	01/30/14 14:16	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.580		**112 %**	*76-114*	01/30/14	01/30/14 14:16	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.600		**92 %**	*88-110*	01/30/14	01/30/14 14:16	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: Pipe-1
Lab ID: 1401014-06
Sample Matrix: Water
Date Collected: 01/31/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 16:43	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	**221000**		4760	10000	02/05/14	02/10/14 17:07	EPA 8270D/R3QA201
PPH	**260**		4.76	10	02/05/14	02/07/14 16:13	EPA 8270D/R3QA201
Acenaphthene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Acenaphthylene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Acetophenone	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Anthracene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Atrazine	U	UJ	4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Benzo(a)anthracene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Benzo(ghi)perylene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Benzo(a)pyrene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
1,1-Biphenyl	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Butyl benzyl phthalate	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Carbazole	U	UJ	4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Caprolactam	U		9520	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2-Chloronaphthalene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2-Chlorophenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Chrysene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Dibenzofuran	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Diethyl phthalate	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2,4-Dichlorophenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2,4-Dimethylphenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Dimethyl phthalate	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: Pipe-1
Lab ID: 1401014-06
Sample Matrix: Water
Date Collected: 01/31/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U		9520	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Di-n-octyl phthalate	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Fluoranthene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Fluorene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Hexachlorobenzene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Hexachlorobutadiene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Hexachloroethane	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Isophorone	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2-Methylnaphthalene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2-Methylphenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
4-Methylphenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Naphthalene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2-Nitroaniline	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
3-Nitroaniline	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Nitrobenzene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2-Nitrophenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
4-Nitrophenol	U		19000	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Pentachlorophenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Phenanthrene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Phenol	U		9520	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
Pyrene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U		4760	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U		9520	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U		9520	1000	02/05/14	02/11/14 16:04	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	38.1		**80 %**	*21-110*	02/05/14	02/11/14 16:04	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: Pipe-1
Lab ID: 1401014-06
Sample Matrix: Water
Date Collected: 01/31/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	38.1		**80 %**	*39-106*	02/05/14	02/11/14 16:04	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	10300	*TD*	**43200 %**	*43-108*	02/05/14	02/11/14 16:04	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	28.6	*TD*	**120 %**	*43-116*	02/05/14	02/11/14 16:04	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	9.52		**20 %**	*10-123*	02/05/14	02/11/14 16:04	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	19.0		**80 %**	*33-141*	02/05/14	02/11/14 16:04	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**11.0**		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Benzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Bromobenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Bromochloromethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Bromodichloromethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Bromoform	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Bromomethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
2-Butanone	U		10.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
sec-Butylbenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
tert-Butylbenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
n-Butylbenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Carbon disulfide	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Carbon Tetrachloride	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Chlorobenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Chlorodibromomethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Chloroethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
2-Chloroethylvinyl ether	U		10.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Chloroform	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Chloromethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
2-Chlorotoluene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
4-Chlorotoluene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Cyclohexane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2-Dibromo-3-chloropropane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2-Dibromoethane (EDB)	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Dibromomethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2-Dichlorobenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,3-Dichlorobenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,4-Dichlorobenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Dichlorodifluoromethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,1-Dichloroethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2-Dichloroethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: Pipe-1
Lab ID: 1401014-06
Sample Matrix: Water
Date Collected: 01/31/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
cis-1,2-Dichloroethene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
trans-1,2-Dichloroethene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2-Dichloropropane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,3-Dichloropropane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
2,2-Dichloropropane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,1-Dichloropropene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
cis-1,3-Dichloropropene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
trans-1,3-Dichloropropene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Ethylbenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Freon 113	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Hexachlorobutadiene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
2-Hexanone	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Isopropylbenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
p-Isopropyltoluene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Methyl Acetate	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Methylcyclohexane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Methyl-tert-butyl ether	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Methylene Chloride	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Naphthalene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
n-Propylbenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Styrene	U		10.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,1,2,2-Tetrachloroethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,1,1,2-Tetrachloroethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Tetrachloroethene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Toluene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2,3-Trichlorobenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2,4-Trichlorobenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,1,1-Trichloroethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,1,2-Trichloroethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Trichloroethene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Trichlorofluoromethane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2,3-Trichloropropane	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,2,4-Trimethylbenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
1,3,5-Trimethylbenzene	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Vinyl acetate	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
Vinyl chloride	U		5.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
m-Xylene/p-Xylene	U		10.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210
o-Xylene	U		10.0	1	02/05/14	02/05/14 14:08	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: Pipe-1
Lab ID: 1401014-06
Sample Matrix: Water
Date Collected: 01/31/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	17.91		**90 %**	*86-115*	02/05/14	02/05/14 14:08	*CLP low-mid/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	20.55		**103 %**	*76-114*	02/05/14	02/05/14 14:08	*CLP low-mid/R3QA210*
Surrogate: Toluene-d8	19.85		**99 %**	*88-110*	02/05/14	02/05/14 14:08	*CLP low-mid/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Station ID: Seep-1
Sample Matrix: Groundwater
Project #: DAS R34317
Lab ID: 1401014-07
Date Collected: 02/01/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 17:25	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	**10.4**		0.476	1	02/05/14	02/10/14 16:17	EPA 8270D/R3QA201
PPH	U		0.476	1	02/05/14	02/10/14 16:17	EPA 8270D/R3QA201
Acenaphthene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Acenaphthylene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Acetophenone	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Anthracene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Atrazine	U	UJ	4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Benzo(a)anthracene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Benzo(ghi)perylene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Benzo(a)pyrene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
1,1-Biphenyl	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Butyl benzyl phthalate	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Carbazole	U	UJ	4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Caprolactam	U		9.52	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2-Chloronaphthalene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2-Chlorophenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Chrysene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Dibenzofuran	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Diethyl phthalate	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2,4-Dichlorophenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2,4-Dimethylphenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Dimethyl phthalate	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: Seep-1
Lab ID: 1401014-07
Sample Matrix: Groundwater
Date Collected: 02/01/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U		9.52	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Di-n-octyl phthalate	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Fluoranthene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Fluorene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Hexachlorobenzene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Hexachlorobutadiene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Hexachloroethane	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Isophorone	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2-Methylnaphthalene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2-Methylphenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
4-Methylphenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Naphthalene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2-Nitroaniline	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
3-Nitroaniline	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Nitrobenzene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2-Nitrophenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
4-Nitrophenol	U		19.0	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Pentachlorophenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Phenanthrene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Phenol	U		9.52	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
Pyrene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U		4.76	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U		9.52	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U		9.52	1	02/05/14	02/11/14 16:41	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	35.8		**75 %**	*21-110*	02/05/14	02/11/14 16:41	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: Seep-1
Lab ID: 1401014-07
Sample Matrix: Groundwater
Date Collected: 02/01/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	36.8		**77 %**	*39-106*	02/05/14	02/11/14 16:41	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	16.5		**69 %**	*43-108*	02/05/14	02/11/14 16:41	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	17.3		**73 %**	*43-116*	02/05/14	02/11/14 16:41	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	36.7		**77 %**	*10-123*	02/05/14	02/11/14 16:41	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	18.6		**78 %**	*33-141*	02/05/14	02/11/14 16:41	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**1.6**	J	5.0	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Benzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Bromobenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Bromoform	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Bromomethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
2-Butanone	U		5.0	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Chloroethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Chloroform	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Chloromethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Cyclohexane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Dibromomethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: Seep-1
Lab ID: 1401014-07
Sample Matrix: Groundwater
Date Collected: 02/01/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Freon 113	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Hexachlorobutadiene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
2-Hexanone	U		5.0	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Methylene Chloride	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Naphthalene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Styrene	U		1.0	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Toluene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Trichloroethene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
m-Xylene/p-Xylene	U		1.0	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210
o-Xylene	U		1.0	1	02/06/14	02/06/14 12:37	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak	**Project #:** DAS R34317
Station ID: Seep-1	**Lab ID:** 1401014-07
Sample Matrix: Groundwater	**Date Collected:** 02/01/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	4.830		**97 %**	*86-115*	02/06/14	02/06/14 12:37	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	6.010	*A*	**120 %**	*76-114*	02/06/14	02/06/14 12:37	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.670		**93 %**	*88-110*	02/06/14	02/06/14 12:37	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: TB02
Lab ID: 1401014-08
Sample Matrix: Water
Date Collected: 01/31/2014

Volatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	U		5.0	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Benzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Bromobenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Bromoform	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Bromomethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
2-Butanone	U		5.0	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Chloroethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Chloroform	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Chloromethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Cyclohexane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Dibromomethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,1-Dichloroethene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Freon 113	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: TB02
Lab ID: 1401014-08
Sample Matrix: Water
Date Collected: 01/31/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Hexachlorobutadiene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
2-Hexanone	U		5.0	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Methylene Chloride	**0.2**	J	0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Naphthalene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Styrene	U		1.0	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Toluene	**0.1**	J	0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Trichloroethene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
m-Xylene/p-Xylene	U		1.0	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210
o-Xylene	U		1.0	1	02/04/14	02/04/14 18:11	CLP trace/R3QA210

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	5.060		**101 %**	*86-115*	02/04/14	02/04/14 18:11	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.800	*A*	**116 %**	*76-114*	02/04/14	02/04/14 18:11	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.600		**92 %**	*88-110*	02/04/14	02/04/14 18:11	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-2
Lab ID: 1401014-09
Sample Matrix: Groundwater
Date Collected: 02/06/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 18:06	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	**3.24**	B, J	4.85	1	02/10/14	02/21/14 15:48	EPA 8270D/R3QA201
PPH	**0.326**	J	0.485	1	02/10/14	02/21/14 15:48	EPA 8270D/R3QA201
Acenaphthene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Acenaphthylene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Acetophenone	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Anthracene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Atrazine	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Benzo(a)anthracene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Benzo(ghi)perylene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Benzo(a)pyrene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
1,1-Biphenyl	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	**0.534**	J	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Butyl benzyl phthalate	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Carbazole	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Caprolactam	U		9.71	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2-Chloronaphthalene	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2-Chlorophenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Chrysene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Dibenzofuran	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Diethyl phthalate	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2,4-Dichlorophenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2,4-Dimethylphenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Dimethyl phthalate	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-2
Lab ID: 1401014-09
Sample Matrix: Groundwater
Date Collected: 02/06/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U	UJ	9.71	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Di-n-octyl phthalate	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Fluoranthene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Fluorene	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Hexachlorobenzene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Hexachlorobutadiene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Hexachloroethane	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Isophorone	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2-Methylnaphthalene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2-Methylphenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
4-Methylphenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Naphthalene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2-Nitroaniline	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
3-Nitroaniline	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Nitrobenzene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2-Nitrophenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
4-Nitrophenol	U		19.4	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Pentachlorophenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Phenanthrene	U	UJ	4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Phenol	U		9.71	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
Pyrene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U		4.85	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U		9.71	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U		9.71	1	02/10/14	02/24/14 17:00	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	27.0		**56 %**	*21-110*	02/10/14	02/24/14 17:00	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-2
Lab ID: 1401014-09
Sample Matrix: Groundwater
Date Collected: 02/06/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	28.3		**58 %**	*39-106*	02/10/14	02/24/14 17:00	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	12.5		**51 %**	*43-108*	02/10/14	02/24/14 17:00	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	13.5		**56 %**	*43-116*	02/10/14	02/24/14 17:00	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	30.4		**63 %**	*10-123*	02/10/14	02/24/14 17:00	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	9.36		**39 %**	*33-141*	02/10/14	02/24/14 17:00	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**2.6**	B, J	5.0	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Benzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Bromobenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Bromoform	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Bromomethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
2-Butanone	U		5.0	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Chloroethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Chloroform	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Chloromethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Cyclohexane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Dibromomethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210

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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-2
Lab ID: 1401014-09
Sample Matrix: Groundwater
Date Collected: 02/06/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Freon 113	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Hexachlorobutadiene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
2-Hexanone	U		5.0	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Methylene Chloride	**0.1**	B, J	0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Naphthalene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Styrene	U		1.0	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Toluene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Trichloroethene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
m-Xylene/p-Xylene	U		1.0	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210
o-Xylene	U		1.0	1	02/12/14	02/12/14 16:53	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-2
Lab ID: 1401014-09
Sample Matrix: Groundwater
Date Collected: 02/06/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	4.730		**95 %**	*86-115*	02/12/14	02/12/14 16:53	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.870	*A*	**117 %**	*76-114*	02/12/14	02/12/14 16:53	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.890		**98 %**	*88-110*	02/12/14	02/12/14 16:53	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: TB03
Lab ID: 1401014-10
Sample Matrix: Water
Date Collected: 02/03/2014

Volatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**1.8**	B, J	5.0	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Benzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Bromobenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Bromoform	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Bromomethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
2-Butanone	U		5.0	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Chloroethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Chloroform	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Chloromethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Cyclohexane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Dibromomethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,1-Dichloroethene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Freon 113	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: TB03
Lab ID: 1401014-10
Sample Matrix: Water
Date Collected: 02/03/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Hexachlorobutadiene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
2-Hexanone	U		5.0	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Methylene Chloride	**0.3**	J	0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Naphthalene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Styrene	U		1.0	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Toluene	**0.2**	J	0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Trichloroethene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
m-Xylene/p-Xylene	**0.1**	J	1.0	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210
o-Xylene	U		1.0	1	02/12/14	02/12/14 15:30	CLP trace/R3QA210

Surrogates

Analyte	Result ug/L	Flags Qualifiers	**%Recovery**	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	5.010		**100 %**	*86-115*	02/12/14	02/12/14 15:30	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.610		**112 %**	*76-114*	02/12/14	02/12/14 15:30	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.550		**91 %**	*88-110*	02/12/14	02/12/14 15:30	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: TB04
Lab ID: 1401014-11
Sample Matrix: Water
Date Collected: 02/06/2014

Volatile Organic Compounds
Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**1.9**	B, J	5.0	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Benzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Bromobenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Bromoform	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Bromomethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
2-Butanone	U		5.0	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Chloroethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Chloroform	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Chloromethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Cyclohexane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Dibromomethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2-Dichloroethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,1-Dichloroethene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Ethylbenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Freon 113	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: TB04
Lab ID: 1401014-11
Sample Matrix: Water
Date Collected: 02/06/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Hexachlorobutadiene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
2-Hexanone	U		5.0	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Methylene Chloride	**0.2**	J	0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Naphthalene	**0.06**	J	0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Styrene	U		1.0	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Toluene	**0.3**	J	0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Trichloroethene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,2,4-Trimethylbenzene	**0.07**	J	0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
m-Xylene/p-Xylene	**0.1**	J	1.0	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210
o-Xylene	U		1.0	1	02/12/14	02/12/14 15:58	CLP trace/R3QA210

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	4.930		**99 %**	*86-115*	02/12/14	02/12/14 15:58	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.560		**111 %**	*76-114*	02/12/14	02/12/14 15:58	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.980		**100 %**	*88-110*	02/12/14	02/12/14 15:58	*CLP trace/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-5
Lab ID: 1401014-12
Sample Matrix: Groundwater
Date Collected: 02/07/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 18:47	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	U	UJ	5.05	1	02/18/14	02/21/14 18:18	EPA 8270D/R3QA201
PPH	U	UJ	0.505	1	02/18/14	02/21/14 18:18	EPA 8270D/R3QA201
Acenaphthene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Acenaphthylene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Acetophenone	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Anthracene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Atrazine	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Benzo(a)anthracene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Benzo(ghi)perylene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Benzo(a)pyrene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
1,1-Biphenyl	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Butyl benzyl phthalate	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Carbazole	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Caprolactam	U	UJ	10.1	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2-Chloronaphthalene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2-Chlorophenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Chrysene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Dibenzofuran	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Diethyl phthalate	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2,4-Dichlorophenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2,4-Dimethylphenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Dimethyl phthalate	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-5
Lab ID: 1401014-12
Sample Matrix: Groundwater
Date Collected: 02/07/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U	UJ	10.1	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Di-n-octyl phthalate	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Fluoranthene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Fluorene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Hexachlorobenzene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Hexachlorobutadiene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Hexachloroethane	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Isophorone	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2-Methylnaphthalene	**3.09**	J	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2-Methylphenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
4-Methylphenol	**0.788**	J	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Naphthalene	**4.77**	J	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2-Nitroaniline	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
3-Nitroaniline	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Nitrobenzene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2-Nitrophenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
4-Nitrophenol	U	UJ	20.2	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Pentachlorophenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Phenanthrene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Phenol	U	UJ	10.1	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
Pyrene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U	UJ	5.05	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U	UJ	10.1	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U	UJ	10.1	1	02/18/14	02/24/14 18:53	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	25.9		**51 %**	*21-110*	02/18/14	02/24/14 18:53	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-5
Lab ID: 1401014-12
Sample Matrix: Groundwater
Date Collected: 02/07/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	28.2		**56 %**	*39-106*	02/18/14	02/24/14 18:53	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	11.6		**46 %**	*43-108*	02/18/14	02/24/14 18:53	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	12.7		**50 %**	*43-116*	02/18/14	02/24/14 18:53	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	27.4		**54 %**	*10-123*	02/18/14	02/24/14 18:53	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	13.7		**54 %**	*33-141*	02/18/14	02/24/14 18:53	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**18.3**	B, J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Benzene	**0.2**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Bromobenzene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Bromochloromethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Bromodichloromethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Bromoform	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Bromomethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
2-Butanone	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
sec-Butylbenzene	**3.0**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
tert-Butylbenzene	**0.6**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
n-Butylbenzene	**5.3**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Carbon disulfide	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Carbon Tetrachloride	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Chlorobenzene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Chlorodibromomethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Chloroethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
2-Chloroethylvinyl ether	U		10.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Chloroform	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Chloromethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
2-Chlorotoluene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
4-Chlorotoluene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Cyclohexane	**9.5**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2-Dibromo-3-chloropropane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2-Dibromoethane (EDB)	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Dibromomethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,3-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,4-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Dichlorodifluoromethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,1-Dichloroethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2-Dichloroethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-5
Lab ID: 1401014-12
Sample Matrix: Groundwater
Date Collected: 02/07/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
cis-1,2-Dichloroethene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
trans-1,2-Dichloroethene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2-Dichloropropane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,3-Dichloropropane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
2,2-Dichloropropane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,1-Dichloropropene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
cis-1,3-Dichloropropene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
trans-1,3-Dichloropropene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Ethylbenzene	**3.4**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Freon 113	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Hexachlorobutadiene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
2-Hexanone	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Isopropylbenzene	**10.7**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
p-Isopropyltoluene	**2.2**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Methyl Acetate	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Methylcyclohexane	**37.9**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Methyl-tert-butyl ether	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Methylene Chloride	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Naphthalene	**15.9**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
n-Propylbenzene	**31.1**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Styrene	U		10.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,1,2,2-Tetrachloroethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,1,1,2-Tetrachloroethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Tetrachloroethene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Toluene	**0.2**	B, J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2,3-Trichlorobenzene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2,4-Trichlorobenzene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,1,1-Trichloroethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,1,2-Trichloroethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Trichloroethene	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Trichlorofluoromethane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2,3-Trichloropropane	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
1,2,4-Trimethylbenzene	**151**	J	50.0	10	02/18/14	02/19/14 14:06	CLP low-mid/R3QA210
1,3,5-Trimethylbenzene	**3.7**	J	5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Vinyl acetate	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
Vinyl chloride	U		5.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
m-Xylene/p-Xylene	**0.5**	B, J	10.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210
o-Xylene	**0.2**	B, J	10.0	1	02/18/14	02/18/14 18:41	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-5
Lab ID: 1401014-12
Sample Matrix: Groundwater
Date Collected: 02/07/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	20.70		**104 %**	*86-115*	02/18/14	02/18/14 18:41	*CLP low-mid/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	18.68		**93 %**	*76-114*	02/18/14	02/18/14 18:41	*CLP low-mid/R3QA210*
Surrogate: Toluene-d8	19.39		**97 %**	*88-110*	02/18/14	02/18/14 18:41	*CLP low-mid/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-6
Lab ID: 1401014-13
Sample Matrix: Groundwater
Date Collected: 02/07/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 19:28	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	U	UJ	5.00	1	02/18/14	02/21/14 20:48	EPA 8270D/R3QA201
PPH	**4.00**	J	0.500	1	02/18/14	02/21/14 20:48	EPA 8270D/R3QA201
Acenaphthene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Acenaphthylene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Acetophenone	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Anthracene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Atrazine	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Benzo(a)anthracene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Benzo(ghi)perylene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Benzo(a)pyrene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
1,1-Biphenyl	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Butyl benzyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Carbazole	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Caprolactam	U	UJ	10.0	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2-Chloronaphthalene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2-Chlorophenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Chrysene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Dibenzofuran	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Diethyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2,4-Dichlorophenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2,4-Dimethylphenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Dimethyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-6
Lab ID: 1401014-13
Sample Matrix: Groundwater
Date Collected: 02/07/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U	UJ	10.0	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Di-n-octyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Fluoranthene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Fluorene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Hexachlorobenzene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Hexachlorobutadiene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Hexachloroethane	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Isophorone	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2-Methylnaphthalene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2-Methylphenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
4-Methylphenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Naphthalene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2-Nitroaniline	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
3-Nitroaniline	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Nitrobenzene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2-Nitrophenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
4-Nitrophenol	U	UJ	20.0	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Pentachlorophenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Phenanthrene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Phenol	U	UJ	10.0	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
Pyrene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U	UJ	5.00	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U	UJ	10.0	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U	UJ	10.0	1	02/18/14	02/24/14 20:47	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	24.1		**48 %**	*21-110*	02/18/14	02/24/14 20:47	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-6
Lab ID: 1401014-13
Sample Matrix: Groundwater
Date Collected: 02/07/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	26.1		**52 %**	*39-106*	02/18/14	02/24/14 20:47	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	11.2		**45 %**	*43-108*	02/18/14	02/24/14 20:47	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	12.2		**49 %**	*43-116*	02/18/14	02/24/14 20:47	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	26.9		**54 %**	*10-123*	02/18/14	02/24/14 20:47	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	13.6		**54 %**	*33-141*	02/18/14	02/24/14 20:47	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**7.5**	B, J	5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Benzene	**0.3**	J	5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Bromobenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Bromochloromethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Bromodichloromethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Bromoform	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Bromomethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
2-Butanone	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
sec-Butylbenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
tert-Butylbenzene	**0.8**	J	5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
n-Butylbenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Carbon disulfide	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Carbon Tetrachloride	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Chlorobenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Chlorodibromomethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Chloroethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
2-Chloroethylvinyl ether	U		10.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Chloroform	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Chloromethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
2-Chlorotoluene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
4-Chlorotoluene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Cyclohexane	**9.1**	J	5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2-Dibromo-3-chloropropane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2-Dibromoethane (EDB)	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Dibromomethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,3-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,4-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Dichlorodifluoromethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,1-Dichloroethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2-Dichloroethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-6
Lab ID: 1401014-13
Sample Matrix: Groundwater
Date Collected: 02/07/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
cis-1,2-Dichloroethene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
trans-1,2-Dichloroethene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2-Dichloropropane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,3-Dichloropropane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
2,2-Dichloropropane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,1-Dichloropropene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
cis-1,3-Dichloropropene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
trans-1,3-Dichloropropene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Ethylbenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Freon 113	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Hexachlorobutadiene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
2-Hexanone	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Isopropylbenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
p-Isopropyltoluene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Methyl Acetate	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Methylcyclohexane	**160**	J	50.0	10	02/18/14	02/19/14 14:32	CLP low-mid/R3QA210
Methyl-tert-butyl ether	**0.5**	J	5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Methylene Chloride	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Naphthalene	**0.4**	J	5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
n-Propylbenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Styrene	U		10.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,1,2,2-Tetrachloroethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,1,1,2-Tetrachloroethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Tetrachloroethene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Toluene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2,3-Trichlorobenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2,4-Trichlorobenzene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,1,1-Trichloroethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,1,2-Trichloroethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Trichloroethene	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Trichlorofluoromethane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2,3-Trichloropropane	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,2,4-Trimethylbenzene	**0.2**	B, J	5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
1,3,5-Trimethylbenzene	**0.1**	J	5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Vinyl acetate	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
Vinyl chloride	U		5.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
m-Xylene/p-Xylene	**0.09**	B, J	10.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210
o-Xylene	**0.2**	B, J	10.0	1	02/18/14	02/18/14 19:34	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-6
Lab ID: 1401014-13
Sample Matrix: Groundwater
Date Collected: 02/07/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	22.42		**112 %**	*86-115*	02/18/14	02/18/14 19:34	*CLP low-mid/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	18.53		**93 %**	*76-114*	02/18/14	02/18/14 19:34	*CLP low-mid/R3QA210*
Surrogate: Toluene-d8	19.53		**98 %**	*88-110*	02/18/14	02/18/14 19:34	*CLP low-mid/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-3
Lab ID: 1401014-14
Sample Matrix: Groundwater
Date Collected: 02/08/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 20:51	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	U	UJ	5.00	1	02/18/14	02/21/14 21:38	EPA 8270D/R3QA201
PPH	**2.89**	J	0.500	1	02/18/14	02/21/14 21:38	EPA 8270D/R3QA201
Acenaphthene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Acenaphthylene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Acetophenone	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Anthracene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Atrazine	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Benzo(a)anthracene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Benzo(ghi)perylene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Benzo(a)pyrene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
1,1-Biphenyl	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Butyl benzyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Carbazole	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Caprolactam	U	UJ	10.0	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2-Chloronaphthalene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2-Chlorophenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Chrysene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Dibenzofuran	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Diethyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2,4-Dichlorophenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2,4-Dimethylphenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Dimethyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-3
Lab ID: 1401014-14
Sample Matrix: Groundwater
Date Collected: 02/08/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U	UJ	10.0	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Di-n-octyl phthalate	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Fluoranthene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Fluorene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Hexachlorobenzene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Hexachlorobutadiene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Hexachloroethane	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Isophorone	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2-Methylnaphthalene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2-Methylphenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
4-Methylphenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Naphthalene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2-Nitroaniline	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
3-Nitroaniline	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Nitrobenzene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2-Nitrophenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
4-Nitrophenol	U	UJ	20.0	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Pentachlorophenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Phenanthrene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Phenol	U	UJ	10.0	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
Pyrene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U	UJ	5.00	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U	UJ	10.0	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U	UJ	10.0	1	02/18/14	02/24/14 21:25	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	24.3		**49 %**	*21-110*	02/18/14	02/24/14 21:25	*EPA 8270D/R3QA201*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-3
Lab ID: 1401014-14
Sample Matrix: Groundwater
Date Collected: 02/08/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	26.0		**52 %**	*39-106*	02/18/14	02/24/14 21:25	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	11.0		**44 %**	*43-108*	02/18/14	02/24/14 21:25	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	12.3		**49 %**	*43-116*	02/18/14	02/24/14 21:25	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	27.3		**55 %**	*10-123*	02/18/14	02/24/14 21:25	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	15.1		**60 %**	*33-141*	02/18/14	02/24/14 21:25	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**1.4**	B, J	5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Benzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Bromobenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Bromochloromethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Bromodichloromethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Bromoform	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Bromomethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
2-Butanone	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
sec-Butylbenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
tert-Butylbenzene	**0.2**	J	5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
n-Butylbenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Carbon disulfide	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Carbon Tetrachloride	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Chlorobenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Chlorodibromomethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Chloroethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
2-Chloroethylvinyl ether	U		10.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Chloroform	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Chloromethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
2-Chlorotoluene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
4-Chlorotoluene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Cyclohexane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2-Dibromo-3-chloropropane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2-Dibromoethane (EDB)	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Dibromomethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,3-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,4-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Dichlorodifluoromethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,1-Dichloroethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2-Dichloroethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-3
Lab ID: 1401014-14
Sample Matrix: Groundwater
Date Collected: 02/08/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
cis-1,2-Dichloroethene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
trans-1,2-Dichloroethene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2-Dichloropropane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,3-Dichloropropane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
2,2-Dichloropropane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,1-Dichloropropene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
cis-1,3-Dichloropropene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
trans-1,3-Dichloropropene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Ethylbenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Freon 113	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Hexachlorobutadiene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
2-Hexanone	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Isopropylbenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
p-Isopropyltoluene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Methyl Acetate	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Methylcyclohexane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Methyl-tert-butyl ether	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Methylene Chloride	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Naphthalene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
n-Propylbenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Styrene	U		10.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,1,2,2-Tetrachloroethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,1,1,2-Tetrachloroethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Tetrachloroethene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Toluene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2,3-Trichlorobenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2,4-Trichlorobenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,1,1-Trichloroethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,1,2-Trichloroethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Trichloroethene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Trichlorofluoromethane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2,3-Trichloropropane	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,2,4-Trimethylbenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
1,3,5-Trimethylbenzene	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Vinyl acetate	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
Vinyl chloride	U		5.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
m-Xylene/p-Xylene	U		10.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210
o-Xylene	U		10.0	1	02/18/14	02/18/14 16:58	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak	**Project #:** DAS R34317
Station ID: MW-3	**Lab ID:** 1401014-14
Sample Matrix: Groundwater	**Date Collected:** 02/08/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	19.57		**98 %**	*86-115*	02/18/14	02/18/14 16:58	*CLP low-mid/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	20.39		**102 %**	*76-114*	02/18/14	02/18/14 16:58	*CLP low-mid/R3QA210*
Surrogate: Toluene-d8	19.28		**96 %**	*88-110*	02/18/14	02/18/14 16:58	*CLP low-mid/R3QA210*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-4
Lab ID: 1401014-15
Sample Matrix: Groundwater
Date Collected: 02/08/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 21:32	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	U	UJ	5.00	1	02/18/14	02/21/14 22:28	EPA 8270D/R3QA201
PPH	**18.9**	J	0.500	1	02/18/14	02/21/14 22:28	EPA 8270D/R3QA201
Acenaphthene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Acenaphthylene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Acetophenone	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Anthracene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Atrazine	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Benzo(a)anthracene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Benzo(ghi)perylene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Benzo(a)pyrene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
1,1-Biphenyl	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	**182**	J	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Butyl benzyl phthalate	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Carbazole	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Caprolactam	U	UJ	100	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2-Chloronaphthalene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2-Chlorophenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Chrysene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Dibenzofuran	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Diethyl phthalate	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2,4-Dichlorophenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2,4-Dimethylphenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Dimethyl phthalate	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-4
Lab ID: 1401014-15
Sample Matrix: Groundwater
Date Collected: 02/08/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U	UJ	100	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Di-n-octyl phthalate	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Fluoranthene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Fluorene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Hexachlorobenzene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Hexachlorobutadiene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Hexachloroethane	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Isophorone	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2-Methylnaphthalene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2-Methylphenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
4-Methylphenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Naphthalene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2-Nitroaniline	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
3-Nitroaniline	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Nitrobenzene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2-Nitrophenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
4-Nitrophenol	U	UJ	200	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Pentachlorophenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Phenanthrene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Phenol	U	UJ	100	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
Pyrene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U	UJ	50.0	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U	UJ	100	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U	UJ	100	10	02/18/14	02/24/14 22:41	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	36.0		**72 %**	*21-110*	02/18/14	02/24/14 22:41	*EPA 8270D/R3QA201*

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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-4
Lab ID: 1401014-15
Sample Matrix: Groundwater
Date Collected: 02/08/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	34.6		**69 %**	*39-106*	02/18/14	02/24/14 22:41	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	18.5		**74 %**	*43-108*	02/18/14	02/24/14 22:41	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	16.7		**67 %**	*43-116*	02/18/14	02/24/14 22:41	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	36.3		**73 %**	*10-123*	02/18/14	02/24/14 22:41	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	16.2		**65 %**	*33-141*	02/18/14	02/24/14 22:41	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**19.1**	B, J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Benzene	**1.1**	J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Bromobenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Bromochloromethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Bromodichloromethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Bromoform	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Bromomethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
2-Butanone	**5.7**	J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
sec-Butylbenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
tert-Butylbenzene	**0.2**	J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
n-Butylbenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Carbon disulfide	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Carbon Tetrachloride	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Chlorobenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Chlorodibromomethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Chloroethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
2-Chloroethylvinyl ether	U		10.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Chloroform	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Chloromethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
2-Chlorotoluene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
4-Chlorotoluene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Cyclohexane	**45.3**	J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2-Dibromo-3-chloropropane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2-Dibromoethane (EDB)	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Dibromomethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,3-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,4-Dichlorobenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Dichlorodifluoromethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,1-Dichloroethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2-Dichloroethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-4
Lab ID: 1401014-15
Sample Matrix: Groundwater
Date Collected: 02/08/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
cis-1,2-Dichloroethene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
trans-1,2-Dichloroethene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2-Dichloropropane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,3-Dichloropropane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
2,2-Dichloropropane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,1-Dichloropropene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
cis-1,3-Dichloropropene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
trans-1,3-Dichloropropene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Ethylbenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Freon 113	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Hexachlorobutadiene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
2-Hexanone	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Isopropylbenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
p-Isopropyltoluene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Methyl Acetate	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Methylcyclohexane	**32.3**	J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Methyl-tert-butyl ether	**0.6**	J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Methylene Chloride	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Naphthalene	**0.4**	B, J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
n-Propylbenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Styrene	U		10.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,1,2,2-Tetrachloroethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,1,1,2-Tetrachloroethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Tetrachloroethene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Toluene	**0.2**	B, J	5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2,3-Trichlorobenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2,4-Trichlorobenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,1,1-Trichloroethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,1,2-Trichloroethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Trichloroethene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Trichlorofluoromethane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2,3-Trichloropropane	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,2,4-Trimethylbenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
1,3,5-Trimethylbenzene	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Vinyl acetate	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
Vinyl chloride	U		5.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
m-Xylene/p-Xylene	U		10.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210
o-Xylene	U		10.0	1	02/18/14	02/18/14 17:50	CLP low-mid/R3QA210

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701 Mapes Road
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: MW-4
Lab ID: 1401014-15
Sample Matrix: Groundwater
Date Collected: 02/08/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	21.06		**105 %**	*86-115*	02/18/14	02/18/14 17:50	*CLP low-mid/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	18.96		**95 %**	*76-114*	02/18/14	02/18/14 17:50	*CLP low-mid/R3QA210*
Surrogate: Toluene-d8	19.62		**98 %**	*88-110*	02/18/14	02/18/14 17:50	*CLP low-mid/R3QA210*

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701 Mapes Road
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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB02
Lab ID: 1401014-16
Sample Matrix: Water
Date Collected: 02/08/2014

HPLC Identification
Targets

Analyte	Result [blank]	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
HPLC Identification	0.0	C		1	02/19/14	02/19/14 22:13	SW8321B

Semivolatile Organic Compounds
Targets

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
MCHM	**1.34**	B, J	4.90	1	02/18/14	02/21/14 23:18	EPA 8270D/R3QA201
PPH	U	UJ	0.490	1	02/18/14	02/21/14 23:18	EPA 8270D/R3QA201
Acenaphthene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Acenaphthylene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Acetophenone	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Anthracene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Atrazine	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Benzaldehyde	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Benzo(a)anthracene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Benzo(b)fluoranthene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Benzo(k)fluoranthene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Benzo(ghi)perylene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Benzo(a)pyrene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
1,1-Biphenyl	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Bis(2-chloroethoxy)methane	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Bis(2-chloroethyl)ether	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Bis(2-chloroisopropyl)ether	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Bis(2-ethylhexyl)phthalate	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
4-Bromophenyl phenyl ether	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Butyl benzyl phthalate	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Carbazole	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Caprolactam	U	UJ	9.80	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
4-Chloroaniline	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
4-Chloro-3-methylphenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2-Chloronaphthalene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2-Chlorophenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
4-Chlorophenyl phenyl ether	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Chrysene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Dibenz(a,h)anthracene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Dibenzofuran	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
3,3'-Dichlorobenzidine	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Diethyl phthalate	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2,4-Dichlorophenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2,4-Dimethylphenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Dimethyl phthalate	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB02
Lab ID: 1401014-16
Sample Matrix: Water
Date Collected: 02/08/2014

Semivolatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L H2	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Di-n-butyl phthalate	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
4,6-Dinitro-2-methylphenol	U	UJ	9.80	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2,4-Dinitrophenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2,4-Dinitrotoluene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2,6-Dinitrotoluene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Di-n-octyl phthalate	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Fluoranthene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Fluorene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Hexachlorobenzene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Hexachlorobutadiene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Hexachlorocyclopentadiene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Hexachloroethane	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Indeno(1,2,3-cd)pyrene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Isophorone	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2-Methylnaphthalene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2-Methylphenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
4-Methylphenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Naphthalene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2-Nitroaniline	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
3-Nitroaniline	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
4-Nitroaniline	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Nitrobenzene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2-Nitrophenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
4-Nitrophenol	U	UJ	19.6	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
N-Nitrosodimethylamine	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
N-Nitroso-di-n-propylamine	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
N-Nitrosodiphenylamine	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Pentachlorophenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Phenanthrene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Phenol	U	UJ	9.80	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
Pyrene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
1,2,4,5-Tetrachlorobenzene	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2,3,4,6-Tetrachlorophenol	U	UJ	4.90	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2,4,5-Trichlorophenol	U	UJ	9.80	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201
2,4,6-Trichlorophenol	U	UJ	9.80	1	02/18/14	02/24/14 22:03	EPA 8270D/R3QA201

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 2-Fluorophenol	25.8		**53 %**	*21-110*	02/18/14	02/24/14 22:03	*EPA 8270D/R3QA201*

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Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB02
Lab ID: 1401014-16
Sample Matrix: Water
Date Collected: 02/08/2014

Semivolatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: Phenol-d5	27.1		**55 %**	*39-106*	02/18/14	02/24/14 22:03	*EPA 8270D/R3QA201*
Surrogate: Nitrobenzene-d5	11.4		**47 %**	*43-108*	02/18/14	02/24/14 22:03	*EPA 8270D/R3QA201*
Surrogate: 2-Fluorobiphenyl	12.1		**49 %**	*43-116*	02/18/14	02/24/14 22:03	*EPA 8270D/R3QA201*
Surrogate: 2,4,6-Tribromophenol	25.7		**52 %**	*10-123*	02/18/14	02/24/14 22:03	*EPA 8270D/R3QA201*
Surrogate: Terphenyl-d14	14.2		**58 %**	*33-141*	02/18/14	02/24/14 22:03	*EPA 8270D/R3QA201*

Volatile Organic Compounds

Targets

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
Acetone	**6.8**	J	5.0	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Benzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Bromobenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Bromochloromethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Bromodichloromethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Bromoform	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Bromomethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
2-Butanone	U		5.0	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
sec-Butylbenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
tert-Butylbenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
n-Butylbenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Carbon disulfide	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Carbon Tetrachloride	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Chlorobenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Chlorodibromomethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Chloroethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
2-Chloroethylvinyl ether	U		1.0	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Chloroform	**0.8**	J	0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Chloromethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
2-Chlorotoluene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
4-Chlorotoluene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Cyclohexane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2-Dibromo-3-chloropropane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2-Dibromoethane (EDB)	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Dibromomethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,3-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,4-Dichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Dichlorodifluoromethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,1-Dichloroethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2-Dichloroethane	**0.2**	J	0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210

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Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB02
Lab ID: 1401014-16
Sample Matrix: Water
Date Collected: 02/08/2014

Volatile Organic Compounds
Targets (Continued)

Analyte	Result ug/L	Flags Qualifiers	Quantitation Limit	Dilution	Prepared	Analyzed	Method/SOP#
1,1-Dichloroethene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
cis-1,2-Dichloroethene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
trans-1,2-Dichloroethene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2-Dichloropropane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,3-Dichloropropane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
2,2-Dichloropropane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,1-Dichloropropene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
cis-1,3-Dichloropropene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
trans-1,3-Dichloropropene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Ethylbenzene	**0.1**	J	0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Freon 113	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Hexachlorobutadiene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
2-Hexanone	U		5.0	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Isopropylbenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
p-Isopropyltoluene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Methyl Acetate	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Methylcyclohexane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Methyl-tert-butyl ether	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Methylene Chloride	**3.7**	J	0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
4-Methyl-2-pentanone	U		5.0	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Naphthalene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
n-Propylbenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Styrene	U		1.0	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,1,2,2-Tetrachloroethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,1,1,2-Tetrachloroethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Tetrachloroethene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Toluene	**1.7**		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2,3-Trichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2,4-Trichlorobenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,1,1-Trichloroethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,1,2-Trichloroethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Trichloroethene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Trichlorofluoromethane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2,3-Trichloropropane	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,2,4-Trimethylbenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
1,3,5-Trimethylbenzene	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Vinyl acetate	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
Vinyl chloride	U		0.5	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
m-Xylene/p-Xylene	**0.3**	J	1.0	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210
o-Xylene	**0.09**	J	1.0	1	02/12/14	02/12/14 16:26	CLP trace/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak
Project #: DAS R34317
Station ID: FB02
Lab ID: 1401014-16
Sample Matrix: Water
Date Collected: 02/08/2014

Volatile Organic Compounds

Surrogates

Analyte	Result ug/L	Flags Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Surrogate: 4-Bromofluorobenzene	5.200		**104 %**	*86-115*	02/12/14	02/12/14 16:26	*CLP trace/R3QA210*
Surrogate: 1,2-Dichloroethane-d4	5.760	*A*	**115 %**	*76-114*	02/12/14	02/12/14 16:26	*CLP trace/R3QA210*
Surrogate: Toluene-d8	4.810		**96 %**	*88-110*	02/12/14	02/12/14 16:26	*CLP trace/R3QA210*

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701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-01					
Station ID:	CU					
Sample Matrix:	Surface Water					
Collected:	01/29/2014					
NA	unknown	2.06	T	4.79	02/06/14 11:38	EPA 8270D/R3QA201
3937-49-3	Cyclohexanemethanol, 4-methyl-, tr (01)	24.6	T	8.03	02/06/14 11:38	EPA 8270D/R3QA201
3937-49-3	Cyclohexanemethanol, 4-methyl-, tr (02)	13.9	T	8.34	02/06/14 11:38	EPA 8270D/R3QA201
57-10-3	n-Hexadecanoic acid	1.98	T	17.95	02/06/14 11:38	EPA 8270D/R3QA201
57-11-4	Octadecanoic acid	2.92	T	19.64	02/06/14 11:38	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-01					
Station ID:	CU					
Sample Matrix:	Surface Water					
Collected:	01/29/2014					
NA	None Detected	0.0			01/30/14 15:11	CLP trace/R3QA210

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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-02					
Station ID:	CD					
Sample Matrix:	Surface Water					
Collected:	01/29/2014					
NA	unknown (01)	3.05	T	6.06	02/06/14 12:15	EPA 8270D/R3QA201
3937-49-3	Cyclohexanemethanol, 4-methyl-, tr	55.4	T	8.05	02/06/14 12:15	EPA 8270D/R3QA201
4331-54-8	Cyclohexanecarboxylic acid, 4-meth	3.73	T	9.67	02/06/14 12:15	EPA 8270D/R3QA201
29474-11-1	1-Hydroxymethyl-2-methyl-1-cyclohe	3.53	T	11.15	02/06/14 12:15	EPA 8270D/R3QA201
NA	unknown (02)	2.39	T	12.36	02/06/14 12:15	EPA 8270D/R3QA201
NA	unknown (03)	2.40	T	14.18	02/06/14 12:15	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-02					
Station ID:	CD					
Sample Matrix:	Surface Water					
Collected:	01/29/2014					
3937-49-3	Cyclohexanemethanol, 4-methyl-, trans-	0.6	T	13.24	01/30/14 15:39	CLP trace/R3QA210

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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-03					
Station ID:	CD1					
Sample Matrix:	Surface Water					
Collected:	01/29/2014					
3937-49-3	Cyclohexanemethanol, 4-methyl-, tr	48.8	T	8.05	02/06/14 12:53	EPA 8270D/R3QA201
4331-54-8	Cyclohexanecarboxylic acid, 4-meth	2.85	T	9.67	02/06/14 12:53	EPA 8270D/R3QA201
29474-11-1	1-Hydroxymethyl-2-methyl-1-cyclohe	2.99	T	11.15	02/06/14 12:53	EPA 8270D/R3QA201
NA	unknown	2.31	T	14.18	02/06/14 12:53	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-03					
Station ID:	CD1					
Sample Matrix:	Surface Water					
Collected:	01/29/2014					
3937-49-3	Cyclohexanemethanol, 4-methyl-, trans-	0.6	T	13.24	01/30/14 16:07	CLP trace/R3QA210

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-04					
Station ID:	FB01					
Sample Matrix:	Water					
Collected:	01/29/2014					
90-05-1	Phenol, 2-methoxy-	5.85	T	8.45	02/06/14 13:30	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-04					
Station ID:	FB01					
Sample Matrix:	Water					
Collected:	01/29/2014					
60-29-7	Ethyl Ether	5.4	T	2.59	01/30/14 14:44	CLP trace/R3QA210

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-05					
Station ID:	TB01					
Sample Matrix:	Surface Water					
Collected:	01/28/2014					
60-29-7	Ethyl Ether	5.1	T	2.59	01/30/14 14:16	CLP trace/R3QA210

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Region 3 Environmental Science Center
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701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **West Virginia Chemical Leak** **Project #: DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-06					
Station ID:	Pipe-1					
Sample Matrix:	Water					
Collected:	01/31/2014					
100-49-2	Cyclohexanemethanol	2810	T	7.18	02/11/14 16:04	EPA 8270D/R3QA201
3937-49-3	Cyclohexanemethanol, 4-methyl-, trans-	82300	T	8.06	02/11/14 16:04	EPA 8270D/R3QA201
29474-11-1	1-Hydroxymethyl-2-methyl-1-cyclohe	10100	T	11.15	02/11/14 16:04	EPA 8270D/R3QA201
NA	unknown (01)	2550	T	11.30	02/11/14 16:04	EPA 8270D/R3QA201
NA	unknown (02)	2290	T	13.99	02/11/14 16:04	EPA 8270D/R3QA201
NA	unknown (03)	4240	T	14.18	02/11/14 16:04	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-06					
Station ID:	Pipe-1					
Sample Matrix:	Water					
Collected:	01/31/2014					
NA	unknown (01)	2.3	T	4.51	02/05/14 14:08	CLP low-mid/R3QA210
100-49-2	Cyclohexanemethanol	7.4	T	12.08	02/05/14 14:08	CLP low-mid/R3QA210
NA	unknown (02)	9.3	T	12.14	02/05/14 14:08	CLP low-mid/R3QA210
NA	unknown (03)	18.1	T	12.69	02/05/14 14:08	CLP low-mid/R3QA210
3937-49-3	Cyclohexanemethanol, 4-methyl-, trans-	743	T	12.79	02/05/14 14:08	CLP low-mid/R3QA210
3937-48-2	Cyclohexanemethanol, 4-methyl-, cis-	327	T	13.00	02/05/14 14:08	CLP low-mid/R3QA210
51181-40-9	Cyclohexanecarboxylic acid, 4-methyl-,methyl ester	117	T	13.34	02/05/14 14:08	CLP low-mid/R3QA210
NA	unknown (04)	28.1	T	13.43	02/05/14 14:08	CLP low-mid/R3QA210

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-07					
Station ID:	Seep-1					
Sample Matrix:	Groundwater					
Collected:	02/01/2014					
3937-49-3	Cyclohexanemethanol, 4-methyl-, tr (01)	4.19	T	8.02	02/11/14 16:41	EPA 8270D/R3QA201
3937-49-3	Cyclohexanemethanol, 4-methyl-, tr (02)	2.51	T	8.34	02/11/14 16:41	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-07					
Station ID:	Seep-1					
Sample Matrix:	Groundwater					
Collected:	02/01/2014					
NA	None Detected	0.0			02/06/14 12:37	CLP trace/R3QA210

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-08					
Station ID:	TB02					
Sample Matrix:	Water					
Collected:	01/31/2014					
60-29-7	Ethyl Ether	4.2	T	2.59	02/04/14 18:11	CLP trace/R3QA210

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Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-09					
Station ID:	MW-2					
Sample Matrix:	Groundwater					
Collected:	02/06/2014					
NA	unknown	3.01		12.40	02/24/14 17:00	EPA 8270D/R3QA201
57-10-3	n-Hexadecanoic acid	3.04		17.96	02/24/14 17:00	EPA 8270D/R3QA201
10544-50-0	Cyclic octaatomic sulfur	3.84		18.94	02/24/14 17:00	EPA 8270D/R3QA201
57-11-4	Octadecanoic acid	2.31		19.64	02/24/14 17:00	EPA 8270D/R3QA201
NA	unknown 2	7.97		20.71	02/24/14 17:00	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-09					
Station ID:	MW-2					
Sample Matrix:	Groundwater					
Collected:	02/06/2014					
NA	None Detected	0.0			02/12/14 16:53	CLP trace/R3QA210

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-10					
Station ID:	TB03					
Sample Matrix:	Water					
Collected:	02/03/2014					
60-29-7	Ethyl Ether	5.6	T	2.59	02/12/14 15:30	CLP trace/R3QA210

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Tentatively Identified Compound (TIC) Report
Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-11					
Station ID:	TB04					
Sample Matrix:	Water					
Collected:	02/06/2014					
60-29-7	Ethyl Ether	6.1	T	2.58	02/12/14 15:58	CLP trace/R3QA210

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Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L H2	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-12					
Station ID:	MW-5					
Sample Matrix:	Groundwater					
Collected:	02/07/2014					
98-82-8	Benzene, (1-methylethyl)-	4.23		6.01	02/24/14 18:53	EPA 8270D/R3QA201
103-65-1	Benzene, propyl-	14.5		6.45	02/24/14 18:53	EPA 8270D/R3QA201
526-73-8	Benzene, 1,2,3-trimethyl-	65.2		7.07	02/24/14 18:53	EPA 8270D/R3QA201
496-11-7	Indane	13.7		7.68	02/24/14 18:53	EPA 8270D/R3QA201
141-93-5	Benzene, 1,3-diethyl-	5.58		7.87	02/24/14 18:53	EPA 8270D/R3QA201
NA	unknown	5.31		7.96	02/24/14 18:53	EPA 8270D/R3QA201
1758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	6.80		8.28	02/24/14 18:53	EPA 8270D/R3QA201
527-84-4	Benzene, 1-methyl-2-(1-methylethyl	4.49		8.30	02/24/14 18:53	EPA 8270D/R3QA201
527-53-7	Benzene, 1,2,3,5-tetramethyl-	8.09		8.83	02/24/14 18:53	EPA 8270D/R3QA201
488-23-3	Benzene, 1,2,3,4-tetramethyl-	10.0		8.90	02/24/14 18:53	EPA 8270D/R3QA201
874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	4.58		9.16	02/24/14 18:53	EPA 8270D/R3QA201
2039-89-6	Benzene, 2-ethenyl-1,4-dimethyl-	8.95		9.31	02/24/14 18:53	EPA 8270D/R3QA201
000934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	4.40		9.34	02/24/14 18:53	EPA 8270D/R3QA201
20836-11-7	1H-Indene,2,3-dihydro-2,2-dimethyl	3.23		9.95	02/24/14 18:53	EPA 8270D/R3QA201
90-12-0	Naphthalene, 1-methyl-	4.25		11.44	02/24/14 18:53	EPA 8270D/R3QA201
581-40-8	Naphthalene, 2,3-dimethyl-	3.30		12.72	02/24/14 18:53	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-12					
Station ID:	MW-5					
Sample Matrix:	Groundwater					
Collected:	02/07/2014					
591-21-9	1,3-Dimethylcyclohexane,c&t	11.4	T	8.16	02/18/14 18:41	CLP low-mid/R3QA210
496-11-7	Indane	42.3	T	12.64	02/18/14 18:41	CLP low-mid/R3QA210
141-93-5	Benzene, 1,3-diethyl-	14.3	T	12.71	02/18/14 18:41	CLP low-mid/R3QA210
1758-88-9	Benzene, 2-ethyl-1,4-dimethyl-	19.3	T	13.07	02/18/14 18:41	CLP low-mid/R3QA210
2870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	21.0	T	13.11	02/18/14 18:41	CLP low-mid/R3QA210
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)-	69.0	T	13.16	02/18/14 18:41	CLP low-mid/R3QA210
488-23-3	Benzene, 1,2,3,4-tetramethyl-	29.2	T	13.56	02/18/14 18:41	CLP low-mid/R3QA210
527-53-7	Benzene, 1,2,3,5-tetramethyl-	38.8	T	13.59	02/18/14 18:41	CLP low-mid/R3QA210
874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	20.4	T	13.73	02/18/14 18:41	CLP low-mid/R3QA210

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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report
Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-12					
Station ID:	MW-5					
Sample Matrix:	Groundwater					
Collected:	02/07/2014					
2039-89-6	Benzene, 2-ethenyl-1,4-dimethyl-	31.8	T	13.84	02/18/14 18:41	CLP low-mid/R3QA210
95-93-2	Benzene, 1,2,4,5-tetramethyl-	23.0	T	13.91	02/18/14 18:41	CLP low-mid/R3QA210

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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L H2	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-13					
Station ID:	MW-6					
Sample Matrix:	Groundwater					
Collected:	02/07/2014					
527-53-7	Benzene, 1,2,3,5-tetramethyl-	2.73		8.83	02/24/14 20:47	EPA 8270D/R3QA201
874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	3.99		9.31	02/24/14 20:47	EPA 8270D/R3QA201
488-23-3	Benzene, 1,2,3,4-tetramethyl-	4.98		9.33	02/24/14 20:47	EPA 8270D/R3QA201
56253-64-6	Benzene, (2-methyl-1-butenyl)-	3.44		9.81	02/24/14 20:47	EPA 8270D/R3QA201
20836-11-7	1H-Indene.2,3-dihydro-2,2-dimethyl	2.78		9.96	02/24/14 20:47	EPA 8270D/R3QA201
90-12-0	Naphthalene, 1-methyl-	10.7		11.44	02/24/14 20:47	EPA 8270D/R3QA201
940-31-8	Propanoic acid, 2-phenoxy-	56.2		12.59	02/24/14 20:47	EPA 8270D/R3QA201
581-40-8	Naphthalene, 2,3-dimethyl-	4.92		12.73	02/24/14 20:47	EPA 8270D/R3QA201
581-42-0	Naphthalene, 2,6-dimethyl-	2.23		12.76	02/24/14 20:47	EPA 8270D/R3QA201
50-84-0	Benzoic acid, 2,4-dichloro-	6.11		13.81	02/24/14 20:47	EPA 8270D/R3QA201
NA	unknown	184		15.90	02/24/14 20:47	EPA 8270D/R3QA201
NA	unknown 2	57.4		16.14	02/24/14 20:47	EPA 8270D/R3QA201
NA	unknown 3	3.72		17.10	02/24/14 20:47	EPA 8270D/R3QA201
NA	unknown 4	4.90		20.81	02/24/14 20:47	EPA 8270D/R3QA201
4376-20-9	1,2-Benzenedicarboxylic acid, mono	161		23.33	02/24/14 20:47	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-13					
Station ID:	MW-6					
Sample Matrix:	Groundwater					
Collected:	02/07/2014					
79-29-8	Butane, 2,3-dimethyl-	15.9	T	3.06	02/18/14 19:34	CLP low-mid/R3QA210
565-59-3	Pentane, 2,3-dimethyl-	12.1	T	5.55	02/18/14 19:34	CLP low-mid/R3QA210
1638-26-2	Cyclopentane, 1,1-dimethyl-	12.6	T	5.64	02/18/14 19:34	CLP low-mid/R3QA210
2453-00-1	Cyclopentane, 1,3-dimethyl-	12.7	T	5.95	02/18/14 19:34	CLP low-mid/R3QA210
822-50-4	Cyclopentane, 1,2-dimethyl-, trans	13.3	T	6.01	02/18/14 19:34	CLP low-mid/R3QA210
591-21-9	1,3-Dimethylcyclohexane,c&t	45.0	T	8.16	02/18/14 19:34	CLP low-mid/R3QA210
590-66-9	Cyclohexane, 1,1-dimethyl-	12.2	T	8.32	02/18/14 19:34	CLP low-mid/R3QA210
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	15.7	T	8.58	02/18/14 19:34	CLP low-mid/R3QA210
2207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	12.5	T	8.73	02/18/14 19:34	CLP low-mid/R3QA210
1678-91-7	Cyclohexane, ethyl-	12.5	T	9.34	02/18/14 19:34	CLP low-mid/R3QA210

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-13					
Station ID:	MW-6					
Sample Matrix:	Groundwater					
Collected:	02/07/2014					
2870-04-4	Benzene, 2-ethyl-1,3-dimethyl-	26.5	T	13.16	02/18/14 19:34	CLP low-mid/R3QA210
488-23-3	Benzene, 1,2,3,4-tetramethyl-	12.9	T	13.56	02/18/14 19:34	CLP low-mid/R3QA210
874-35-1	1H-Indene, 2,3-dihydro-5-methyl-	16.6	T	13.84	02/18/14 19:34	CLP low-mid/R3QA210
95-93-2	Benzene, 1,2,4,5-tetramethyl-	17.6	T	13.91	02/18/14 19:34	CLP low-mid/R3QA210

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L H2	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-14					
Station ID:	MW-3					
Sample Matrix:	Groundwater					
Collected:	02/08/2014					
NA	unknown	7.73		6.18	02/24/14 21:25	EPA 8270D/R3QA201
77	4,7-Methano-1H-indene, 3a,4,7,7a-t	2.96		7.54	02/24/14 21:25	EPA 8270D/R3QA201
NA	unknown 2	3.36		10.32	02/24/14 21:25	EPA 8270D/R3QA201
NA	unknown 3	4.62		10.40	02/24/14 21:25	EPA 8270D/R3QA201
NA	unknown 4	2.23		10.59	02/24/14 21:25	EPA 8270D/R3QA201
NA	unknown 5	2.63		14.01	02/24/14 21:25	EPA 8270D/R3QA201
NA	unknown 6	3.77		14.21	02/24/14 21:25	EPA 8270D/R3QA201
NA	unknown 7	4.33		15.70	02/24/14 21:25	EPA 8270D/R3QA201
NA	unknown 8	2.03		15.76	02/24/14 21:25	EPA 8270D/R3QA201
27554-26-3	1,2-Benzenedicarboxylic acid, diis	169		23.35	02/24/14 21:25	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-14					
Station ID:	MW-3					
Sample Matrix:	Groundwater					
Collected:	02/08/2014					
77-73-6	4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	2.6	T	12.47	02/18/14 16:58	CLP low-mid/R3QA210

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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L H2	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-15					
Station ID:	MW-4					
Sample Matrix:	Groundwater					
Collected:	02/08/2014					
83-33-0	1H-Inden-1-one, 2,3-dihydro-	74.9		11.07	02/24/14 22:41	EPA 8270D/R3QA201
35587-60-1	1-Methylindan-2-one	37.5		11.52	02/24/14 22:41	EPA 8270D/R3QA201
NA	unknown	30.0		12.58	02/24/14 22:41	EPA 8270D/R3QA201
NA	unknown 2	170		15.82	02/24/14 22:41	EPA 8270D/R3QA201
NA	unknown 3	66.4		16.08	02/24/14 22:41	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-15					
Station ID:	MW-4					
Sample Matrix:	Groundwater					
Collected:	02/08/2014					
96-37-7	Cyclopentane, methyl-	16.9	T	4.50	02/18/14 17:50	CLP low-mid/R3QA210
693-89-0	Cyclopentene, 1-methyl-	7.8	T	5.12	02/18/14 17:50	CLP low-mid/R3QA210
110-83-8	Cyclohexene	37.9	T	5.77	02/18/14 17:50	CLP low-mid/R3QA210
822-50-4	Cyclopentane, 1,2-dimethyl-, trans	10.8	T	6.01	02/18/14 17:50	CLP low-mid/R3QA210
7459-71-4	3,5-Dimethylcyclopentene	6.3	T	6.62	02/18/14 17:50	CLP low-mid/R3QA210
10574-37-5	2-Pentene, 2,3-dimethyl-	7.4	T	6.66	02/18/14 17:50	CLP low-mid/R3QA210
591-47-9	Cyclohexene, 4-methyl-	32.2	T	7.24	02/18/14 17:50	CLP low-mid/R3QA210
1528-22-9	Cyclobutane, (1-methylethylidene)-	16.6	T	7.56	02/18/14 17:50	CLP low-mid/R3QA210
591-49-1	Cyclohexene, 1-methyl-	22.3	T	7.93	02/18/14 17:50	CLP low-mid/R3QA210
590-66-9	Cyclohexane, 1,1-dimethyl-	4.2	T	8.32	02/18/14 17:50	CLP low-mid/R3QA210
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	5.3	T	8.58	02/18/14 17:50	CLP low-mid/R3QA210
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	4.4	T	9.49	02/18/14 17:50	CLP low-mid/R3QA210
77-73-6	4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-	25.4	T	12.47	02/18/14 17:50	CLP low-mid/R3QA210

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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

Tentatively Identified Compound (TIC) Report

Semivolatile Organic Compounds

CAS Number	Compound	Result ug/L H2	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-16					
Station ID:	FB02					
Sample Matrix:	Water					
Collected:	02/08/2014					
90-05-1	Phenol, 2-methoxy-	8.81		8.46	02/24/14 22:03	EPA 8270D/R3QA201
82304-66-3	7,9-Di-tert-butyl-1-oxaspiro(4.5)d	2.45		17.72	02/24/14 22:03	EPA 8270D/R3QA201

Volatile Organic Compounds

CAS Number	Compound	Result ug/L	Analyte Qualifiers	Retention Time	Analyzed	Method/SOP#
Lab ID:	1401014-16					
Station ID:	FB02					
Sample Matrix:	Water					
Collected:	02/08/2014					
NA	None Detected	0.0			02/12/14 16:26	CLP tracc/R3QA210

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
HPLC Identification

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BA43102 - HPLC prep										
Blank (BA43102-BLK1)				Prepared: 02/19/14 09:00		Analyzed: 02/19/14 13:16				
HPLC Identification	0.0		[blank]							C
Blank (BA43102-BLK2)				Prepared: 02/19/14 09:00		Analyzed: 02/19/14 20:09				
HPLC Identification	0.0		[blank]							C

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40301 - EPA 3520C SVOC										
Blank (BB40301-BLK1)				Prepared: 02/03/14 07:30	Analyzed: 02/05/14 17:04					
MCHM	U	0.500	ug/L							
PPH	U	0.500	"							
Acenaphthene	U	5.00	"							
Acenaphthylene	U	5.00	"							
Acetophenone	U	5.00	"							
Anthracene	U	5.00	"							
Atrazine	U	5.00	"							
Benzaldehyde	U	5.00	"							
Benzo(a)anthracene	U	5.00	"							
Benzo(b)fluoranthene	U	5.00	"							
Benzo(k)fluoranthene	U	5.00	"							
Benzo(ghi)perylene	U	5.00	"							
Benzo(a)pyrene	U	5.00	"							
1,1-Biphenyl	U	5.00	"							
Bis(2-chloroethoxy)methane	U	5.00	"							
Bis(2-chloroethyl)ether	U	5.00	"							
Bis(2-chloroisopropyl)ether	U	5.00	"							
Bis(2-ethylhexyl)phthalate	U	5.00	"							
4-Bromophenyl phenyl ether	U	5.00	"							
Butyl benzyl phthalate	U	5.00	"							
Carbazole	U	5.00	"							
Caprolactam	U	10.0	"							
4-Chloroaniline	U	5.00	"							
4-Chloro-3-methylphenol	U	5.00	"							
2-Chloronaphthalene	U	5.00	"							
2-Chlorophenol	U	5.00	"							
4-Chlorophenyl phenyl ether	U	5.00	"							
Chrysene	U	5.00	"							
Dibenz(a,h)anthracene	U	5.00	"							
Dibenzofuran	U	5.00	"							
3,3'-Dichlorobenzidine	U	5.00	"							
Diethyl phthalate	U	5.00	"							
2,4-Dichlorophenol	U	5.00	"							
2,4-Dimethylphenol	U	5.00	"							
Dimethyl phthalate	2.36	5.00	"							J
Di-n-butyl phthalate	0.700	5.00	"							J
4,6-Dinitro-2-methylphenol	U	10.0	"							
2,4-Dinitrophenol	U	5.00	"							
2,4-Dinitrotoluene	U	5.00	"							
2,6-Dinitrotoluene	U	5.00	"							
Di-n-octyl phthalate	U	5.00	"							
Fluoranthene	U	5.00	"							
Fluorene	U	5.00	"							

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40301 - EPA 3520C SVOC										
Blank (BB40301-BLK1)				Prepared: 02/03/14 07:30		Analyzed: 02/06/14 10:23				
Hexachlorobenzene	U	5.00	ug/L							
Hexachlorobutadiene	U	5.00	"							
Hexachlorocyclopentadiene	U	5.00	"							
Hexachloroethane	U	5.00	"							
Indeno(1,2,3-cd)pyrene	U	5.00	"							
Isophorone	U	5.00	"							
2-Methylnaphthalene	U	5.00	"							
2-Methylphenol	U	5.00	"							
4-Methylphenol	U	5.00	"							
Naphthalene	U	5.00	"							
2-Nitroaniline	U	5.00	"							
3-Nitroaniline	U	5.00	"							
4-Nitroaniline	U	5.00	"							
Nitrobenzene	U	5.00	"							
2-Nitrophenol	U	5.00	"							
4-Nitrophenol	U	20.0	"							
N-Nitrosodimethylamine	U	5.00	"							
N-Nitroso-di-n-propylamine	U	5.00	"							
N-Nitrosodiphenylamine	U	5.00	"							
Pentachlorophenol	U	5.00	"							
Phenanthrene	U	5.00	"							
Phenol	U	10.0	"							
Pyrene	U	5.00	"							
1,2,4,5-Tetrachlorobenzene	U	5.00	"							
2,3,4,6-Tetrachlorophenol	U	5.00	"							
2,4,5-Trichlorophenol	U	10.0	"							
2,4,6-Trichlorophenol	U	10.0	"							
Decane, 3,3,4-trimethyl-	24.7		"							T
Cyclopentanone, 2-(1-methylpropyl)-	3.74		"							T
Cyclopentane, 1,1,3,3-tetramethyl-	3.64		"							T
Cyclohexane, 1-methyl-2-propyl- (02)	13.0		"							T
Cyclohexane, 1-methyl-2-propyl- (01)	3.96		"							T
Furan, 2,3-dihydro-4-methyl-	23.0		"							T
Ethanone, 1-(2,2-dimethylcyclopentyl)-	5.40		"							T
Ethanedioic acid, bis(3-methylbutyl) ester	2.79		"							T
1-Pentene, 3-ethyl-2-methyl-	2.45		"							T
2,3-Dimethyl-1-hexene	3.14		"							T
2-Butenal, 2-methyl-	2.66		"							T
2,3-Dimethyl-2-heptene	2.06		"							T
3-Ethyl-4-methyl-2-pentene	9.42		"							T
2-Pentenal, (E)-	4.32		"							T
Sulfurous acid, cyclohexylmethyl tridecyl este	2.40		"							T
Surrogate: 2-Fluorophenol	*43.1*		"	*50.000*		*86*	*21-110*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40301 - EPA 3520C SVOC										
Blank (BB40301-BLK1)				Prepared: 02/03/14 07:30		Analyzed: 02/06/14 10:23				
Surrogate: Phenol-d5	*44.4*		*ug/L*	*50.000*		*89*	*39-106*			
Surrogate: Nitrobenzene-d5	*20.1*		*"*	*25.000*		*80*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*20.0*		*"*	*25.000*		*80*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*42.5*		*"*	*50.000*		*85*	*10-123*			
Surrogate: Terphenyl-d14	*21.9*		*"*	*25.000*		*87*	*33-141*			
LCS (BB40301-BS1)				Prepared: 02/03/14 07:30		Analyzed: 02/05/14 17:55				
MCHM	4.40	0.500	ug/L	5.0000		88	30-160			
PPH	4.65	0.500	"	5.0000		93	30-160			
Acenaphthene	33.9	5.00	"	40.000		85	60-132			
Acenaphthylene	36.6	5.00	"	40.000		91	53-126			
Acetophenone	33.3	5.00	"	40.000		83	30-160			
Anthracene	33.5	5.00	"	40.000		84	43-118			
Atrazine	76.7	5.00	"	40.000		192	30-160			A
Benzaldehyde	28.9	5.00	"	40.000		72	30-160			
Benzo(a)anthracene	31.6	5.00	"	40.000		79	41-133			
Benzo(b)fluoranthene	34.3	5.00	"	40.000		86	42-140			
Benzo(k)fluoranthene	38.5	5.00	"	40.000		96	25-146			
Benzo(ghi)perylene	27.3	5.00	"	40.000		68	0.01-195			
Benzo(a)pyrene	38.0	5.00	"	40.000		95	31-148			
1,1-Biphenyl	33.8	5.00	"	40.000		85	30-160			
Bis(2-chloroethoxy)methane	31.2	5.00	"	40.000		78	49-165			
Bis(2-chloroethyl)ether	31.2	5.00	"	40.000		78	42-126			
Bis(2-chloroisopropyl)ether	26.8	5.00	"	40.000		67	62-139			
Bis(2-ethylhexyl)phthalate	28.5	5.00	"	40.000		71	28-137			
4-Bromophenyl phenyl ether	32.3	5.00	"	40.000		81	64-114			
Butyl benzyl phthalate	46.2	5.00	"	40.000		115	0.01-140			
Carbazole	71.9	5.00	"	40.000		180	30-160			A
Caprolactam	28.6	10.0	"	40.000		71	30-160			
4-Chloroaniline	24.5	5.00	"	40.000		61	30-160			
4-Chloro-3-methylphenol	33.5	5.00	"	40.000		84	40-128			
2-Chloronaphthalene	34.0	5.00	"	40.000		85	64-114			
2-Chlorophenol	33.7	5.00	"	40.000		84	36-121			
4-Chlorophenyl phenyl ether	34.5	5.00	"	40.000		86	38-145			
Chrysene	30.9	5.00	"	40.000		77	44-140			
Dibenz(a,h)anthracene	28.0	5.00	"	40.000		70	0.01-200			
Dibenzofuran	33.3	5.00	"	40.000		83	30-160			
3,3'-Dichlorobenzidine	25.7	5.00	"	40.000		64	8-213			
Diethyl phthalate	34.9	5.00	"	40.000		87	0.01-100			
2,4-Dichlorophenol	32.7	5.00	"	40.000		82	52-122			
2,4-Dimethylphenol	28.6	5.00	"	40.000		71	41-109			
Dimethyl phthalate	35.6	5.00	"	40.000		89	0.01-100			
Di-n-butyl phthalate	35.4	5.00	"	40.000		89	8-111			

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40301 - EPA 3520C SVOC										
LCS (BB40301-BS1)				Prepared: 02/03/14 07:30		Analyzed: 02/06/14 11:01				
4,6-Dinitro-2-methylphenol	30.6	10.0	ug/L	40.000		77	53-100			
2,4-Dinitrophenol	16.8	5.00	"	40.000		42	0.01-173			
2,4-Dinitrotoluene	33.1	5.00	"	40.000		83	47-127			
2,6-Dinitrotoluene	34.1	5.00	"	40.000		85	68-138			
Di-n-octyl phthalate	37.7	5.00	"	40.000		94	18-132			
Fluoranthene	31.7	5.00	"	40.000		79	42-122			
Fluorene	33.9	5.00	"	40.000		85	71-109			
Hexachlorobenzene	32.4	5.00	"	40.000		81	10-142			
Hexachlorobutadiene	31.1	5.00	"	40.000		78	37-103			
Hexachlorocyclopentadiene	17.5	5.00	"	40.000		44	0.01-104			
Hexachloroethane	31.1	5.00	"	40.000		78	55-100			
Indeno(1,2,3-cd)pyrene	28.2	5.00	"	40.000		71	0.01-151			
Isophorone	31.9	5.00	"	40.000		80	46-181			
2-Methylnaphthalene	32.9	5.00	"	40.000		82	30-160			
2-Methylphenol	34.1	5.00	"	40.000		85	30-160			
4-Methylphenol	33.1	5.00	"	40.000		83	30-160			
Naphthalene	33.0	5.00	"	40.000		83	35-120			
2-Nitroaniline	34.3	5.00	"	40.000		86	30-160			
3-Nitroaniline	34.3	5.00	"	40.000		86	30-160			
4-Nitroaniline	28.6	5.00	"	40.000		72	30-160			
Nitrobenzene	30.7	5.00	"	40.000		77	54-158			
2-Nitrophenol	30.1	5.00	"	40.000		75	45-167			
4-Nitrophenol	32.5	20.0	"	40.000		81	13-107			
N-Nitrosodimethylamine	22.0	5.00	"	40.000		55	30-160			
N-Nitroso-di-n-propylamine	35.1	5.00	"	40.000		88	41-116			
N-Nitrosodiphenylamine	43.4	5.00	"	40.000		109	30-160			
Pentachlorophenol	30.6	5.00	"	40.000		77	9-103			
Phenanthrene	33.1	5.00	"	40.000		83	65-109			
Phenol	30.4	10.0	"	40.000		76	12-110			
Pyrene	36.3	5.00	"	40.000		91	69-100			
1,2,4,5-Tetrachlorobenzene	32.1	5.00	"	40.000		80	30-160			
2,3,4,6-Tetrachlorophenol	33.2	5.00	"	40.000		83	30-160			
2,4,5-Trichlorophenol	34.2	10.0	"	40.000		86	30-160			
2,4,6-Trichlorophenol	33.6	10.0	"	40.000		84	52-130			
Surrogate: 2-Fluorophenol	*41.1*		"	*50.000*		*82*	*21-110*			
Surrogate: Phenol-d5	*43.0*		"	*50.000*		*86*	*39-106*			
Surrogate: Nitrobenzene-d5	*20.8*		"	*25.000*		*83*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*21.7*		"	*25.000*		*87*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*44.2*		"	*50.000*		*88*	*10-123*			
Surrogate: Terphenyl-d14	*30.2*		"	*25.000*		*121*	*33-141*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40502 - EPA 3520C SVOC										
Blank (BB40502-BLK1)				Prepared: 02/05/14 13:07	Analyzed: 02/07/14 12:51					
MCHM	U	0.500	ug/L							
PPH	U	0.500	"							
Acenaphthene	U	5.00	"							
Acenaphthylene	U	5.00	"							
Acetophenone	U	5.00	"							
Anthracene	U	5.00	"							
Atrazine	U	5.00	"							
Benzaldehyde	U	5.00	"							
Benzo(a)anthracene	U	5.00	"							
Benzo(b)fluoranthene	U	5.00	"							
Benzo(k)fluoranthene	U	5.00	"							
Benzo(ghi)perylene	U	5.00	"							
Benzo(a)pyrene	U	5.00	"							
1,1-Biphenyl	U	5.00	"							
Bis(2-chloroethoxy)methane	U	5.00	"							
Bis(2-chloroethyl)ether	U	5.00	"							
Bis(2-chloroisopropyl)ether	U	5.00	"							
Bis(2-ethylhexyl)phthalate	U	5.00	"							
4-Bromophenyl phenyl ether	U	5.00	"							
Butyl benzyl phthalate	U	5.00	"							
Carbazole	U	5.00	"							
Caprolactam	U	10.0	"							
4-Chloroaniline	U	5.00	"							
4-Chloro-3-methylphenol	U	5.00	"							
2-Chloronaphthalene	U	5.00	"							
2-Chlorophenol	U	5.00	"							
4-Chlorophenyl phenyl ether	U	5.00	"							
Chrysene	U	5.00	"							
Dibenz(a,h)anthracene	U	5.00	"							
Dibenzofuran	U	5.00	"							
3,3'-Dichlorobenzidine	U	5.00	"							
Diethyl phthalate	U	5.00	"							
2,4-Dichlorophenol	U	5.00	"							
2,4-Dimethylphenol	U	5.00	"							
Dimethyl phthalate	U	5.00	"							
Di-n-butyl phthalate	U	5.00	"							
4,6-Dinitro-2-methylphenol	U	10.0	"							
2,4-Dinitrophenol	U	5.00	"							
2,4-Dinitrotoluene	U	5.00	"							
2,6-Dinitrotoluene	U	5.00	"							
Di-n-octyl phthalate	U	5.00	"							
Fluoranthene	U	5.00	"							
Fluorene	U	5.00	"							

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40502 - EPA 3520C SVOC										
Blank (BB40502-BLK1)				Prepared: 02/05/14 13:07	Analyzed: 02/11/14 14:49					
Hexachlorobenzene	U	5.00	ug/L							
Hexachlorobutadiene	U	5.00	"							
Hexachlorocyclopentadiene	U	5.00	"							
Hexachloroethane	U	5.00	"							
Indeno(1,2,3-cd)pyrene	U	5.00	"							
Isophorone	U	5.00	"							
2-Methylnaphthalene	U	5.00	"							
2-Methylphenol	U	5.00	"							
4-Methylphenol	U	5.00	"							
Naphthalene	U	5.00	"							
2-Nitroaniline	U	5.00	"							
3-Nitroaniline	U	5.00	"							
4-Nitroaniline	U	5.00	"							
Nitrobenzene	U	5.00	"							
2-Nitrophenol	U	5.00	"							
4-Nitrophenol	U	20.0	"							
N-Nitrosodimethylamine	U	5.00	"							
N-Nitroso-di-n-propylamine	U	5.00	"							
N-Nitrosodiphenylamine	U	5.00	"							
Pentachlorophenol	U	5.00	"							
Phenanthrene	U	5.00	"							
Phenol	U	10.0	"							
Pyrene	U	5.00	"							
1,2,4,5-Tetrachlorobenzene	U	5.00	"							
2,3,4,6-Tetrachlorophenol	U	5.00	"							
2,4,5-Trichlorophenol	U	10.0	"							
2,4,6-Trichlorophenol	U	10.0	"							
2,3-Dimethyl-1-hexene	3.33		"							T
2,3-Dimethyl-2-heptene	2.25		"							T
2,4,4-Trimethyl-1-hexene	3.20		"							T
2-Azafluorene	6.05		"							T
6-Hepten-3-one, 4-methyl-	2.26		"							T
2-Butenal, 3-methyl-	23.5		"							T
Cyclopentane, 1-ethyl-2-methyl-	2.46		"							T
Cyclopentane, 1,2,3,4,5-pentamethyl-	3.67		"							T
2-Nonene, 3-methyl-, (E)-	2.94		"							T
2H-Pyran, 3,4-dihydro-	3.98		"							T
Sulfurous acid, cyclohexylmethyl nonyl ester	13.5		"							T
Sulfurous acid, cyclohexylmethyl isohexyl este	4.31		"							T
Propanoic acid, 2-methyl-, 3-methylbutyl ester	24.4		"							T
Propanedinitrile, cyclohexyl(2-methylcyclohexy	2.30		"							T
Pentane, 2,3,4-trimethyl-	6.01		"							T

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40502 - EPA 3520C SVOC										
Blank (BB40502-BLK1)				Prepared: 02/05/14 13:07		Analyzed: 02/11/14 14:49				
Pentane, 3-methylene-	9.11		ug/L							T
Surrogate: 2-Fluorophenol	*42.6*		"	*50.000*		*85*	*21-110*			
Surrogate: Phenol-d5	*43.4*		"	*50.000*		*87*	*39-106*			
Surrogate: Nitrobenzene-d5	*19.5*		"	*25.000*		*78*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*19.7*		"	*25.000*		*79*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*38.7*		"	*50.000*		*77*	*10-123*			
Surrogate: Terphenyl-d14	*23.4*		"	*25.000*		*94*	*33-141*			
LCS (BB40502-BS1)				Prepared: 02/05/14 13:07		Analyzed: 02/07/14 13:42				
MCHM	4.83	0.500	ug/L	5.0000		97	30-160			
PPH	4.61	0.500	"	5.0000		92	30-160			
Acenaphthene	31.2	5.00	"	40.000		78	60-132			
Acenaphthylene	32.8	5.00	"	40.000		82	53-126			
Acetophenone	31.0	5.00	"	40.000		77	30-160			
Anthracene	30.7	5.00	"	40.000		77	43-118			
Atrazine	67.3	5.00	"	40.000		168	30-160			A
Benzaldehyde	31.1	5.00	"	40.000		78	30-160			
Benzo(a)anthracene	28.9	5.00	"	40.000		72	41-133			
Benzo(b)fluoranthene	31.3	5.00	"	40.000		78	42-140			
Benzo(k)fluoranthene	35.4	5.00	"	40.000		88	25-146			
Benzo(ghi)perylene	24.4	5.00	"	40.000		61	0.01-195			
Benzo(a)pyrene	34.2	5.00	"	40.000		86	31-148			
1,1-Biphenyl	31.2	5.00	"	40.000		78	30-160			
Bis(2-chloroethoxy)methane	28.6	5.00	"	40.000		71	49-165			
Bis(2-chloroethyl)ether	28.7	5.00	"	40.000		72	42-126			
Bis(2-chloroisopropyl)ether	24.1	5.00	"	40.000		60	62-139			A
Bis(2-ethylhexyl)phthalate	26.4	5.00	"	40.000		66	28-137			
4-Bromophenyl phenyl ether	29.8	5.00	"	40.000		74	64-114			
Butyl benzyl phthalate	31.1	5.00	"	40.000		78	0.01-140			
Carbazole	50.1	5.00	"	40.000		125	30-160			
Caprolactam	26.2	10.0	"	40.000		65	30-160			
4-Chloroaniline	22.6	5.00	"	40.000		56	30-160			
4-Chloro-3-methylphenol	30.2	5.00	"	40.000		76	40-128			
2-Chloronaphthalene	31.0	5.00	"	40.000		78	64-114			
2-Chlorophenol	31.4	5.00	"	40.000		79	36-121			
4-Chlorophenyl phenyl ether	32.0	5.00	"	40.000		80	38-145			
Chrysene	28.4	5.00	"	40.000		71	44-140			
Dibenz(a,h)anthracene	26.0	5.00	"	40.000		65	0.01-200			
Dibenzofuran	30.7	5.00	"	40.000		77	30-160			
3,3'-Dichlorobenzidine	23.1	5.00	"	40.000		58	8-213			
Diethyl phthalate	32.2	5.00	"	40.000		81	0.01-100			
2,4-Dichlorophenol	29.8	5.00	"	40.000		74	52-122			
2,4-Dimethylphenol	21.8	5.00	"	40.000		55	41-109			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40502 - EPA 3520C SVOC										
LCS (BB40502-BS1)				Prepared: 02/05/14 13:07		Analyzed: 02/11/14 15:26				
Dimethyl phthalate	32.8	5.00	ug/L	40.000		82	0.01-100			
Di-n-butyl phthalate	32.1	5.00	"	40.000		80	8-111			
4,6-Dinitro-2-methylphenol	28.8	10.0	"	40.000		72	53-100			
2,4-Dinitrophenol	16.4	5.00	"	40.000		41	0.01-173			
2,4-Dinitrotoluene	31.2	5.00	"	40.000		78	47-127			
2,6-Dinitrotoluene	31.6	5.00	"	40.000		79	68-138			
Di-n-octyl phthalate	36.1	5.00	"	40.000		90	18-132			
Fluoranthene	28.9	5.00	"	40.000		72	42-122			
Fluorene	31.1	5.00	"	40.000		78	71-109			
Hexachlorobenzene	29.6	5.00	"	40.000		74	10-142			
Hexachlorobutadiene	26.0	5.00	"	40.000		65	37-103			
Hexachlorocyclopentadiene	4.10	5.00	"	40.000		10	0.01-104			J
Hexachloroethane	25.1	5.00	"	40.000		63	55-100			
Indeno(1,2,3-cd)pyrene	25.5	5.00	"	40.000		64	0.01-151			
Isophorone	29.0	5.00	"	40.000		72	46-181			
2-Methylnaphthalene	29.5	5.00	"	40.000		74	30-160			
2-Methylphenol	31.2	5.00	"	40.000		78	30-160			
4-Methylphenol	30.6	5.00	"	40.000		77	30-160			
Naphthalene	28.3	5.00	"	40.000		71	35-120			
2-Nitroaniline	31.9	5.00	"	40.000		80	30-160			
3-Nitroaniline	31.9	5.00	"	40.000		80	30-160			
4-Nitroaniline	31.1	5.00	"	40.000		78	30-160			
Nitrobenzene	28.1	5.00	"	40.000		70	54-158			
2-Nitrophenol	27.7	5.00	"	40.000		69	45-167			
4-Nitrophenol	30.4	20.0	"	40.000		76	13-107			
N-Nitrosodimethylamine	20.8	5.00	"	40.000		52	30-160			
N-Nitroso-di-n-propylamine	31.8	5.00	"	40.000		80	41-116			
N-Nitrosodiphenylamine	38.0	5.00	"	40.000		95	30-160			
Pentachlorophenol	28.7	5.00	"	40.000		72	9-103			
Phenanthrene	30.1	5.00	"	40.000		75	65-109			
Phenol	28.3	10.0	"	40.000		71	12-110			
Pyrene	34.1	5.00	"	40.000		85	69-100			
1,2,4,5-Tetrachlorobenzene	29.1	5.00	"	40.000		73	30-160			
2,3,4,6-Tetrachlorophenol	31.1	5.00	"	40.000		78	30-160			
2,4,5-Trichlorophenol	31.7	10.0	"	40.000		79	30-160			
2,4,6-Trichlorophenol	30.9	10.0	"	40.000		77	52-130			
Surrogate: 2-Fluorophenol	*37.8*		*"*	*50.000*		*76*	*21-110*			
Surrogate: Phenol-d5	*40.0*		*"*	*50.000*		*80*	*39-106*			
Surrogate: Nitrobenzene-d5	*18.9*		*"*	*25.000*		*75*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*19.8*		*"*	*25.000*		*79*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*40.6*		*"*	*50.000*		*81*	*10-123*			
Surrogate: Terphenyl-d14	*20.4*		*"*	*25.000*		*82*	*33-141*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41002 - EPA 3520C SVOC										
Blank (BB41002-BLK1)				Prepared: 02/10/14 10:14	Analyzed: 02/21/14 14:08					
MCHM	1.16	5.00	ug/L							J
PPH	U	0.500	"							
Acenaphthene	U	5.00	"							
Acenaphthylene	U	5.00	"							
Acetophenone	U	5.00	"							
Anthracene	U	5.00	"							
Atrazine	U	5.00	"							
Benzaldehyde	U	5.00	"							
Benzo(a)anthracene	U	5.00	"							
Benzo(b)fluoranthene	U	5.00	"							
Benzo(k)fluoranthene	U	5.00	"							
Benzo(ghi)perylene	U	5.00	"							
Benzo(a)pyrene	U	5.00	"							
1,1-Biphenyl	U	5.00	"							
Bis(2-chloroethoxy)methane	U	5.00	"							
Bis(2-chloroethyl)ether	U	5.00	"							
Bis(2-chloroisopropyl)ether	U	5.00	"							
Bis(2-ethylhexyl)phthalate	U	5.00	"							
4-Bromophenyl phenyl ether	U	5.00	"							
Butyl benzyl phthalate	U	5.00	"							
Carbazole	U	5.00	"							
Caprolactam	U	10.0	"							
4-Chloroaniline	U	5.00	"							
4-Chloro-3-methylphenol	U	5.00	"							
2-Chloronaphthalene	U	5.00	"							
2-Chlorophenol	U	5.00	"							
4-Chlorophenyl phenyl ether	U	5.00	"							
Chrysene	U	5.00	"							
Dibenz(a,h)anthracene	U	5.00	"							
Dibenzofuran	U	5.00	"							
3,3'-Dichlorobenzidine	U	5.00	"							
Diethyl phthalate	U	5.00	"							
2,4-Dichlorophenol	U	5.00	"							
2,4-Dimethylphenol	U	5.00	"							
Dimethyl phthalate	U	5.00	"							
Di-n-butyl phthalate	0.910	5.00	"							J
4,6-Dinitro-2-methylphenol	U	10.0	"							
2,4-Dinitrophenol	U	5.00	"							
2,4-Dinitrotoluene	U	5.00	"							
2,6-Dinitrotoluene	U	5.00	"							
Di-n-octyl phthalate	U	5.00	"							
Fluoranthene	U	5.00	"							
Fluorene	U	5.00	"							

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41002 - EPA 3520C SVOC										
Blank (BB41002-BLK1)				Prepared: 02/10/14 10:14		Analyzed: 02/24/14 15:45				
Hexachlorobenzene	U	5.00	ug/L							
Hexachlorobutadiene	U	5.00	"							
Hexachlorocyclopentadiene	U	5.00	"							
Hexachloroethane	U	5.00	"							
Indeno(1,2,3-cd)pyrene	U	5.00	"							
Isophorone	U	5.00	"							
2-Methylnaphthalene	U	5.00	"							
2-Methylphenol	U	5.00	"							
4-Methylphenol	U	5.00	"							
Naphthalene	U	5.00	"							
2-Nitroaniline	U	5.00	"							
3-Nitroaniline	U	5.00	"							
4-Nitroaniline	U	5.00	"							
Nitrobenzene	U	5.00	"							
2-Nitrophenol	U	5.00	"							
4-Nitrophenol	U	20.0	"							
N-Nitrosodimethylamine	U	5.00	"							
N-Nitroso-di-n-propylamine	U	5.00	"							
N-Nitrosodiphenylamine	U	5.00	"							
Pentachlorophenol	U	5.00	"							
Phenanthrene	U	5.00	"							
Phenol	U	10.0	"							
Pyrene	U	5.00	"							
1,2,4,5-Tetrachlorobenzene	U	5.00	"							
2,3,4,6-Tetrachlorophenol	U	5.00	"							
2,4,5-Trichlorophenol	U	10.0	"							
2,4,6-Trichlorophenol	U	10.0	"							
Cyclohexane, 1-methyl-2-propyl-	6.01		"							T
Pentane, 2,3,4-trimethyl- (02)	2.91		"							T
Pentane, 2,3,4-trimethyl- (01)	11.5		"							T
2-Pentene, 3-methyl-, (E)-	4.32		"							T
2-Pentenal, (E)-	10.4		"							T
Surrogate: 2-Fluorophenol	*31.2*		"	*50.000*		*62*	*21-110*			
Surrogate: Phenol-d5	*31.7*		"	*50.000*		*63*	*39-106*			
Surrogate: Nitrobenzene-d5	*14.1*		"	*25.000*		*57*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*14.7*		"	*25.000*		*59*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*28.8*		"	*50.000*		*58*	*10-123*			
Surrogate: Terphenyl-d14	*18.4*		"	*25.000*		*74*	*33-141*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: West Virginia Chemical Leak **Project #:** DAS R34317

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41002 - EPA 3520C SVOC										
LCS (BB41002-BS1)				Prepared: 02/10/14 10:14		Analyzed: 02/21/14 14:58				
MCHM	5.52	5.00	ug/L	5.0000		110	30-160			
PPH	3.88	0.500	"	5.0000		78	30-160			
Acenaphthene	24.4	5.00	"	40.000		61	60-132			
Acenaphthylene	26.0	5.00	"	40.000		65	53-126			
Acetophenone	24.6	5.00	"	40.000		62	30-160			
Anthracene	23.8	5.00	"	40.000		59	43-118			
Atrazine	55.4	5.00	"	40.000		139	30-160			
Benzaldehyde	30.0	5.00	"	40.000		75	30-160			
Benzo(a)anthracene	22.4	5.00	"	40.000		56	41-133			
Benzo(b)fluoranthene	25.2	5.00	"	40.000		63	42-140			
Benzo(k)fluoranthene	28.3	5.00	"	40.000		71	25-146			
Benzo(ghi)perylene	19.2	5.00	"	40.000		48	0.01-195			
Benzo(a)pyrene	25.3	5.00	"	40.000		63	31-148			
1,1-Biphenyl	24.7	5.00	"	40.000		62	30-160			
Bis(2-chloroethoxy)methane	22.3	5.00	"	40.000		56	49-165			
Bis(2-chloroethyl)ether	23.2	5.00	"	40.000		58	42-126			
Bis(2-chloroisopropyl)ether	19.2	5.00	"	40.000		48	62-139			A
Bis(2-ethylhexyl)phthalate	20.5	5.00	"	40.000		51	28-137			
4-Bromophenyl phenyl ether	23.0	5.00	"	40.000		57	64-114			A
Butyl benzyl phthalate	24.7	5.00	"	40.000		62	0.01-140			
Carbazole	58.9	5.00	"	40.000		147	30-160			
Caprolactam	21.3	10.0	"	40.000		53	30-160			
4-Chloroaniline	19.2	5.00	"	40.000		48	30-160			
4-Chloro-3-methylphenol	23.9	5.00	"	40.000		60	40-128			
2-Chloronaphthalene	25.0	5.00	"	40.000		62	64-114			A
2-Chlorophenol	25.4	5.00	"	40.000		63	36-121			
4-Chlorophenyl phenyl ether	24.7	5.00	"	40.000		62	38-145			
Chrysene	22.0	5.00	"	40.000		55	44-140			
Dibenz(a,h)anthracene	19.9	5.00	"	40.000		50	0.01-200			
Dibenzofuran	24.1	5.00	"	40.000		60	30-160			
3,3'-Dichlorobenzidine	21.1	5.00	"	40.000		53	8-213			
Diethyl phthalate	25.1	5.00	"	40.000		63	0.01-100			
2,4-Dichlorophenol	23.7	5.00	"	40.000		59	52-122			
2,4-Dimethylphenol	20.0	5.00	"	40.000		50	41-109			
Dimethyl phthalate	25.5	5.00	"	40.000		64	0.01-100			
Di-n-butyl phthalate	25.2	5.00	"	40.000		63	8-111			
4,6-Dinitro-2-methylphenol	20.6	10.0	"	40.000		51	53-100			A
2,4-Dinitrophenol	14.2	5.00	"	40.000		36	0.01-173			
2,4-Dinitrotoluene	24.1	5.00	"	40.000		60	47-127			
2,6-Dinitrotoluene	24.8	5.00	"	40.000		62	68-138			A
Di-n-octyl phthalate	28.8	5.00	"	40.000		72	18-132			
Fluoranthene	22.7	5.00	"	40.000		57	42-122			
Fluorene	24.4	5.00	"	40.000		61	71-109			A

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41002 - EPA 3520C SVOC										
LCS (BB41002-BS1)				Prepared: 02/10/14 10:14		Analyzed: 02/24/14 16:22				
Hexachlorobenzene	23.0	5.00	ug/L	40.000		57	10-142			
Hexachlorobutadiene	24.0	5.00	"	40.000		60	37-103			
Hexachlorocyclopentadiene	6.71	5.00	"	40.000		17	0.01-104			
Hexachloroethane	24.8	5.00	"	40.000		62	55-100			
Indeno(1,2,3-cd)pyrene	19.8	5.00	"	40.000		50	0.01-151			
Isophorone	22.6	5.00	"	40.000		56	46-181			
2-Methylnaphthalene	24.2	5.00	"	40.000		61	30-160			
2-Methylphenol	25.3	5.00	"	40.000		63	30-160			
4-Methylphenol	24.7	5.00	"	40.000		62	30-160			
Naphthalene	24.4	5.00	"	40.000		61	35-120			
2-Nitroaniline	25.2	5.00	"	40.000		63	30-160			
3-Nitroaniline	25.2	5.00	"	40.000		63	30-160			
4-Nitroaniline	31.2	5.00	"	40.000		78	30-160			
Nitrobenzene	22.3	5.00	"	40.000		56	54-158			
2-Nitrophenol	22.1	5.00	"	40.000		55	45-167			
4-Nitrophenol	23.7	20.0	"	40.000		59	13-107			
N-Nitrosodimethylamine	17.0	5.00	"	40.000		42	30-160			
N-Nitroso-di-n-propylamine	25.3	5.00	"	40.000		63	41-116			
N-Nitrosodiphenylamine	30.1	5.00	"	40.000		75	30-160			
Pentachlorophenol	21.5	5.00	"	40.000		54	9-103			
Phenanthrene	23.6	5.00	"	40.000		59	65-109			A
Phenol	22.6	10.0	"	40.000		57	12-110			
Pyrene	27.9	5.00	"	40.000		70	69-100			
1,2,4,5-Tetrachlorobenzene	23.9	5.00	"	40.000		60	30-160			
2,3,4,6-Tetrachlorophenol	24.0	5.00	"	40.000		60	30-160			
2,4,5-Trichlorophenol	24.8	10.0	"	40.000		62	30-160			
2,4,6-Trichlorophenol	24.1	10.0	"	40.000		60	52-130			
Surrogate: 2-Fluorophenol	*30.7*		"	*50.000*		*61*	*21-110*			
Surrogate: Phenol-d5	*32.0*		"	*50.000*		*64*	*39-106*			
Surrogate: Nitrobenzene-d5	*14.9*		"	*25.000*		*60*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*15.7*		"	*25.000*		*63*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*31.6*		"	*50.000*		*63*	*10-123*			
Surrogate: Terphenyl-d14	*16.7*		"	*25.000*		*67*	*33-141*			

Site Name: West Virginia Chemical Leak **Project #:** DAS R34317

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41801 - EPA 3520C SVOC										
Blank (BB41801-BLK1)				Prepared: 02/18/14 07:52	Analyzed: 02/21/14 16:38					
MCHM	1.34	5.00	ug/L							J
PPH	U	0.500	"							
Acenaphthene	U	5.00	"							
Acenaphthylene	U	5.00	"							
Acetophenone	U	5.00	"							
Anthracene	U	5.00	"							
Atrazine	U	5.00	"							
Benzaldehyde	U	5.00	"							
Benzo(a)anthracene	U	5.00	"							
Benzo(b)fluoranthene	U	5.00	"							
Benzo(k)fluoranthene	U	5.00	"							
Benzo(ghi)perylene	U	5.00	"							
Benzo(a)pyrene	U	5.00	"							
1,1-Biphenyl	U	5.00	"							
Bis(2-chloroethoxy)methane	U	5.00	"							
Bis(2-chloroethyl)ether	U	5.00	"							
Bis(2-chloroisopropyl)ether	U	5.00	"							
Bis(2-ethylhexyl)phthalate	U	5.00	"							
4-Bromophenyl phenyl ether	U	5.00	"							
Butyl benzyl phthalate	U	5.00	"							
Carbazole	U	5.00	"							
Caprolactam	U	10.0	"							
4-Chloroaniline	U	5.00	"							
4-Chloro-3-methylphenol	U	5.00	"							
2-Chloronaphthalene	U	5.00	"							
2-Chlorophenol	U	5.00	"							
4-Chlorophenyl phenyl ether	U	5.00	"							
Chrysene	U	5.00	"							
Dibenz(a,h)anthracene	U	5.00	"							
Dibenzofuran	U	5.00	"							
3,3'-Dichlorobenzidine	U	5.00	"							
Diethyl phthalate	U	5.00	"							
2,4-Dichlorophenol	U	5.00	"							
2,4-Dimethylphenol	U	5.00	"							
Dimethyl phthalate	U	5.00	"							
Di-n-butyl phthalate	0.640	5.00	"							J
4,6-Dinitro-2-methylphenol	U	10.0	"							
2,4-Dinitrophenol	U	5.00	"							
2,4-Dinitrotoluene	U	5.00	"							
2,6-Dinitrotoluene	U	5.00	"							
Di-n-octyl phthalate	U	5.00	"							
Fluoranthene	U	5.00	"							
Fluorene	U	5.00	"							

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41801 - EPA 3520C SVOC										
Blank (BB41801-BLK1)				Prepared: 02/18/14 07:52	Analyzed: 02/24/14 17:37					
Hexachlorobenzene	U	5.00	ug/L							
Hexachlorobutadiene	U	5.00	"							
Hexachlorocyclopentadiene	U	5.00	"							
Hexachloroethane	U	5.00	"							
Indeno(1,2,3-cd)pyrene	U	5.00	"							
Isophorone	U	5.00	"							
2-Methylnaphthalene	U	5.00	"							
2-Methylphenol	U	5.00	"							
4-Methylphenol	U	5.00	"							
Naphthalene	U	5.00	"							
2-Nitroaniline	U	5.00	"							
3-Nitroaniline	U	5.00	"							
4-Nitroaniline	U	5.00	"							
Nitrobenzene	U	5.00	"							
2-Nitrophenol	U	5.00	"							
4-Nitrophenol	U	20.0	"							
N-Nitrosodimethylamine	U	5.00	"							
N-Nitroso-di-n-propylamine	U	5.00	"							
N-Nitrosodiphenylamine	U	5.00	"							
Pentachlorophenol	U	5.00	"							
Phenanthrene	U	5.00	"							
Phenol	U	10.0	"							
Pyrene	U	5.00	"							
1,2,4,5-Tetrachlorobenzene	U	5.00	"							
2,3,4,6-Tetrachlorophenol	U	5.00	"							
2,4,5-Trichlorophenol	U	10.0	"							
2,4,6-Trichlorophenol	U	10.0	"							
Cyclohexane, 1-methyl-3-propyl-	2.17		"							T
Cyclopentane, 1,2,3,4,5-pentamethyl-	2.45		"							T
Cyclohexane, (1,2,2-trimethylbutyl)-	13.1		"							T
Furan, 2,3-dihydro-4-methyl-	12.6		"							T
Sulfurous acid, cyclohexylmethyl nonyl ester	7.96		"							T
2,3,3-Trimethyl-1-hexene	2.30		"							T
2,4,4-Trimethyl-1-hexene	3.19		"							T
3-Ethyl-4-methyl-2-pentene	5.06		"							T
Surrogate: 2-Fluorophenol	*25.1*		"	*50.000*		*50*	*21-110*			
Surrogate: Phenol-d5	*26.2*		"	*50.000*		*52*	*39-106*			
Surrogate: Nitrobenzene-d5	*11.6*		"	*25.000*		*46*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*12.2*		"	*25.000*		*49*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*24.7*		"	*50.000*		*49*	*10-123*			
Surrogate: Terphenyl-d14	*15.1*		"	*25.000*		*60*	*33-141*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41801 - EPA 3520C SVOC										
LCS (BB41801-BS1)				Prepared: 02/18/14 07:52		Analyzed: 02/21/14 17:28				
MCHM	5.22	5.00	ug/L	5.0000		104	30-160			
PPH	3.66	0.500	"	5.0000		73	30-160			
Acenaphthene	21.2	5.00	"	40.000		53	60-132			A
Acenaphthylene	22.6	5.00	"	40.000		56	53-126			
Acetophenone	21.4	5.00	"	40.000		54	30-160			
Anthracene	20.6	5.00	"	40.000		52	43-118			
Atrazine	47.4	5.00	"	40.000		119	30-160			
Benzaldehyde	20.2	5.00	"	40.000		51	30-160			
Benzo(a)anthracene	19.5	5.00	"	40.000		49	41-133			
Benzo(b)fluoranthene	21.3	5.00	"	40.000		53	42-140			
Benzo(k)fluoranthene	24.4	5.00	"	40.000		61	25-146			
Benzo(ghi)perylene	17.0	5.00	"	40.000		42	0.01-195			
Benzo(a)pyrene	21.4	5.00	"	40.000		53	31-148			
1,1-Biphenyl	21.3	5.00	"	40.000		53	30-160			
Bis(2-chloroethoxy)methane	19.4	5.00	"	40.000		48	49-165			A
Bis(2-chloroethyl)ether	19.6	5.00	"	40.000		49	42-126			
Bis(2-chloroisopropyl)ether	16.3	5.00	"	40.000		41	62-139			A
Bis(2-ethylhexyl)phthalate	17.8	5.00	"	40.000		45	28-137			
4-Bromophenyl phenyl ether	19.8	5.00	"	40.000		50	64-114			A
Butyl benzyl phthalate	21.3	5.00	"	40.000		53	0.01-140			
Carbazole	49.8	5.00	"	40.000		124	30-160			
Caprolactam	19.3	10.0	"	40.000		48	30-160			
4-Chloroaniline	14.6	5.00	"	40.000		36	30-160			
4-Chloro-3-methylphenol	20.7	5.00	"	40.000		52	40-128			
2-Chloronaphthalene	21.5	5.00	"	40.000		54	64-114			A
2-Chlorophenol	21.8	5.00	"	40.000		54	36-121			
4-Chlorophenyl phenyl ether	21.5	5.00	"	40.000		54	38-145			
Chrysene	19.3	5.00	"	40.000		48	44-140			
Dibenz(a,h)anthracene	18.2	5.00	"	40.000		45	0.01-200			
Dibenzofuran	21.0	5.00	"	40.000		52	30-160			
3,3'-Dichlorobenzidine	17.3	5.00	"	40.000		43	8-213			
Diethyl phthalate	21.5	5.00	"	40.000		54	0.01-100			
2,4-Dichlorophenol	20.8	5.00	"	40.000		52	52-122			
2,4-Dimethylphenol	16.1	5.00	"	40.000		40	41-109			A
Dimethyl phthalate	21.9	5.00	"	40.000		55	0.01-100			
Di-n-butyl phthalate	21.7	5.00	"	40.000		54	8-111			
4,6-Dinitro-2-methylphenol	18.4	10.0	"	40.000		46	53-100			A
2,4-Dinitrophenol	11.5	5.00	"	40.000		29	0.01-173			
2,4-Dinitrotoluene	20.9	5.00	"	40.000		52	47-127			
2,6-Dinitrotoluene	21.5	5.00	"	40.000		54	68-138			A
Di-n-octyl phthalate	24.5	5.00	"	40.000		61	18-132			
Fluoranthene	19.3	5.00	"	40.000		48	42-122			
Fluorene	21.3	5.00	"	40.000		53	71-109			A

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41801 - EPA 3520C SVOC										
LCS (BB41801-BS1)				Prepared: 02/18/14 07:52		Analyzed: 02/24/14 18:15				
Hexachlorobenzene	20.0	5.00	ug/L	40.000		50	10-142			
Hexachlorobutadiene	19.8	5.00	"	40.000		50	37-103			
Hexachlorocyclopentadiene	2.83	5.00	"	40.000		7	0.01-104			J
Hexachloroethane	20.5	5.00	"	40.000		51	55-100			A
Indeno(1,2,3-cd)pyrene	17.7	5.00	"	40.000		44	0.01-151			
Isophorone	19.6	5.00	"	40.000		49	46-181			
2-Methylnaphthalene	21.0	5.00	"	40.000		52	30-160			
2-Methylphenol	22.0	5.00	"	40.000		55	30-160			
4-Methylphenol	21.6	5.00	"	40.000		54	30-160			
Naphthalene	20.7	5.00	"	40.000		52	35-120			
2-Nitroaniline	21.8	5.00	"	40.000		54	30-160			
3-Nitroaniline	21.8	5.00	"	40.000		54	30-160			
4-Nitroaniline	24.8	5.00	"	40.000		62	30-160			
Nitrobenzene	18.8	5.00	"	40.000		47	54-158			A
2-Nitrophenol	19.0	5.00	"	40.000		47	45-167			
4-Nitrophenol	20.5	20.0	"	40.000		51	13-107			
N-Nitrosodimethylamine	14.3	5.00	"	40.000		36	30-160			
N-Nitroso-di-n-propylamine	22.3	5.00	"	40.000		56	41-116			
N-Nitrosodiphenylamine	26.0	5.00	"	40.000		65	30-160			
Pentachlorophenol	18.5	5.00	"	40.000		46	9-103			
Phenanthrene	20.2	5.00	"	40.000		51	65-109			A
Phenol	19.6	10.0	"	40.000		49	12-110			
Pyrene	23.7	5.00	"	40.000		59	69-100			A
1,2,4,5-Tetrachlorobenzene	20.5	5.00	"	40.000		51	30-160			
2,3,4,6-Tetrachlorophenol	20.7	5.00	"	40.000		52	30-160			
2,4,5-Trichlorophenol	21.5	10.0	"	40.000		54	30-160			
2,4,6-Trichlorophenol	21.0	10.0	"	40.000		52	52-130			
Surrogate: 2-Fluorophenol	*27.1*		"	*50.000*		*54*	*21-110*			
Surrogate: Phenol-d5	*28.1*		"	*50.000*		*56*	*39-106*			
Surrogate: Nitrobenzene-d5	*13.0*		"	*25.000*		*52*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*13.7*		"	*25.000*		*55*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*27.4*		"	*50.000*		*55*	*10-123*			
Surrogate: Terphenyl-d14	*14.5*		"	*25.000*		*58*	*33-141*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41801 - EPA 3520C SVOC										
Matrix Spike (BB41801-MS1)		**Source: 1401014-12**		Prepared: 02/18/14 07:52		Analyzed: 02/21/14 19:08				
MCHM	6.10	5.15	ug/L	5.1546	0.00	118	30-160			
PPH	4.16	0.515	"	5.1546	0.00	81	30-160			
Acenaphthene	20.1	5.15	"	41.237	0.00	49	47-145			
Acenaphthylene	21.8	5.15	"	41.237	0.00	53	33-145			
Acetophenone	23.9	5.15	"	41.237	0.00	58	30-160			
Anthracene	19.2	5.15	"	41.237	0.00	46	27-133			
Atrazine	39.4	5.15	"	41.237	0.00	95	30-160			
Benzaldehyde	11.7	5.15	"	41.237	0.00	28	30-160			A
Benzo(a)anthracene	17.6	5.15	"	41.237	0.00	43	33-143			
Benzo(b)fluoranthene	20.1	5.15	"	41.237	0.00	49	24-159			
Benzo(k)fluoranthene	20.2	5.15	"	41.237	0.00	49	11-162			
Benzo(ghi)perylene	17.9	5.15	"	41.237	0.00	43	0.01-219			
Benzo(a)pyrene	20.2	5.15	"	41.237	0.00	49	17-163			
1,1-Biphenyl	20.2	5.15	"	41.237	0.00	49	30-160			
Bis(2-chloroethoxy)methane	18.4	5.15	"	41.237	0.00	45	33-184			
Bis(2-chloroethyl)ether	18.8	5.15	"	41.237	0.00	46	12-158			
Bis(2-chloroisopropyl)ether	15.2	5.15	"	41.237	0.00	37	36-166			
Bis(2-ethylhexyl)phthalate	16.9	5.15	"	41.237	0.00	41	8-158			
4-Bromophenyl phenyl ether	18.3	5.15	"	41.237	0.00	44	53-127			A
Butyl benzyl phthalate	18.7	5.15	"	41.237	0.00	45	0.01-152			
Carbazole	58.7	5.15	"	41.237	0.00	142	30-160			
Caprolactam	9.64	10.3	"	41.237	0.00	23	30-160			A, J
4-Chloroaniline	9.73	5.15	"	41.237	0.00	24	30-160			A
4-Chloro-3-methylphenol	19.9	5.15	"	41.237	0.00	48	22-147			
2-Chloronaphthalene	20.2	5.15	"	41.237	0.00	49	60-118			A
2-Chlorophenol	21.4	5.15	"	41.237	0.00	52	23-134			
4-Chlorophenyl phenyl ether	20.2	5.15	"	41.237	0.00	49	25-158			
Chrysene	17.4	5.15	"	41.237	0.00	42	17-168			
Dibenz(a,h)anthracene	18.8	5.15	"	41.237	0.00	46	0.01-227			
Dibenzofuran	20.1	5.15	"	41.237	0.00	49	30-160			
3,3'-Dichlorobenzidine	0.526	5.15	"	41.237	0.00	1	0.01-262			J
Diethyl phthalate	19.8	5.15	"	41.237	0.00	48	0.01-114			
2,4-Dichlorophenol	20.3	5.15	"	41.237	0.00	49	39-135			
2,4-Dimethylphenol	21.3	5.15	"	41.237	0.00	52	32-119			
Dimethyl phthalate	20.3	5.15	"	41.237	0.00	49	0.01-112			
Di-n-butyl phthalate	19.1	5.15	"	41.237	0.00	46	1-118			
4,6-Dinitro-2-methylphenol	16.5	10.3	"	41.237	0.00	40	0.01-181			
2,4-Dinitrophenol	7.47	5.15	"	41.237	0.00	18	0.01-191			
2,4-Dinitrotoluene	19.5	5.15	"	41.237	0.00	47	39-139			
2,6-Dinitrotoluene	18.3	5.15	"	41.237	0.00	44	50-158			A
Di-n-octyl phthalate	22.6	5.15	"	41.237	0.00	55	4-146			
Fluoranthene	17.5	5.15	"	41.237	0.00	43	26-137			
Fluorene	20.3	5.15	"	41.237	0.00	49	59-121			A

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41801 - EPA 3520C SVOC										
Matrix Spike (BB41801-MS1)		**Source: 1401014-12**		Prepared: 02/18/14 07:52		Analyzed: 02/24/14 19:31				
Hexachlorobenzene	17.9	5.15	ug/L	41.237	0.00	43	0.01-152			
Hexachlorobutadiene	18.4	5.15	"	41.237	0.00	45	24-116			
Hexachlorocyclopentadiene	2.25	5.15	"	41.237	0.00	5	0.01-111			J
Hexachloroethane	19.4	5.15	"	41.237	0.00	47	40-113			
Indeno(1,2,3-cd)pyrene	19.0	5.15	"	41.237	0.00	46	0.01-171			
Isophorone	18.1	5.15	"	41.237	0.00	44	21-196			
2-Methylnaphthalene	23.0	5.15	"	41.237	3.09	48	30-160			
2-Methylphenol	22.0	5.15	"	41.237	0.00	53	30-160			
4-Methylphenol	22.6	5.15	"	41.237	0.788	53	30-160			
Naphthalene	24.5	5.15	"	41.237	4.77	48	21-133			
2-Nitroaniline	20.5	5.15	"	41.237	0.00	50	30-160			
3-Nitroaniline	20.5	5.15	"	41.237	0.00	50	30-160			
4-Nitroaniline	1.16	5.15	"	41.237	0.00	3	30-160			A, J
Nitrobenzene	20.0	5.15	"	41.237	0.00	48	35-180			
2-Nitrophenol	17.8	5.15	"	41.237	0.00	43	29-182			
4-Nitrophenol	21.0	20.6	"	41.237	0.00	51	0.1-132			
N-Nitrosodimethylamine	13.7	5.15	"	41.237	0.00	33	30-160			
N-Nitroso-di-n-propylamine	21.0	5.15	"	41.237	0.00	51	0.01-230			
N-Nitrosodiphenylamine	25.3	5.15	"	41.237	0.00	61	30-160			
Pentachlorophenol	19.4	5.15	"	41.237	0.00	47	14-176			
Phenanthrene	19.1	5.15	"	41.237	0.00	46	54-120			A
Phenol	19.7	10.3	"	41.237	0.00	48	5-112			
Pyrene	22.0	5.15	"	41.237	0.00	53	52-115			
1,2,4,5-Tetrachlorobenzene	19.3	5.15	"	41.237	0.00	47	30-160			
2,3,4,6-Tetrachlorophenol	20.3	5.15	"	41.237	0.00	49	30-160			
2,4,5-Trichlorophenol	20.2	10.3	"	41.237	0.00	49	30-160			
2,4,6-Trichlorophenol	20.8	10.3	"	41.237	0.00	50	37-144			
Surrogate: 2-Fluorophenol	*25.0*		"	*51.546*		*48*	*21-110*			
Surrogate: Phenol-d5	*28.0*		"	*51.546*		*54*	*39-106*			
Surrogate: Nitrobenzene-d5	*12.1*		"	*25.773*		*47*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*12.9*		"	*25.773*		*50*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*26.4*		"	*51.546*		*51*	*10-123*			
Surrogate: Terphenyl-d14	*13.2*		"	*25.773*		*51*	*33-141*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41801 - EPA 3520C SVOC										
Matrix Spike Dup (BB41801-MSD1)		**Source: 1401014-12**		Prepared: 02/18/14 07:52		Analyzed: 02/21/14 19:58				
MCHM	7.49	5.00	ug/L	5.0000	0.00	150	30-160	24	25	
PPH	4.42	0.500	"	5.0000	0.00	88	30-160	9	25	
Acenaphthene	10.4	5.00	"	20.000	0.00	52	47-145	6	25	
Acenaphthylene	11.2	5.00	"	20.000	0.00	56	33-145	6	25	
Acetophenone	14.7	5.00	"	20.000	0.00	74	30-160	24	25	
Anthracene	9.70	5.00	"	20.000	0.00	48	27-133	4	25	
Atrazine	22.3	5.00	"	20.000	0.00	112	30-160	16	25	
Benzaldehyde	7.32	5.00	"	20.000	0.00	37	30-160	25	25	
Benzo(a)anthracene	8.89	5.00	"	20.000	0.00	44	33-143	4	25	
Benzo(b)fluoranthene	9.42	5.00	"	20.000	0.00	47	24-159	3	25	
Benzo(k)fluoranthene	11.0	5.00	"	20.000	0.00	55	11-162	11	25	
Benzo(ghi)perylene	9.70	5.00	"	20.000	0.00	48	0.01-219	11	25	
Benzo(a)pyrene	10.2	5.00	"	20.000	0.00	51	17-163	4	25	
1,1-Biphenyl	10.5	5.00	"	20.000	0.00	52	30-160	7	25	
Bis(2-chloroethoxy)methane	9.80	5.00	"	20.000	0.00	49	33-184	9	25	
Bis(2-chloroethyl)ether	10.3	5.00	"	20.000	0.00	52	12-158	12	25	
Bis(2-chloroisopropyl)ether	8.51	5.00	"	20.000	0.00	43	36-166	14	25	
Bis(2-ethylhexyl)phthalate	9.46	5.00	"	20.000	0.00	47	8-158	15	25	
4-Bromophenyl phenyl ether	9.49	5.00	"	20.000	0.00	47	53-127	7	25	A
Butyl benzyl phthalate	10.0	5.00	"	20.000	0.00	50	0.01-152	10	25	
Carbazole	30.4	5.00	"	20.000	0.00	152	30-160	6	25	
Caprolactam	11.5	10.0	"	20.000	0.00	57	30-160	84	25	A
4-Chloroaniline	1.80	5.00	"	20.000	0.00	9	30-160	90	25	A, J
4-Chloro-3-methylphenol	10.4	5.00	"	20.000	0.00	52	22-147	7	42	
2-Chloronaphthalene	10.5	5.00	"	20.000	0.00	52	60-118	7	25	A
2-Chlorophenol	11.7	5.00	"	20.000	0.00	59	23-134	12	40	
4-Chlorophenyl phenyl ether	10.6	5.00	"	20.000	0.00	53	25-158	8	25	
Chrysene	8.79	5.00	"	20.000	0.00	44	17-168	4	25	
Dibenz(a,h)anthracene	9.79	5.00	"	20.000	0.00	49	0.01-227	7	25	
Dibenzofuran	10.3	5.00	"	20.000	0.00	51	30-160	5	25	
3,3'-Dichlorobenzidine	U	5.00	"	20.000	0.00		0.01-262		25	A
Diethyl phthalate	10.8	5.00	"	20.000	0.00	54	0.01-114	12	25	
2,4-Dichlorophenol	10.5	5.00	"	20.000	0.00	52	39-135	6	25	
2,4-Dimethylphenol	11.2	5.00	"	20.000	0.00	56	32-119	8	25	
Dimethyl phthalate	10.8	5.00	"	20.000	0.00	54	0.01-112	9	25	
Di-n-butyl phthalate	10.4	5.00	"	20.000	0.00	52	1-118	11	25	
4,6-Dinitro-2-methylphenol	7.59	10.0	"	20.000	0.00	38	0.01-181	5	25	J
2,4-Dinitrophenol	2.94	5.00	"	20.000	0.00	15	0.01-191	21	25	J
2,4-Dinitrotoluene	10.0	5.00	"	20.000	0.00	50	39-139	5	38	
2,6-Dinitrotoluene	10.2	5.00	"	20.000	0.00	51	50-158	14	25	
Di-n-octyl phthalate	11.9	5.00	"	20.000	0.00	60	4-146	9	25	
Fluoranthene	8.89	5.00	"	20.000	0.00	44	26-137	4	25	
Fluorene	10.4	5.00	"	20.000	0.00	52	59-121	5	25	A

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41801 - EPA 3520C SVOC										
Matrix Spike Dup (BB41801-MSD1)		**Source: 1401014-12**		Prepared: 02/18/14 07:52		Analyzed: 02/24/14 20:09				
Hexachlorobenzene	9.21	5.00	ug/L	20.000	0.00	46	0.01-152	6	25	
Hexachlorobutadiene	10.3	5.00	"	20.000	0.00	52	24-116	14	25	
Hexachlorocyclopentadiene	1.90	5.00	"	20.000	0.00	10	0.01-111	54	25	A, J
Hexachloroethane	10.9	5.00	"	20.000	0.00	55	40-113	15	25	
Indeno(1,2,3-cd)pyrene	9.62	5.00	"	20.000	0.00	48	0.01-171	4	25	
Isophorone	9.62	5.00	"	20.000	0.00	48	21-196	9	25	
2-Methylnaphthalene	13.9	5.00	"	20.000	3.09	54	30-160	11	25	
2-Methylphenol	11.6	5.00	"	20.000	0.00	58	30-160	9	25	
4-Methylphenol	12.5	5.00	"	20.000	0.788	59	30-160	10	25	
Naphthalene	15.6	5.00	"	20.000	4.77	54	21-133	13	25	
2-Nitroaniline	10.2	5.00	"	20.000	0.00	51	30-160	3	25	
3-Nitroaniline	10.2	5.00	"	20.000	0.00	51	30-160	3	25	
4-Nitroaniline	9.50	5.00	"	20.000	0.00	48	30-160	178	25	A
Nitrobenzene	9.41	5.00	"	20.000	0.00	47	35-180	3	25	
2-Nitrophenol	9.40	5.00	"	20.000	0.00	47	29-182	9	25	
4-Nitrophenol	10.1	20.0	"	20.000	0.00	51	0.1-132	0.9	50	J
N-Nitrosodimethylamine	7.23	5.00	"	20.000	0.00	36	30-160	9	25	
N-Nitroso-di-n-propylamine	11.2	5.00	"	20.000	0.00	56	0.01-230	10	38	
N-Nitrosodiphenylamine	13.0	5.00	"	20.000	0.00	65	30-160	5	25	
Pentachlorophenol	9.96	5.00	"	20.000	0.00	50	14-176	6	50	
Phenanthrene	9.71	5.00	"	20.000	0.00	49	54-120	5	25	A
Phenol	10.5	10.0	"	20.000	0.00	52	5-112	10	42	
Pyrene	10.8	5.00	"	20.000	0.00	54	52-115	2	25	
1,2,4,5-Tetrachlorobenzene	10.3	5.00	"	20.000	0.00	51	30-160	9	25	
2,3,4,6-Tetrachlorophenol	10.5	5.00	"	20.000	0.00	53	30-160	7	25	
2,4,5-Trichlorophenol	10.7	10.0	"	20.000	0.00	53	30-160	8	25	
2,4,6-Trichlorophenol	10.4	10.0	"	20.000	0.00	52	37-144	3	25	
Surrogate: 2-Fluorophenol	*28.4*		"	*50.000*		*57*	*21-110*			
Surrogate: Phenol-d5	*29.8*		"	*50.000*		*60*	*39-106*			
Surrogate: Nitrobenzene-d5	*13.0*		"	*25.000*		*52*	*43-108*			
Surrogate: 2-Fluorobiphenyl	*13.4*		"	*25.000*		*54*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*27.6*		"	*50.000*		*55*	*10-123*			
Surrogate: Terphenyl-d14	*13.0*		"	*25.000*		*52*	*33-141*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BA43003 - VOC Purge and Trap										
Blank (BA43003-BLK1)				Prepared & Analyzed: 01/30/14 13:48						
Acetone	U	5.0	ug/L							
Benzene	U	0.5	"							
Bromobenzene	U	0.5	"							
Bromochloromethane	U	0.5	"							
Bromodichloromethane	U	0.5	"							
Bromoform	U	0.5	"							
Bromomethane	U	0.5	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	0.5	"							
tert-Butylbenzene	U	0.5	"							
n-Butylbenzene	U	0.5	"							
Carbon disulfide	U	0.5	"							
Carbon Tetrachloride	U	0.5	"							
Chlorobenzene	U	0.5	"							
Chlorodibromomethane	U	0.5	"							
Chloroethane	U	0.5	"							
2-Chloroethylvinyl ether	U	1.0	"							
Chloroform	U	0.5	"							
Chloromethane	U	0.5	"							
2-Chlorotoluene	U	0.5	"							
4-Chlorotoluene	U	0.5	"							
Cyclohexane	U	0.5	"							
1,2-Dibromo-3-chloropropane	U	1.0	"							
1,2-Dibromoethane (EDB)	U	0.5	"							
Dibromomethane	U	0.5	"							
1,2-Dichlorobenzene	U	0.5	"							
1,3-Dichlorobenzene	U	0.5	"							
1,4-Dichlorobenzene	U	0.5	"							
Dichlorodifluoromethane	U	0.5	"							
1,1-Dichloroethane	U	0.5	"							
1,2-Dichloroethane	U	0.5	"							
1,1-Dichloroethene	U	0.5	"							
cis-1,2-Dichloroethene	U	0.5	"							
trans-1,2-Dichloroethene	U	0.5	"							
1,2-Dichloropropane	U	0.5	"							
1,3-Dichloropropane	U	0.5	"							
2,2-Dichloropropane	U	0.5	"							
1,1-Dichloropropene	U	0.5	"							
cis-1,3-Dichloropropene	U	0.5	"							
trans-1,3-Dichloropropene	U	0.5	"							
Ethylbenzene	U	0.5	"							
Freon 113	U	0.5	"							
Hexachlorobutadiene	U	0.5	"							

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BA43003 - VOC Purge and Trap										
Blank (BA43003-BLK1)				Prepared & Analyzed: 01/30/14 13:48						
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	0.5	"							
p-Isopropyltoluene	U	0.5	"							
Methyl Acetate	U	0.5	"							
Methylcyclohexane	U	0.5	"							
Methyl-tert-butyl ether	U	0.5	"							
Methylene Chloride	U	0.5	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	0.5	"							
n-Propylbenzene	U	0.5	"							
Styrene	U	1.0	"							
1,1,2,2-Tetrachloroethane	U	0.5	"							
1,1,1,2-Tetrachloroethane	U	0.5	"							
Tetrachloroethene	U	0.5	"							
Toluene	U	0.5	"							
1,2,3-Trichlorobenzene	U	0.5	"							
1,2,4-Trichlorobenzene	U	0.5	"							
1,1,1-Trichloroethane	U	0.5	"							
1,1,2-Trichloroethane	U	0.5	"							
Trichloroethene	U	0.5	"							
Trichlorofluoromethane	U	0.5	"							
1,2,3-Trichloropropane	U	0.5	"							
1,2,4-Trimethylbenzene	U	0.5	"							
1,3,5-Trimethylbenzene	U	0.5	"							
Vinyl acetate	U	0.5	"							
Vinyl chloride	U	0.5	"							
m-Xylene/p-Xylene	U	1.0	"							
o-Xylene	U	1.0	"							
Surrogate: 4-Bromofluorobenzene	*5.190*		"	*5.0000*		*104*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*5.320*		"	*5.0000*		*106*	*76-114*			
Surrogate: Toluene-d8	*4.670*		"	*5.0000*		*93*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BA43003 - VOC Purge and Trap										
LCS (BA43003-BS1)				Prepared & Analyzed: 01/30/14 12:51						
Acetone	U	5.0	ug/L				80-120			
Benzene	5.07	0.5	"	5.0000		101	80-120			
Bromobenzene	4.97	0.5	"	5.0000		99	80-120			
Bromochloromethane	4.94	0.5	"	5.0000		99	80-120			
Bromodichloromethane	4.64	0.5	"	5.0000		93	80-120			
Bromoform	4.13	0.5	"	5.0000		83	80-120			
Bromomethane	6.09	0.5	"	5.0000		122	80-120			A
2-Butanone	U	5.0	"				80-120			
sec-Butylbenzene	5.57	0.5	"	5.0000		111	80-120			
tert-Butylbenzene	5.68	0.5	"	5.0000		114	80-120			
n-Butylbenzene	5.21	0.5	"	5.0000		104	80-120			
Carbon disulfide	U	0.5	"				80-120			
Carbon Tetrachloride	4.71	0.5	"	5.0000		94	80-120			
Chlorobenzene	5.42	0.5	"	5.0000		108	80-120			
Chlorodibromomethane	4.83	0.5	"	5.0000		97	80-120			
Chloroethane	5.10	0.5	"	5.0000		102	80-120			
2-Chloroethylvinyl ether	U	1.0	"				80-120			
Chloroform	4.77	0.5	"	5.0000		95	80-120			
Chloromethane	5.32	0.5	"	5.0000		106	80-120			
2-Chlorotoluene	5.44	0.5	"	5.0000		109	80-120			
4-Chlorotoluene	5.56	0.5	"	5.0000		111	80-120			
Cyclohexane	U	0.5	"				80-120			
1,2-Dibromo-3-chloropropane	3.80	1.0	"	5.0000		76	80-120			A
1,2-Dibromoethane (EDB)	4.77	0.5	"	5.0000		95	80-120			
Dibromomethane	4.47	0.5	"	5.0000		89	80-120			
1,2-Dichlorobenzene	5.22	0.5	"	5.0000		104	80-120			
1,3-Dichlorobenzene	5.39	0.5	"	5.0000		108	80-120			
1,4-Dichlorobenzene	4.83	0.5	"	5.0000		97	80-120			
Dichlorodifluoromethane	6.97	0.5	"	5.0000		139	80-120			A
1,1-Dichloroethane	4.90	0.5	"	5.0000		98	80-120			
1,2-Dichloroethane	4.62	0.5	"	5.0000		92	80-120			
1,1-Dichloroethene	5.37	0.5	"	5.0000		107	80-120			
cis-1,2-Dichloroethene	4.86	0.5	"	5.0000		97	80-120			
trans-1,2-Dichloroethene	4.85	0.5	"	5.0000		97	80-120			
1,2-Dichloropropane	4.82	0.5	"	5.0000		96	80-120			
1,3-Dichloropropane	4.69	0.5	"	5.0000		94	80-120			
2,2-Dichloropropane	4.88	0.5	"	5.0000		98	80-120			
1,1-Dichloropropene	4.77	0.5	"	5.0000		95	80-120			
cis-1,3-Dichloropropene	4.40	0.5	"	5.0000		88	80-120			
trans-1,3-Dichloropropene	4.34	0.5	"	5.0000		87	80-120			
Ethylbenzene	4.96	0.5	"	5.0000		99	80-120			
Freon 113	U	0.5	"				80-120			
Hexachlorobutadiene	4.61	0.5	"	5.0000		92	80-120			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BA43003 - VOC Purge and Trap										
LCS (BA43003-BS1)				Prepared & Analyzed: 01/30/14 12:51						
2-Hexanone	U	5.0	ug/L				80-120			
Isopropylbenzene	5.63	0.5	"	5.0000		113	80-120			
p-Isopropyltoluene	5.53	0.5	"	5.0000		111	80-120			
Methyl Acetate	U	0.5	"				80-120			
Methylcyclohexane	U	0.5	"				80-120			
Methyl-tert-butyl ether	U	0.5	"				80-120			
Methylene Chloride	4.85	0.5	"	5.0000		97	80-120			
4-Methyl-2-pentanone	U	5.0	"				80-120			
Naphthalene	4.58	0.5	"	5.0000		92	80-120			
n-Propylbenzene	5.52	0.5	"	5.0000		110	80-120			
Styrene	4.46	1.0	"	5.0000		89	80-120			
1,1,2,2-Tetrachloroethane	4.64	0.5	"	5.0000		93	80-120			
1,1,1,2-Tetrachloroethane	4.48	0.5	"	5.0000		90	80-120			
Tetrachloroethene	5.17	0.5	"	5.0000		103	80-120			
Toluene	4.97	0.5	"	5.0000		99	80-120			
1,2,3-Trichlorobenzene	4.85	0.5	"	5.0000		97	80-120			
1,2,4-Trichlorobenzene	4.80	0.5	"	5.0000		96	80-120			
1,1,1-Trichloroethane	4.80	0.5	"	5.0000		96	80-120			
1,1,2-Trichloroethane	4.95	0.5	"	5.0000		99	80-120			
Trichloroethene	4.72	0.5	"	5.0000		94	80-120			
Trichlorofluoromethane	5.18	0.5	"	5.0000		104	80-120			
1,2,3-Trichloropropane	4.40	0.5	"	5.0000		88	80-120			
1,2,4-Trimethylbenzene	5.17	0.5	"	5.0000		103	80-120			
1,3,5-Trimethylbenzene	5.02	0.5	"	5.0000		100	80-120			
Vinyl acetate	U	0.5	"				80-120			
Vinyl chloride	5.58	0.5	"	5.0000		112	80-120			
m-Xylene/p-Xylene	10.96	1.0	"	10.000		110	80-120			
o-Xylene	5.32	1.0	"	5.0000		106	80-120			
Surrogate: 4-Bromofluorobenzene	*4.970*		"	*5.0000*		*99*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*4.790*		"	*5.0000*		*96*	*76-114*			
Surrogate: Toluene-d8	*4.800*		"	*5.0000*		*96*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40603 - VOC Purge and Trap										
Blank (BB40603-BLK1)				Prepared: 02/05/14 09:00	Analyzed: 02/05/14 10:54					
Acetone	U	5.0	ug/L							
Benzene	U	5.0	"							
Bromobenzene	U	5.0	"							
Bromochloromethane	U	5.0	"							
Bromodichloromethane	U	5.0	"							
Bromoform	U	5.0	"							
Bromomethane	U	5.0	"							
2-Butanone	U	10.0	"							
sec-Butylbenzene	U	5.0	"							
tert-Butylbenzene	U	5.0	"							
n-Butylbenzene	U	5.0	"							
Carbon disulfide	U	5.0	"							
Carbon Tetrachloride	U	5.0	"							
Chlorobenzene	U	5.0	"							
Chlorodibromomethane	U	5.0	"							
Chloroethane	U	5.0	"							
2-Chloroethylvinyl ether	U	10.0	"							
Chloroform	U	5.0	"							
Chloromethane	U	5.0	"							
2-Chlorotoluene	U	5.0	"							
4-Chlorotoluene	U	5.0	"							
Cyclohexane	U	5.0	"							
1,2-Dibromo-3-chloropropane	U	5.0	"							
1,2-Dibromoethane (EDB)	U	5.0	"							
Dibromomethane	U	5.0	"							
1,2-Dichlorobenzene	U	5.0	"							
1,3-Dichlorobenzene	U	5.0	"							
1,4-Dichlorobenzene	U	5.0	"							
Dichlorodifluoromethane	U	5.0	"							
1,1-Dichloroethane	U	5.0	"							
1,2-Dichloroethane	U	5.0	"							
1,1-Dichloroethene	U	5.0	"							
cis-1,2-Dichloroethene	U	5.0	"							
trans-1,2-Dichloroethene	U	5.0	"							
1,2-Dichloropropane	U	5.0	"							
1,3-Dichloropropane	U	5.0	"							
2,2-Dichloropropane	U	5.0	"							
1,1-Dichloropropene	U	5.0	"							
cis-1,3-Dichloropropene	U	5.0	"							
trans-1,3-Dichloropropene	U	5.0	"							
Ethylbenzene	U	5.0	"							
Freon 113	U	5.0	"							
Hexachlorobutadiene	U	5.0	"							

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40603 - VOC Purge and Trap										
Blank (BB40603-BLK1)				Prepared: 02/05/14 09:00		Analyzed: 02/05/14 10:54				
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	5.0	"							
p-Isopropyltoluene	U	5.0	"							
Methyl Acetate	U	5.0	"							
Methylcyclohexane	U	5.0	"							
Methyl-tert-butyl ether	U	5.0	"							
Methylene Chloride	U	5.0	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	5.0	"							
n-Propylbenzene	U	5.0	"							
Styrene	U	10.0	"							
1,1,2,2-Tetrachloroethane	U	5.0	"							
1,1,1,2-Tetrachloroethane	U	5.0	"							
Tetrachloroethene	U	5.0	"							
Toluene	U	5.0	"							
1,2,3-Trichlorobenzene	U	5.0	"							
1,2,4-Trichlorobenzene	U	5.0	"							
1,1,1-Trichloroethane	U	5.0	"							
1,1,2-Trichloroethane	U	5.0	"							
Trichloroethene	U	5.0	"							
Trichlorofluoromethane	U	5.0	"							
1,2,3-Trichloropropane	U	5.0	"							
1,2,4-Trimethylbenzene	U	5.0	"							
1,3,5-Trimethylbenzene	U	5.0	"							
Vinyl acetate	U	5.0	"							
Vinyl chloride	U	5.0	"							
m-Xylene/p-Xylene	U	10.0	"							
o-Xylene	U	10.0	"							
Surrogate: 4-Bromofluorobenzene	*21.30*		"	*20.000*		*106*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*20.43*		"	*20.000*		*102*	*76-114*			
Surrogate: Toluene-d8	*20.21*		"	*20.000*		*101*	*88-110*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak **Project #:** DAS R34317

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40603 - VOC Purge and Trap										
Blank (BB40603-BLK2)				Prepared: 02/05/14 09:00	Analyzed: 02/05/14 11:28					
Acetone	U	5.0	ug/L							
Benzene	U	5.0	"							
Bromobenzene	U	5.0	"							
Bromochloromethane	U	5.0	"							
Bromodichloromethane	U	5.0	"							
Bromoform	U	5.0	"							
Bromomethane	U	5.0	"							
2-Butanone	U	10.0	"							
sec-Butylbenzene	U	5.0	"							
tert-Butylbenzene	U	5.0	"							
n-Butylbenzene	U	5.0	"							
Carbon disulfide	U	5.0	"							
Carbon Tetrachloride	U	5.0	"							
Chlorobenzene	U	5.0	"							
Chlorodibromomethane	U	5.0	"							
Chloroethane	U	5.0	"							
2-Chloroethylvinyl ether	U	10.0	"							
Chloroform	U	5.0	"							
Chloromethane	U	5.0	"							
2-Chlorotoluene	U	5.0	"							
4-Chlorotoluene	U	5.0	"							
Cyclohexane	U	5.0	"							
1,2-Dibromo-3-chloropropane	U	5.0	"							
1,2-Dibromoethane (EDB)	U	5.0	"							
Dibromomethane	U	5.0	"							
1,2-Dichlorobenzene	U	5.0	"							
1,3-Dichlorobenzene	U	5.0	"							
1,4-Dichlorobenzene	U	5.0	"							
Dichlorodifluoromethane	U	5.0	"							
1,1-Dichloroethane	U	5.0	"							
1,2-Dichloroethane	U	5.0	"							
1,1-Dichloroethene	U	5.0	"							
cis-1,2-Dichloroethene	U	5.0	"							
trans-1,2-Dichloroethene	U	5.0	"							
1,2-Dichloropropane	U	5.0	"							
1,3-Dichloropropane	U	5.0	"							
2,2-Dichloropropane	U	5.0	"							
1,1-Dichloropropene	U	5.0	"							
cis-1,3-Dichloropropene	U	5.0	"							
trans-1,3-Dichloropropene	U	5.0	"							
Ethylbenzene	U	5.0	"							
Freon 113	U	5.0	"							
Hexachlorobutadiene	U	5.0	"							

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40603 - VOC Purge and Trap										
Blank (BB40603-BLK2)				Prepared: 02/05/14 09:00		Analyzed: 02/05/14 11:28				
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	5.0	"							
p-Isopropyltoluene	U	5.0	"							
Methyl Acetate	U	5.0	"							
Methylcyclohexane	U	5.0	"							
Methyl-tert-butyl ether	U	5.0	"							
Methylene Chloride	U	5.0	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	5.0	"							
n-Propylbenzene	U	5.0	"							
Styrene	U	10.0	"							
1,1,2,2-Tetrachloroethane	U	5.0	"							
1,1,1,2-Tetrachloroethane	U	5.0	"							
Tetrachloroethene	U	5.0	"							
Toluene	U	5.0	"							
1,2,3-Trichlorobenzene	U	5.0	"							
1,2,4-Trichlorobenzene	U	5.0	"							
1,1,1-Trichloroethane	U	5.0	"							
1,1,2-Trichloroethane	U	5.0	"							
Trichloroethene	U	5.0	"							
Trichlorofluoromethane	U	5.0	"							
1,2,3-Trichloropropane	U	5.0	"							
1,2,4-Trimethylbenzene	U	5.0	"							
1,3,5-Trimethylbenzene	U	5.0	"							
Vinyl acetate	U	5.0	"							
Vinyl chloride	U	5.0	"							
m-Xylene/p-Xylene	U	10.0	"							
o-Xylene	U	10.0	"							
Surrogate: 4-Bromofluorobenzene	*21.29*		"	*20.000*		*106*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*20.28*		"	*20.000*		*101*	*76-114*			
Surrogate: Toluene-d8	*19.67*		"	*20.000*		*98*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40603 - VOC Purge and Trap										
LCS (BB40603-BS1)				Prepared: 02/04/14 09:00		Analyzed: 02/04/14 18:40				
Acetone	U	5.0	ug/L				80-120			
Benzene	20.56	5.0	"	20.000		103	80-120			
Bromobenzene	20.16	5.0	"	20.000		101	80-120			
Bromochloromethane	20.03	5.0	"	20.000		100	80-120			
Bromodichloromethane	20.23	5.0	"	20.000		101	80-120			
Bromoform	18.66	5.0	"	20.000		93	80-120			
Bromomethane	24.69	5.0	"	20.000		123	80-120			A
2-Butanone	U	10.0	"				80-120			
sec-Butylbenzene	19.81	5.0	"	20.000		99	80-120			
tert-Butylbenzene	19.89	5.0	"	20.000		99	80-120			
n-Butylbenzene	20.30	5.0	"	20.000		102	80-120			
Carbon disulfide	U	5.0	"				80-120			
Carbon Tetrachloride	19.69	5.0	"	20.000		98	80-120			
Chlorobenzene	19.76	5.0	"	20.000		99	80-120			
Chlorodibromomethane	17.82	5.0	"	20.000		89	80-120			
Chloroethane	21.58	5.0	"	20.000		108	80-120			
2-Chloroethylvinyl ether	U	10.0	"				80-120			
Chloroform	20.71	5.0	"	20.000		104	80-120			
Chloromethane	21.82	5.0	"	20.000		109	80-120			
2-Chlorotoluene	19.28	5.0	"	20.000		96	80-120			
4-Chlorotoluene	20.27	5.0	"	20.000		101	80-120			
Cyclohexane	U	5.0	"				80-120			
1,2-Dibromo-3-chloropropane	19.00	5.0	"	20.000		95	80-120			
1,2-Dibromoethane (EDB)	19.62	5.0	"	20.000		98	80-120			
Dibromomethane	20.69	5.0	"	20.000		103	80-120			
1,2-Dichlorobenzene	20.40	5.0	"	20.000		102	80-120			
1,3-Dichlorobenzene	19.40	5.0	"	20.000		97	80-120			
1,4-Dichlorobenzene	19.82	5.0	"	20.000		99	80-120			
Dichlorodifluoromethane	25.68	5.0	"	20.000		128	80-120			A
1,1-Dichloroethane	20.81	5.0	"	20.000		104	80-120			
1,2-Dichloroethane	20.44	5.0	"	20.000		102	80-120			
1,1-Dichloroethene	23.96	5.0	"	20.000		120	80-120			
cis-1,2-Dichloroethene	20.02	5.0	"	20.000		100	80-120			
trans-1,2-Dichloroethene	22.20	5.0	"	20.000		111	80-120			
1,2-Dichloropropane	20.83	5.0	"	20.000		104	80-120			
1,3-Dichloropropane	19.69	5.0	"	20.000		98	80-120			
2,2-Dichloropropane	20.24	5.0	"	20.000		101	80-120			
1,1-Dichloropropene	19.79	5.0	"	20.000		99	80-120			
cis-1,3-Dichloropropene	18.28	5.0	"	20.000		91	80-120			
trans-1,3-Dichloropropene	18.43	5.0	"	20.000		92	80-120			
Ethylbenzene	19.91	5.0	"	20.000		100	80-120			
Freon 113	U	5.0	"				80-120			
Hexachlorobutadiene	20.93	5.0	"	20.000		105	80-120			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40603 - VOC Purge and Trap										
LCS (BB40603-BS1)				Prepared: 02/04/14 09:00		Analyzed: 02/04/14 18:40				
2-Hexanone	U	5.0	ug/L				80-120			
Isopropylbenzene	19.49	5.0	"	20.000		97	80-120			
p-Isopropyltoluene	20.04	5.0	"	20.000		100	80-120			
Methyl Acetate	U	5.0	"				80-120			
Methylcyclohexane	U	5.0	"				80-120			
Methyl-tert-butyl ether	U	5.0	"				80-120			
Methylene Chloride	21.34	5.0	"	20.000		107	80-120			
4-Methyl-2-pentanone	U	5.0	"				80-120			
Naphthalene	20.09	5.0	"	20.000		100	80-120			
n-Propylbenzene	19.43	5.0	"	20.000		97	80-120			
Styrene	18.23	10.0	"	20.000		91	80-120			
1,1,2,2-Tetrachloroethane	19.92	5.0	"	20.000		100	80-120			
1,1,1,2-Tetrachloroethane	19.44	5.0	"	20.000		97	80-120			
Tetrachloroethene	20.54	5.0	"	20.000		103	80-120			
Toluene	19.71	5.0	"	20.000		99	80-120			
1,2,3-Trichlorobenzene	19.99	5.0	"	20.000		100	80-120			
1,2,4-Trichlorobenzene	19.62	5.0	"	20.000		98	80-120			
1,1,1-Trichloroethane	20.04	5.0	"	20.000		100	80-120			
1,1,2-Trichloroethane	20.05	5.0	"	20.000		100	80-120			
Trichloroethene	20.64	5.0	"	20.000		103	80-120			
Trichlorofluoromethane	22.30	5.0	"	20.000		112	80-120			
1,2,3-Trichloropropane	20.87	5.0	"	20.000		104	80-120			
1,2,4-Trimethylbenzene	20.42	5.0	"	20.000		102	80-120			
1,3,5-Trimethylbenzene	19.97	5.0	"	20.000		100	80-120			
Vinyl acetate	U	5.0	"				80-120			
Vinyl chloride	24.86	5.0	"	20.000		124	80-120			A
m-Xylene/p-Xylene	39.15	10.0	"	40.000		98	80-120			
o-Xylene	18.68	10.0	"	20.000		93	80-120			
Surrogate: 4-Bromofluorobenzene	*20.04*		"	*20.000*		*100*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*20.01*		"	*20.000*		*100*	*76-114*			
Surrogate: Toluene-d8	*19.17*		"	*20.000*		*96*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41006 - VOC Purge and Trap										
Blank (BB41006-BLK1)				Prepared & Analyzed: 02/04/14 17:42						
Acetone	U	5.0	ug/L							
Benzene	U	0.5	"							
Bromobenzene	U	0.5	"							
Bromochloromethane	U	0.5	"							
Bromodichloromethane	U	0.5	"							
Bromoform	U	0.5	"							
Bromomethane	U	0.5	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	0.5	"							
tert-Butylbenzene	U	0.5	"							
n-Butylbenzene	U	0.5	"							
Carbon disulfide	U	0.5	"							
Carbon Tetrachloride	U	0.5	"							
Chlorobenzene	U	0.5	"							
Chlorodibromomethane	U	0.5	"							
Chloroethane	U	0.5	"							
2-Chloroethylvinyl ether	U	1.0	"							
Chloroform	U	0.5	"							
Chloromethane	U	0.5	"							
2-Chlorotoluene	U	0.5	"							
4-Chlorotoluene	U	0.5	"							
Cyclohexane	U	0.5	"							
1,2-Dibromo-3-chloropropane	U	0.5	"							
1,2-Dibromoethane (EDB)	U	0.5	"							
Dibromomethane	U	0.5	"							
1,2-Dichlorobenzene	U	0.5	"							
1,3-Dichlorobenzene	U	0.5	"							
1,4-Dichlorobenzene	U	0.5	"							
Dichlorodifluoromethane	U	0.5	"							
1,1-Dichloroethane	U	0.5	"							
1,2-Dichloroethane	U	0.5	"							
1,1-Dichloroethene	U	0.5	"							
cis-1,2-Dichloroethene	U	0.5	"							
trans-1,2-Dichloroethene	U	0.5	"							
1,2-Dichloropropane	U	0.5	"							
1,3-Dichloropropane	U	0.5	"							
2,2-Dichloropropane	U	0.5	"							
1,1-Dichloropropene	U	0.5	"							
cis-1,3-Dichloropropene	U	0.5	"							
trans-1,3-Dichloropropene	U	0.5	"							
Ethylbenzene	U	0.5	"							
Freon 113	U	0.5	"							
Hexachlorobutadiene	U	0.5	"							

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41006 - VOC Purge and Trap										
Blank (BB41006-BLK1)				Prepared & Analyzed: 02/04/14 17:42						
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	0.5	"							
p-Isopropyltoluene	U	0.5	"							
Methyl Acetate	U	0.5	"							
Methylcyclohexane	U	0.5	"							
Methyl-tert-butyl ether	U	0.5	"							
Methylene Chloride	U	0.5	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	0.5	"							
n-Propylbenzene	U	0.5	"							
Styrene	U	1.0	"							
1,1,2,2-Tetrachloroethane	U	0.5	"							
1,1,1,2-Tetrachloroethane	U	0.5	"							
Tetrachloroethene	U	0.5	"							
Toluene	U	0.5	"							
1,2,3-Trichlorobenzene	U	0.5	"							
1,2,4-Trichlorobenzene	U	0.5	"							
1,1,1-Trichloroethane	U	0.5	"							
1,1,2-Trichloroethane	U	0.5	"							
Trichloroethene	U	0.5	"							
Trichlorofluoromethane	U	0.5	"							
1,2,3-Trichloropropane	U	0.5	"							
1,2,4-Trimethylbenzene	U	0.5	"							
1,3,5-Trimethylbenzene	U	0.5	"							
Vinyl acetate	U	0.5	"							
Vinyl chloride	U	0.5	"							
m-Xylene/p-Xylene	U	1.0	"							
o-Xylene	U	1.0	"							
Surrogate: 4-Bromofluorobenzene	*5.050*		"	*5.0000*		*101*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*5.550*		"	*5.0000*		*111*	*76-114*			
Surrogate: Toluene-d8	*4.470*		"	*5.0000*		*89*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41006 - VOC Purge and Trap										
Blank (BB41006-BLK2)				Prepared & Analyzed: 02/06/14 11:41						
Acetone	U	5.0	ug/L							
Benzene	U	0.5	"							
Bromobenzene	U	0.5	"							
Bromochloromethane	U	0.5	"							
Bromodichloromethane	U	0.5	"							
Bromoform	U	0.5	"							
Bromomethane	U	0.5	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	0.5	"							
tert-Butylbenzene	U	0.5	"							
n-Butylbenzene	U	0.5	"							
Carbon disulfide	U	0.5	"							
Carbon Tetrachloride	U	0.5	"							
Chlorobenzene	U	0.5	"							
Chlorodibromomethane	U	0.5	"							
Chloroethane	U	0.5	"							
2-Chloroethylvinyl ether	U	1.0	"							
Chloroform	U	0.5	"							
Chloromethane	U	0.5	"							
2-Chlorotoluene	U	0.5	"							
4-Chlorotoluene	U	0.5	"							
Cyclohexane	U	0.5	"							
1,2-Dibromo-3-chloropropane	U	0.5	"							
1,2-Dibromoethane (EDB)	U	0.5	"							
Dibromomethane	U	0.5	"							
1,2-Dichlorobenzene	U	0.5	"							
1,3-Dichlorobenzene	U	0.5	"							
1,4-Dichlorobenzene	U	0.5	"							
Dichlorodifluoromethane	U	0.5	"							
1,1-Dichloroethane	U	0.5	"							
1,2-Dichloroethane	U	0.5	"							
1,1-Dichloroethene	U	0.5	"							
cis-1,2-Dichloroethene	U	0.5	"							
trans-1,2-Dichloroethene	U	0.5	"							
1,2-Dichloropropane	U	0.5	"							
1,3-Dichloropropane	U	0.5	"							
2,2-Dichloropropane	U	0.5	"							
1,1-Dichloropropene	U	0.5	"							
cis-1,3-Dichloropropene	U	0.5	"							
trans-1,3-Dichloropropene	U	0.5	"							
Ethylbenzene	U	0.5	"							
Freon 113	U	0.5	"							
Hexachlorobutadiene	U	0.5	"							

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41006 - VOC Purge and Trap										
Blank (BB41006-BLK2)				Prepared & Analyzed: 02/06/14 11:41						
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	0.5	"							
p-Isopropyltoluene	U	0.5	"							
Methyl Acetate	U	0.5	"							
Methylcyclohexane	U	0.5	"							
Methyl-tert-butyl ether	U	0.5	"							
Methylene Chloride	U	0.5	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	0.5	"							
n-Propylbenzene	U	0.5	"							
Styrene	U	1.0	"							
1,1,2,2-Tetrachloroethane	U	0.5	"							
1,1,1,2-Tetrachloroethane	U	0.5	"							
Tetrachloroethene	U	0.5	"							
Toluene	U	0.5	"							
1,2,3-Trichlorobenzene	U	0.5	"							
1,2,4-Trichlorobenzene	U	0.5	"							
1,1,1-Trichloroethane	U	0.5	"							
1,1,2-Trichloroethane	U	0.5	"							
Trichloroethene	U	0.5	"							
Trichlorofluoromethane	U	0.5	"							
1,2,3-Trichloropropane	U	0.5	"							
1,2,4-Trimethylbenzene	U	0.5	"							
1,3,5-Trimethylbenzene	U	0.5	"							
Vinyl acetate	U	0.5	"							
Vinyl chloride	U	0.5	"							
m-Xylene/p-Xylene	U	1.0	"							
o-Xylene	U	1.0	"							
Surrogate: 4-Bromofluorobenzene	*4.920*		"	*5.0000*		*98*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*6.020*		"	*5.0000*		*120*	*76-114*			*A*
Surrogate: Toluene-d8	*4.270*		"	*5.0000*		*85*	*88-110*			*A*

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41006 - VOC Purge and Trap										
Blank (BB41006-BLK3)				Prepared & Analyzed: 02/06/14 12:09						
Acetone	U	5.0	ug/L							
Benzene	U	0.5	"							
Bromobenzene	U	0.5	"							
Bromochloromethane	U	0.5	"							
Bromodichloromethane	U	0.5	"							
Bromoform	U	0.5	"							
Bromomethane	U	0.5	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	0.5	"							
tert-Butylbenzene	U	0.5	"							
n-Butylbenzene	U	0.5	"							
Carbon disulfide	U	0.5	"							
Carbon Tetrachloride	U	0.5	"							
Chlorobenzene	U	0.5	"							
Chlorodibromomethane	U	0.5	"							
Chloroethane	U	0.5	"							
2-Chloroethylvinyl ether	U	1.0	"							
Chloroform	U	0.5	"							
Chloromethane	U	0.5	"							
2-Chlorotoluene	U	0.5	"							
4-Chlorotoluene	U	0.5	"							
Cyclohexane	U	0.5	"							
1,2-Dibromo-3-chloropropane	U	0.5	"							
1,2-Dibromoethane (EDB)	U	0.5	"							
Dibromomethane	U	0.5	"							
1,2-Dichlorobenzene	U	0.5	"							
1,3-Dichlorobenzene	U	0.5	"							
1,4-Dichlorobenzene	U	0.5	"							
Dichlorodifluoromethane	U	0.5	"							
1,1-Dichloroethane	U	0.5	"							
1,2-Dichloroethane	U	0.5	"							
1,1-Dichloroethene	U	0.5	"							
cis-1,2-Dichloroethene	U	0.5	"							
trans-1,2-Dichloroethene	U	0.5	"							
1,2-Dichloropropane	U	0.5	"							
1,3-Dichloropropane	U	0.5	"							
2,2-Dichloropropane	U	0.5	"							
1,1-Dichloropropene	U	0.5	"							
cis-1,3-Dichloropropene	U	0.5	"							
trans-1,3-Dichloropropene	U	0.5	"							
Ethylbenzene	U	0.5	"							
Freon 113	U	0.5	"							
Hexachlorobutadiene	U	0.5	"							

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41006 - VOC Purge and Trap										
Blank (BB41006-BLK3)				Prepared & Analyzed: 02/06/14 12:09						
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	0.5	"							
p-Isopropyltoluene	U	0.5	"							
Methyl Acetate	U	0.5	"							
Methylcyclohexane	U	0.5	"							
Methyl-tert-butyl ether	U	0.5	"							
Methylene Chloride	U	0.5	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	0.5	"							
n-Propylbenzene	U	0.5	"							
Styrene	U	1.0	"							
1,1,2,2-Tetrachloroethane	U	0.5	"							
1,1,1,2-Tetrachloroethane	U	0.5	"							
Tetrachloroethene	U	0.5	"							
Toluene	U	0.5	"							
1,2,3-Trichlorobenzene	U	0.5	"							
1,2,4-Trichlorobenzene	U	0.5	"							
1,1,1-Trichloroethane	U	0.5	"							
1,1,2-Trichloroethane	U	0.5	"							
Trichloroethene	U	0.5	"							
Trichlorofluoromethane	U	0.5	"							
1,2,3-Trichloropropane	U	0.5	"							
1,2,4-Trimethylbenzene	U	0.5	"							
1,3,5-Trimethylbenzene	U	0.5	"							
Vinyl acetate	U	0.5	"							
Vinyl chloride	U	0.5	"							
m-Xylene/p-Xylene	U	1.0	"							
o-Xylene	U	1.0	"							
Surrogate: 4-Bromofluorobenzene	*4.920*		"	*5.0000*		*98*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*5.960*		"	*5.0000*		*119*	*76-114*			*A*
Surrogate: Toluene-d8	*4.540*		"	*5.0000*		*91*	*88-110*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41006 - VOC Purge and Trap										
LCS (BB41006-BS1)				Prepared & Analyzed: 02/04/14 16:45						
Acetone	U	5.0	ug/L				80-120			
Benzene	5.63	0.5	"	5.0000		113	80-120			
Bromobenzene	4.62	0.5	"	5.0000		92	80-120			
Bromochloromethane	5.28	0.5	"	5.0000		106	80-120			
Bromodichloromethane	5.44	0.5	"	5.0000		109	80-120			
Bromoform	5.34	0.5	"	5.0000		107	80-120			
Bromomethane	6.10	0.5	"	5.0000		122	80-120			A
2-Butanone	U	5.0	"				80-120			
sec-Butylbenzene	5.52	0.5	"	5.0000		110	80-120			
tert-Butylbenzene	5.22	0.5	"	5.0000		104	80-120			
n-Butylbenzene	5.53	0.5	"	5.0000		111	80-120			
Carbon disulfide	U	0.5	"				80-120			
Carbon Tetrachloride	5.25	0.5	"	5.0000		105	80-120			
Chlorobenzene	5.30	0.5	"	5.0000		106	80-120			
Chlorodibromomethane	4.99	0.5	"	5.0000		100	80-120			
Chloroethane	5.51	0.5	"	5.0000		110	80-120			
2-Chloroethylvinyl ether	U	1.0	"				80-120			
Chloroform	5.22	0.5	"	5.0000		104	80-120			
Chloromethane	5.74	0.5	"	5.0000		115	80-120			
2-Chlorotoluene	5.37	0.5	"	5.0000		107	80-120			
4-Chlorotoluene	5.22	0.5	"	5.0000		104	80-120			
Cyclohexane	U	0.5	"				80-120			
1,2-Dibromo-3-chloropropane	5.07	0.5	"	5.0000		101	80-120			
1,2-Dibromoethane (EDB)	5.18	0.5	"	5.0000		104	80-120			
Dibromomethane	5.06	0.5	"	5.0000		101	80-120			
1,2-Dichlorobenzene	5.16	0.5	"	5.0000		103	80-120			
1,3-Dichlorobenzene	5.16	0.5	"	5.0000		103	80-120			
1,4-Dichlorobenzene	5.02	0.5	"	5.0000		100	80-120			
Dichlorodifluoromethane	6.71	0.5	"	5.0000		134	80-120			A
1,1-Dichloroethane	5.45	0.5	"	5.0000		109	80-120			
1,2-Dichloroethane	5.49	0.5	"	5.0000		110	80-120			
1,1-Dichloroethene	6.15	0.5	"	5.0000		123	80-120			A
cis-1,2-Dichloroethene	5.40	0.5	"	5.0000		108	80-120			
trans-1,2-Dichloroethene	5.41	0.5	"	5.0000		108	80-120			
1,2-Dichloropropane	5.41	0.5	"	5.0000		108	80-120			
1,3-Dichloropropane	5.40	0.5	"	5.0000		108	80-120			
2,2-Dichloropropane	5.18	0.5	"	5.0000		104	80-120			
1,1-Dichloropropene	5.18	0.5	"	5.0000		104	80-120			
cis-1,3-Dichloropropene	4.90	0.5	"	5.0000		98	80-120			
trans-1,3-Dichloropropene	5.14	0.5	"	5.0000		103	80-120			
Ethylbenzene	5.36	0.5	"	5.0000		107	80-120			
Freon 113	U	0.5	"				80-120			
Hexachlorobutadiene	5.12	0.5	"	5.0000		102	80-120			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41006 - VOC Purge and Trap										
LCS (BB41006-BS1)				Prepared & Analyzed: 02/04/14 16:45						
2-Hexanone	U	5.0	ug/L				80-120			
Isopropylbenzene	5.39	0.5	"	5.0000		108	80-120			
p-Isopropyltoluene	5.47	0.5	"	5.0000		109	80-120			
Methyl Acetate	U	0.5	"				80-120			
Methylcyclohexane	U	0.5	"				80-120			
Methyl-tert-butyl ether	U	0.5	"				80-120			
Methylene Chloride	4.62	0.5	"	5.0000		92	80-120			
4-Methyl-2-pentanone	U	5.0	"				80-120			
Naphthalene	5.14	0.5	"	5.0000		103	80-120			
n-Propylbenzene	5.21	0.5	"	5.0000		104	80-120			
Styrene	5.09	1.0	"	5.0000		102	80-120			
1,1,2,2-Tetrachloroethane	5.84	0.5	"	5.0000		117	80-120			
1,1,1,2-Tetrachloroethane	5.69	0.5	"	5.0000		114	80-120			
Tetrachloroethene	5.27	0.5	"	5.0000		105	80-120			
Toluene	5.17	0.5	"	5.0000		103	80-120			
1,2,3-Trichlorobenzene	5.40	0.5	"	5.0000		108	80-120			
1,2,4-Trichlorobenzene	4.99	0.5	"	5.0000		100	80-120			
1,1,1-Trichloroethane	5.30	0.5	"	5.0000		106	80-120			
1,1,2-Trichloroethane	5.24	0.5	"	5.0000		105	80-120			
Trichloroethene	5.45	0.5	"	5.0000		109	80-120			
Trichlorofluoromethane	5.90	0.5	"	5.0000		118	80-120			
1,2,3-Trichloropropane	5.11	0.5	"	5.0000		102	80-120			
1,2,4-Trimethylbenzene	5.61	0.5	"	5.0000		112	80-120			
1,3,5-Trimethylbenzene	5.35	0.5	"	5.0000		107	80-120			
Vinyl acetate	U	0.5	"				80-120			
Vinyl chloride	5.55	0.5	"	5.0000		111	80-120			
m-Xylene/p-Xylene	11.23	1.0	"	10.000		112	80-120			
o-Xylene	5.52	1.0	"	5.0000		110	80-120			
Surrogate: 4-Bromofluorobenzene	*4.840*		"	*5.0000*		*97*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*5.090*		"	*5.0000*		*102*	*76-114*			
Surrogate: Toluene-d8	*4.930*		"	*5.0000*		*99*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41203 - VOC Purge and Trap										
Blank (BB41203-BLK1)				Prepared & Analyzed: 02/12/14 14:35						
Acetone	0.4	5.0	ug/L							J
Benzene	U	0.5	"							
Bromobenzene	U	0.5	"							
Bromochloromethane	U	0.5	"							
Bromodichloromethane	U	0.5	"							
Bromoform	U	0.5	"							
Bromomethane	U	0.5	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	0.5	"							
tert-Butylbenzene	U	0.5	"							
n-Butylbenzene	U	0.5	"							
Carbon disulfide	U	0.5	"							
Carbon Tetrachloride	U	0.5	"							
Chlorobenzene	U	0.5	"							
Chlorodibromomethane	U	0.5	"							
Chloroethane	U	0.5	"							
2-Chloroethylvinyl ether	U	1.0	"							
Chloroform	U	0.5	"							
Chloromethane	U	0.5	"							
2-Chlorotoluene	U	0.5	"							
4-Chlorotoluene	U	0.5	"							
Cyclohexane	U	0.5	"							
1,2-Dibromo-3-chloropropane	U	0.5	"							
1,2-Dibromoethane (EDB)	U	0.5	"							
Dibromomethane	U	0.5	"							
1,2-Dichlorobenzene	U	0.5	"							
1,3-Dichlorobenzene	U	0.5	"							
1,4-Dichlorobenzene	U	0.5	"							
Dichlorodifluoromethane	U	0.5	"							
1,1-Dichloroethane	U	0.5	"							
1,2-Dichloroethane	U	0.5	"							
1,1-Dichloroethene	U	0.5	"							
cis-1,2-Dichloroethene	U	0.5	"							
trans-1,2-Dichloroethene	U	0.5	"							
1,2-Dichloropropane	U	0.5	"							
1,3-Dichloropropane	U	0.5	"							
2,2-Dichloropropane	U	0.5	"							
1,1-Dichloropropene	U	0.5	"							
cis-1,3-Dichloropropene	U	0.5	"							
trans-1,3-Dichloropropene	U	0.5	"							
Ethylbenzene	U	0.5	"							
Freon 113	U	0.5	"							
Hexachlorobutadiene	U	0.5	"							

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41203 - VOC Purge and Trap										
Blank (BB41203-BLK1)				Prepared & Analyzed: 02/12/14 14:35						
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	0.5	"							
p-Isopropyltoluene	U	0.5	"							
Methyl Acetate	U	0.5	"							
Methylcyclohexane	U	0.5	"							
Methyl-tert-butyl ether	U	0.5	"							
Methylene Chloride	U	0.5	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	0.5	"							
n-Propylbenzene	U	0.5	"							
Styrene	U	1.0	"							
1,1,2,2-Tetrachloroethane	U	0.5	"							
1,1,1,2-Tetrachloroethane	U	0.5	"							
Tetrachloroethene	U	0.5	"							
Toluene	U	0.5	"							
1,2,3-Trichlorobenzene	U	0.5	"							
1,2,4-Trichlorobenzene	U	0.5	"							
1,1,1-Trichloroethane	U	0.5	"							
1,1,2-Trichloroethane	U	0.5	"							
Trichloroethene	U	0.5	"							
Trichlorofluoromethane	U	0.5	"							
1,2,3-Trichloropropane	U	0.5	"							
1,2,4-Trimethylbenzene	U	0.5	"							
1,3,5-Trimethylbenzene	U	0.5	"							
Vinyl acetate	U	0.5	"							
Vinyl chloride	U	0.5	"							
m-Xylene/p-Xylene	U	1.0	"							
o-Xylene	U	1.0	"							
Surrogate: 4-Bromofluorobenzene	*5.080*		"	*5.0000*		*102*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*5.460*		"	*5.0000*		*109*	*76-114*			
Surrogate: Toluene-d8	*4.780*		"	*5.0000*		*96*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41203 - VOC Purge and Trap										
Blank (BB41203-BLK2)				Prepared & Analyzed: 02/12/14 15:03						
Acetone	U	5.0	ug/L							
Benzene	U	0.5	"							
Bromobenzene	U	0.5	"							
Bromochloromethane	U	0.5	"							
Bromodichloromethane	U	0.5	"							
Bromoform	U	0.5	"							
Bromomethane	U	0.5	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	0.5	"							
tert-Butylbenzene	U	0.5	"							
n-Butylbenzene	U	0.5	"							
Carbon disulfide	U	0.5	"							
Carbon Tetrachloride	U	0.5	"							
Chlorobenzene	U	0.5	"							
Chlorodibromomethane	U	0.5	"							
Chloroethane	U	0.5	"							
2-Chloroethylvinyl ether	U	1.0	"							
Chloroform	U	0.5	"							
Chloromethane	U	0.5	"							
2-Chlorotoluene	U	0.5	"							
4-Chlorotoluene	U	0.5	"							
Cyclohexane	U	0.5	"							
1,2-Dibromo-3-chloropropane	U	0.5	"							
1,2-Dibromoethane (EDB)	U	0.5	"							
Dibromomethane	U	0.5	"							
1,2-Dichlorobenzene	U	0.5	"							
1,3-Dichlorobenzene	U	0.5	"							
1,4-Dichlorobenzene	U	0.5	"							
Dichlorodifluoromethane	U	0.5	"							
1,1-Dichloroethane	U	0.5	"							
1,2-Dichloroethane	U	0.5	"							
1,1-Dichloroethene	U	0.5	"							
cis-1,2-Dichloroethene	U	0.5	"							
trans-1,2-Dichloroethene	U	0.5	"							
1,2-Dichloropropane	U	0.5	"							
1,3-Dichloropropane	U	0.5	"							
2,2-Dichloropropane	U	0.5	"							
1,1-Dichloropropene	U	0.5	"							
cis-1,3-Dichloropropene	U	0.5	"							
trans-1,3-Dichloropropene	U	0.5	"							
Ethylbenzene	U	0.5	"							
Freon 113	U	0.5	"							
Hexachlorobutadiene	U	0.5	"							

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41203 - VOC Purge and Trap										
Blank (BB41203-BLK2)				Prepared & Analyzed: 02/12/14 15:03						
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	0.5	"							
p-Isopropyltoluene	U	0.5	"							
Methyl Acetate	U	0.5	"							
Methylcyclohexane	U	0.5	"							
Methyl-tert-butyl ether	U	0.5	"							
Methylene Chloride	U	0.5	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	0.5	"							
n-Propylbenzene	U	0.5	"							
Styrene	U	1.0	"							
1,1,2,2-Tetrachloroethane	U	0.5	"							
1,1,1,2-Tetrachloroethane	U	0.5	"							
Tetrachloroethene	U	0.5	"							
Toluene	U	0.5	"							
1,2,3-Trichlorobenzene	U	0.5	"							
1,2,4-Trichlorobenzene	U	0.5	"							
1,1,1-Trichloroethane	U	0.5	"							
1,1,2-Trichloroethane	U	0.5	"							
Trichloroethene	U	0.5	"							
Trichlorofluoromethane	U	0.5	"							
1,2,3-Trichloropropane	U	0.5	"							
1,2,4-Trimethylbenzene	U	0.5	"							
1,3,5-Trimethylbenzene	U	0.5	"							
Vinyl acetate	U	0.5	"							
Vinyl chloride	U	0.5	"							
m-Xylene/p-Xylene	U	1.0	"							
o-Xylene	U	1.0	"							
Surrogate: 4-Bromofluorobenzene	*5.310*		"	*5.0000*		*106*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*5.750*		"	*5.0000*		*115*	*76-114*			*A*
Surrogate: Toluene-d8	*4.660*		"	*5.0000*		*93*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41203 - VOC Purge and Trap										
LCS (BB41203-BS1)				Prepared & Analyzed: 02/12/14 13:40						
Acetone	0.44	5.0	ug/L				80-120			J
Benzene	5.60	0.5	"	5.0000		112	80-120			
Bromobenzene	5.69	0.5	"	5.0000		114	80-120			
Bromochloromethane	5.57	0.5	"	5.0000		111	80-120			
Bromodichloromethane	5.46	0.5	"	5.0000		109	80-120			
Bromoform	5.01	0.5	"	5.0000		100	80-120			
Bromomethane	5.77	0.5	"	5.0000		115	80-120			
2-Butanone	U	5.0	"				80-120			
sec-Butylbenzene	5.85	0.5	"	5.0000		117	80-120			
tert-Butylbenzene	5.86	0.5	"	5.0000		117	80-120			
n-Butylbenzene	5.79	0.5	"	5.0000		116	80-120			
Carbon disulfide	U	0.5	"				80-120			
Carbon Tetrachloride	5.04	0.5	"	5.0000		101	80-120			
Chlorobenzene	5.49	0.5	"	5.0000		110	80-120			
Chlorodibromomethane	5.05	0.5	"	5.0000		101	80-120			
Chloroethane	5.39	0.5	"	5.0000		108	80-120			
2-Chloroethylvinyl ether	U	1.0	"				80-120			
Chloroform	5.25	0.5	"	5.0000		105	80-120			
Chloromethane	6.20	0.5	"	5.0000		124	80-120			A
2-Chlorotoluene	5.80	0.5	"	5.0000		116	80-120			
4-Chlorotoluene	5.74	0.5	"	5.0000		115	80-120			
Cyclohexane	U	0.5	"				80-120			
1,2-Dibromo-3-chloropropane	4.61	0.5	"	5.0000		92	80-120			
1,2-Dibromoethane (EDB)	5.35	0.5	"	5.0000		107	80-120			
Dibromomethane	5.10	0.5	"	5.0000		102	80-120			
1,2-Dichlorobenzene	5.56	0.5	"	5.0000		111	80-120			
1,3-Dichlorobenzene	5.46	0.5	"	5.0000		109	80-120			
1,4-Dichlorobenzene	5.36	0.5	"	5.0000		107	80-120			
Dichlorodifluoromethane	7.76	0.5	"	5.0000		155	80-120			A
1,1-Dichloroethane	5.38	0.5	"	5.0000		108	80-120			
1,2-Dichloroethane	5.27	0.5	"	5.0000		105	80-120			
1,1-Dichloroethene	6.13	0.5	"	5.0000		123	80-120			A
cis-1,2-Dichloroethene	5.47	0.5	"	5.0000		109	80-120			
trans-1,2-Dichloroethene	5.54	0.5	"	5.0000		111	80-120			
1,2-Dichloropropane	5.30	0.5	"	5.0000		106	80-120			
1,3-Dichloropropane	5.26	0.5	"	5.0000		105	80-120			
2,2-Dichloropropane	5.16	0.5	"	5.0000		103	80-120			
1,1-Dichloropropene	5.38	0.5	"	5.0000		108	80-120			
cis-1,3-Dichloropropene	5.18	0.5	"	5.0000		104	80-120			
trans-1,3-Dichloropropene	4.92	0.5	"	5.0000		98	80-120			
Ethylbenzene	5.48	0.5	"	5.0000		110	80-120			
Freon 113	U	0.5	"				80-120			
Hexachlorobutadiene	5.82	0.5	"	5.0000		116	80-120			

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41203 - VOC Purge and Trap										
LCS (BB41203-BS1)				Prepared & Analyzed: 02/12/14 13:40						
2-Hexanone	U	5.0	ug/L				80-120			
Isopropylbenzene	5.50	0.5	"	5.0000		110	80-120			
p-Isopropyltoluene	6.00	0.5	"	5.0000		120	80-120			
Methyl Acetate	U	0.5	"				80-120			
Methylcyclohexane	U	0.5	"				80-120			
Methyl-tert-butyl ether	U	0.5	"				80-120			
Methylene Chloride	5.54	0.5	"	5.0000		111	80-120			
4-Methyl-2-pentanone	U	5.0	"				80-120			
Naphthalene	5.22	0.5	"	5.0000		104	80-120			
n-Propylbenzene	5.53	0.5	"	5.0000		111	80-120			
Styrene	5.13	1.0	"	5.0000		103	80-120			
1,1,2,2-Tetrachloroethane	5.47	0.5	"	5.0000		109	80-120			
1,1,1,2-Tetrachloroethane	5.11	0.5	"	5.0000		102	80-120			
Tetrachloroethene	5.81	0.5	"	5.0000		116	80-120			
Toluene	5.29	0.5	"	5.0000		106	80-120			
1,2,3-Trichlorobenzene	5.66	0.5	"	5.0000		113	80-120			
1,2,4-Trichlorobenzene	5.24	0.5	"	5.0000		105	80-120			
1,1,1-Trichloroethane	5.17	0.5	"	5.0000		103	80-120			
1,1,2-Trichloroethane	5.31	0.5	"	5.0000		106	80-120			
Trichloroethene	5.80	0.5	"	5.0000		116	80-120			
Trichlorofluoromethane	5.48	0.5	"	5.0000		110	80-120			
1,2,3-Trichloropropane	5.51	0.5	"	5.0000		110	80-120			
1,2,4-Trimethylbenzene	5.94	0.5	"	5.0000		119	80-120			
1,3,5-Trimethylbenzene	5.71	0.5	"	5.0000		114	80-120			
Vinyl acetate	U	0.5	"				80-120			
Vinyl chloride	6.12	0.5	"	5.0000		122	80-120			A
m-Xylene/p-Xylene	11.68	1.0	"	10.000		117	80-120			
o-Xylene	5.42	1.0	"	5.0000		108	80-120			
Surrogate: 4-Bromofluorobenzene	*4.860*		"	*5.0000*		*97*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*4.810*		"	*5.0000*		*96*	*76-114*			
Surrogate: Toluene-d8	*4.640*		"	*5.0000*		*93*	*88-110*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Blank (BB41901-BLK1)				Prepared: 02/18/14 09:00	Analyzed: 02/18/14 16:07					
Acetone	U	5.0	ug/L							
Benzene	U	5.0	"							
Bromobenzene	U	5.0	"							
Bromochloromethane	U	5.0	"							
Bromodichloromethane	U	5.0	"							
Bromoform	U	5.0	"							
Bromomethane	U	5.0	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	5.0	"							
tert-Butylbenzene	U	5.0	"							
n-Butylbenzene	U	5.0	"							
Carbon disulfide	U	5.0	"							
Carbon Tetrachloride	U	5.0	"							
Chlorobenzene	U	5.0	"							
Chlorodibromomethane	U	5.0	"							
Chloroethane	U	5.0	"							
2-Chloroethylvinyl ether	U	10.0	"							
Chloroform	U	5.0	"							
Chloromethane	U	5.0	"							
2-Chlorotoluene	U	5.0	"							
4-Chlorotoluene	U	5.0	"							
Cyclohexane	U	5.0	"							
1,2-Dibromo-3-chloropropane	U	5.0	"							
1,2-Dibromoethane (EDB)	U	5.0	"							
Dibromomethane	U	5.0	"							
1,2-Dichlorobenzene	U	5.0	"							
1,3-Dichlorobenzene	U	5.0	"							
1,4-Dichlorobenzene	U	5.0	"							
Dichlorodifluoromethane	U	5.0	"							
1,1-Dichloroethane	U	5.0	"							
1,2-Dichloroethane	U	5.0	"							
1,1-Dichloroethene	U	5.0	"							
cis-1,2-Dichloroethene	U	5.0	"							
trans-1,2-Dichloroethene	U	5.0	"							
1,2-Dichloropropane	U	5.0	"							
1,3-Dichloropropane	U	5.0	"							
2,2-Dichloropropane	U	5.0	"							
1,1-Dichloropropene	U	5.0	"							
cis-1,3-Dichloropropene	U	5.0	"							
trans-1,3-Dichloropropene	U	5.0	"							
Ethylbenzene	U	5.0	"							
Freon 113	U	5.0	"							
Hexachlorobutadiene	U	5.0	"							

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Blank (BB41901-BLK1)				Prepared: 02/18/14 09:00		Analyzed: 02/18/14 16:07				
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	5.0	"							
p-Isopropyltoluene	U	5.0	"							
Methyl Acetate	U	5.0	"							
Methylcyclohexane	U	5.0	"							
Methyl-tert-butyl ether	U	5.0	"							
Methylene Chloride	U	5.0	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	5.0	"							
n-Propylbenzene	U	5.0	"							
Styrene	U	10.0	"							
1,1,2,2-Tetrachloroethane	U	5.0	"							
1,1,1,2-Tetrachloroethane	U	5.0	"							
Tetrachloroethene	U	5.0	"							
Toluene	U	5.0	"							
1,2,3-Trichlorobenzene	U	5.0	"							
1,2,4-Trichlorobenzene	U	5.0	"							
1,1,1-Trichloroethane	U	5.0	"							
1,1,2-Trichloroethane	U	5.0	"							
Trichloroethene	U	5.0	"							
Trichlorofluoromethane	U	5.0	"							
1,2,3-Trichloropropane	U	5.0	"							
1,2,4-Trimethylbenzene	U	5.0	"							
1,3,5-Trimethylbenzene	U	5.0	"							
Vinyl acetate	U	5.0	"							
Vinyl chloride	U	5.0	"							
m-Xylene/p-Xylene	U	10.0	"							
o-Xylene	U	10.0	"							
Surrogate: 4-Bromofluorobenzene	*21.06*		"	*20.000*		*105*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*20.38*		"	*20.000*		*102*	*76-114*			
Surrogate: Toluene-d8	*19.87*		"	*20.000*		*99*	*88-110*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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701 Mapes Road
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Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Blank (BB41901-BLK2)				Prepared: 02/18/14 09:00	Analyzed: 02/18/14 16:32					
Acetone	U	5.0	ug/L							
Benzene	U	5.0	"							
Bromobenzene	U	5.0	"							
Bromochloromethane	U	5.0	"							
Bromodichloromethane	U	5.0	"							
Bromoform	U	5.0	"							
Bromomethane	U	5.0	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	5.0	"							
tert-Butylbenzene	U	5.0	"							
n-Butylbenzene	U	5.0	"							
Carbon disulfide	U	5.0	"							
Carbon Tetrachloride	U	5.0	"							
Chlorobenzene	U	5.0	"							
Chlorodibromomethane	U	5.0	"							
Chloroethane	U	5.0	"							
2-Chloroethylvinyl ether	U	10.0	"							
Chloroform	U	5.0	"							
Chloromethane	U	5.0	"							
2-Chlorotoluene	U	5.0	"							
4-Chlorotoluene	U	5.0	"							
Cyclohexane	U	5.0	"							
1,2-Dibromo-3-chloropropane	U	5.0	"							
1,2-Dibromoethane (EDB)	U	5.0	"							
Dibromomethane	U	5.0	"							
1,2-Dichlorobenzene	U	5.0	"							
1,3-Dichlorobenzene	U	5.0	"							
1,4-Dichlorobenzene	U	5.0	"							
Dichlorodifluoromethane	U	5.0	"							
1,1-Dichloroethane	U	5.0	"							
1,2-Dichloroethane	U	5.0	"							
1,1-Dichloroethene	U	5.0	"							
cis-1,2-Dichloroethene	U	5.0	"							
trans-1,2-Dichloroethene	U	5.0	"							
1,2-Dichloropropane	U	5.0	"							
1,3-Dichloropropane	U	5.0	"							
2,2-Dichloropropane	U	5.0	"							
1,1-Dichloropropene	U	5.0	"							
cis-1,3-Dichloropropene	U	5.0	"							
trans-1,3-Dichloropropene	U	5.0	"							
Ethylbenzene	U	5.0	"							
Freon 113	U	5.0	"							
Hexachlorobutadiene	U	5.0	"							

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Blank (BB41901-BLK2)				Prepared: 02/18/14 09:00		Analyzed: 02/18/14 16:32				
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	5.0	"							
p-Isopropyltoluene	U	5.0	"							
Methyl Acetate	U	5.0	"							
Methylcyclohexane	U	5.0	"							
Methyl-tert-butyl ether	U	5.0	"							
Methylene Chloride	U	5.0	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	5.0	"							
n-Propylbenzene	U	5.0	"							
Styrene	U	10.0	"							
1,1,2,2-Tetrachloroethane	U	5.0	"							
1,1,1,2-Tetrachloroethane	U	5.0	"							
Tetrachloroethene	U	5.0	"							
Toluene	U	5.0	"							
1,2,3-Trichlorobenzene	U	5.0	"							
1,2,4-Trichlorobenzene	U	5.0	"							
1,1,1-Trichloroethane	U	5.0	"							
1,1,2-Trichloroethane	U	5.0	"							
Trichloroethene	U	5.0	"							
Trichlorofluoromethane	U	5.0	"							
1,2,3-Trichloropropane	U	5.0	"							
1,2,4-Trimethylbenzene	U	5.0	"							
1,3,5-Trimethylbenzene	U	5.0	"							
Vinyl acetate	U	5.0	"							
Vinyl chloride	U	5.0	"							
m-Xylene/p-Xylene	U	10.0	"							
o-Xylene	U	10.0	"							
Surrogate: 4-Bromofluorobenzene	*20.39*		"	*20.000*		*102*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*20.32*		"	*20.000*		*102*	*76-114*			
Surrogate: Toluene-d8	*19.92*		"	*20.000*		*100*	*88-110*			

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Blank (BB41901-BLK3)				Prepared: 02/19/14 09:00	Analyzed: 02/19/14 12:18					
Acetone	U	5.0	ug/L							
Benzene	U	5.0	"							
Bromobenzene	U	5.0	"							
Bromochloromethane	U	5.0	"							
Bromodichloromethane	U	5.0	"							
Bromoform	U	5.0	"							
Bromomethane	U	5.0	"							
2-Butanone	U	5.0	"							
sec-Butylbenzene	U	5.0	"							
tert-Butylbenzene	U	5.0	"							
n-Butylbenzene	U	5.0	"							
Carbon disulfide	U	5.0	"							
Carbon Tetrachloride	U	5.0	"							
Chlorobenzene	U	5.0	"							
Chlorodibromomethane	U	5.0	"							
Chloroethane	U	5.0	"							
2-Chloroethylvinyl ether	U	10.0	"							
Chloroform	U	5.0	"							
Chloromethane	U	5.0	"							
2-Chlorotoluene	U	5.0	"							
4-Chlorotoluene	U	5.0	"							
Cyclohexane	U	5.0	"							
1,2-Dibromo-3-chloropropane	U	5.0	"							
1,2-Dibromoethane (EDB)	U	5.0	"							
Dibromomethane	U	5.0	"							
1,2-Dichlorobenzene	U	5.0	"							
1,3-Dichlorobenzene	U	5.0	"							
1,4-Dichlorobenzene	U	5.0	"							
Dichlorodifluoromethane	U	5.0	"							
1,1-Dichloroethane	U	5.0	"							
1,2-Dichloroethane	U	5.0	"							
1,1-Dichloroethene	U	5.0	"							
cis-1,2-Dichloroethene	U	5.0	"							
trans-1,2-Dichloroethene	U	5.0	"							
1,2-Dichloropropane	U	5.0	"							
1,3-Dichloropropane	U	5.0	"							
2,2-Dichloropropane	U	5.0	"							
1,1-Dichloropropene	U	5.0	"							
cis-1,3-Dichloropropene	U	5.0	"							
trans-1,3-Dichloropropene	U	5.0	"							
Ethylbenzene	U	5.0	"							
Freon 113	U	5.0	"							
Hexachlorobutadiene	U	5.0	"							

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Blank (BB41901-BLK3)				Prepared: 02/19/14 09:00		Analyzed: 02/19/14 12:18				
2-Hexanone	U	5.0	ug/L							
Isopropylbenzene	U	5.0	"							
p-Isopropyltoluene	U	5.0	"							
Methyl Acetate	U	5.0	"							
Methylcyclohexane	U	5.0	"							
Methyl-tert-butyl ether	U	5.0	"							
Methylene Chloride	U	5.0	"							
4-Methyl-2-pentanone	U	5.0	"							
Naphthalene	U	5.0	"							
n-Propylbenzene	U	5.0	"							
Styrene	U	10.0	"							
1,1,2,2-Tetrachloroethane	U	5.0	"							
1,1,1,2-Tetrachloroethane	U	5.0	"							
Tetrachloroethene	U	5.0	"							
Toluene	U	5.0	"							
1,2,3-Trichlorobenzene	U	5.0	"							
1,2,4-Trichlorobenzene	U	5.0	"							
1,1,1-Trichloroethane	U	5.0	"							
1,1,2-Trichloroethane	U	5.0	"							
Trichloroethene	U	5.0	"							
Trichlorofluoromethane	U	5.0	"							
1,2,3-Trichloropropane	U	5.0	"							
1,2,4-Trimethylbenzene	U	5.0	"							
1,3,5-Trimethylbenzene	U	5.0	"							
Vinyl acetate	U	5.0	"							
Vinyl chloride	U	5.0	"							
m-Xylene/p-Xylene	U	10.0	"							
o-Xylene	U	10.0	"							
Surrogate: 4-Bromofluorobenzene	*20.34*		"	*20.000*		*102*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*19.81*		"	*20.000*		*99*	*76-114*			
Surrogate: Toluene-d8	*19.74*		"	*20.000*		*99*	*88-110*			

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
LCS (BB41901-BS1)				Prepared: 02/18/14 09:00			Analyzed: 02/18/14 15:15			
Acetone	U	5.0	ug/L				80-120			
Benzene	18.61	5.0	"	20.000		93	80-120			
Bromobenzene	21.09	5.0	"	20.000		105	80-120			
Bromochloromethane	18.07	5.0	"	20.000		90	80-120			
Bromodichloromethane	20.42	5.0	"	20.000		102	80-120			
Bromoform	19.75	5.0	"	20.000		99	80-120			
Bromomethane	18.97	5.0	"	20.000		95	80-120			
2-Butanone	U	5.0	"				80-120			
sec-Butylbenzene	20.57	5.0	"	20.000		103	80-120			
tert-Butylbenzene	21.25	5.0	"	20.000		106	80-120			
n-Butylbenzene	20.61	5.0	"	20.000		103	80-120			
Carbon disulfide	U	5.0	"				80-120			
Carbon Tetrachloride	17.60	5.0	"	20.000		88	80-120			
Chlorobenzene	20.32	5.0	"	20.000		102	80-120			
Chlorodibromomethane	18.13	5.0	"	20.000		91	80-120			
Chloroethane	18.51	5.0	"	20.000		93	80-120			
2-Chloroethylvinyl ether	U	10.0	"				80-120			
Chloroform	19.01	5.0	"	20.000		95	80-120			
Chloromethane	19.13	5.0	"	20.000		96	80-120			
2-Chlorotoluene	20.88	5.0	"	20.000		104	80-120			
4-Chlorotoluene	21.10	5.0	"	20.000		106	80-120			
Cyclohexane	U	5.0	"				80-120			
1,2-Dibromo-3-chloropropane	19.80	5.0	"	20.000		99	80-120			
1,2-Dibromoethane (EDB)	19.73	5.0	"	20.000		99	80-120			
Dibromomethane	19.45	5.0	"	20.000		97	80-120			
1,2-Dichlorobenzene	20.70	5.0	"	20.000		104	80-120			
1,3-Dichlorobenzene	20.49	5.0	"	20.000		102	80-120			
1,4-Dichlorobenzene	20.79	5.0	"	20.000		104	80-120			
Dichlorodifluoromethane	25.64	5.0	"	20.000		128	80-120			A
1,1-Dichloroethane	18.50	5.0	"	20.000		92	80-120			
1,2-Dichloroethane	19.04	5.0	"	20.000		95	80-120			
1,1-Dichloroethene	18.94	5.0	"	20.000		95	80-120			
cis-1,2-Dichloroethene	18.30	5.0	"	20.000		92	80-120			
trans-1,2-Dichloroethene	18.32	5.0	"	20.000		92	80-120			
1,2-Dichloropropane	19.87	5.0	"	20.000		99	80-120			
1,3-Dichloropropane	20.09	5.0	"	20.000		100	80-120			
2,2-Dichloropropane	16.18	5.0	"	20.000		81	80-120			
1,1-Dichloropropene	18.42	5.0	"	20.000		92	80-120			
cis-1,3-Dichloropropene	18.52	5.0	"	20.000		93	80-120			
trans-1,3-Dichloropropene	18.23	5.0	"	20.000		91	80-120			
Ethylbenzene	20.55	5.0	"	20.000		103	80-120			
Freon 113	U	5.0	"				80-120			
Hexachlorobutadiene	20.95	5.0	"	20.000		105	80-120			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
LCS (BB41901-BS1)				Prepared: 02/18/14 09:00		Analyzed: 02/18/14 15:15				
2-Hexanone	U	5.0	ug/L				80-120			
Isopropylbenzene	20.59	5.0	"	20.000		103	80-120			
p-Isopropyltoluene	21.18	5.0	"	20.000		106	80-120			
Methyl Acetate	U	5.0	"				80-120			
Methylcyclohexane	U	5.0	"				80-120			
Methyl-tert-butyl ether	U	5.0	"				80-120			
Methylene Chloride	17.70	5.0	"	20.000		88	80-120			
4-Methyl-2-pentanone	U	5.0	"				80-120			
Naphthalene	20.33	5.0	"	20.000		102	80-120			
n-Propylbenzene	20.57	5.0	"	20.000		103	80-120			
Styrene	18.78	10.0	"	20.000		94	80-120			
1,1,2,2-Tetrachloroethane	19.80	5.0	"	20.000		99	80-120			
1,1,1,2-Tetrachloroethane	20.01	5.0	"	20.000		100	80-120			
Tetrachloroethene	20.19	5.0	"	20.000		101	80-120			
Toluene	19.78	5.0	"	20.000		99	80-120			
1,2,3-Trichlorobenzene	20.14	5.0	"	20.000		101	80-120			
1,2,4-Trichlorobenzene	20.54	5.0	"	20.000		103	80-120			
1,1,1-Trichloroethane	17.60	5.0	"	20.000		88	80-120			
1,1,2-Trichloroethane	20.33	5.0	"	20.000		102	80-120			
Trichloroethene	19.60	5.0	"	20.000		98	80-120			
Trichlorofluoromethane	18.66	5.0	"	20.000		93	80-120			
1,2,3-Trichloropropane	21.90	5.0	"	20.000		110	80-120			
1,2,4-Trimethylbenzene	21.30	5.0	"	20.000		106	80-120			
1,3,5-Trimethylbenzene	20.82	5.0	"	20.000		104	80-120			
Vinyl acetate	U	5.0	"				80-120			
Vinyl chloride	21.56	5.0	"	20.000		108	80-120			
m-Xylene/p-Xylene	40.40	10.0	"	40.000		101	80-120			
o-Xylene	19.60	10.0	"	20.000		98	80-120			
Surrogate: 4-Bromofluorobenzene	*19.45*		"	*20.000*		*97*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*19.73*		"	*20.000*		*99*	*76-114*			
Surrogate: Toluene-d8	*19.81*		"	*20.000*		*99*	*88-110*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: West Virginia Chemical Leak **Project #:** DAS R34317

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Matrix Spike (BB41901-MS1)		**Source: 1401014-12**		Prepared: 02/19/14 09:00		Analyzed: 02/19/14 14:58				
Acetone	25.00		ug/L	20.000	1.83	116	70-130			
Benzene	20.43		"	20.000	0.02	102	76-127			
Bromobenzene	20.69		"	20.000	0.00	103	70-130			
Bromochloromethane	19.85		"	20.000	0.00	99	70-130			
Bromodichloromethane	20.05		"	20.000	0.00	100	70-130			
Bromoform	19.99		"	20.000	0.00	100	70-130			
Bromomethane	21.58		"	20.000	0.00	108	70-130			
2-Butanone	21.32		"	20.000	0.00	107	70-130			
sec-Butylbenzene	20.91		"	20.000	0.30	103	70-130			
tert-Butylbenzene	20.44		"	20.000	0.06	102	70-130			
n-Butylbenzene	21.56		"	20.000	0.53	105	70-130			
Carbon disulfide	19.76		"	20.000	0.00	99	70-130			
Carbon Tetrachloride	18.98		"	20.000	0.00	95	70-130			
Chlorobenzene	19.79		"	20.000	0.00	99	75-130			
Chlorodibromomethane	18.41		"	20.000	0.00	92	70-130			
Chloroethane	20.66		"	20.000	0.00	103	70-130			
2-Chloroethylvinyl ether	22.91		"	20.000	0.00	115	70-130			
Chloroform	20.12		"	20.000	0.00	101	70-130			
Chloromethane	20.85		"	20.000	0.00	104	70-130			
2-Chlorotoluene	20.08		"	20.000	0.00	100	70-130			
4-Chlorotoluene	20.34		"	20.000	0.00	102	70-130			
Cyclohexane	21.41		"	20.000	0.95	102	70-130			
1,2-Dibromo-3-chloropropane	19.84		"	20.000	0.00	99	70-130			
1,2-Dibromoethane (EDB)	20.44		"	20.000	0.00	102	70-130			
Dibromomethane	20.36		"	20.000	0.00	102	70-130			
1,2-Dichlorobenzene	20.78		"	20.000	0.00	104	70-130			
1,3-Dichlorobenzene	20.09		"	20.000	0.00	100	70-130			
1,4-Dichlorobenzene	20.32		"	20.000	0.00	102	70-130			
Dichlorodifluoromethane	21.49		"	20.000	0.00	107	70-130			
1,1-Dichloroethane	20.09		"	20.000	0.00	100	70-130			
1,2-Dichloroethane	19.92		"	20.000	0.00	100	70-130			
1,1-Dichloroethene	19.77		"	20.000	0.00	99	61-145			
cis-1,2-Dichloroethene	20.90		"	20.000	0.00	104	70-130			
trans-1,2-Dichloroethene	20.40		"	20.000	0.00	102	70-130			
1,2-Dichloropropane	20.26		"	20.000	0.00	101	70-130			
1,3-Dichloropropane	20.07		"	20.000	0.00	100	70-130			
2,2-Dichloropropane	19.17		"	20.000	0.00	96	70-130			
1,1-Dichloropropene	20.47		"	20.000	0.00	102	70-130			
cis-1,3-Dichloropropene	19.33		"	20.000	0.00	97	70-130			
trans-1,3-Dichloropropene	17.69		"	20.000	0.00	88	70-130			
Ethylbenzene	20.51		"	20.000	0.34	101	70-130			
Freon 113	20.51		"	20.000	0.00	103	70-130			
Hexachlorobutadiene	20.51		"	20.000	0.00	103	70-130			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Matrix Spike (BB41901-MS1)		**Source: 1401014-12**		Prepared: 02/19/14 09:00		Analyzed: 02/19/14 14:58				
2-Hexanone	21.48		ug/L	20.000	0.00	107	70-130			
Isopropylbenzene	20.72		"	20.000	1.07	98	70-130			
p-Isopropyltoluene	20.68		"	20.000	0.22	102	70-130			
Methyl Acetate	21.78		"	20.000	0.00	109	70-130			
Methylcyclohexane	24.09		"	20.000	3.79	102	70-130			
Methyl-tert-butyl ether	20.45		"	20.000	0.00	102	70-130			
Methylene Chloride	20.98		"	20.000	0.00	105	70-130			
4-Methyl-2-pentanone	20.44		"	20.000	0.00	102	70-130			
Naphthalene	23.47		"	20.000	1.59	109	70-130			
n-Propylbenzene	23.07		"	20.000	3.11	100	70-130			
Styrene	39.63		"	40.000	0.00	99	70-130			
1,1,2,2-Tetrachloroethane	20.57		"	20.000	0.00	103	70-130			
1,1,1,2-Tetrachloroethane	18.89		"	20.000	0.00	94	70-130			
Tetrachloroethene	20.02		"	20.000	0.00	100	70-130			
Toluene	20.39		"	20.000	0.02	102	76-125			
1,2,3-Trichlorobenzene	20.58		"	20.000	0.00	103	70-130			
1,2,4-Trichlorobenzene	21.49		"	20.000	0.00	107	70-130			
1,1,1-Trichloroethane	19.00		"	20.000	0.00	95	70-130			
1,1,2-Trichloroethane	19.86		"	20.000	0.00	99	70-130			
Trichloroethene	20.38		"	20.000	0.00	102	71-120			
Trichlorofluoromethane	20.84		"	20.000	0.00	104	70-130			
1,2,3-Trichloropropane	20.44		"	20.000	0.00	102	70-130			
1,2,4-Trimethylbenzene	37.06		"	20.000	15.08	110	70-130			
1,3,5-Trimethylbenzene	21.00		"	20.000	0.37	103	70-130			
Vinyl acetate	19.56		"	20.000	0.00	98	70-130			
Vinyl chloride	21.43		"	20.000	0.00	107	70-130			
m-Xylene/p-Xylene	40.09		"	40.000	0.05	100	70-130			
o-Xylene	39.79		"	40.000	0.02	99	70-130			
Surrogate: 4-Bromofluorobenzene	*19.57*		"	*20.000*		*98*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*19.30*		"	*20.000*		*96*	*76-114*			
Surrogate: Toluene-d8	*19.30*		"	*20.000*		*96*	*88-110*			

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Matrix Spike Dup (BB41901-MSD1)		**Source: 1401014-12**		Prepared: 02/19/14 09:00		Analyzed: 02/19/14 15:25				
Acetone	23.14		ug/L	20.000	1.83	107	70-130	8	20	
Benzene	19.58		"	20.000	0.02	98	76-127	4	11	
Bromobenzene	19.03		"	20.000	0.00	95	70-130	8	20	
Bromochloromethane	19.72		"	20.000	0.00	99	70-130	0.7	20	
Bromodichloromethane	18.89		"	20.000	0.00	94	70-130	6	20	
Bromoform	18.42		"	20.000	0.00	92	70-130	8	20	
Bromomethane	20.59		"	20.000	0.00	103	70-130	5	20	
2-Butanone	21.51		"	20.000	0.00	108	70-130	0.9	20	
sec-Butylbenzene	20.24		"	20.000	0.30	100	70-130	3	20	
tert-Butylbenzene	20.06		"	20.000	0.06	100	70-130	2	20	
n-Butylbenzene	20.93		"	20.000	0.53	102	70-130	3	20	
Carbon disulfide	18.90		"	20.000	0.00	94	70-130	4	20	
Carbon Tetrachloride	18.09		"	20.000	0.00	90	70-130	5	20	
Chlorobenzene	18.85		"	20.000	0.00	94	75-130	5	13	
Chlorodibromomethane	16.94		"	20.000	0.00	85	70-130	8	20	
Chloroethane	20.11		"	20.000	0.00	101	70-130	3	20	
2-Chloroethylvinyl ether	23.21		"	20.000	0.00	116	70-130	1	20	
Chloroform	18.88		"	20.000	0.00	94	70-130	6	20	
Chloromethane	20.72		"	20.000	0.00	104	70-130	0.6	20	
2-Chlorotoluene	19.61		"	20.000	0.00	98	70-130	2	20	
4-Chlorotoluene	19.66		"	20.000	0.00	98	70-130	3	20	
Cyclohexane	20.36		"	20.000	0.95	97	70-130	5	20	
1,2-Dibromo-3-chloropropane	18.53		"	20.000	0.00	93	70-130	7	20	
1,2-Dibromoethane (EDB)	18.63		"	20.000	0.00	93	70-130	9	20	
Dibromomethane	19.35		"	20.000	0.00	97	70-130	5	20	
1,2-Dichlorobenzene	19.86		"	20.000	0.00	99	70-130	5	20	
1,3-Dichlorobenzene	19.05		"	20.000	0.00	95	70-130	5	20	
1,4-Dichlorobenzene	19.67		"	20.000	0.00	98	70-130	3	20	
Dichlorodifluoromethane	21.10		"	20.000	0.00	106	70-130	2	20	
1,1-Dichloroethane	19.18		"	20.000	0.00	96	70-130	5	20	
1,2-Dichloroethane	19.22		"	20.000	0.00	96	70-130	4	20	
1,1-Dichloroethene	19.41		"	20.000	0.00	97	61-145	2	14	
cis-1,2-Dichloroethene	19.73		"	20.000	0.00	99	70-130	6	20	
trans-1,2-Dichloroethene	19.99		"	20.000	0.00	100	70-130	2	20	
1,2-Dichloropropane	18.74		"	20.000	0.00	94	70-130	8	20	
1,3-Dichloropropane	19.08		"	20.000	0.00	95	70-130	5	20	
2,2-Dichloropropane	18.33		"	20.000	0.00	92	70-130	4	20	
1,1-Dichloropropene	19.59		"	20.000	0.00	98	70-130	4	20	
cis-1,3-Dichloropropene	18.57		"	20.000	0.00	93	70-130	4	20	
trans-1,3-Dichloropropene	17.40		"	20.000	0.00	87	70-130	2	20	
Ethylbenzene	19.40		"	20.000	0 34	95	70-130	6	20	
Freon 113	19.60		"	20.000	0.00	98	70-130	5	20	
Hexachlorobutadiene	20.23		"	20.000	0.00	101	70-130	1	20	

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Volatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB41901 - VOC Purge and Trap										
Matrix Spike Dup (BB41901-MSD1)	**Source: 1401014-12**			Prepared: 02/19/14 09:00		Analyzed: 02/19/14 15:25				
2-Hexanone	21.48		ug/L	20.000	0.00	107	70-130	0	20	
Isopropylbenzene	20.04		"	20.000	1.07	95	70-130	3	20	
p-Isopropyltoluene	20.17		"	20.000	0.22	100	70-130	2	20	
Methyl Acetate	20.43		"	20.000	0.00	102	70-130	6	20	
Methylcyclohexane	23.11		"	20.000	3.79	97	70-130	4	20	
Methyl-tert-butyl ether	19.52		"	20.000	0.00	98	70-130	5	20	
Methylene Chloride	19.85		"	20.000	0.00	99	70-130	6	20	
4-Methyl-2-pentanone	20.52		"	20.000	0.00	103	70-130	0.4	20	
Naphthalene	24.03		"	20.000	1.59	112	70-130	2	20	
n-Propylbenzene	22.59		"	20.000	3.11	97	70-130	2	20	
Styrene	37.77		"	40.000	0.00	94	70-130	5	20	
1,1,2,2-Tetrachloroethane	19.76		"	20.000	0.00	99	70-130	4	20	
1,1,1,2-Tetrachloroethane	18.51		"	20.000	0.00	93	70-130	2	20	
Tetrachloroethene	19.00		"	20.000	0.00	95	70-130	5	20	
Toluene	19.10		"	20.000	0.02	95	76-125	7	13	
1,2,3-Trichlorobenzene	20.35		"	20.000	0.00	102	70-130	1	20	
1,2,4-Trichlorobenzene	20.68		"	20.000	0.00	103	70-130	4	20	
1,1,1-Trichloroethane	18.85		"	20.000	0.00	94	70-130	0.8	20	
1,1,2-Trichloroethane	18.83		"	20.000	0.00	94	70-130	5	20	
Trichloroethene	19.52		"	20.000	0.00	98	71-120	4	14	
Trichlorofluoromethane	20.37		"	20.000	0.00	102	70-130	2	20	
1,2,3-Trichloropropane	19.83		"	20.000	0.00	99	70-130	3	20	
1,2,4-Trimethylbenzene	37.11		"	20.000	15.08	110	70-130	0.1	20	
1,3,5-Trimethylbenzene	20.33		"	20.000	0.37	100	70-130	3	20	
Vinyl acetate	20.21		"	20.000	0.00	101	70-130	3	20	
Vinyl chloride	20.36		"	20.000	0.00	102	70-130	5	20	
m-Xylene/p-Xylene	37.96		"	40.000	0.05	95	70-130	5	20	
o-Xylene	37.87		"	40.000	0.02	95	70-130	5	20	
Surrogate: 4-Bromofluorobenzene	*19.90*		*"*	*20.000*		*100*	*86-115*			
Surrogate: 1,2-Dichloroethane-d4	*19.63*		*"*	*20.000*		*98*	*76-114*			
Surrogate: Toluene-d8	*19.19*		*"*	*20.000*		*96*	*88-110*			

Site Name: West Virginia Chemical Leak **Project #: DAS R34317**

Notes and Definitions

UJ	The analyte was not detected at or above the quantitation limit. The quantitation limit is an estimate.
TD	Spike concentration is too dilute for accurate quantitation resulting in inaccurate recovery calculations..
T	Tentatively Identified Compound. Identified as a result of a library search using the EPA/NIST Mass Spectral Library. Standards were not used to verify the identity and quantity of the compound. The reported value is an estimate.
J	The identification of the analyte is acceptable; the reported value is an estimate.
H2	This sample was extracted outside of the EPA recommended holding time.
C	See narrative for comments and observations concerning this result.
B	Not detected substantially above (10 times) the level reported in the laboratory or field blanks (including field, trip, rinsate, and equipment blanks).
A	Quality control value is outside acceptance limits.
%REC	Percent Recovery
RPD	Relative Percent Difference
U	Analyte included in the analysis, but not detected at or above the quantitation limit.
NR	Not Reported

QUANTITATION LIMIT: The lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method and that takes into account analytical adjustments made during sample preparation and analysis.

SOLID SAMPLE RESULTS - REPORTING PROTOCOL: Solid samples where % Solids (percent dry wt at 105 degrees C) has been performed, are analyzed wet and converted to a dry weight result for reporting purposes. This is routine for organics and most inorganic analyses. When metals and mercury analyses are requested, solid samples are routinely analyzed and reported on a dry weight basis. Solid samples for metals/mercury are prepared for analysis by an initial drying at 60 degree C and homogenization before digestion. Oil-type samples will be analyzed and reported on a wet weight basis for all analyses because of the nature of the sample. Any exceptions to the protocol will be noted with a qualifier

ON-DEMAND: The term 'on-demand' analysis, if noted in the report narrative, refers to Section 13.1.4 in the Region III OASQA Laboratory Quality Manual, which provides procedures for non-routine analyses or analytes.

Caporale, Cynthia

From: Caporale, Cynthia
Sent: Friday, February 28, 2014 3:05 PM
To: Matlock, Dennis; 'gnance@techlawinc.com'; Kelly, Jack (R3 Phila.); Linden, melissa
Cc: Poff, Kevin; Warner, Sue; Costas, Robin
Subject: West Virginia Chemical Leak WO# 1401014 R34317
Attachments: 1401014 FINAL R34317 02 28 14 1447.pdf

Categories: Element/Reporting

This e-mail serves as notification that the Office of Analytical Services and Quality Assurance (OASQA) Laboratory Final Results (Final Report) for **Work Order 1401014, West Virginia Chemical Leak Site** have been released. Please see the attached PDF file. Due to the significant amount of tentatively identified compounds (TICs) the EDD file will be distributed in a separate email.

Please contact me at 410/305-2732, or Kevin Poff 410/305-2938, if you experience delivery problems with your report or to provide feedback. A copy of this e-mail will be retained in the case file.

Cynthia Caporale, Chief
OASQA Laboratory Branch
U.S. EPA Region III
Environmental Science Center
Fort Meade, MD
(410) 305-2732
Fax: (410) 305-3095

Freedom_0005790_0150

Ex. 5 - Deliberative

Ex. 5 - Deliberative

U.S EPA Region III Analytical Request Form

Revision 11.09

OASQA USE ONLY			
Control #	**CT6665**	**RAS #**	
DAS#	**R34317**	**NSF #**	
PES #		**Analytical TAT**	**14 days**

Date: 1/27/14	Site Activity: Removal Site Evaluation		
Site Name: West Virginia Chemical Leak		Street Address: 1015 Barlow Street	
City: Charleston	State: WV 25311	Latitude:	Longitude:
Program: Superfund	Acct. #: 2014 T03N303DC6A3XKRS00	CERCLIS #: Pending	
Site ID: Unknown	Spill ID: A3XK	Operable Unit: 00	
Site Specific QA Plan Submitted: ☐ No ☒ Yes	Title: Sampling QA/QC Work Plan		Date Approved: Jan 27, 2014
EPA Project Leader: Dennis Matlock	Phone#: 304-280-7500	Cell Phone #: 304-280-7500	E-mail: matlock.dennis@epa.gov
Request Preparer: Ex. 4 - CBI	Phone#: Ex. 4 - CBI	Cell Phone # Ex. 4 - CBI	E-mail Ex. 4 - CBI
Site Leader: Ex. 4 - CBI	Phone#:	Cell Phone #	E-mail
Contractor: TechLaw, Inc.		EPA CO/PO: Denise T. Paige /Karen Esposito	

#Samples 5	Matrix: surface water	Parameter: MCHM*; PPH** constituents	Method: OASQA SOP
#Samples 6	Matrix: surface water	Parameter: TCL Trace VOCs + TICs	Method: SOM01.2 or equiv. OASQA SOP
#Samples 7	Matrix: Groundwater	Parameter: MCHM*; PPH** constituents	Method: OASQA SOP
#Samples 7	Matrix: Groundwater	Parameter: TCL Trace VOCs + TICs	Method: SOM01.2 or equiv. OASQA SOP
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:
#Samples	Matrix:	Parameter:	Method:

Ship Date From: January 29, 2014	Ship Date To: January 30, 2014	Org. Validation Level M2	Inorg. Validation Level

Unvalidated Data Requested: ☐ No ☒ Yes If Yes, TAT Needed: ☒ 14days ☐ 7days ☐ 72hrs ☐ 48hrs ☐ 24hrs ☒ Other (Specify) **14 days**

Validated Data Package Due: ☐ 42 days ☐ 30 days ☐ 21days ☒ 14 days ☐ Other (Specify)

Electronic Data Deliverables Required: ☐ No ☒ Yes (EDDs will be provided in Region 3 EDD Format)

Special Instructions: OSC Melissa Linden made arrangements for analysis of samples at OASQA with Ms. Cynthia Caporale.
* crude MCHM consists of 4-methylcyclohexanemethanol and other compounds (MSDS attached).
** PPH consists of propylene glycol phenyl ether, dipropylene glycol phenyl ether, and polypropylene glycol phenyl ether (MSDS attached).

TCL for VOCs attached.

WORK ORDER

Printed: 2/19/2014 1:11:20PM

1401014

U.S. EPA Region 3 - FOR INTERNAL USE ONLY

Client: OSWER - Emergency Response
Project: DAS R34317
Final Report Due: 02/25/2014

Project Manager: Cindy Caporale
Site Name: West Virginia Chemical Leak
Acct#:

Report To:
Client Project Manager: Dennis Matlock
Email: matlock.dennis@epa.gov
Phone: (304)280-7500
Fax: -

Project /WO Comments
Shipping 1/30/14
14 Day Unvalidated
14 Day Validated

Shelf
Analyst

Received By: John Curry
Date Received: 01/30/14 11:45
Temperature Samples Received at: 4°C
Custody Seals Yes
Containers Intact No
COC/Labels Agree Yes
Preservation Confirmed Yes

Received On Ice Yes
Radiation Checked Yes

Relinquished By: Gene Nance

ESAT INFO ONLY

Preliminary Report Due Date _____
ESAT Due Date _____
_____Complete _____ Not Complete
_____Need TDF _____TDF #

Sample# 1401014-01
Sample Name: CU
Sample Type: SAM

Lab\Report Matrix Water\Surface Water
Date Sampled 01/29/14 14:00

Sample Logged In: 01/30/14 12:31
Sample Received: 01/30/14 11:45

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	07/28/14 14:00	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/05/14 14:00	**Analyzed**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent (trace)	**Expires:**	02/12/14 14:00	**Analyzed**
	Analysis Comments:		
	Sample Comments:		

Freedom_0005790_0154

Sample#	1401014-02	**Lab\Report Matrix**	Water\Surface Water	**Sample Logged In:**	01/30/14 12:31
Sample Name:	CD	**Date Sampled**	01/29/14 14:55	**Sample Received:**	01/30/14 11:45
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	07/28/14 14:55	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/05/14 14:55	**Analyzed**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent (trace)	**Expires:**	02/12/14 14:55	**Analyzed**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-03	**Lab\Report Matrix**	Water\Surface Water	**Sample Logged In:**	01/30/14 12:31
Sample Name:	CD1	**Date Sampled**	01/29/14 15:05	**Sample Received:**	01/30/14 11:45
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	07/28/14 15:05	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/05/14 15:05	**Analyzed**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent (trace)	**Expires:**	02/12/14 15:05	**Analyzed**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-04	**Lab\Report Matrix**	Water\Water	**Sample Logged In:**	01/30/14 12:31
Sample Name:	FB01	**Date Sampled**	01/29/14 14:30	**Sample Received:**	01/30/14 11:45
Sample Type:	FRB				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	07/28/14 14:30	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/05/14 14:30	**Analyzed**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent (trace)	**Expires:**	02/12/14 14:30	**Analyzed**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-05	**Lab\Report Matrix**	Water\Surface Water	**Sample Logged In:**	01/30/14 12:31
Sample Name:	TB01	**Date Sampled**	01/28/14 21:15	**Sample Received:**	01/30/14 11:45
Sample Type:	TRP				

	Sampled By:	Ex. 4 - CBI	
VOCs by CLP Equivalent (trace)	**Expires:**	02/11/14 21:15	**Analyzed**
	Analysis Comments:		
	Sample Comments:		

Freedom_0005790_0155

Sample#	1401014-06	**Lab\Report Matrix**	Water\Water	**Sample Logged In:**	02/04/14 12:15
Sample Name:	Pipe-1	**Date Sampled**	01/31/14 12:45	**Sample Received:**	02/04/14 11:45
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	07/30/14 12:45	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:	**1 broken 1 liter bottle**	
SVOCs by SW846 8270D	**Expires:**	02/07/14 12:45	**Analyzed**
	Analysis Comments:		
	Sample Comments:	**1 broken 1 liter bottle**	
VOCs by CLP Equivalent	**Expires:**	02/14/14 12:45	**Analyzed**
	Analysis Comments:		
	Sample Comments:	**1 broken 1 liter bottle**	

Sample#	1401014-07	**Lab\Report Matrix**	Water\Groundwater	**Sample Logged In:**	02/04/14 12:15
Sample Name:	Seep-1	**Date Sampled**	02/01/14 11:45	**Sample Received:**	02/04/14 11:45
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	07/31/14 11:45	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/08/14 11:45	**Analyzed**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent (trace)	**Expires:**	02/15/14 11:45	**Analyzed**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-08	**Lab\Report Matrix**	Water\Water	**Sample Logged In:**	02/04/14 12:15
Sample Name:	TB02	**Date Sampled**	01/31/14 18:45	**Sample Received:**	02/04/14 11:45
Sample Type:	TRP				

	Sampled By:	Ex. 4 - CBI	
VOCs by CLP Equivalent (trace)	**Expires:**	02/14/14 18:45	**Analyzed**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-09	**Lab\Report Matrix**	Water\Groundwater	**Sample Logged In:**	02/07/14 14:00
Sample Name:	MW-2	**Date Sampled**	02/06/14 18:16	**Sample Received:**	02/07/14 12:15
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	08/05/14 18:16	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:	**Sediment in samples.**	
SVOCs by SW846 8270D	**Expires:**	02/13/14 18:16	**Batched**
	Analysis Comments:		
	Sample Comments:	**Sediment in samples.**	
VOCs by CLP Equivalent (trace)	**Expires:**	02/20/14 18:16	**Batched**
	Analysis Comments:		
	Sample Comments:	**Sediment in samples.**	

Sample#	1401014-10	**Lab\Report Matrix**	Water\Water	**Sample Logged In:**	02/07/14 14:00
Sample Name:	TB03	**Date Sampled**	02/03/14 20:15	**Sample Received:**	02/07/14 12:15
Sample Type:	TRP				

	Sampled By:	Ex. 4 - CBI	
VOCs by CLP Equivalent (trace)	**Expires:**	02/17/14 20:15	**Batched**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-11	**Lab\Report Matrix**	Water\Water	**Sample Logged In:**	02/11/14 13:00
Sample Name:	TB04	**Date Sampled**	02/06/14 22:10	**Sample Received:**	02/11/14 11:45
Sample Type:	TRP				

	Sampled By:	Ex. 4 - CBI	
VOCs by CLP Equivalent (trace)	**Expires:**	02/20/14 22:10	**Batched**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-12	**Lab\Report Matrix**	Water\Groundwater	**Sample Logged In:**	02/11/14 13:00
Sample Name:	MW-5	**Date Sampled**	02/07/14 12:16	**Sample Received:**	02/11/14 11:45
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	08/06/14 12:16	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/14/14 12:16	**Batched**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent	**Expires:**	02/21/14 12:16	**Received**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-13	**Lab\Report Matrix**	Water\Groundwater	**Sample Logged In:**	02/11/14 13:00
Sample Name:	MW-6	**Date Sampled**	02/07/14 15:00	**Sample Received:**	02/11/14 11:45
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	08/06/14 15:00	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/14/14 15:00	**Batched**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent	**Expires:**	02/21/14 15:00	**Received**
	Analysis Comments:		
	Sample Comments:		

Freedom_0005790_0157

Sample#	1401014-14	**Lab\Report Matrix**	Water\Groundwater	**Sample Logged In:**	02/11/14 13:00
Sample Name:	MW-3	**Date Sampled**	02/08/14 10:55	**Sample Received:**	02/11/14 11:45
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	08/07/14 10:55	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/15/14 10:55	**Batched**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent	**Expires:**	02/22/14 10:55	**Received**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-15	**Lab\Report Matrix**	Water\Groundwater	**Sample Logged In:**	02/11/14 13:00
Sample Name:	MW-4	**Date Sampled**	02/08/14 09:10	**Sample Received:**	02/11/14 11:45
Sample Type:	SAM				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	08/07/14 09:10	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/15/14 09:10	**Batched**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent	**Expires:**	02/22/14 09:10	**Received**
	Analysis Comments:		
	Sample Comments:		

Sample#	1401014-16	**Lab\Report Matrix**	Water\Water	**Sample Logged In:**	02/11/14 13:00
Sample Name:	FB02	**Date Sampled**	02/08/14 10:18	**Sample Received:**	02/11/14 11:45
Sample Type:	FRB				

	Sampled By:	Ex. 4 - CBI	
HPLC Identification Scan	**Expires:**	08/07/14 10:18	**Batched**
	Analysis Comments:	5 SW, 7 GW MHCH, PPH Constituents	
	Sample Comments:		
SVOCs by SW846 8270D	**Expires:**	02/15/14 10:18	**Batched**
	Analysis Comments:		
	Sample Comments:		
VOCs by CLP Equivalent (trace)	**Expires:**	02/22/14 10:18	**Batched**
	Analysis Comments:		
	Sample Comments:		

Curry, John

From: Zawodny, Peggy
Sent: Wednesday, February 19, 2014 12:43 PM
To: Curry, John
Subject: RE: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO# 1401014

Hi John,
Please re-assign the following four samples to Element method "VOCs by CLP equivalent." This change is needed due to the higher level of material in the samples. As we discussed, this method assignment has been pre-approved by the client.
Thanks.
1401014-12
1401014-13
1401014-14
1401014-15

From: Curry, John
Sent: Tuesday, February 11, 2014 1:45 PM
To: Gundersen, Jennifer; Poff, Kevin; Graybill, Eric; Zawodny, Peggy
Cc: Wilding, Stevie; Caporale, Cynthia
Subject: FW: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO#1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Surface water	6	-	PZ/SW	G 206
SVOCs by SW846 8270D	Surface water	5	-	ERG	G 206
HPLC Identification Scan	Surface water	5	-	JG	G 206

Temperature Blank: 4 °C and 3 °C
Due Date: Unvalidated: 02/25/2014 Final: 02/25/14

Comments: Case is Complete.

USEPA CLP Generic COC (LAB COPY)

DateShipped: 1/29/2014
CarrierName: FedEx
AirbillNo: 7977 6428 0770

CHAIN OF CUSTODY RECORD

Project Code: CT6665
DAS #: R34317

No: 3-012914-144215-0001

Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
CU	R34317-01	Surface Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1000 (4 C), 1001 (4 C), 1002 (4 C), 1003 (4 C), 1004 (4 C) (5)	CU	01/29/2014 14:00	WO 1401014-01
CD	R34317-02	Surface Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1005 (4 C), 1006 (4 C), 1007 (4 C), 1008 (4 C), 1009 (4 C) (5)	CD	01/29/2014 14:55	-02
CD1	R34317-03	Surface Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1010 (4 C), 1011 (4 C), 1012 (4 C), 1013 (4 C), 1014 (4 C) (5)	CD1	01/29/2014 15:05	-03
FB01	R34317-04	Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1015 (4 C), 1016 (4 C), 1017 (4 C), 1018 (4 C), 1019 (4 C) (5)	FB01	01/29/2014 14:30	-04
TB01	R34317-05	Surface Water/ Gene Nance	Grab	TVOA+TIC(14)	1020 (4 C), 1021 (4 C), 1022 (4 C) (3)	TB01	01/28/2014 21:15	-05

Special Instructions: [illegible]

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TVOA+TIC=TCL Trace Volatiles + TIC, MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible] / Tech Lab	1-29-14/1830	John D Curry / EPA R III	1/30/14 1145	Temp Blank 3°C 1/30/14

USEPA CLP Generic COC (LAB COPY)

DateShipped: 2/3/2014
CarrierName: FedEx
AirbillNo: 7977 9894 8823

CHAIN OF CUSTODY RECORD

Project Code: CT6665
DAS #: R34317

No: 3-020314-133918-0002

Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
Pipe-1	R34317-06	Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1023 (4 C), 1024 (4 C), 1025 (4 C), 1026 (4 C), 1027 (4 C), 1028 (4 C), 1029 (4 C), 1030 (4 C), 1031 (4 C), 1032 (4 C) (10)	Pipe-1	01/31/2014 12:45	1401014-06
Seep-1	R34317-07	Ground Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1033 (4 C), 1034 (4 C), 1035 (4 C), 1036 (4 C), 1037 (4 C) (5)	Seep-1	02/01/2014 11:45	-07
TB02	R34317-08	Water/ Gene Nance	Grab	TVOA+TIC(14)	1038 (4 C), 1039 (4 C), 1040 (4 C) (3)	TB02	01/31/2014 18:45	-08

Sample(s) to be used for Lab QC: Pipe-1 Tag 1023, Pipe-1 Tag 1024, Pipe-1 Tag 1025, Pipe-1 Tag 1026, Pipe-1 Tag 1027, Pipe-1 Tag 1028, Pipe-1 Tag 1029, Pipe-1 Tag 1030, Pipe-1 Tag 1031, Pipe-1 Tag 1032

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TVOA+TIC=TCL Trace Volatiles + TIC, MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible]	2-3-14/ 1600	John D Curry	2/4/14 1145	Temp Blk = 3°C pk
					Pipe1-1 Broken Amber Bottle pk

USEPA CLP Generic COC (LAB COPY)

DateShipped: 2/6/2014
CarrierName: FedEx
AirbillNo: 8026 6102 7709

CHAIN OF CUSTODY RECORD

Project Code: CT6665
DAS #: R34317

No: 3-020614-163813-0003

Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-2	R34317-09	Ground Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1041 (4 C), 1042 (4 C), 1043 (4 C), 1044 (4 C), 1045 (4 C) (5)	MW-2	02/06/2014 18:16	1401014-09
TB03	R34317-10	Water/ Gene Nance	Grab	TVOA+TIC(14)	1046 (4 C), 1047 (4 C), 1048 (4 C) (3)	TB03	02/03/2014 20:15	1401014-10

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TVOA+TIC=TCL Trace Volatiles + TIC, MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	/	2/6/14 1995		2/7/14 1215	Temp BLK 3°C

USEPA CLP Generic COC (LAB COPY)

DateShipped: 2/10/2014
CarrierName: FedEx
AirbillNo: 8032 8714 0634

CHAIN OF CUSTODY RECORD

Project Code: CT6665
DAS #: R34317

No: 3-021014-134639-0006

Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
TB04	R34317-11	Water/ Gene Nance	Grab	TVOA+TIC(14)	1051 (4 C), 1052 (4 C) (2)	TB04	02/06/2014 22:10	1401014-11
TB04	R34317-11	Water/ Gene Nance	Grab	TVOA+TIC(14)	1050 (4 C) (1)	TB04	02/06/2014 22:10	-11
MW-5	R34317-12	Ground Water/ Gene Nance	Grab	TVOA+TIC(14)	1054 (4 C), 1055 (4 C), 1056 (4 C), 1074 (4 C), 1075 (4 C), 1076 (4 C) (6)	MW-5	02/07/2014 12:16	-12
MW-6	R34317-13	Ground Water/ Gene Nance	Grab	TVOA+TIC(14)	1059 (4 C), 1060 (4 C), 1061 (4 C) (3)	MW-6	02/07/2014 15:00	-13
MW-3	R34317-14	Ground Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1064 (4 C), 1065 (4 C), 1066 (4 C), 1067 (4 C), 1068 (4 C) (5)	MW-3	02/08/2014 10:55	-14
MW-4	R34317-15	Ground Water/ Gene Nance	Grab	TVOA+TIC(14), MCHM/PPH(14)	1069 (4 C), 1070 (4 C), 1071 (4 C), 1072 (4 C), 1073 (4 C) (5)	MW-4	02/08/2014 09:10	-15
FB02	R34317-16	Water/ Gene Nance	Grab	TVOA+TIC(14)	1079 (4 C), 1080 (4 C), 1081 (4 C) (3)	FB02	02/08/2014 10:18	-16

Sample(s) to be used for Lab QC: MW-5 Tag 1054, MW-5 Tag 1055, MW-5 Tag 1056, MW-5 Tag 1074, MW-5 Tag 1075, MW-5 Tag 1076	**Shipment for Case Complete? Y** **Samples Transferred From Chain of Custody #**
Analysis Key: TVOA+TIC=TCL Trace Volatiles + TIC, MCHM/PPH=4-methylcyclohexane methanol/PPH constituents	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Shawn / Tetra	2/10/14 1600	John D Curry	2/11/14 1145	Temp Blk 4°C

USEPA CLP Generic COC (LAB COPY)

DateShipped: 2/10/2014
CarrierName: FedEx
AirbillNo: 8032 8714 0634

CHAIN OF CUSTODY RECORD

Project Code: CT6665
DAS #: R34317

No: 3-021014-130543-0005

Lab: OASQA
Lab Contact: John Curry
Lab Phone: 410-305-3032

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-5	R34317-12	Ground Water/ Gene Nance	Grab	MCHM/PPH(14)	1057 (4 C), 1058 (4 C), 1077 (4 C), 1078 (4 C) (4)	MW-5	02/07/2014 12:16	1401014- 12
MW-6	R34317-13	Ground Water/ Gene Nance	Grab	MCHM/PPH(14)	1062 (4 C), 1063 (4 C) (2)	MW-6	02/07/2014 15:00	-13
FB02	R34317-16	Water/ Gene Nance	Grab	MCHM/PPH(14)	1082 (4 C), 1083 (4 C) (2)	FB02	02/08/2014 10:18	-16

Sample(s) to be used for Lab QC: MW-5 Tag 1057, MW-5 Tag 1058, MW-5 Tag 1077, MW-5 Tag 1078

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: MCHM/PPH=4-methylcyclohexane methanol/PPH constituents

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible] / Tech	2/10/14 1600	John D Curry	2/11/14 1145	Temp Blk 3°C

Curry, John

From: Curry, John
Sent: Thursday, January 30, 2014 5:51 PM
To: Gundersen, Jennifer; Graybill, Eric; Zawodny, Peggy; Warner, Sue
Cc: Wilding, Stevie; Caporale, Cynthia
Subject: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO#1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Surface water	5	-	PZ/SW	G 206
SVOCs by SW846 8270D	Surface water	4	-	ERG	G 206
HPLC Identification Scan	Surface water	4	-	JG	G 206

Temperature Blank: 3 °C
Due Date: 02/13/2014

Comments:

Curry, John

From: Curry, John
Sent: Friday, February 07, 2014 3:33 PM
To: Gundersen, Jennifer; Zawodny, Peggy; Warner, Sue; Graybill, Eric
Cc: Poff, Kevin; Wilding, Stevie; Caporale, Cynthia
Subject: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO#1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Surface water	5	-	PZ/SW	G 206
SVOCs by SW846 8270D	Surface water	3	-	ERG	G 206
HPLC Identification Scan	Surface water	3	-	JG	G 206

Temperature Blank: 3 °C and 3 °C
Due Date: Unvalidated: 02/21/2014 Final: 02/21/14

Comments: this is for both shipments 2/4 and 2/7

Freedom_0005790_0166

Curry, John

From: Curry, John
Sent: Tuesday, February 11, 2014 1:45 PM
To: Gundersen, Jennifer; Poff, Kevin; Graybill, Eric; Zawodny, Peggy
Cc: Wilding, Stevie; Caporale, Cynthia
Subject: FW: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO# 1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Surface water	6	-	PZ/SW	G 206
SVOCs by SW846 8270D	Surface water	5	-	ERG	G 206
HPLC Identification Scan	Surface water	5	-	JG	G 206

Temperature Blank: 4 °C and 3 °C
Due Date: Unvalidated: 02/25/2014 Final: 02/25/14

Comments: Case is Complete.

Freedom_0005790_0167

Curry, John

From: Ex. 4 - CBI
Sent: Tuesday, February 04, 2014 3:55 PM
To: Wilding, Stevie; Matlock, Dennis
Cc: Curry, John
Subject: RE: R34317; West Virginia Chemical Leak -- Technical Revision

Stevie,
I discussed this with OSC Matlock and your proposal is acceptable to us. The remaining samples to be collected are groundwater and we don't expect to find high concentrations.

Thanks.

Ex. 4 - CBI
TechLaw, Inc.
Ex. 4 - CBI

From: Wilding, Stevie [mailto:Wilding.Stevie@epa.gov]
Sent: Tuesday, February 04, 2014 3:11 PM
To: Ex. 4 - CBI; Matlock, Dennis
Cc: Curry, John
Subject: RE: R34317; West Virginia Chemical Leak -- Technical Revision

Ex. 4 - CBI

I was able to clarify with the analyst.

The ground and surface waters will be run by the VOC trace method, if at all possible. This method has a QL of 0.5 ppb (1 ppb for xylenes and styrene). The first set of samples under DAS R34317 that arrived on Jan. 30th were analyzed by the trace method.

Any sample with a complex matrix or higher concentrations will need to be run by the mid-level method to avoid saturating the detector. The mid-level method has a QL of 5 ppb (10 ppb for xylenes and styrene).

The OASQA chemist would like to determine the appropriate method after inspecting the sample material when it arrives.

Could we establish a protocol where the samples are analyzed by the lowest method appropriate for the sample matrix?

Best Regards,
Stevie Wilding
410-305-2606

From: Ex. 4 - CBI
Sent: Tuesday, February 04, 2014 12:09 PM

To: Wilding, Stevie; Matlock, Dennis
Cc: Curry, John
Subject: RE: R34317; West Virginia Chemical Leak -- Technical Revision

Stevie,
What is the QL for your standard VOC analysis? 5 ug/L?

Ex. 4 - CBI
TechLaw, Inc.
Ex. 4 - CBI

From: Wilding, Stevie [mailto:Wilding.Stevie@epa.gov]
Sent: Tuesday, February 04, 2014 11:44 AM
To: Matlock, Dennis; Nance, Gene
Cc: Curry, John
Subject: R34317; West Virginia Chemical Leak -- Technical Revision

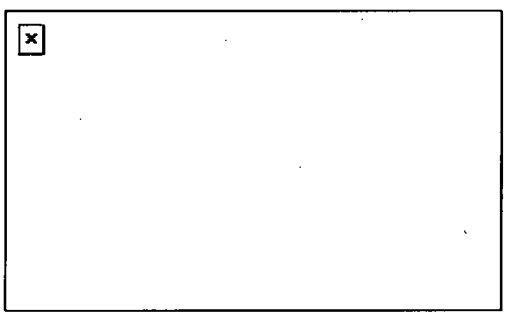
Dennis Ex. 4 - CBI

OASQA received the following request

R34317; West Virginia Chemical Leak for
5 Surface Water for MCHM and PPH Constituents
7 Ground Water for MCHM and PPH Constituents
6 Surface Water for TCL Trace VOCs + TIC
7 Ground Water for TCL Trace VOCs + TIC

OASQA is requesting to change the analysis to Mid-Level VOC, since these are not DW samples and matrix is not suitable for Trace Level analysis.

Please let me know if the following changes are acceptable to you



********** ATTACHMENT NOT DELIVERED **********

This Email message contained an attachment named
image001.jpg
which may be a computer program. This attached computer program could

contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED **********

Freedom_0005790_0170

1.0 VOLATILES TARGET COMPOUND LIST AND CONTRACT REQUIRED QUANTITATION LIMITS

			Quantitation Limits				
			Trace Water By SIM	Trace Water	Low Water	Low Soil	Med. Soil
Volatiles		CAS Number	µg/L	µg/L	µg/L	µg/kg	µg/kg
1.	Dichlorodifluoromethane	75-71-8		0.50	5.0	5.0	250
2.	Chloromethane	74-87-3		0.50	5.0	5.0	250
3.	Vinyl chloride	75-01-4		0.50	5.0	5.0	250
4.	Bromomethane	74-83-9		0.50	5.0	5.0	250
5.	Chloroethane	75-00-3		0.50	5.0	5.0	250
6.	Trichlorofluoromethane	75-69-4		0.50	5.0	5.0	250
7.	1,1-Dichloroethene	75-35-4		0.50	5.0	5.0	250
8.	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		0.50	5.0	5.0	250
9.	Acetone	67-64-1		5.0	10	10	500
10.	Carbon disulfide	75-15-0		0.50	5.0	5.0	250
11.	Methyl acetate	79-20-9		0.50	5.0	5.0	250
12.	Methylene chloride	75-09-2		0.50	5.0	5.0	250
13.	trans-1,2-Dichloroethene	156-60-5		0.50	5.0	5.0	250
14.	Methyl tert-butyl ether	1634-04-4		0.50	5.0	5.0	250
15.	1,1-Dichloroethane	75-34-3		0.50	5.0	5.0	250
16.	cis-1,2-Dichloroethene	156-59-2		0.50	5.0	5.0	250
17.	2-Butanone	78-93-3		5.0	10	10	500
18.	Bromochloromethane	74-97-5		0.50	5.0	5.0	250
19.	Chloroform	67-66-3		0.50	5.0	5.0	250
20.	1,1,1-Trichloroethane	71-55-6		0.50	5.0	5.0	250
21.	Cyclohexane	110-82-7		0.50	5.0	5.0	250
22.	Carbon tetrachloride	56-23-5		0.50	5.0	5.0	250
23.	Benzene	71-43-2		0.50	5.0	5.0	250
24.	1,2-Dichloroethane	107-06-2		0.50	5.0	5.0	250
25.	1,4-Dioxane	123-91-1	2.0	20	100	100	5000
26.	Trichloroethene	79-01-6		0.50	5.0	5.0	250
27.	Methylcyclohexane	108-87-2		0.50	5.0	5.0	250
28.	1,2-Dichloropropane	78-87-5		0.50	5.0	5.0	250
29.	Bromodichloromethane	75-27-4		0.50	5.0	5.0	250
30.	cis-1,3-Dichloropropene	10061-01-5		0.50	5.0	5.0	250
31.	4-Methyl-2-pentanone	108-10-1		5.0	10	10	500
32.	Toluene	108-88-3		0.50	5.0	5.0	250
33.	trans-1,3-Dichloropropene	10061-02-6		0.50	5.0	5.0	250
34.	1,1,2-Trichloroethane	79-00-5		0.50	5.0	5.0	250
35.	Tetrachloroethene	127-18-4		0.50	5.0	5.0	250

1.0 VOLATILES TARGET COMPOUND LIST AND CONTRACT REQUIRED QUANTITATION LIMITS
(Con't)

			Quantitation Limits				
			Trace Water By SIM	Trace Water	Low Water	Low Soil	Med. Soil
	Volatiles	CAS Number	µg/L	µg/L	µg/L	µg/kg	µg/kg
36.	2-Hexanone	591-78-6		5.0	10	10	500
37.	Dibromochloromethane	124-48-1		0.50	5.0	5.0	250
38.	1,2-Dibromoethane	106-93-4	0.050	0.50	5.0	5.0	250
39.	Chlorobenzene	108-90-7		0.50	5.0	5.0	250
40.	Ethylbenzene	100-41-4		0.50	5.0	5.0	250
41.	o-Xylene	95-47-6		0.50	5.0	5.0	250
42.	m,p-Xylene	179601-23-1		0.50	5.0	5.0	250
43.	Styrene	100-42-5		0.50	5.0	5.0	250
44.	Bromoform	75-25-2		0.50	5.0	5.0	250
45.	Isopropylbenzene	98-82-8		0.50	5.0	5.0	250
46.	1,1,2,2-Tetrachloroethane	79-34-5		0.50	5.0	5.0	250
47.	1,3-Dichlorobenzene	541-73-1		0.50	5.0	5.0	250
48.	1,4-Dichlorobenzene	106-46-7		0.50	5.0	5.0	250
49.	1,2-Dichlorobenzene	95-50-1		0.50	5.0	5.0	250
50.	1,2-Dibromo-3-chloropropane	96-12-8	0.050	0.50	5.0	5.0	250
51.	1,2,4-Trichlorobenzene	120-82-1		0.50	5.0	5.0	250
52.	1,2,3-Trichlorobenzene	87-61-6		0.50	5.0	5.0	250

From: (304) 907-0632
Ex. 4 - CBI
TechLaw, Inc.
2208 Warwood Ave

Wheeling, WV 26003

Origin ID: HLGA

FedEx. Express

J1410131227032 6

Ship Date: 03FEB14
ActWgt: 45.0 LB
CAD: 8747913/INET3490

Delivery Address Bar Code

Ref # 03049000113401RSA3XK
Invoice #
PO #
Dept #

SHIP TO: (410) 305-2667 BILL SENDER

John Curry
OASQA
EPA Region III
701 Mapes Road
Ft. Meade, MD 20755

TUE - 04 FEB 10:30A
PRIORITY OVERNIGHT

TRK# 7977 9894 8823
0201

NA GBOA

20755
MD-US
BWI

522G1/562F/F220

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

From: (410) 305-3032
John Curry
OASQA
EPA Region III
701 Mapes Road
Ft. Meade, MD 20755

Origin ID: GBOA

FedEx Express

J14101312270326

Ship Date: 29JAN14
ActWgt: 5.0 LB
CAD: 8747913/INET3490

Delivery Address Bar Code

Ref # 030490000101521BB036P

SHIP TO: (740) 867-0968
Ex. 4 - CBI
TechLaw, Inc.
5455 County Rd. 2

Chesapeake, OH 45619

BILL SENDER

RMA #:
Return Reason:

RETURNS MON-FRI
** 2DAY **

TRK# 7958 8789 1168
0221

45619
OH-US

522G1/D6EC/F220

Cooler Return

1. Select the 'Print' button to print 1 copy of each label.
2. The Return Shipment instructions, which provide your recipient with information on the returns process, will be printed with the label(s).
3. After printing, select your next step by clicking one of the displayed buttons.

Note: To review or print individual labels, select the Label button under each label image above.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Cooler Return

FedEx Express **NEW** Package US Airbill

FedEx Tracking Number 8026 6102 7709

Form ID No. 0200 **Recipient's Copy**

m
e 2-6-14 [redacted]

der's ne: Ex. 4 - CBI

npany: Techlan

lress: 2208 Warwood Ave

Dept./Floor/Suite/Room

Wheeling State WV ZIP 26003

ur Internal Billing Reference: Ex. 4 - CBI

ipient's ne: John Curry Phone 410 305-3032

npany: EPA Region 3 OASQA

lress: 701 Mapes Road

annot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

lress

his line for the HOLD location address or for continuation of your shipping address.

Fort Meade State MD ZIP 20755

☐ HOLD Weekday — FedEx location address REQUIRED. **NOT available for** FedEx First Overnight.

☐ HOLD Saturday — FedEx location address REQUIRED. **Available ONLY for** FedEx Priority Overnight and FedEx 2Day to select locations.

8026 6102 7709

4 Express Package Service

*To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. *For packages over 150 lbs., use the new FedEx Express Freight US Airbill.*

Next Business Day

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging

*Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery — **NOT available for** FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required — Package may be left without obtaining a signature for delivery.

☒ Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*

☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods?

One box must be checked.

☒ No ☐ Yes — As per attached Shipper's Declaration. ☐ Yes — Shipper's Declaration not required. ☐ Dry Ice — Dry ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☒ Sender — Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

[redacted]

Total Packages 1 Total Weight ____ lbs. [redacted] Credit Card Auth. ____

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

644

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On-Demand Data Checklist
(used when no other TRC exists)
For Internal Use Only

Parameter: HPLC 1D Scan w/ uv detector
Procedure/Method/Reference: 8321B or 8000C - no extraction

Site Name: WV Chem Spill WO#: 1401014
Analyst: J. Gunderson Date given to Reviewer: 2/24/14
Matrix (circle): Solid / Aqueous / Other
Program (circle): Superfund / RCRA / WPD (NPDES) / SDWA / Other:

The signature below indicates the following:
- This data meets the needs of the customer according to the request.
- The analysis was performed as per the SOP, or exceptions documented.
- All documentation needed to recreate the analyses has been reviewed.
- Data Review status set to Peer Reviewed in Element.

Peer Reviewer signature Steve Wildung Date accepted 2-25-14

If any data for this case is stored with another case file, give Site Name and WO# 1401010

Peer Reviewer Completes Section Below:

General:	YES	NO	N/A	Comments
Raw data is identified with sample IDs, site name, WO#, analyst name, date of analysis.	✓			
Quality Control: The case file must explain why this is a non-routine request	✓			

This is a special request which falls outside our routine protocols. Therefore, these samples were analyzed and the quality control (QC) were evaluated based on the "On Demand" criteria. These protocols include all the QC checks as per routine analyses plus special verification of the performance of the analytical method at the reported quantitation limit/s. These protocols are specified in the EPA Region III OASQA Laboratory Quality Manual, current version.

A written procedure or reference must be available for the method being performed and referenced in the narrative. If the method to be performed is unique, the procedures must be fully documented.	✓			
Calibration of the instrumentation or analytical procedure must be according to the method or procedure.			✓	
Calibration verified by analysis of second source standard (SCV,SRM), if available. Concentration must be in the range of the calibration. Results must be within the method, procedure, client or in-house limits.			✓	
Analysis of one method blank (BLK) with each batch. Ideally, the results should be less than the expected quantitation levels set by the method, procedure, or in-house requirements.	✓			
Analysis of one matrix spike (MS) with each batch. For samples or parameters which do not lend themselves to matrix spiking, a BS or SRM sample must be analyzed. Results of spikes must be within the method, procedure, client or in-house limits.			✓	

Freedom_0005790_0176

Analysis of one duplicate analyses (DUP) or a quality control sample such as an SRM or BS with each batch. If duplicate analyses is not possible, e.g., insufficient sample quantity, a quality control sample must be analyzed in duplicate, if available. Results of duplicate analyses must be within the method, procedure, client or in-house limits.			✓	
At least one blank spike (BS) must be carried through the entire method and analyzed with each batch. The concentration of the BS should be at the quantitation level or at the level of the expected sample results, if known. Results of the BS must be within the method, procedure, client or in-house limits.			✓	
Any additional quality control items, such as surrogates, internal standards, etc., which the referenced method or procedure requires, should be analyzed. Results must be within the method or procedure limits.	✓			
The analyst must document the impact on the usability of the reported data by applying qualifier codes if applicable and including a summary in the case file.	✓			
Calculations/Report:				
Calculations and transcriptions checked.	✓			
Element Draft Report reviewed.	✓			
Deviations and problems documented.	✓			

Additional Comments by Peer Reviewer:

Analyst Ensures that the Data Case File is Complete and Accurate as per SOP R3QA-066:

- ✓ Bench sheet or Work Order list
- ✓ Sample Prep logs
- ✓ Instrument run log
- ✓ Standard/Reagent Prep log
- ✓ Appropriate TV sheets / Certificates of Analysis
- ✓ Element Peer Review report
- ✓ Raw data
- ✓ Data status set to analyzed

Additional Comments by Analyst on data issues:
all supporting materials with WO 1401014
only Sample data + Blanks with this WO

Case file notes for the reviewer, WO 1401014 - WV Chemical Spill

Submitted by Jennifer L Gundersen, Chemist

Samples for WO 1401014 were evaluated qualitatively, as an On Demand Analysis by HPLC Identification Scan with a photodiode array detector (PDA). No quantitation was performed. OASQA On Demand procedures were followed where applicable. Analysis was based on SW-846 Methods 8321B and 8000C.

Samples were analyzed concurrently with WO 1401010 and results were compared with the reference materials in the work order. Refer to the case file for WO 1401010 for run logs, MSDS sheets and all other supporting material.

Samples were not extracted or diluted and injected directly onto the HPLC system. Final analysis was on a Phenomenex Ultracarb ODS20 column (part# 00G-0206-R0, s/n 411297-2) with a linear methanol/water gradient. The PDA detector scanned from 210-300nm with a slitwidth of 2.4nm. A copy of instrument parameters is included in the case file for WO 1401010.

All samples were spiked with a surrogate standard to monitor retention time shifts or other chromatographic issues that may have occurred due to cosolvent effects of the sample material. The surrogate, 1,2-dinitrobenzene (Element #1300207, 1ppm in acetonitrile, prepared 05/29/13, expired 11/25/13), was expired and was not used for any quantitation. No degradation of the surrogate (based on spectral characteristics) was noted. This surrogate was used because, based on initial method development screening, it did not coelute with any other sample peaks and its *uv* spectrum was unlike any spectra seen during initial screening. Since no extraction was performed, a nominal amount of surrogate (~100ul) was added to 1-2mL of sample in the autosampler vial, resulting in an additional ~5-10% dilution.

The case file contains chromatograms, extracted at 270nm, for each sample as well as the method blank. The *uv* spectra for all significant peaks are also included for comparison.

Sample 1401014-06 had the chromatographic fingerprint and spectra that were consistent with Crude PPH from WO 1401010.

Sample 1401014-13 has 3 peaks with spectra similar to PPH but with slightly different retention times.

Sample 1401014-15 contained 5 peaks, 3 of which were spectrally similar to PPH but with slightly different retention times and 2 that indicated different aromatic compounds.

The method blank indicated no interferences. The 1,2-dinitrobenzene surrogate was detected in all samples at an appropriate retention time, indicating no major effects of the sample on chromatography.

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Case File Contents

HPLC Identification

HPLC Identification Scan

WO 1401014

West Virginia Chemical Leak

DAS R34317

Summary of Results / Project Information

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

EPA Region 3 - OASQA - GLYCOL SAMPLE PREPARATION LOG

BA43102 bch_glycol.rpt

Project:	DAS R34317	**Location:**	Analyst
Work Order No:	1401014	**Client:**	OSWER - Emergency Response
Site Name:	West Virginia Chemical Leak	**Account#:**	2014T03N303DC6A3XKRS00
Analysis:	HPLC Identification Scan	**Bench Sheet Prepared Date:**	02/02/14 09:00
Matrix:	Water	**Method/SOP:**	SW8321B

Analyst: _____ **Sample Prep date:** _____ **Certificate of Analysis Log#:** _____

DI Water Resistivity ≥ 18 (MΩ-cm) Y / N **Reagent Purity correct:** Y / N

Comments from WO: _____

EPA Region 3 - OASQA - GLYCOL SAMPLE PREPARATION LOG

BA43102 bch_glycol.rpt

Surrogate used:

LabNumber	Date Collected	Cont ID	Sample Type	Initial (mL)	Final (mL)	SourceID	Spike1	Spike1 Amount µl	Spike2	Spike2 Amount µl	ul Surrogate	ExtractionComments
1401014-01	01/29/14 14:00	E	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-02	01/29/14 14:55	E	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-03	01/29/14 15:05	E	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-04	01/29/14 14:30	E	FRB	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-06	01/31/14 12:45	H	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-07	02/01/14 11:45	E	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-09	02/06/14 18:16	E	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-12	02/07/14 12:16	G	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-13	02/07/14 15:00	D	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-14	02/08/14 10:55	D	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-15	02/08/14 09:10	D	SAM	1	1							5 SW, 7 GW MHCH, PPH Constituents
1401014-16	02/08/14 10:18	D	FRB	1	1							5 SW, 7 GW MHCH, PPH Constituents
BA43102-BLK1	02/07/14 14:16			1	1	-						
BA43102-BLK2	02/07/14 14:16			1	1	-						

take ~ 100 µl of DNB surrogate (expired) as RT marker 1300207
in ~ 1.0 ml of sample - no quantitation will be done 1ppm Dinitrobenzene
Extract chromatograms at 270 nm

Case File Contents

HPLC Identification

HPLC Identification Scan

WO 1401014

West Virginia Chemical Leak

DAS R34317

Sample Data

Sample Information

Project Name WO 1401014 WV Chem Leak

SampleName 1401014-01

Vial 3 Injection Volume 20.00 ul

Channel W2996

Run Time 30.0 Minutes

sample_comment screen only Dilution 1.0

analyst JLG RLIMS_inst O7-2690PDA

Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown

Date Acquired 2/19/2014 1:58:43 PM EST

Acq Method Set mchm pph test

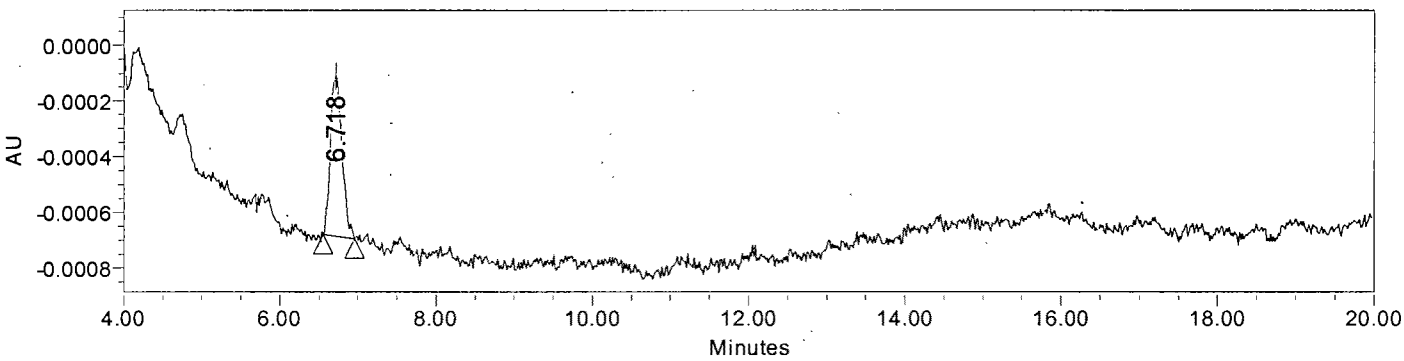
Processing Method PDA default

Date Processed 2/24/2014 4:33:57 PM EST

Report Meth MCHM spectra plot

coll_date 012914 extraction_date 021914

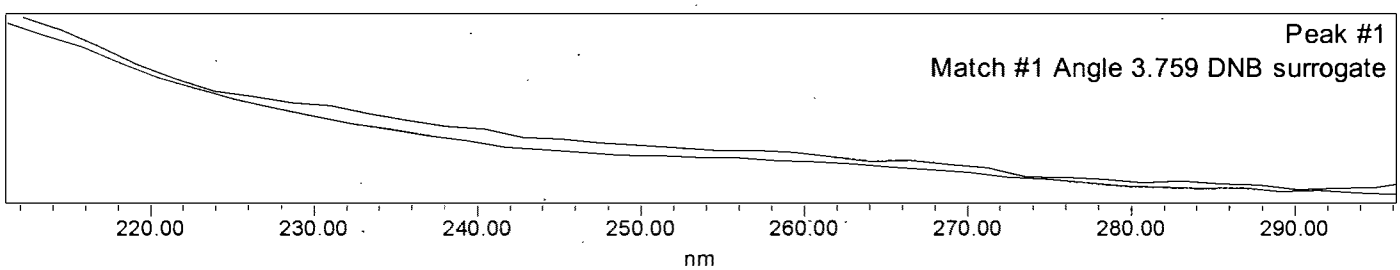
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.718	6018	DNB surrogate	3.759	17.480	No	5.092	9.787	No	

Match Plot



Name Retention Time 6.718

2/24/14

Sample Information

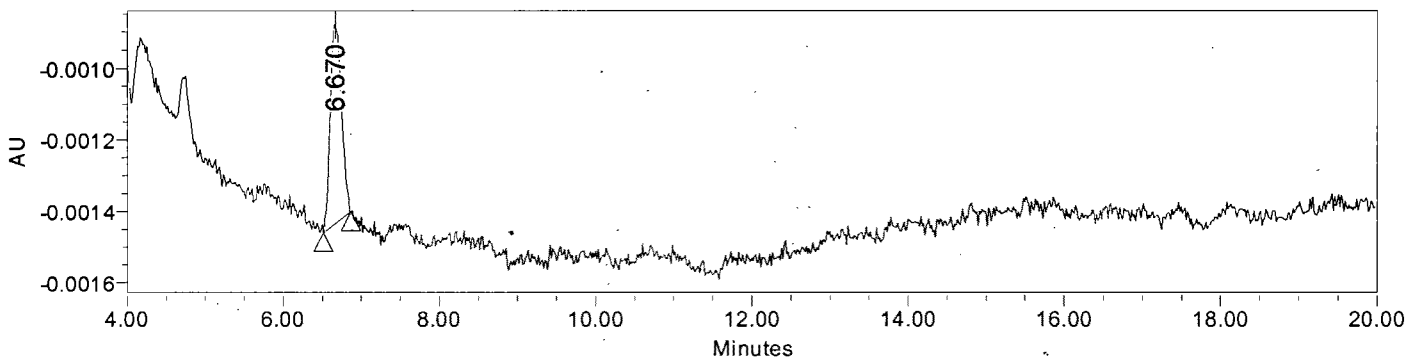
Project Name WO 1401014 WV Chem Leak

SampleName 1401014-02
Vial 4 Injection Volume 20.00 ul
Channel W2996
Run Time 30.0 Minutes
sample_comment screen only Dilution 1.0
analyst JLG RLIMS_inst O7-2690PDA
Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown
Date Acquired 2/19/2014 2:39:59 PM EST
Acq Method Set mchm pph test
Processing Method PDA default
Date Processed 2/24/2014 4:33:59 PM EST
Report Meth MCHM spectra plot
coll_date 012914 extraction_date 021914

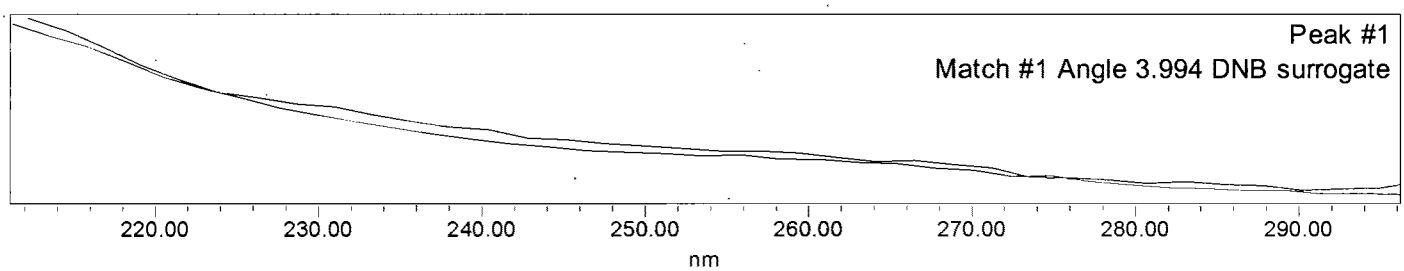
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.670	5598	DNB surrogate	3.994	18.130	No	4.385	13.198	No	

Match Plot



Name Retention Time 6.670

2/24/14

Sample Information

Project Name WO 1401014 WV Chem Leak

SampleName 1401014-03

Vial 5 Injection Volume 20.00 ul

Channel W2996

Run Time 30.0 Minutes

sample_comment screen only Dilution 1.0

analyst JLG RLIMS_inst O7-2690PDA

Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown

Date Acquired 2/19/2014 3:21:15 PM EST

Acq Method Set mchm pph test

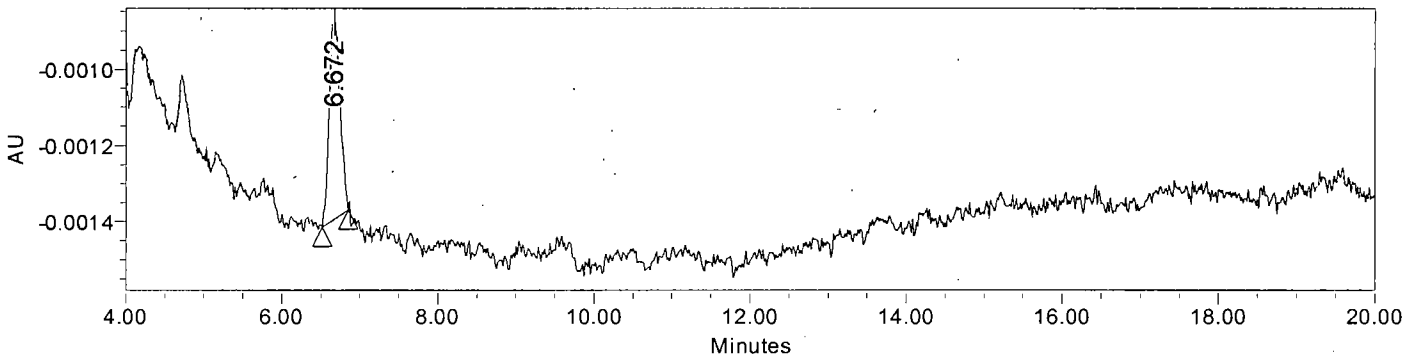
Processing Method PDA default

Date Processed 2/24/2014 4:34:02 PM EST

Report Meth MCHM spectra plot

coll_date 012914 extraction_date 021914

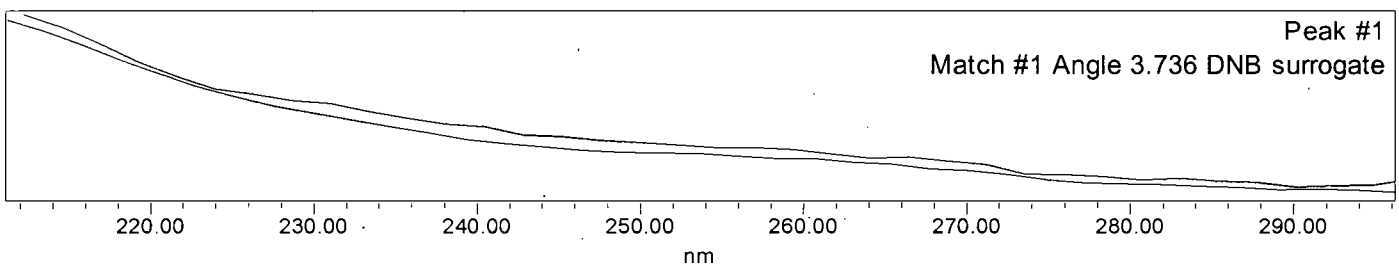
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.672	5102	DNB surrogate	3.736	17.957	No	3.377	12.524	No	

Match Plot



Name Retention Time 6.672

2/24/14

Sample Information

Project Name WO 1401014 WV Chem Leak

SampleName 1401014-04

Vial 6 Injection Volume 20.00 ul

Channel W2996

Run Time 30.0 Minutes

sample_comment screen only Dilution 1.0

analyst JLG RLIMS_inst O7-2690PDA

Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown

Date Acquired 2/19/2014 4:02:30 PM EST

Acq Method Set mchm pph test

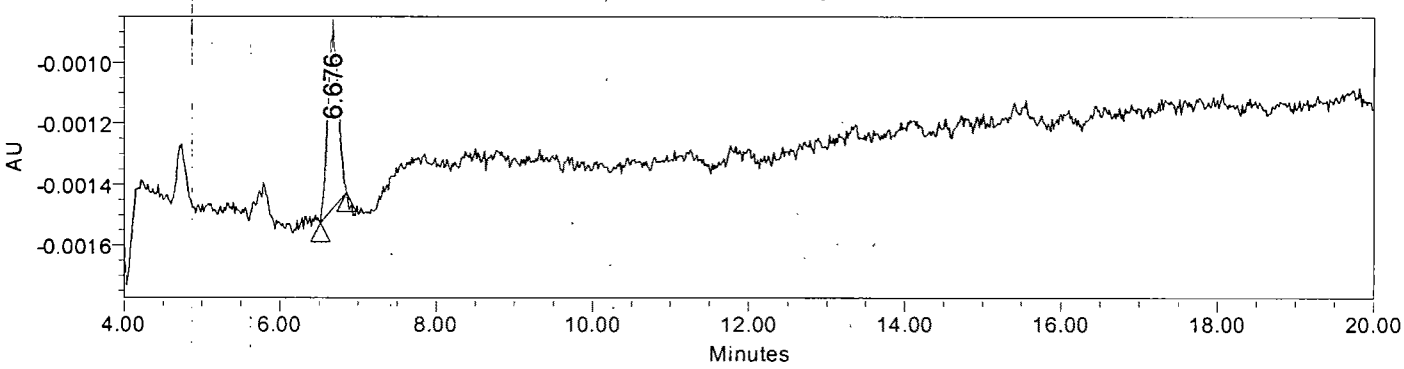
Processing Method PDA default

Date Processed 2/24/2014 4:34:05 PM EST

Report Meth MCHM spectra plot

coll_date 012914 extraction_date 021914

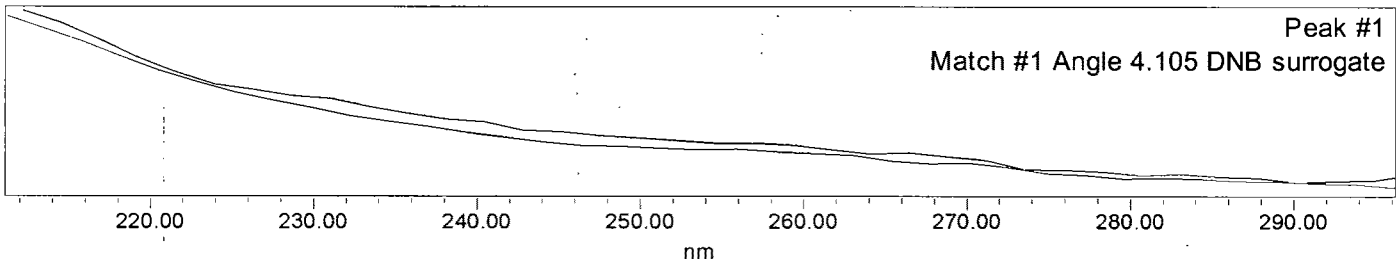
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.676	5514	DNB surrogate	4.105	17.725	No	3.424	11.786	No	

Match Plot



Name Retention Time 6.676

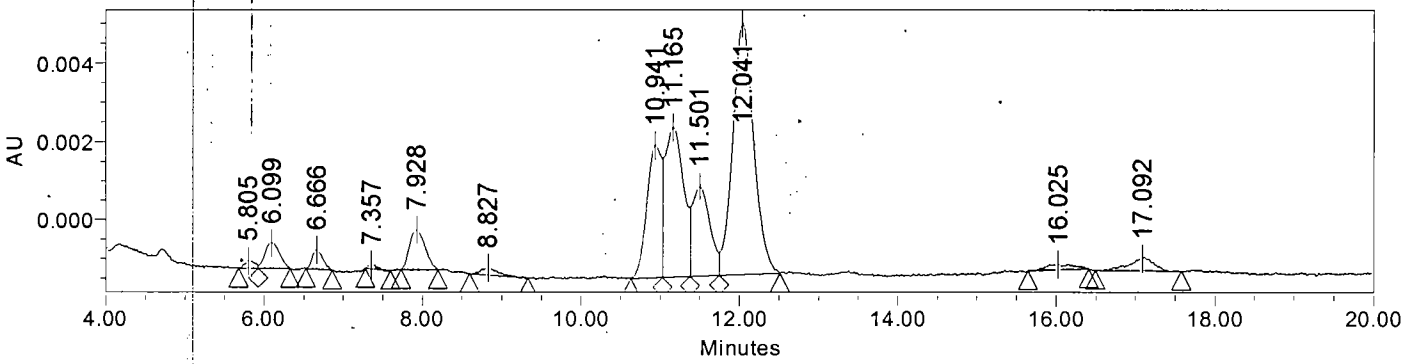
2/24/14

Sample Information

Project Name WO 1401014 WV Chem Leak
SampleName 1401014-06
Vial 7 Injection Volume 20.00 ul
Channel W2996
Run Time 30.0 Minutes
sample_comment screen only Dilution 1.0
analyst JLG RLIMS_inst O7-2690PDA
Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm
Sample Type Unknown
Date Acquired 2/19/2014 4:43:46 PM EST
Acq Method Set mchm pph test
Processing Method PDA default
Date Processed 2/24/2014 4:34:41 PM EST
Report Meth MCHM spectra plot
coll_date 013114 extraction_date 021914

Auto-Scaled Chromatogram

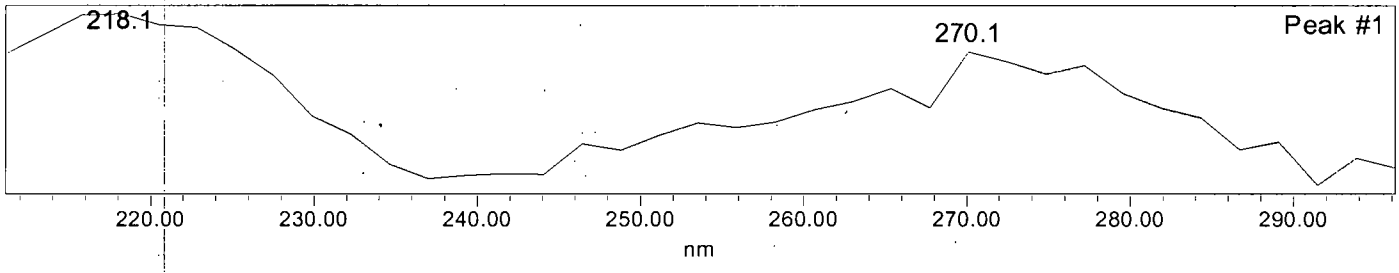


PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		5.805	1725				No	19.113	90.000	No	
2		6.099	8395	Crude PPH 3	9.022	14.222	No	11.890	13.725	No	
3		6.666	4612	DNB surrogate	3.093	17.546	No	4.115	11.351	No	
4		7.357	929	Crude PPH 4	6.407	76.896	No	16.270	90.000	No	
5		7.928	13731	Crude PPH 5	2.871	9.320	No	2.899	9.089	No	
6		8.827	2824				No	20.092	90.000	No	
7		10.941	43181	Crude PPH 7	0.502	3.551	No	0.400	2.252	No	
8		11.165	62844	Crude PPH 8	0.467	3.182	No	0.453	1.647	No	
9		11.501	35538	Crude PPH 9	0.764	5.000	No	1.353	3.149	No	
10		12.041	118087	Crude PPH 10	0.446	2.502	No	0.415	1.727	No	
11		16.025	3394	Crude PPH 12	9.093	52.718	No	11.427	52.529	No	
12		17.092	7331	Crude PPH 12	5.698	33.818	No	7.019	33.942	No	

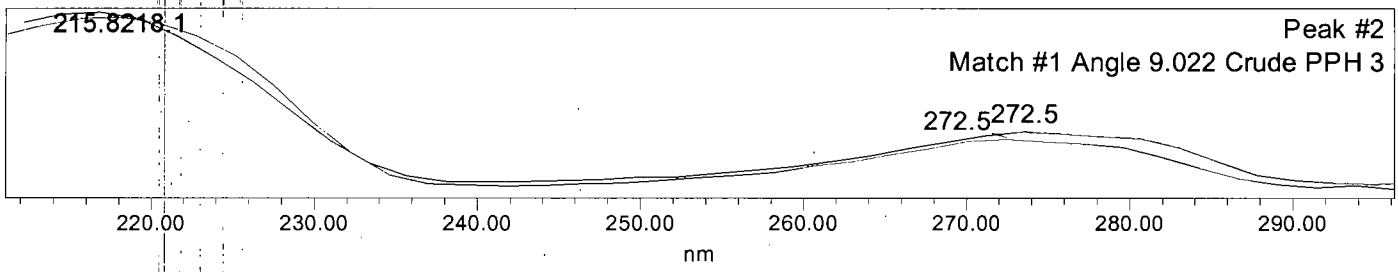
matches crude PPH fingerprint of spectra
2/24/14

Match Plot



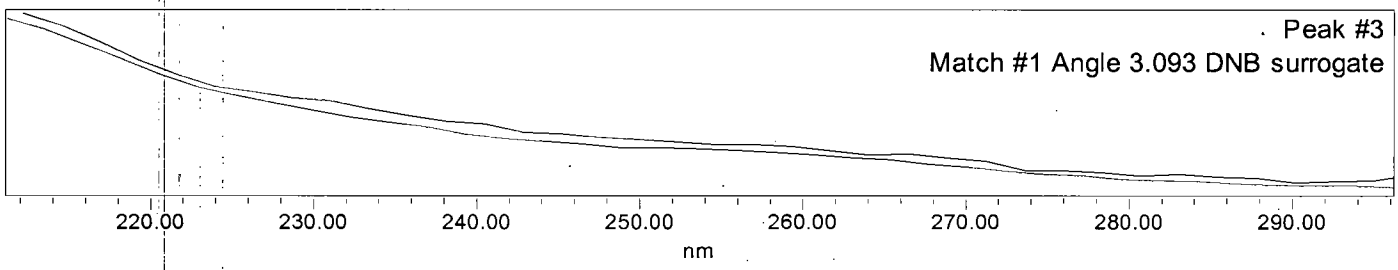
Name Retention Time 5.805

Match Plot



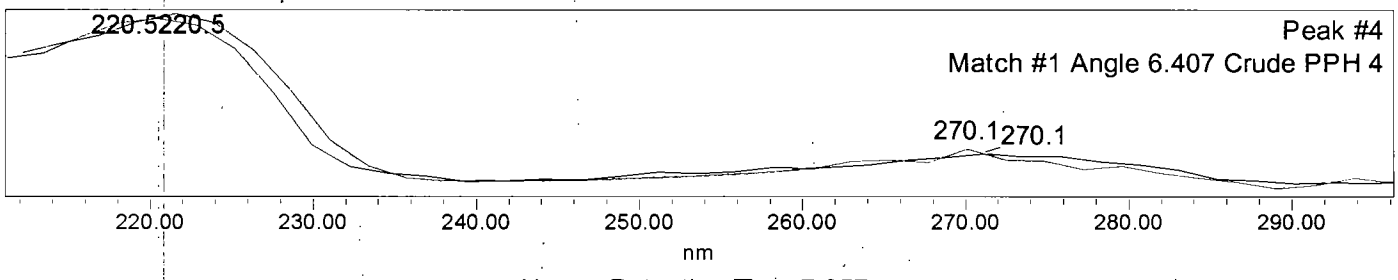
Name Retention Time 6.099

Match Plot



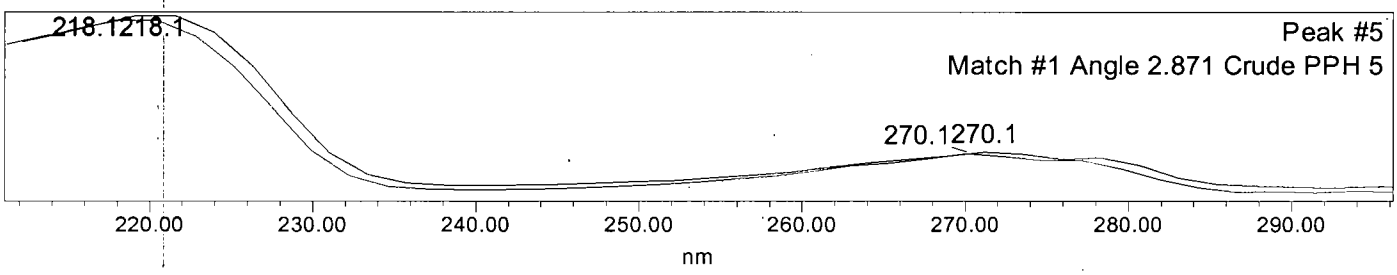
Name Retention Time 6.666

Match Plot



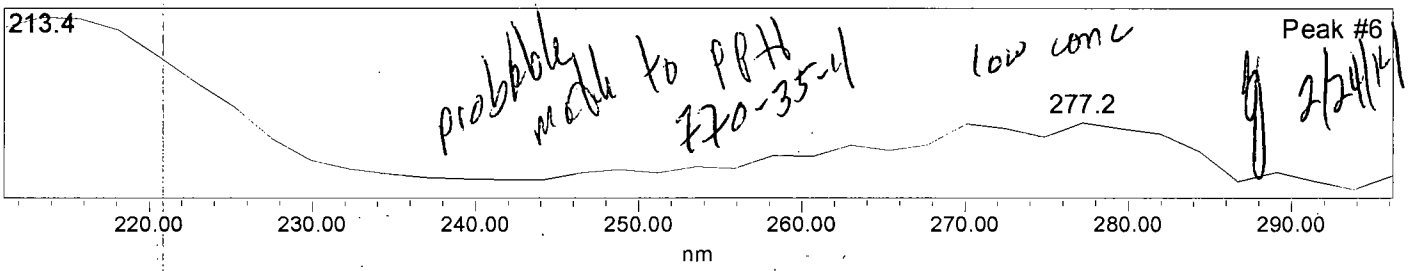
Name Retention Time 7.357

Match Plot



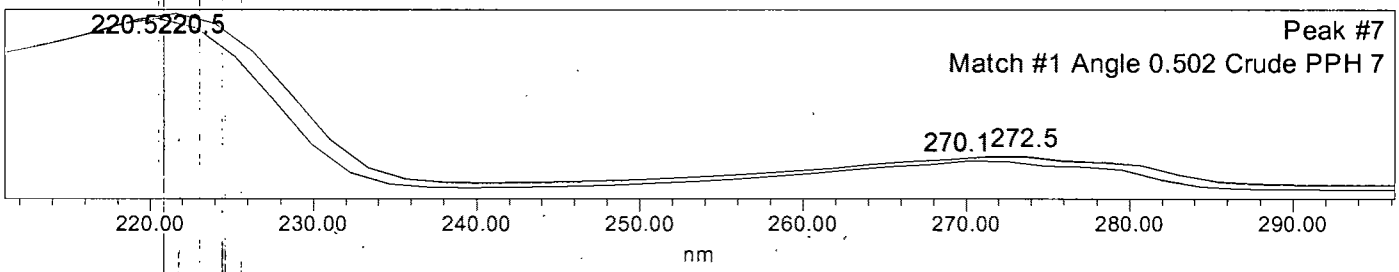
Name Retention Time 7.928

Match Plot



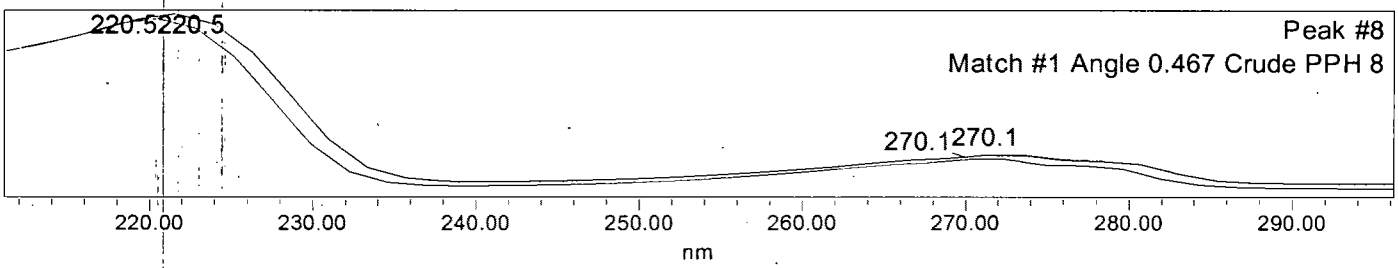
Name Retention Time 8.827

Match Plot



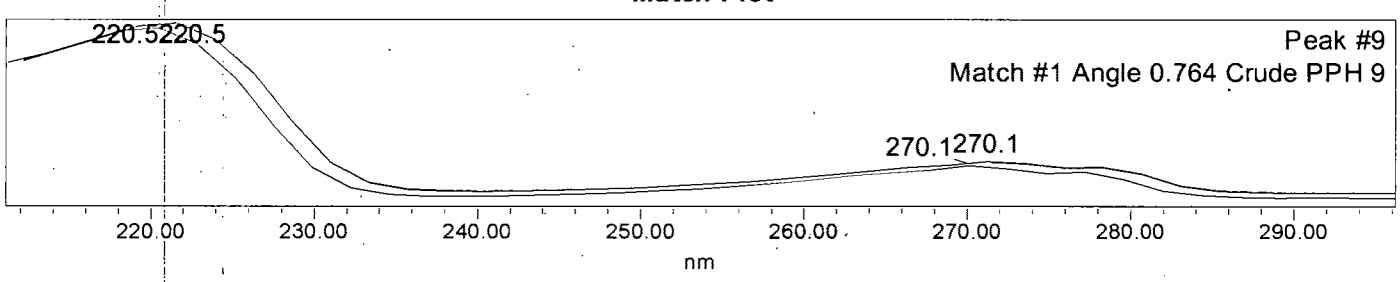
Name Retention Time 10.941

Match Plot



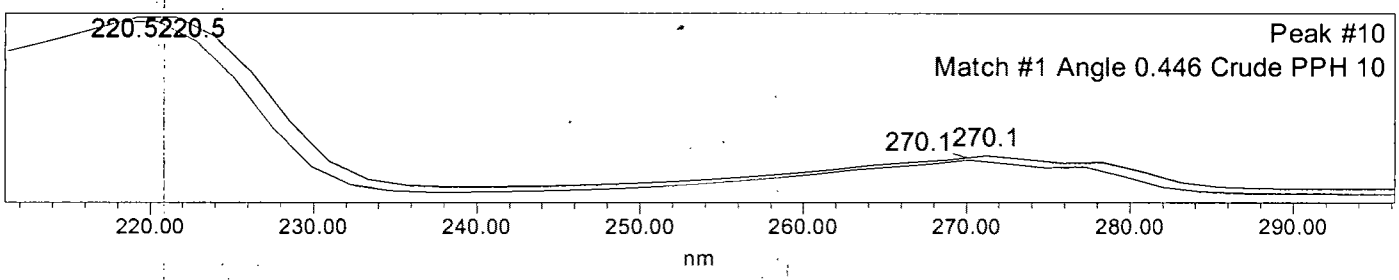
Name Retention Time 11.165

Match Plot



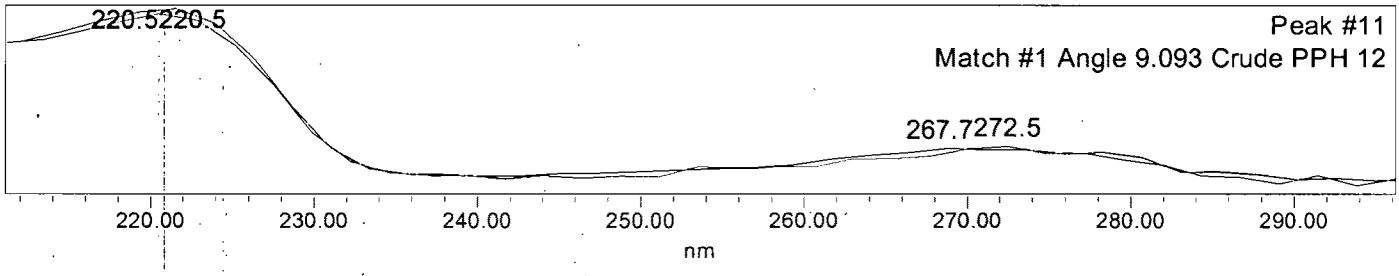
Name Retention Time 11.501

Match Plot



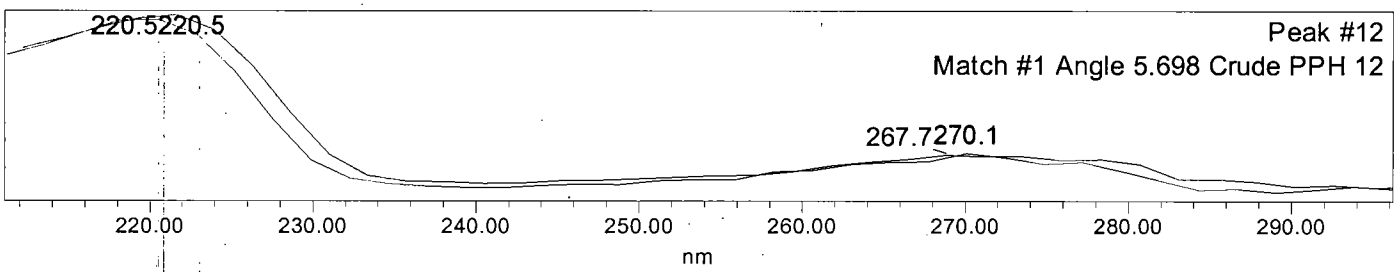
Name Retention Time 12.041

Match Plot



Name Retention Time 16.025

Match Plot



Name Retention Time 17.092

Sample Information

Project Name WO 1401014 WV Chem Leak

SampleName 1401014-07

Vial 8 Injection Volume 20.00 ul

Channel W2996

Run Time 30.0 Minutes

sample_comment screen only Dilution 1.0

analyst JLG RLIMS_inst O7-2690PDA

Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown

Date Acquired 2/19/2014 5:25:00 PM EST

Acq Method Set mchm pph test

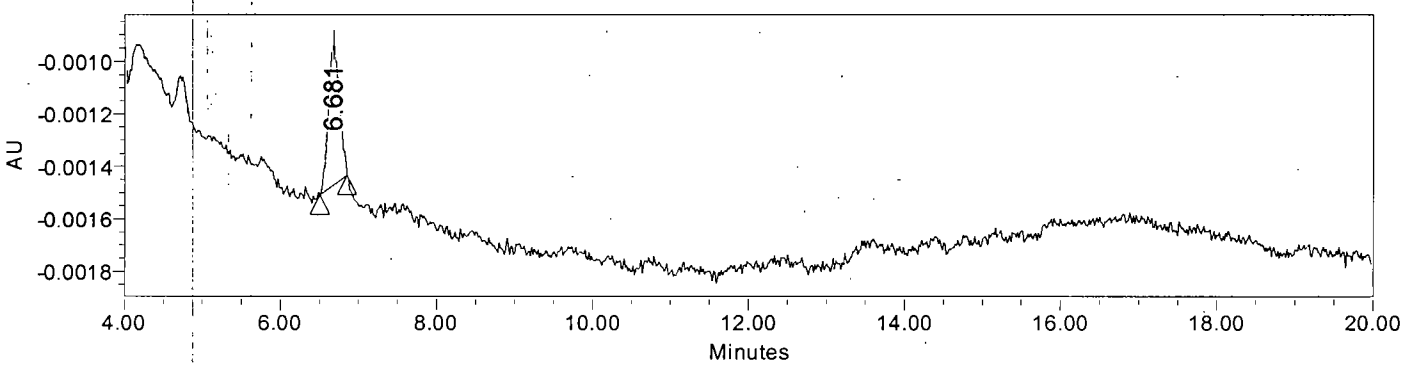
Processing Method PDA default

Date Processed 2/24/2014 4:34:56 PM EST

Report Meth MCHM spectra plot

coll_date 020114 extraction_date 021914

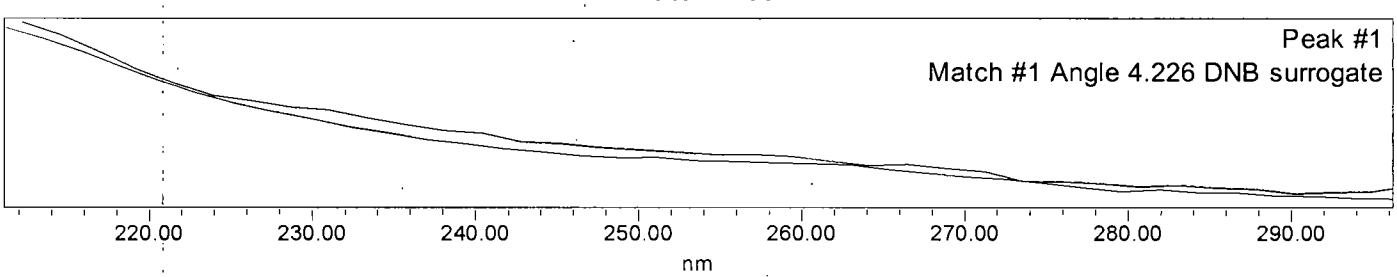
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.681	5273	DNB surrogate	4.226	17.021	No	3.237	9.843	No	

Match Plot



Name Retention Time 6.681

2/24/14

Sample Information

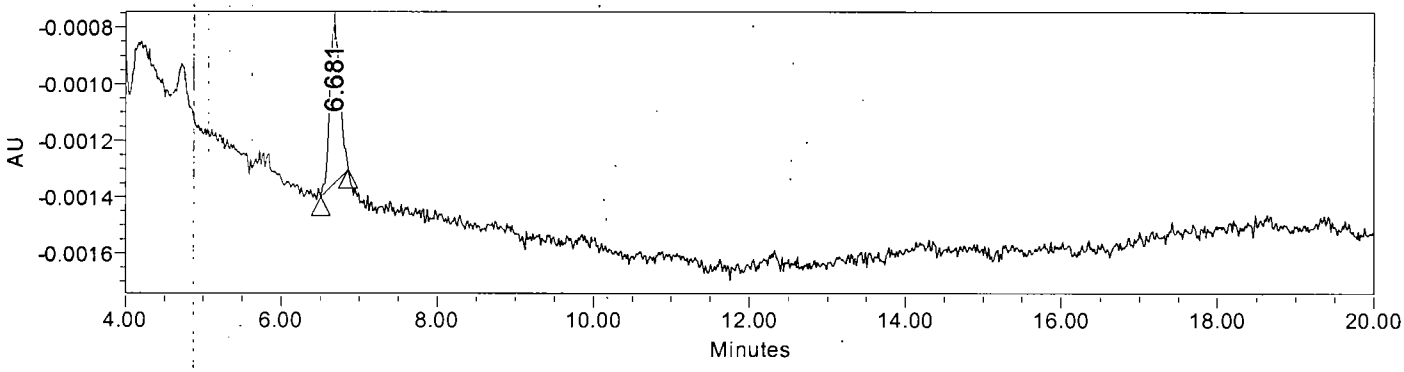
Project Name WO 1401014 WV Chem Leak

SampleName 1401014-09
Vial 9 Injection Volume 20.00 ul
Channel W2996
Run Time 30.0 Minutes
sample_comment screen only Dilution 1.0
analyst JLG RLIMS_inst O7-2690PDA
Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown
Date Acquired 2/19/2014 6:06:14 PM EST
Acq Method Set mchm pph test
Processing Method PDA default
Date Processed 2/24/2014 4:34:58 PM EST
Report Meth MCHM spectra plot
coll_date 020614 extraction_date 021914

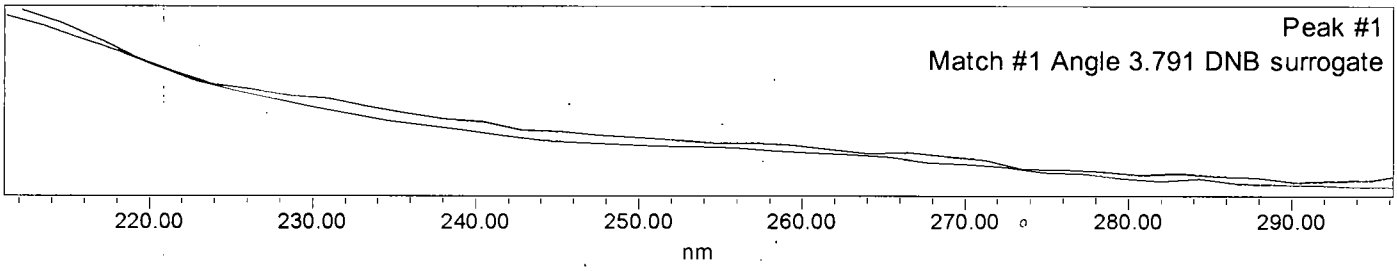
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.681	5139	DNB surrogate	3.791	17.218	No	3.321	10.701	No	

Match Plot



Name Retention Time 6.681

2/24/14

Sample Information

Project Name WO 1401014 WV Chem Leak

SampleName 1401014-12

Vial 10 Injection Volume 20.00 ul

Channel W2996

Run Time 30.0 Minutes

sample_comment screen only Dilution 1.0

analyst JLG RLIMS_inst O7-2690PDA

Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown

Date Acquired 2/19/2014 6:47:29 PM EST

Acq Method Set mchm pph test

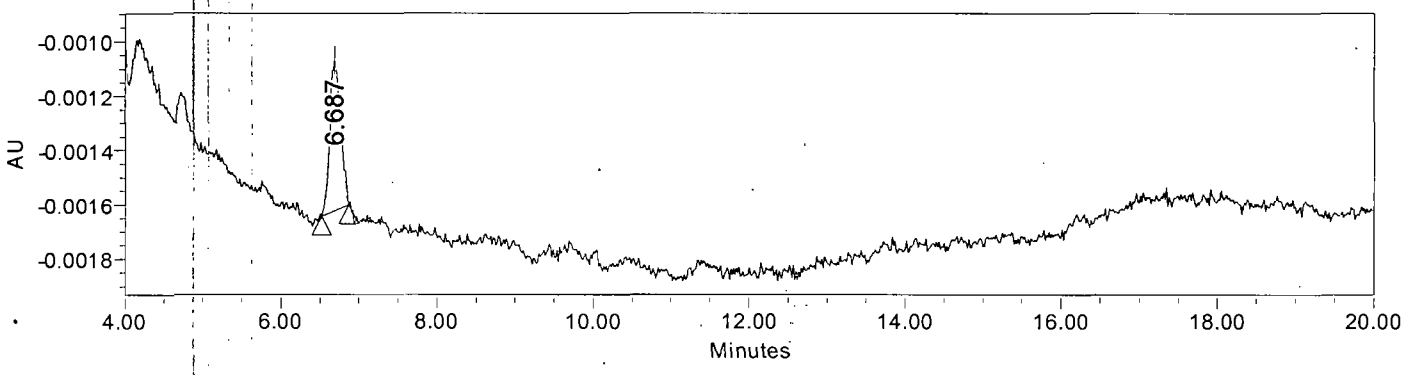
Processing Method PDA default

Date Processed 2/24/2014 4:34:59 PM EST

Report Meth MCHM spectra plot

coll_date 020714 extraction_date 021914

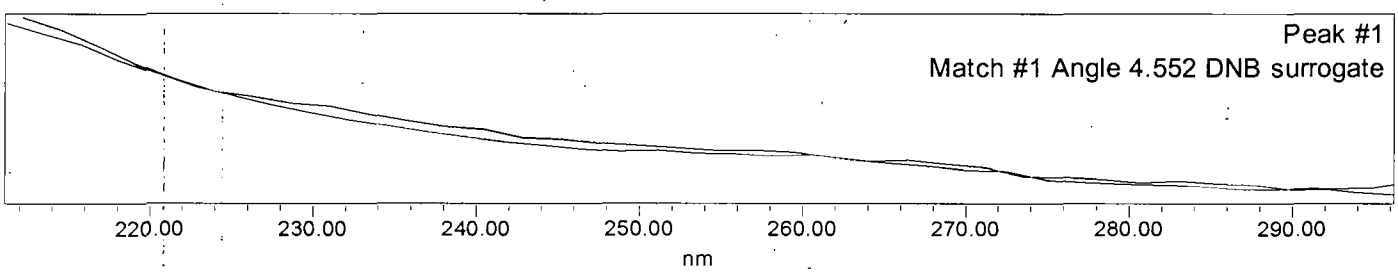
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.687	5323	DNB surrogate	4.552	17.355	No	3.703	11.155	No	

Match Plot



Name Retention Time 6.687

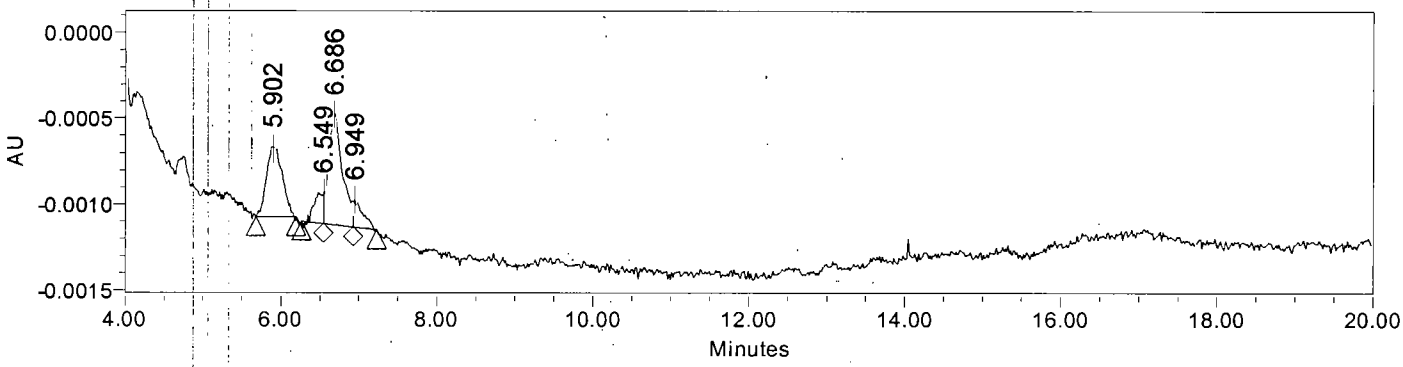
2/24/14

Sample Information

Project Name WO 1401014 WV Chem Leak
SampleName 1401014-13
Vial 11 Injection Volume 20.00 ul
Channel W2996
Run Time 30.0 Minutes
sample_comment screen only Dilution 1.0
analyst JLG RLIMS_inst O7-2690PDA
Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm
Sample Type Unknown
Date Acquired 2/19/2014 7:28:42 PM EST
Acq Method Set mchm pph test
Processing Method PDA default
Date Processed 2/24/2014 4:35:43 PM EST
Report Meth MCHM spectra plot
coll_date 020714 extraction_date 021914

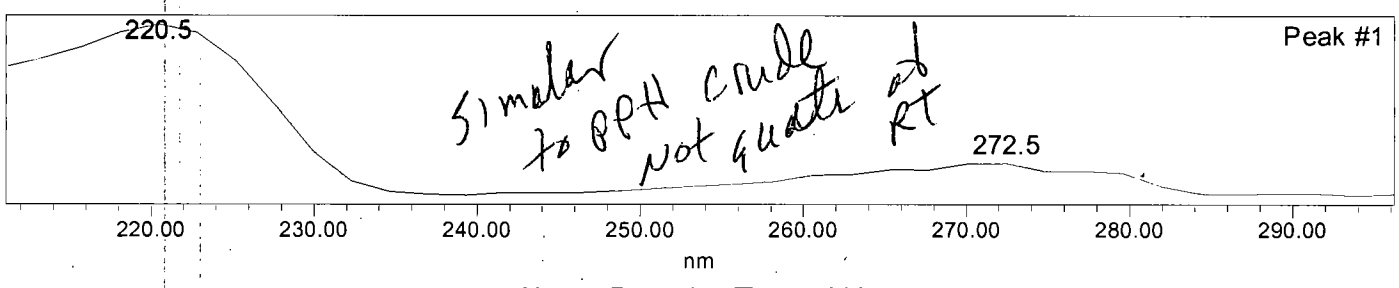
Auto-Scaled Chromatogram



PDA Result Table

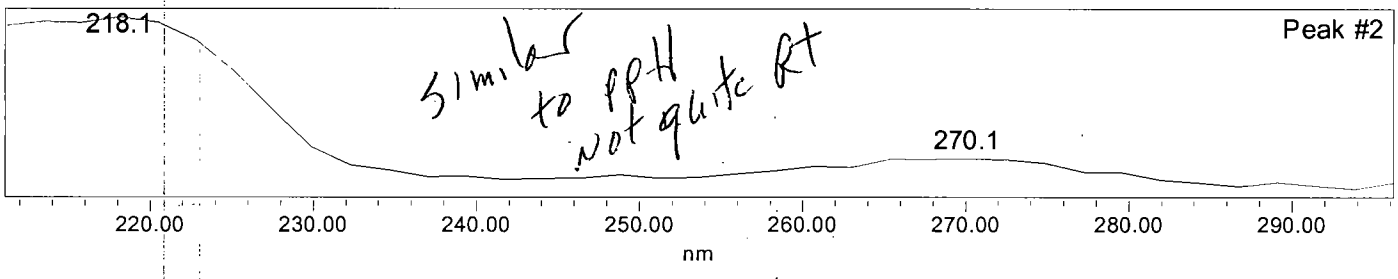
	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		5.902	5833				No	5.252	20.666	No	
2		6.549	1547				No			No	
3		6.686	8079	DNB surrogate	8.508	16.991	No	11.846	8.288	Yes	
4		6.949	1348				No	4.806	26.380	No	

Match Plot



Name Retention Time 5.902

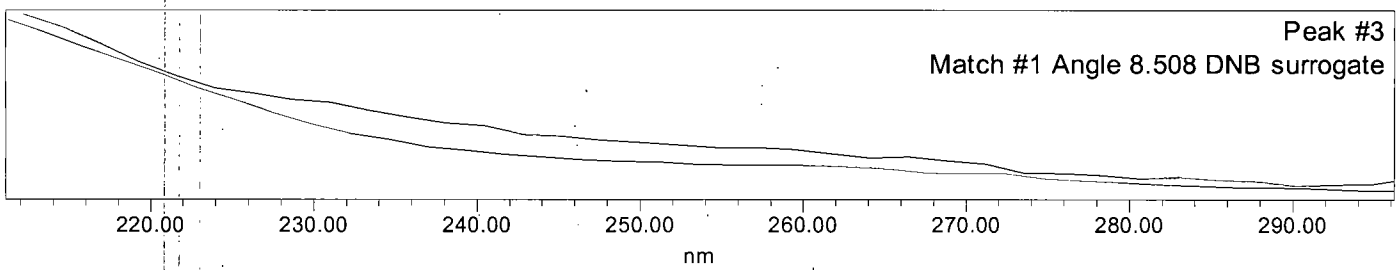
Match Plot



Name Retention Time 6.549

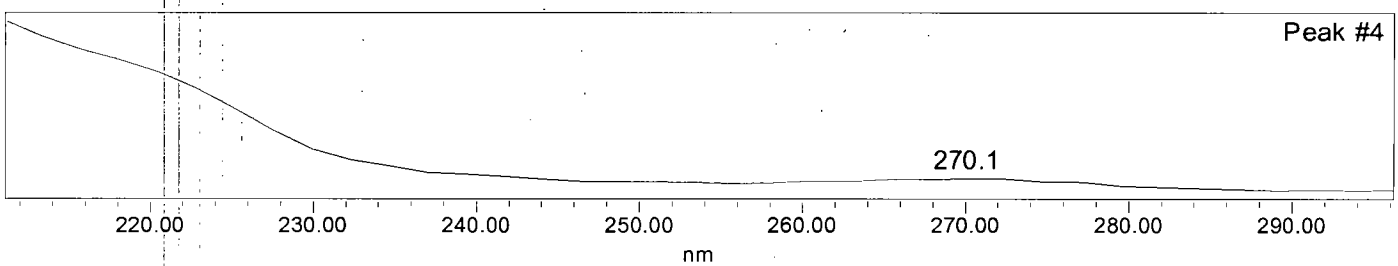
2/24/14

Match Plot



Name Retention Time 6.686

Match Plot



Name Retention Time 6.949

Sample Information

Project Name WO 1401014 WV Chem Leak

SampleName 1401014-14

Vial 13 Injection Volume 20.00 ul

Channel W2996

Run Time 30.0 Minutes

sample_comment screen only Dilution 1.0

analyst JLG RLIMS_inst O7-2690PDA

Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown

Date Acquired 2/19/2014 8:51:10 PM EST

Acq Method Set mchm pph test

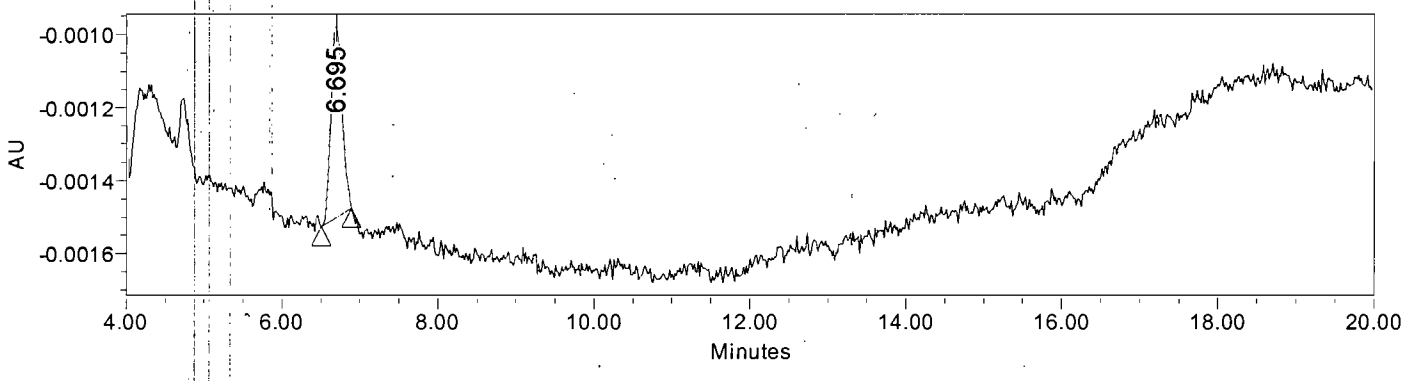
Processing Method PDA default

Date Processed 2/24/2014 4:35:54 PM EST

Report Meth MCHM spectra plot

coll_date 020814 extraction_date 021914

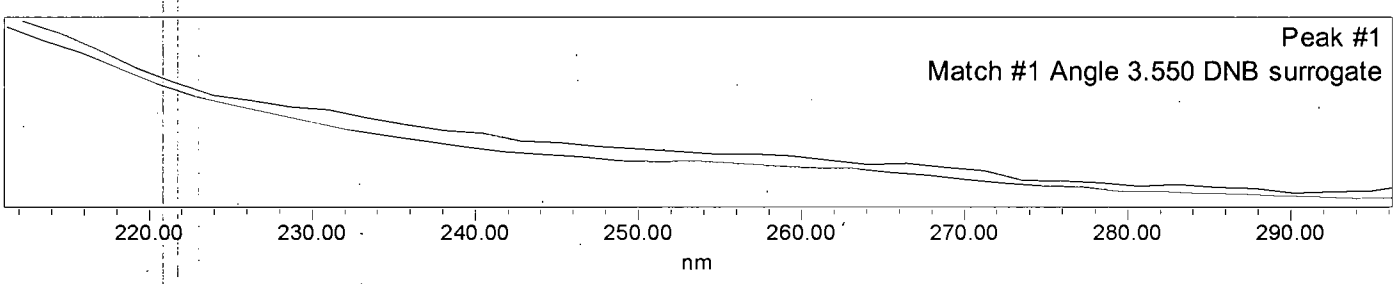
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.695	5247	DNB surrogate	3.550	17.169	No	3.890	10.682	No	

Match Plot



Name Retention Time 6.695

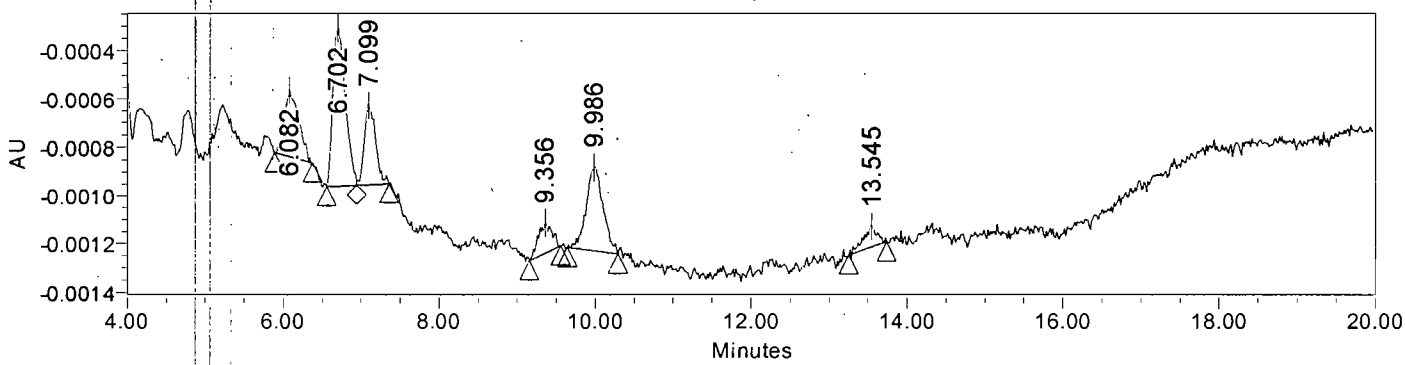
2/24/14

Sample Information

Project Name WO 1401014 WV Chem Leak
SampleName 1401014-15
Vial 14 Injection Volume 20.00 ul
Channel W2996
Run Time 30.0 Minutes
sample_comment screen only Dilution 1.0
analyst JLG RLIMS_inst O7-2690PDA
Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm
Sample Type Unknown
Date Acquired 2/19/2014 9:32:24 PM EST
Acq Method Set mchm pph test
Processing Method PDA default
Date Processed 2/24/2014 4:36:17 PM EST
Report Meth MCHM spectra plot
coll_date 020814 extraction_date 021914

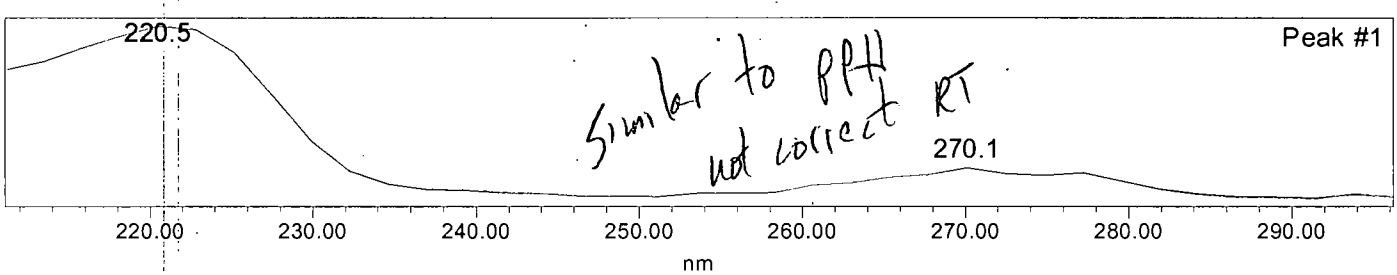
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.082	3590				No	14.465	22.708	No	
2		6.702	7282				No	12.433	7.363	Yes	coeluter w/DNB
3		7.099	3318				No	4.368	4.159	Yes	
4		9.356	1531				No	4.002	14.700	No	
5		9.986	5277				No	9.942	12.562	No	
6		13.545	1117				No	23.140	90.000	No	

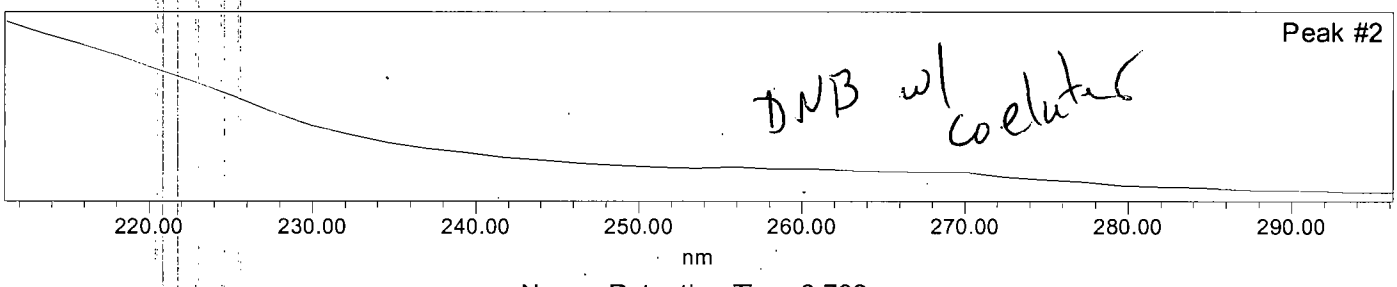
Match Plot



Name Retention Time 6.082

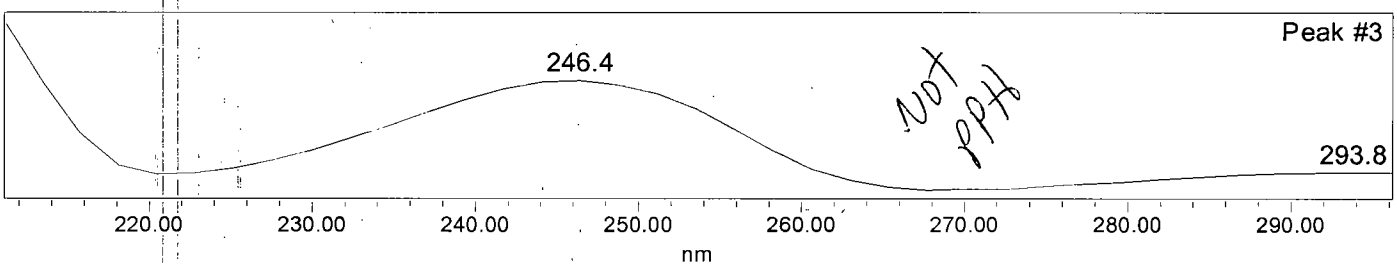
2/24/14

Match Plot



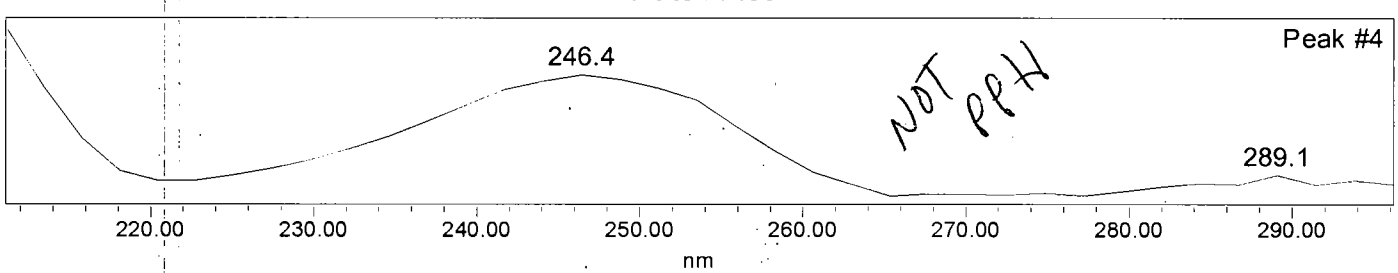
Name Retention Time 6.702

Match Plot



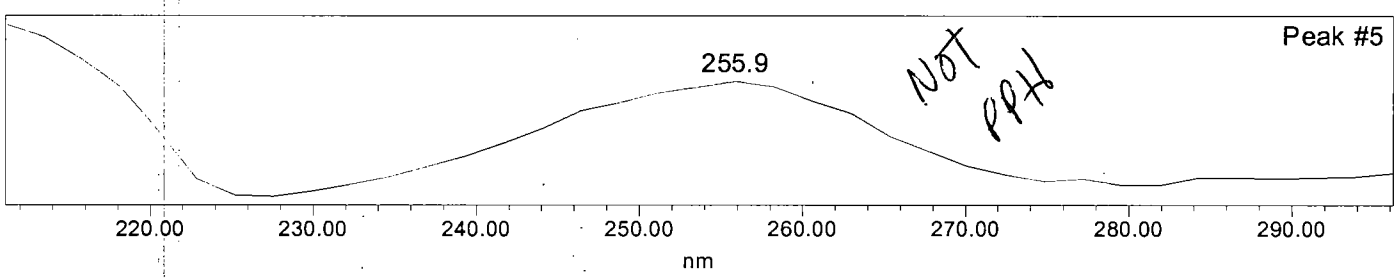
Name Retention Time 7.099

Match Plot



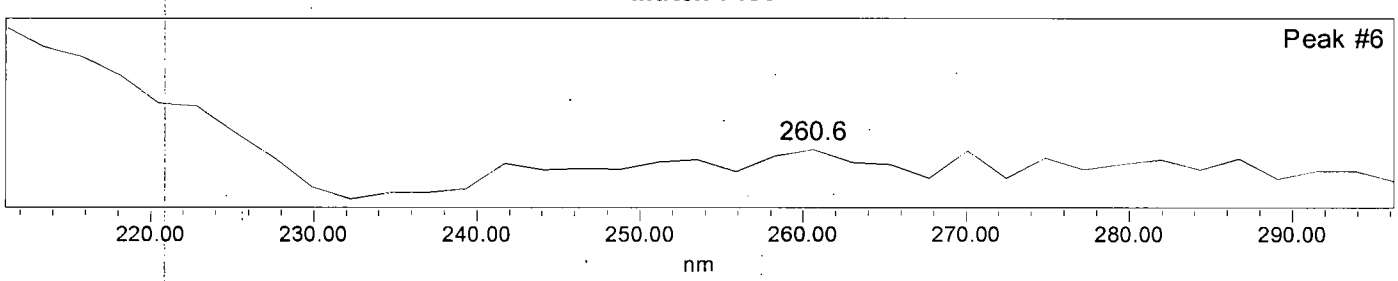
Name Retention Time 9.356

Match Plot



Name Retention Time 9.986

Match Plot



Name Retention Time 13.545

Sample Information

Project Name WO 1401014 WV Chem Leak

SampleName 1401014-16

Vial 15 Injection Volume 20.00 ul

Channel W2996

Run Time 30.0 Minutes

sample_comment screen only Dilution 1.0

analyst JLG RLIMS_inst O7-2690PDA

Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown

Date Acquired 2/19/2014 10:13:37 PM EST

Acq Method Set mchm pph test

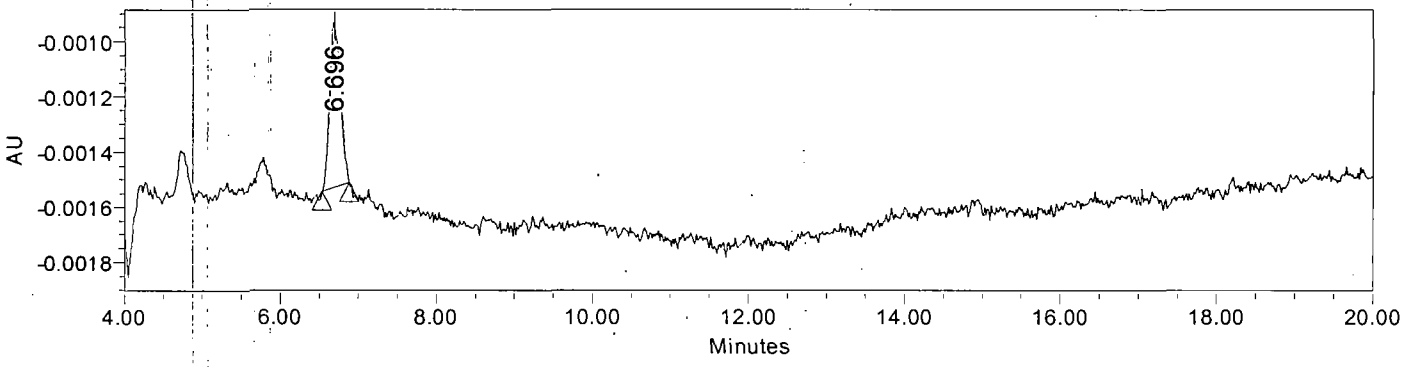
Processing Method PDA default

Date Processed 2/24/2014 4:36:35 PM EST

Report Meth MCHM spectra plot

coll_date 020814 extraction_date 021914

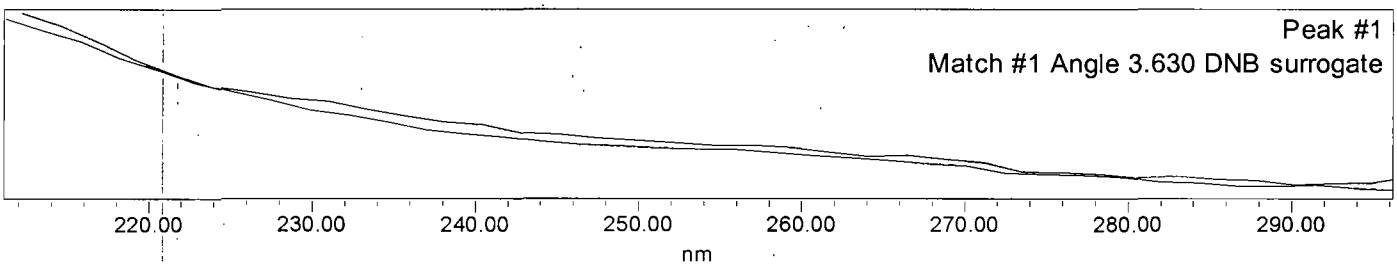
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		6.696	5679	DNB surrogate	3.630	17.452	No	3.472	11.201	No	

Match Plot



Name Retention Time 6.696

2/24/14

Case File Contents

HPLC Identification

HPLC Identification Scan

WO 1401014

West Virginia Chemical Leak

DAS R34317

Quality Control Data

Blanks only

Sample Information

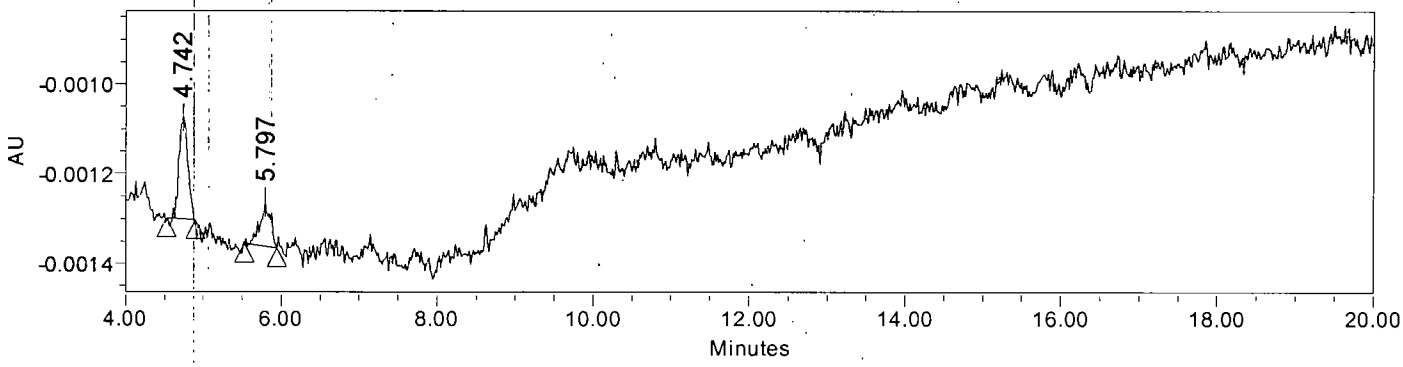
Project Name WO 1401014 WV Chem Leak

SampleName BA43102-BLK2 LCB
Vial 12 Injection Volume 20.00 ul
Channel W2996
Run Time 30.0 Minutes
sample_comment screen only Dilution 1.0
analyst JLG RLIMS_inst O7-2690PDA
Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown
Date Acquired 2/19/2014 8:09:56 PM EST
Acq Method Set mchm pph test
Processing Method PDA default
Date Processed 2/24/2014 4:36:55 PM EST
Report Meth MCHM spectra plot
coll_date unk extraction_date 021914

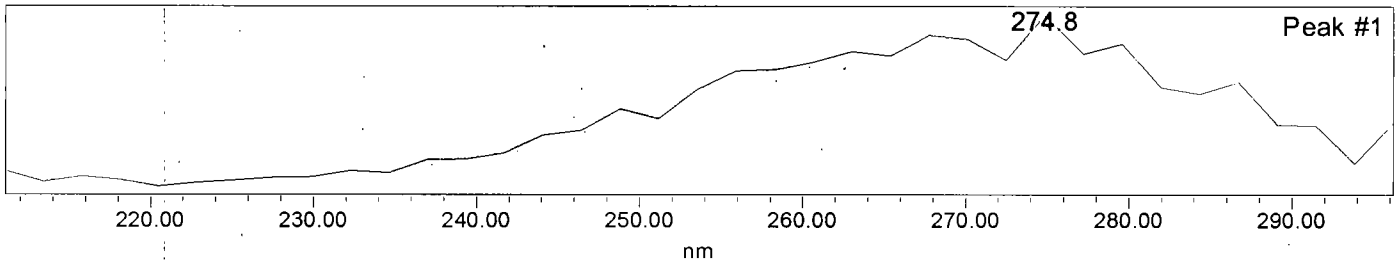
Auto-Scaled Chromatogram



PDA Result Table

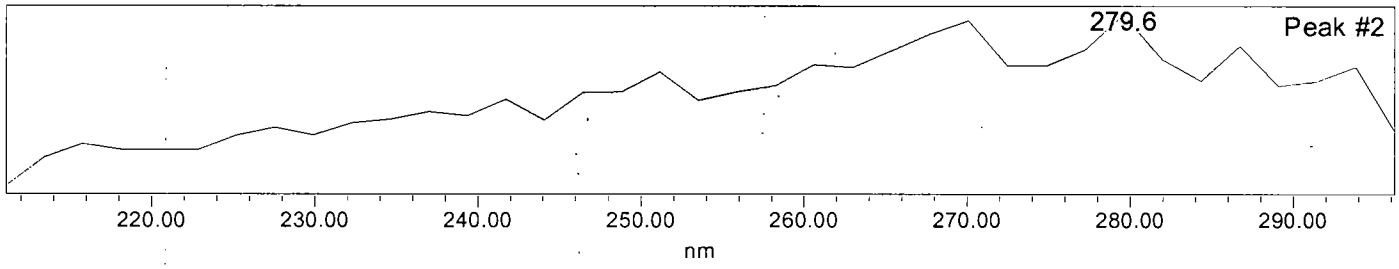
	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		4.742	1849				No	11.319	63.390	No	
2		5.797	927				No	27.387	90.000	No	

Match Plot



Name Retention Time 4.742

Match Plot



Name Retention Time 5.797

2/24/14

Sample Information

Project Name WO 1401014 WV Chem Leak

SampleName BA43102-blk1

Vial 2 Injection Volume 10.00 ul

Channel W2996

Run Time 30.0 Minutes

sample_comment screen only Dilution 1.0

analyst JLG RLIMS_inst O7-2690PDA

Dilution 1.00000 Sam_wt_vol_ml 1.0

Processed Channel Descr. PDA 270.0 nm

Sample Type Unknown

Date Acquired 2/19/2014 1:16:47 PM EST

Acq Method Set mchm pph test

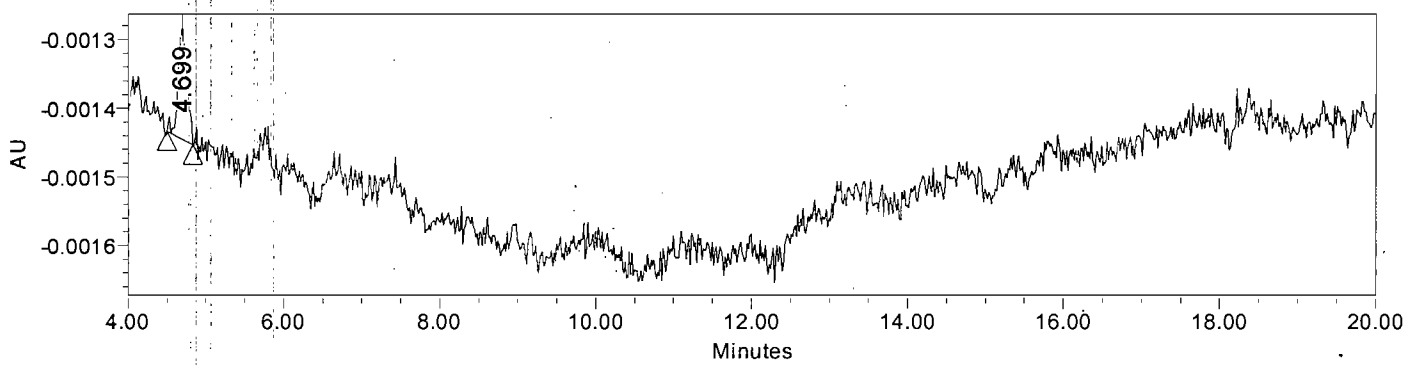
Processing Method PDA default

Date Processed 2/24/2014 4:37:22 PM EST

Report Meth MCHM spectra plot

coll_date unk extraction_date n/a

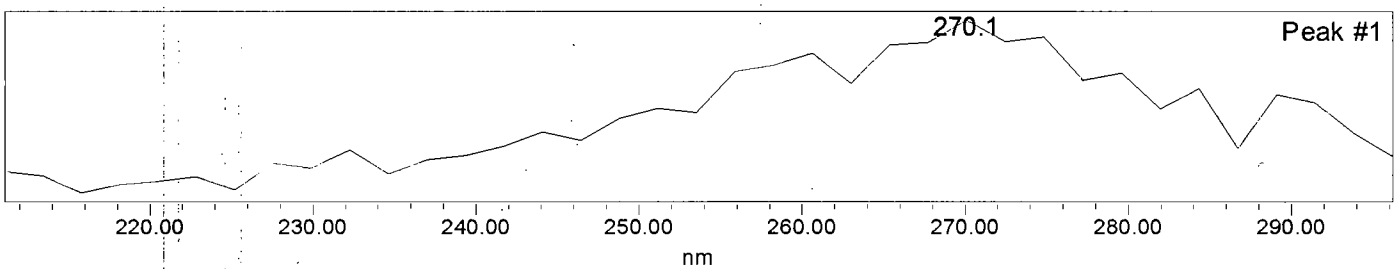
Auto-Scaled Chromatogram



PDA Result Table

	Name	RT	Area	Match1 Spect. Name	Match1 Angle	Match1 Threshold	Match1 Flag	Purity1 Angle	Purity1 Threshold	Purity1 Flag	extract_conc_ppb
1		4.699	1277				No	17.542	90.000	No	

Match Plot



Name Retention Time 4.699

2/24/14

Case File Contents

HPLC Identification

HPLC Identification Scan

WO 1401014

West Virginia Chemical Leak

DAS R34317

Calibration Data

none
refer to wo1401010 for
reference spectra

Case File Contents

HPLC Identification

HPLC Identification Scan

WO 1401014

West Virginia Chemical Leak

DAS R34317

Log Book Copies, Run Logs

refer to wo1401010

R3QA201; BNA (SVOC) Technical Review Checklist (TRC) Checklist

CLP Equivalent___ 625___ 8270D✓ TCLP___

For Internal Use Only

Site Name: WV ChemLeak WO#: 1401014

Analyst: Kevin Poff Date given to Reviewer: NP

Matrix (circle): Aqueous or Solid or Other

PrepSOPs: ~~R3QA219-041012~~ R3QA217-041012 / R3QA218-042612 / R3QA238-032012

Program (circle): Superfund / RCRA / WPD (NPDES) / SDWA / Other:

The signature below indicates the following:

- This data meets the needs of the customer according to the request.
- The analysis was performed as per the SOP, or exceptions documented.
- All documentation needed to recreate the analyses has been reviewed.
- Data Review status set to Peer Reviewed in Element.

Peer Reviewer signature [signature] Date accepted 2/27/14

If any data for this case is stored with another case file, give Site Name and WO:

Peer Reviewer Completes Section Below:

General:	YES	NO	Comments
Raw data is identified with sample ID, site name, WO#, analyst name, date of analysis.	✓		
Quality Control:			
Instrument Conditions:			
DFTPP frequency and acceptance criteria met (Section 10.2)	✓		
Initial curve acceptable (Table 10)		✓	Qualify as necessary
Continuing calibration acceptable (Table 10)		✓	Qualify as necessary
Internal standard area counts within criteria (Table 3)	✓		No hits were outside limits
Lab blank frequency and acceptance criteria met (Table 3)	✓		
Second source (QCS/LCS) acceptable (Table 10)	✓		
B.S. frequency and acceptance criteria met (Table 3)		✓	Qualify as necessary
Sample Analysis:			
Surrogate recovery acceptance criteria met (Table 3)	✓		
Matrix spike frequency and accept. criteria met (Table 3)		✓	Qualify as necessary
Technical holding times met (Section 8)		✓	
Documentation:			
Run logs, supporting documentation reviewed	✓		
Sample preparation described	✓		
Spectral and retention time verification	✓		delete all hits less than 0.5
Manual integration verified and documented	✓		
Data qualified as appropriate		✓	
Documentation is legible and complete	✓		
TICS reviewed	✓		
Narrative reviewed	✓		
Calculations/Report:			

Calculations and transcriptions checked ✓
Element Draft Report reviewed ✓
Deviations and problems documented ✓
Problematic Compounds Reviewed/Verified ✓

Additional Comments by Peer Reviewer:
* Qualify as below ✓
* Con't report less than 0.5 ug/mL ✓
* apply dilution of 1000 x for -06 ✓
* apply dilution of 10 for -15 ✓
Narrative: All samples for UJ initial cal all compounds below ✓
All samples for UJ for all CCVs 4-Chloroaniline ✓

Analyst Ensures that the Data Case File is Complete and Accurate: Dilution for any samples??

✓ Sample list (bench sheet or work order report)
✓ Sample prep / Instrument run logs
✓ Standard / Reagent prep logs
✓ Perform necessary calculations
✓ Raw Data
✓ Element Peer Review Report
✓ Data Status set to analyzed
✓ Check Internal Standard Area Counts

Additional Comments by Analyst on data issues:
Initial Cal out: Benzaldehyde, 2,4-dinitrophenol, 4-Nitroaniline, Atrazine, Carbazole
SCV out: Benzaldehyde, 4-Chloroaniline, Carbazole
CCV1 out: N-Nitrosodimethylamine, Benzaldehyde, 4-Chloroaniline, 4-Nitro, Atrazine, Carbazole (-01, -02, -03, -04)
BS1: ~~Atrazine, Benzo(a)anthracene, Benzo~~ Atrazine + Carbazole (out high)
TICS: 1401014-03: delete TIC @ 6.23 it is in blank
~~BS2~~: CCV2 out: N-Nitroso; Benzaldehyde; 4-Chloroaniline, Atrazine, Carbazole, Pyrene (H), Di-n-octyl (H) (-06, -07)
BS1 (~~-09~~) Atrazine, bis(2-chloroisopropyl) ether (L)
BS1 (~~-12, -13, -14, -15, -16~~): bis(2-chloroisopropyl) ether (L), 4-bromophenyl phenyl ether (L), 2-Chloro naphthalene (L), 4,6-dinitro (L) 2,6-dinitrotoluene (L) -09
fluorene (L) Phenanthrene (L)

BS1 (-12, -13, -14, -15, -16): Acenaphthene, bis(2-chloroethoxy)methane, bis(2-chloroisopropyl) ether, 4-Bromophenyl, 2-chloro, 2,4-dimethylphenol, 4,6-dinitro, 2,6-dinitrotoluene, fluorene, hexachlorocyclopentadiene, Nitroben, Phenan, Pyrene

R3QA201; BNA (SVOC) Technical Review Checklist (TRC) Checklist

CLP Equivalent___ 625____ 8270D ✓ TCLP___

For Internal Use Only

Site Name: WV Chemical Leak WO#: 1401014

Analyst: Eric Craybill Date given to Reviewer: 2/26/14

Matrix (circle): Aqueous or Solid or Other

PrepSOPs: R3QA219-041012 / R3QA217-041012 / R3QA218-042612 / R3QA238-032012

Program (circle): Superfund / RCRA / WPD (NPDES) / SDWA / Other:

The signature below indicates the following:

- This data meets the needs of the customer according to the request.
- The analysis was performed as per the SOP, or exceptions documented.
- All documentation needed to recreate the analyses has been reviewed.
- Data Review status set to Peer Reviewed in Element.

Peer Reviewer signature Hoa Nguyen Date accepted 2/27/14

If any data for this case is stored with another case file, give Site Name and WO:

Peer Reviewer Completes Section Below:

General:	YES	NO	Comments
Raw data is identified with sample ID, site name, WO#, analyst name, date of analysis.	✓		
Quality Control:			
Instrument Conditions:			
DFTPP frequency and acceptance criteria met (Section 10.2)	✓		
Initial curve acceptable (Table 10)	✓		
Continuing calibration acceptable (Table 10)	✓		
Internal standard area counts within criteria (Table 3)			
Lab blank frequency and acceptance criteria met (Table 3)	✓		
Second source (QCS/LCS) acceptable (Table 10)	✓		
B.S. frequency and acceptance criteria met (Table 3)	✓		
Sample Analysis:			
Surrogate recovery acceptance criteria met (Table 3)	✓		
Matrix spike frequency and accept. criteria met (Table 3)	✓		
Technical holding times met (Section 8)		✓	
Documentation:			
Run logs, supporting documentation reviewed	✓		
Sample preparation described	✓		
Spectral and retention time verification	✓		
Manual integration verified and documented	✓		
Data qualified as appropriate			
Documentation is legible and complete	✓		
TICS reviewed		✓	N/A
Narrative reviewed	✓		
Calculations/Report:			

Calculations and transcriptions checked ✓
Element Draft Report reviewed ✓
Deviations and problems documented ✓
Problematic Compounds Reviewed/Verified N/A

Additional Comments by Peer Reviewer:

Analyst Ensures that the Data Case File is Complete and Accurate:

✓ Sample list (bench sheet or work order report)
✓ Sample prep / Instrument run logs
✓ Standard / Reagent prep logs
✓ Perform necessary calculations
✓ Raw Data
✓ Element Peer Review Report
✓ Data Status set to analyzed
✓ Check Internal Standard Area Counts

Additional Comments by Analyst on data issues:

Freedom_0005790_0221

Ex. 5 - Deliberative

Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Summary of Results / Project Information

Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Log Book Copies, Run Logs

Sequence Name: C:\msdchem\1\sequence\080813.S
Comment: Tune/ ICAL
Operator: KLP OX-HP5975MSD
Data Path: D:\DATA\080813\
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	26	DFTPP
	Datafile		08081301
	Method		FASTDFTPP
2)	Calibration	1	08081302 R3QA201 80 A959
3)	Calibration	2	08081303 R3QA201 60 A960
4)	Calibration	3	08081304 R3QA201 40 A961
5)	Calibration	4	08081305 R3QA201 20 A962
6)	Calibration	5	08081306 R3QA201 10 A963
7)	Calibration	6	08081307 R3QA201 5 A964
8)	Calibration	7	08081308 R3QA201 SSV 40 A966
9)	Calibration	8	08081309 R3QA201 80 A959

Freedom_0005790_0225

```
   Sequence Name: C:\msdchem\1\sequence\020514.S
         Comment: WV Samples WO#1401014
        Operator: KLP   OX-HP5975MSD
       Data Path: D:\DATA\020514\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

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

   Method Sections To Run     On A Barcode Mismatch
    (X) Full Method             (X) Inject Anyway
    ( ) Reprocessing Only       ( ) Don't Inject

   ----------------------------------------------------------------------
   Line                   Sample Name/Misc Info
   ----------------------------------------------------------------------
     1) Sample        26  DFTPP
        Datafile         02051401
        Method           FASTDFTPP
     2) DailyCal       1  02051402 R3QA201  40 A961
     3) Blank          2  02051403 R3QA201  BB40301-BLK1
     4) Spike          3  02051404 R3QA201  BB40301-BS1
     5) Sample         4  02051405 R3QA201  1401014-01
     6) Sample         5  02051406 R3QA201  1401014-02
     7) Sample         6  02051407 R3QA201  1401014-03
     8) Sample         7  02051408 R3QA201  1401014-04
```

```
   Sequence Name: C:\msdchem\1\sequence\021114.S
         Comment: WV Samples WO#1401014
        Operator: KLP   OX-HP5975MSD
       Data Path: D:\DATA\020514\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

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

   Method Sections To Run     On A Barcode Mismatch
    (X) Full Method             (X) Inject Anyway
    ( ) Reprocessing Only       ( ) Don't Inject

   ----------------------------------------------------------------------
   Line                   Sample Name/Misc Info
   ----------------------------------------------------------------------
     1) Sample        26  DFTPP
        Datafile         02111401
        Method           FASTDFTPP
     2) DailyCal       1  02111402 R3QA201  40 A961
     3) Blank          2  02111403 R3QA201  BB40502-BLK1
     4) Spike          3  02111404 R3QA201  BB40502-BS1
     5) Sample         4  02111405 R3QA201  1401014-06   1/1000 x
     6) Sample         5  02111406 R3QA201  1401014-07
```


Freedom_0005790_0227

Sequence Name: C:\msdchem\1\sequence\022414.S
Comment: WV Samples WO#1401014
Operator: KLP OX-HP5975MSD
Data Path: D:\DATA\022414\
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	26	DFTPP		
	Datafile		02241401		
	Method		FASTDFTPP		
2)	DailyCal	1	02241402	R3QA201	40 A961
3)	Blank	2	02241403	R3QA201	BB41002-BLK1
4)	Spike	3	02241404	R3QA201	BB41002-BS1
5)	Sample	4	02241405	R3QA201	1401014-09
6)	Blank	5	02241406	R3QA201	BB41801-BLK1
7)	Spike	6	02241407	R3QA201	BB41801-BS1
8)	Sample	7	02241408	R3QA201	1401014-12
9)	Spike	8	02241409	R3QA201	BB41801-MS1
10)	Spike	9	02241410	R3QA201	BB41801-MSD1
11)	Sample	10	02241411	R3QA201	1401014-13
12)	Sample	11	02241412	R3QA201	1401014-14
13)	Sample	12	02241413	R3QA201	1401014-16
14)	Sample	13	02241414	R3QA201	1401014-15

Freedom_0005790_0228

Ex. 5 - Deliberative

Ex. 5 - Deliberative

3/20/2013 SVOA CAL Stock Std. expires 3/20/2014 KPoff

Std	Initial Concentration	Volume Taken	Final Volume	Final Concentration	Lot #	MeCl2
BNA mix 1	2000 µg/ml	1ml	10ml	200 µg/ml	A955	13749
BNA mix 2						
Benzidines						
HS mix 1						
HS mix 2						
Phenols						
PAH mix						
OLMO4 mix						

NOTEBOOK INSERT LABEL

TCL Base/Neutrals Mix 2 48120-U
Lot: LB95606 EXP: SEP/2015 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Analytical
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

NOTEBOOK INSERT LABEL

TCL Base Neutrals Mix 1 48900-U
Lot: LB87423 EXP: OCT/2014 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Analytical
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

NOTEBOOK INSERT LABEL

TCL Benzidines Mix 4-8906
Lot: LB95197 EXP: SEP/2015 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Analytical
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

NOTEBOOK INSERT LABEL

TCL Hazardous Substances Mix 1 4-8907
Lot: LB95713 EXP: SEP/2015 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Analytical
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

NOTEBOOK INSERT LABEL

TCL Hazardous Substances Mix 2 4-8908
Lot: LB96502 EXP: DEC/2015 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Solutions within.
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

NOTEBOOK INSERT LABEL

TCL Phenols Mix 4-8904
Lot: LB92624 EXP: MAY/2015 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Solutions within.
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

NOTEBOOK INSERT LABEL

TCL Polynuclear Aromatic Hydrocarbons Mix 48905-U
Lot: LB92157 EXP: APR/2015 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Solutions within.
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

NOTEBOOK INSERT LABEL

CLP SOW OLM O4 Semi-volatiles Mix 47514-U
Lot: LB96610 EXP: NOV/2014 STORAGE: REFRIGERATE 1 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Analytical
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

/20/13 Internal Std. KPoff expires 3/20/14

NOTEBOOK INSERT LABEL

Semivolatile Internal Standard Mix 4-8902
Lot: LB94031 EXP: JUL/2015 STORAGE: REFRIGERATE 2 x 1ml
DATE RECEIVED: 2/12/13 KLP
SUPELCO Solutions within.
595 North Harrison Road • Bellefonte, PA 16823-0048 USA • Phone 814-359-3441

A958
CONC. 2000 µg/ml

Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Calibration Data

Response Factor Report OX-HP5975

Method Path : C:\msdchem\1\METHODS\
Method File : 080913.M
Title : svoa
Last Update : Mon Aug 19 15:22:47 2013
Response Via : Initial Calibration

Calibration Files
80 =08081302.D 20 =08081305.D 5 =08081307.D 40 =08081304.D 60 =08081303.D
10 =08081306.D

		Compound	80	20	5	40	60	10	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	----------	----------	ISTD	----------	----------	----------	
2)	T	N-Nitrosodimet...	0.851	0.726	0.761	0.746	0.678	0.768	0.755	7.52
3)	S	2-Fluorophenol	0.736	0.669	0.708	0.605	0.566	0.698	0.664	9.86
4)	T	Benzaldehyde	0.081	0.452	0.636	0.198	0.110	0.610	0.348	71.88
5)	T	Aniline	0.111	0.827	1.020	0.475	0.090	0.937	0.577	71.61
6)	S	Phenol-D5	0.967	0.902	0.953	0.800	0.730	0.931	0.880	10.79
7)	T	Phenol	1.130	1.053	1.160	1.015	0.898	1.110	1.061	9.00
8)	T	2-Chlorophenol	0.850	0.803	0.879	0.781	0.676	0.867	0.809	9.33
9)	T	Bis(2-chloroet...	0.967	0.836	0.887	0.825	0.733	0.879	0.854	9.11
10)	T	1,3-Dichlorobe...	1.001	0.923	1.005	0.904	0.802	1.004	0.940	8.60
11)	T	1,4-Dichlorobe...	0.999	0.936	1.011	0.906	0.794	1.005	0.942	8.92
12)	T	1,2-Dichlorobe...	0.921	0.894	0.996	0.852	0.735	0.967	0.894	10.46
13)	T	Benzyl Alcohol	0.717	0.669	0.706	0.641	0.561	0.691	0.664	8.64
14)	T	2-Methylphenol	0.787	0.737	0.780	0.725	0.622	0.757	0.735	8.21
15)	t	bis(2-Chlorois...	1.711	1.558	1.658	1.520	1.336	1.614	1.566	8.43
16)	T	Acetophenone	1.251	1.156	1.229	1.113	0.989	1.202	1.157	8.33
17)	T	Hexachloroethane	0.388	0.347	0.397	0.340	0.306	0.381	0.360	9.64
18)	T	4-Methylphenol	0.922	0.840	0.900	0.816	0.725	0.879	0.847	8.40
19)	T	N-Nitroso-di-n...	0.482	0.640	0.678	0.617	0.547	0.656	0.603	12.36
20)	I	Naphthalene-D8	----------	----------	----------	ISTD	----------	----------	----------	
21)	S	Nitrobenzene-D5	0.359	0.357	0.355	0.355	0.351	0.358	0.356	0.76
22)	T	Nitrobenzene	0.373	0.364	0.370	0.396	0.378	0.370	0.375	3.01
23)	T	Isophorone	0.655	0.660	0.652	0.693	0.665	0.656	0.663	2.28
24)	T	2-Nitrophenol	0.191	0.193	0.227	0.206	0.196	0.206	0.203	6.65
25)	T	2,4-Dimethylph...	0.343	0.310	0.286	0.354	0.345	0.286	0.321	9.63
26)	T	bis(2-Chloroet...	0.406	0.402	0.398	0.432	0.411	0.400	0.408	3.08
27)	T	2,4-Dichloroph...	0.283	0.279	0.267	0.305	0.288	0.277	0.283	4.57
28)	T	1,2,4-Trichlor...	0.311	0.310	0.314	0.337	0.319	0.320	0.319	3.06
29)	T	Naphthalene	0.923	1.058	1.068	1.139	0.936	1.081	1.034	8.31
30)	T	4-Chloroaniline	0.149	0.166	0.236	0.166	0.233	0.180	0.188	19.65
31)	T	Hexachlorobuta...	0.172	0.176	0.181	0.186	0.173	0.182	0.178	3.19
32)	T	Caprolactam	0.079	0.110	0.107	0.105	0.087	0.107	0.099	12.88
33)	T	4-Chloro-3-met...	0.305	0.308	0.279	0.337	0.307	0.291	0.304	6.41
34)	T	2-Methylnaphth...	0.719	0.725	0.724	0.768	0.730	0.735	0.733	2.45
35)	T	1,2,4,5-Tetrac...	0.314	0.320	0.328	0.315	0.311	0.321	0.318	1.91
36)	I	Acenaphthene-d10	----------	----------	----------	ISTD	----------	----------	----------	
37)	T	Hexachlorocycl...	0.320	0.304	0.245	0.345	0.325	0.272	0.302	12.29
38)	T	2,4,6-Trichlor...	0.350	0.336	0.322	0.371	0.361	0.334	0.346	5.27
39)	T	2,4,5-Trichlor...	0.357	0.347	0.317	0.389	0.368	0.330	0.351	7.34
40)	S	2-Fluorobiphenyl	1.301	1.263	1.268	1.283	1.284	1.285	1.281	1.04
41)	T	2-Chloronaphth...	1.037	1.056	1.099	1.145	1.074	1.106	1.086	3.56
42)	T	Biphenyl	1.342	1.436	1.507	1.550	1.403	1.494	1.455	5.23
43)	T	2-Nitroaniline	0.374	0.372	0.352	0.385	0.397	0.361	0.374	4.26
44)	T	Acenaphthylene	1.452	1.819	1.868	1.758	1.555	1.892	1.724	10.42
45)	T	Dimethylphthalate	1.236	1.265	1.323	1.326	1.269	1.310	1.288	2.85
46)	T	2,6-Dinitrotol...	0.305	0.311	0.294	0.328	0.318	0.305	0.310	3.79
47)	T	3-Nitroaniline	0.374	0.372	0.353	0.385	0.397	0.361	0.374	4.25
48)	T	Acenaphthene	1.151	1.163	1.222	1.244	1.176	1.211	1.194	3.07
49)	T	2,4-Dinitrophenol	0.182	0.181	0.103	0.193	0.195	0.125	0.163	23.76
50)	T	Dibenzofuran	1.541	1.654	1.691	1.756	1.607	1.694	1.657	4.54
51)	T	4-Nitrophenol	0.225	0.221	0.163	0.225	0.231	0.183	0.208	13.41
52)	T	2,4-Dinitrotol...	0.420	0.437	0.411	0.447	0.439	0.420	0.429	3.24
53)		2,3,4,6-tetrac...	0.314	0.320	0.304	0.313	0.319	0.308	0.313	1.94

Freedom_0005790_0233

Method Path : C:\msdchem\1\METHODS\
Method File : 080913.M
Title : svoa

54)	T	Fluorene	1.341	1.403	1.432	1.464	1.384	1.426	1.408	3.04
55)	T	Diethylphthalate	1.239	1.384	1.474	1.402	1.271	1.433	1.367	6.78
56)	T	4-Chlorophenyl...	0.571	0.632	0.670	0.649	0.590	0.657	0.628	6.24
57)	T	4-Nitroaniline	0.097	0.187	0.147	0.117	0.097	0.116	0.127	27.38
58)	I	Phenanthrene-D10	----------ISTD----------							
59)	T	4,6-Dinitro-2-...	0.142	0.142	0.112	0.155	0.147	0.121	0.137	11.98
60)	T	n-Nitrosodiphe...	0.353	0.484	0.544	0.442	0.411	0.528	0.460	15.83
61)	T	Azobenzene	0.037	0.038	0.029	0.039	0.040	0.029	0.035	14.17
62)	S	2,4,6-Tribromo...	0.086	0.086	0.085	0.086	0.085	0.084	0.085	1.05
63)	T	4-Bromophenyl-...	0.202	0.204	0.213	0.222	0.210	0.212	0.211	3.29
64)	T	Hexachlorobenzene	0.212	0.209	0.224	0.229	0.217	0.222	0.219	3.46
65)	T	Atrazine	0.000	0.121	0.211	0.002	0.001	0.206	0.090	114.05
66)	T	Pentachlorophenol	0.164	0.154	0.132	0.173	0.169	0.142	0.156	10.34
67)	T	Phenanthrene	1.045	1.143	1.205	1.228	1.062	1.192	1.146	6.70
68)	T	Anthracene	1.001	1.138	1.189	1.200	1.012	1.180	1.120	8.09
69)	T	Carbazole	0.183	0.260	0.587	0.167	0.257	0.380	0.306	51.41
70)	T	Di-n-butylphth...	1.095	1.425	1.414	1.452	1.131	1.432	1.325	12.44
71)	T	Benzidine	0.001	0.006	0.016	0.001	0.002	0.017	0.007	108.52
72)	T	Fluoranthene	1.209	1.335	1.346	1.454	1.232	1.343	1.320	6.74
73)	I	Chrysene-D12	----------ISTD----------							
74)	T	Pyrene	1.217	1.293	1.401	1.370	1.262	1.382	1.321	5.60
75)	S	Terphenyl-d14	0.913	0.855	0.883	0.852	0.902	0.875	0.880	2.80
76)	T	Benzyl butyl p...	0.651	0.602	0.565	0.668	0.671	0.595	0.625	7.06
77)	T	Benz[a]anthracene	1.215	1.211	1.168	1.295	1.256	1.194	1.223	3.72
78)	T	Chrysene	1.082	1.125	1.191	1.202	1.130	1.167	1.150	3.95
79)	T	3,3'-Dichlorob...	0.171	0.200	0.154	0.199	0.201	0.161	0.181	11.85
80)	T	bis(2-Ethylhex...	0.842	0.863	0.849	0.925	0.861	0.872	0.869	3.39
81)	I	Perylene-D12	----------ISTD----------							
82)	T	Di-n-Octylphth...	1.437	1.504	1.390	1.810	1.387	1.556	1.514	10.53
83)	T	Benzo[b]fluora...	1.490	1.256	1.149	1.484	1.537	1.210	1.354	12.42
84)	T	Benzo[k]fluora...	1.162	1.109	1.235	1.280	1.010	1.291	1.181	9.23
85)	T	Benzo[a]pyrene	1.028	1.015	0.960	1.088	1.037	0.991	1.020	4.25
86)	T	Indeno[1,2,3-c...	0.764	0.771	0.565	0.686	0.808	0.577	0.695	14.98
87)	T	Dibenz[a,h]ant...	0.772	0.813	0.627	0.732	0.800	0.620	0.727	11.69
88)	T	Benzo[ghi]pery...	0.755	0.794	0.675	0.694	0.775	0.638	0.722	8.58

(#) = Out of Range

Freedom_0005790_0234

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 09:20:37 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.312	150	1727767	20.00	ug/mL	0.02
20) Naphthalene-D8	9.767	136	4747778	20.00	ug/mL	0.02
36) Acenaphthene-d10	13.431	164	2992369	20.00	ug/mL	0.01
58) Phenanthrene-D10	16.517	188	5174745	20.00	ug/mL	0.02
73) Chrysene-D12	22.829	240	5407799	20.00	ug/mL	0.03
81) Perylene-D12	25.610	264	3990758	20.00	ug/mL	0.02
System Monitoring Compounds						
3) 2-Fluorophenol	5.333	112	3180809	35.08	ug/mL	0.04
Spiked Amount 50.000	Range 21 - 110		Recovery = 70.16%			
6) Phenol-D5	6.874	99	4177401	34.63	ug/mL	0.04
Spiked Amount 50.000	Range 10 - 110		Recovery = 69.26%			
21) Nitrobenzene-D5	8.425	82	2131419	22.22	ug/mL	0.03
Spiked Amount 25.000	Range 35 - 114		Recovery = 88.88%			
40) 2-Fluorobiphenyl	12.099	172	4864806	22.38	ug/mL	0.02
Spiked Amount 25.000	Range 43 - 116		Recovery = 89.52%			
62) 2,4,6-Tribromophenol	15.127	330	1112666	31.66	ug/mL	0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 63.32%			
75) Terphenyl-d14	20.069	244	6174567	22.97	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 91.88%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.841	74	5877900	98.24	ug/mL#	1
4) Benzaldehyde	6.569	106	560585	18.97	ug/mL#	88
5) Aniline	6.831	93	767659	10.34	ug/mL#	1
7) Phenol	6.906	94	7808901	92.39	ug/mL#	63
8) 2-Chlorophenol	7.008	128	5873949	91.02	ug/mL#	62
9) Bis(2-chloroethyl) ether	6.997	93	6683772	94.22	ug/mL#	60
10) 1,3-Dichlorobenzene	7.243	146	6914736	92.37	ug/mL	97
11) 1,4-Dichlorobenzene	7.344	146	6905672	92.03	ug/mL	99
12) 1,2-Dichlorobenzene	7.676	146	6361658	89.08	ug/mL#	84
13) Benzyl Alcohol	7.687	79	4957895	93.82	ug/mL	94
14) 2-Methylphenol	7.970	108	5439751	96.15	ug/mL#	89
15) bis(2-Chloroisopropyl)...	7.981	45	11825794	95.00	ug/mL#	93
16) Acetophenone	8.174	105	8644250	93.95	ug/mL	90
17) Hexachloroethane	8.232	117	2678635	93.53	ug/mL#	76
18) 4-Methylphenol	8.264	107	6368668	94.59	ug/mL	100
19) N-Nitroso-di-n-propyla...	8.280	70	3331597	65.50	ug/mL#	54
22) Nitrobenzene	8.468	77	7086630	79.57	ug/mL#	71
23) Isophorone	8.960	82	12438515	78.98	ug/mL#	75
24) 2-Nitrophenol	9.088	139	3618115	75.03	ug/mL#	65
25) 2,4-Dimethylphenol	9.281	107	6511691	85.56	ug/mL	95
26) bis(2-Chloroethoxy)met...	9.473	93	7703047	79.51	ug/mL#	78
27) 2,4-Dichlorophenol	9.575	162	5382925	80.03	ug/mL#	81
28) 1,2,4-Trichlorobenzene	9.709	180	5915359	78.20	ug/mL	98
29) Naphthalene	9.805	128	17529355	71.41	ug/mL	97
30) 4-Chloroaniline	10.051	127	2826323	61.89	ug/mL#	89
31) Hexachlorobutadiene	10.227	225	3260851	77.04	ug/mL	99
32) Caprolactam	10.907	113	1506440	61.55	ug/mL#	1
33) 4-Chloro-3-methylphenol	11.131	107	5783146	80.02	ug/mL#	88
34) 2-Methylnaphthalene	11.238	142	13659600	78.45	ug/mL	96

Pery
25.610
24.433
1.177
close

Chrysene
24.433
22.829
1.604

SCW
9-26-13.

Freedom_0005790_0235

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 09:20:37 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35)	1,2,4,5-Tetrachloroben...	11.677	216	5968256	79.01	ug/ml	98
37)	Hexachlorocyclopentadiene	11.730	237	3834835	84.90	ug/mL	98
38)	2,4,6-Trichlorophenol	11.934	196	4188533	80.95	ug/mL#	88
39)	2,4,5-Trichlorophenol	12.014	196	4277885m	81.37	ug/mL	
41)	2-Chloronaphthalene	12.238	162	12411471	76.36	ug/mL#	75
42)	Biphenyl	12.265	154	16068601	73.79	ug/mL	100
43)	2-Nitroaniline	12.597	138	4478131	80.10	ug/mL#	62
44)	Acenaphthylene	13.100	152	17384721	67.39	ug/mL	87
45)	Dimethylphthalate	13.121	163	14795662	76.77	ug/mL#	67
46)	2,6-Dinitrotoluene	13.239	165	3652585	78.69	ug/mL#	56
47)	3-Nitroaniline	12.597	138	4478131	80.10	ug/mL#	56
48)	Acenaphthene	13.511	153	13775445	77.08	ug/mL	99
49)	2,4-Dinitrophenol	13.693	184	2174991	89.13	ug/mL#	52
50)	Dibenzofuran	13.848	168	18450114	74.41	ug/mL	93
51)	4-Nitrophenol	13.929	139	2692804m	86.89	ug/mL	
52)	2,4-Dinitrotoluene	14.041	165	5027855	78.34	ug/mL#	61
53)	2,3,4,6-tetrachlorophenol	14.244	232	3758229	80.30	ug/mL#	83
54)	Fluorene	14.581	166	16052153	76.18	ug/mL	99
55)	Diethylphthalate	14.635	149	14834160	72.52	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.651	204	6840278	72.77	ug/mL#	87
57)	4-Nitroaniline	14.784	138	1162373m	90.56	ug/mL	
59)	4,6-Dinitro-2-methylph...	14.886	198	2939882	83.20	ug/mL#	76
60)	n-Nitrosodiphenylamine	14.940	169	7310902	61.36	ug/mL	96
61)	Azobenzene	14.886	77	761289	80.75	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.651	248	4187263	76.82	ug/mL#	84
64)	Hexachlorobenzene	15.908	284	4389182	77.51	ug/mL	100
65)	Atrazine	16.170	200	9834m	0.36	ug/mL	
66)	Pentachlorophenol	16.309	266	3396148	84.38	ug/mL	96
67)	Phenanthrene	16.571	178	21635971	72.98	ug/mL	98
68)	Anthracene	16.667	178	20714690	71.45	ug/mL	97
69)	Carbazole	17.036	167	3789333m	51.64	ug/mL	
70)	Di-n-butylphthalate	18.058	149	22665823m	66.06	ug/mL	
71)	Benzidine	19.502	184	16250	9.00	ug/mL#	53
72)	Fluoranthene	19.085	202	25015163m	73.28	ug/mL	
74)	Pyrene	19.555	202	26333667m	73.75	ug/mL	
76)	Benzyl butyl phthalate	21.743	149	14078120	83.27	ug/mL#	83
77)	Benz[a]anthracene	22.802	228	26291327	79.49	ug/mL	98
78)	Chrysene	22.904	228	23410054m	75.37	ug/mL	
79)	3,3'-Dichlorobenzidine	22.866	252	3699232	75.58	ug/mL#	52
80)	bis(2-Ethylhexyl)phtha...	23.289	149	18210878	77.54	ug/mL#	82
82)	Di-n-Octylphthalate	24.433	149	22935138m	75.87	ug/mL	
83)	Benzo[b]fluoranthene	24.931	252	23792515	88.00	ug/mL	98
84)	Benzo[k]fluoranthene	24.974	252	18541827m	78.63	ug/mL	
85)	Benzo[a]pyrene	25.514	252	16410706	80.56	ug/mL	98
86)	Indeno[1,2,3-cd]pyrene	27.883	276	12195555	87.87	ug/mL	100
87)	Dibenz[a,h]anthracene	27.953	278	12318050	85.40	ug/mL#	95
88)	Benzo[ghi]perylene	28.504	276	12058968	83.57	ug/mL	98

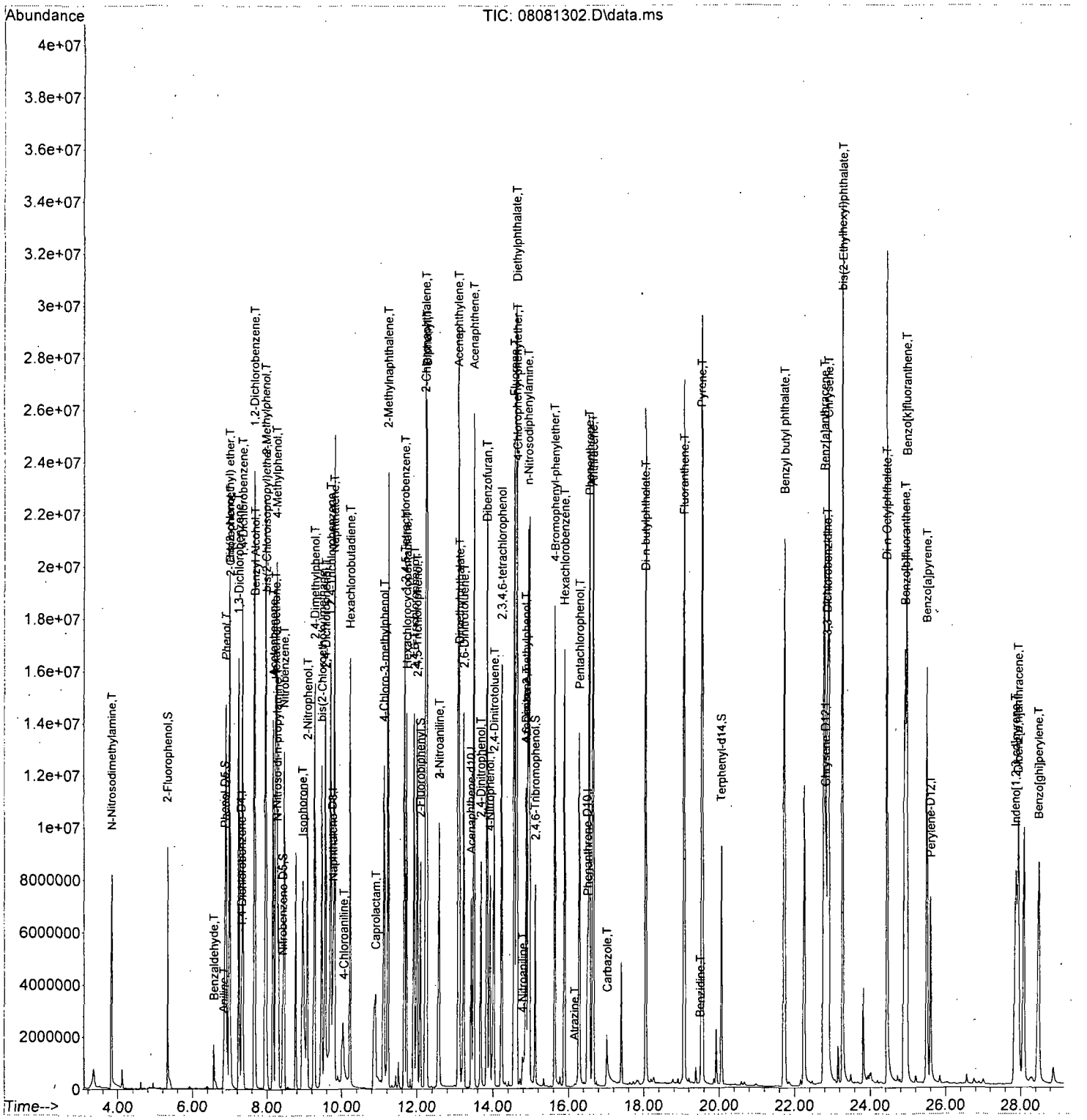
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0236

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 09:20:37 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration

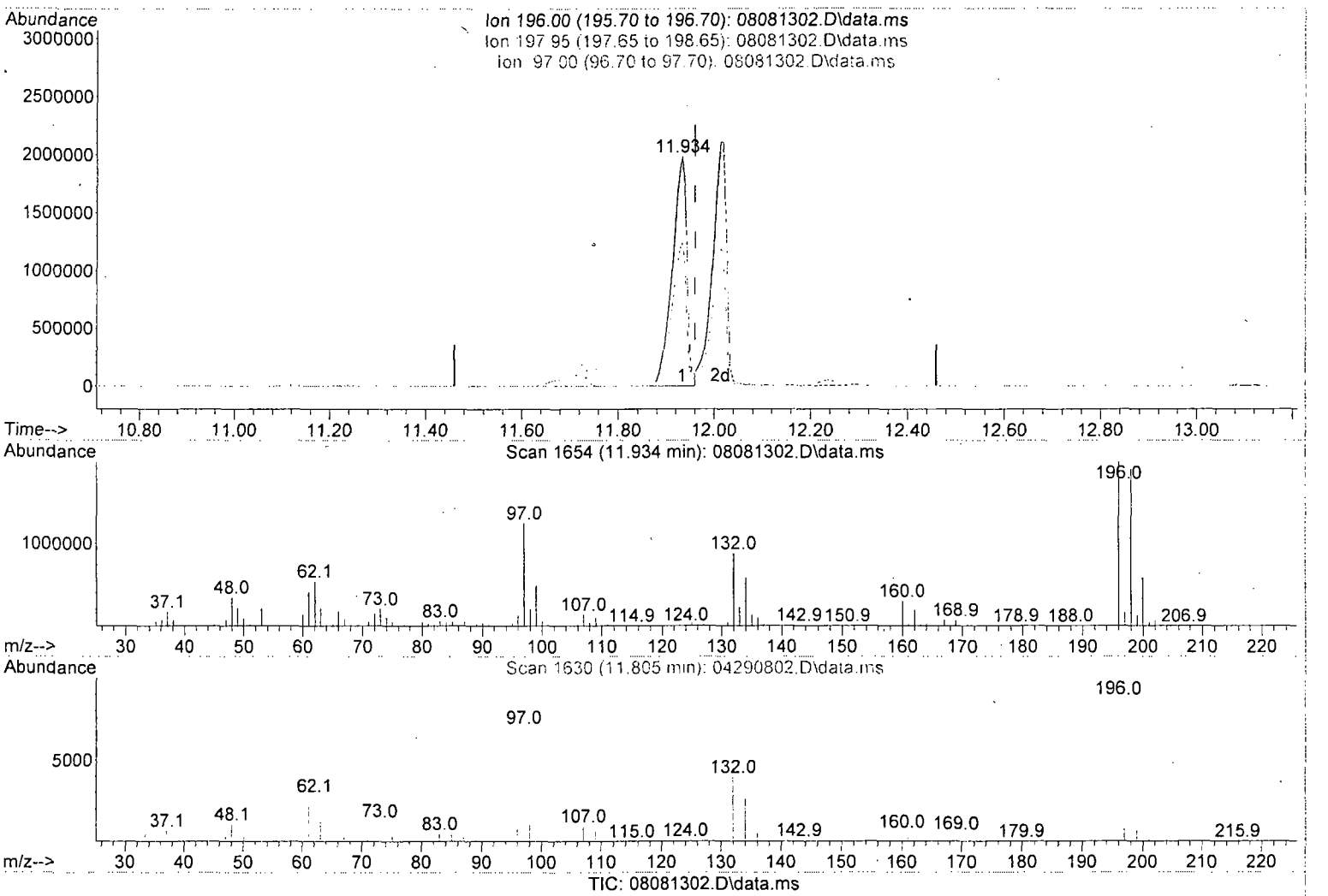


Freedom_0005790_0237

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(39) 2,4,5-Trichlorophenol (T)

11.934min (-0.027) 79.67 ug/mL

response 4188533

Ion	Exp%	Act%
196.00	100	100
197.95	97.30	95.05
97.00	35.60	64.09#
0.00	0.00	0.00

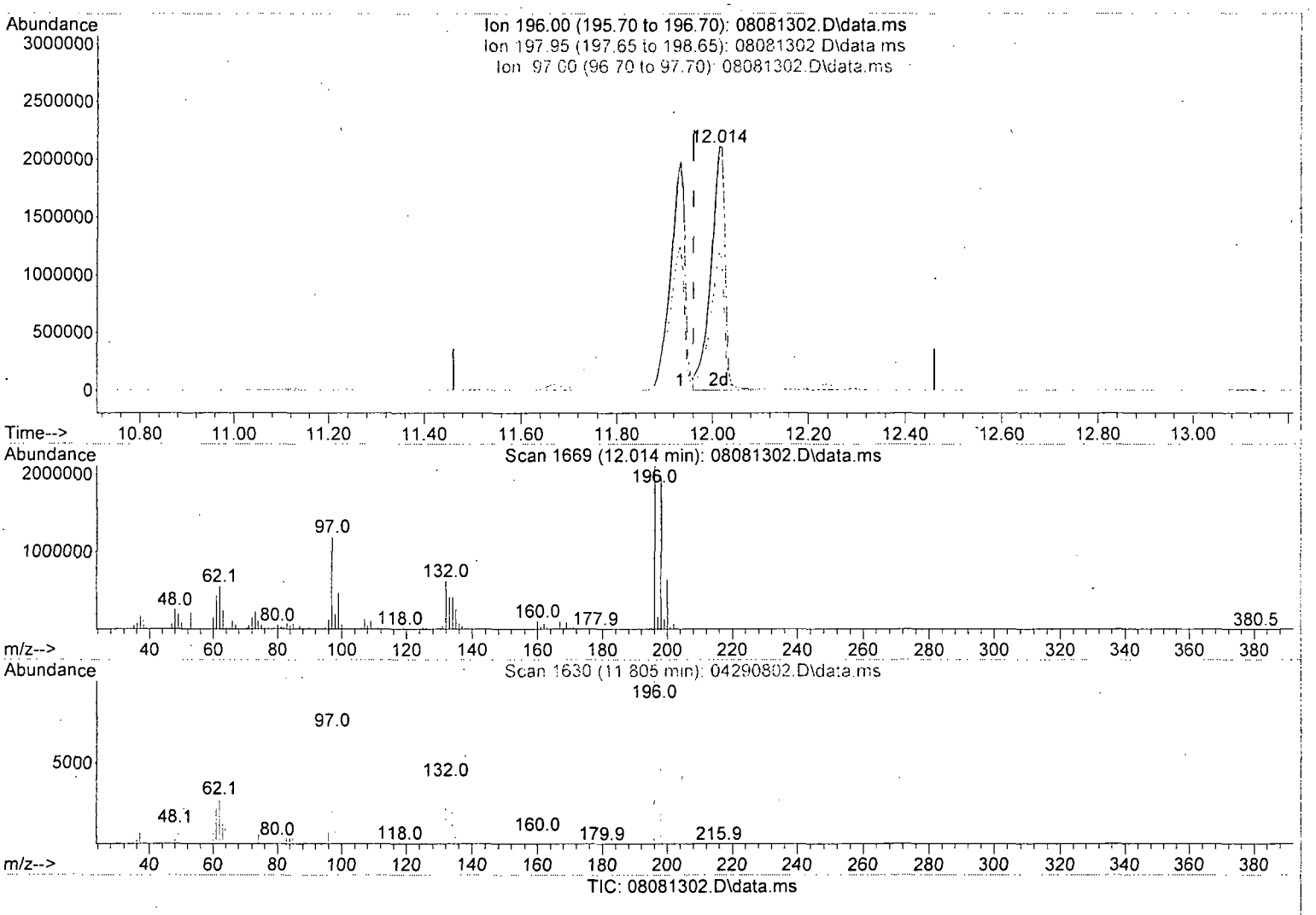
Below
with Peak Integrated
KLP
8/14/13

Freedom_0005790_0238

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(39) 2,4,5-Trichlorophenol (T)

12.014min (+0.054) 81.37 ug/mL m

response 4277885

Ion	Exp%	Act%
196.00	100	100
197.95	97.30	93.06
97.00	35.60	62.75#
0.00	0.00	0.00

After
KP
8/14/13

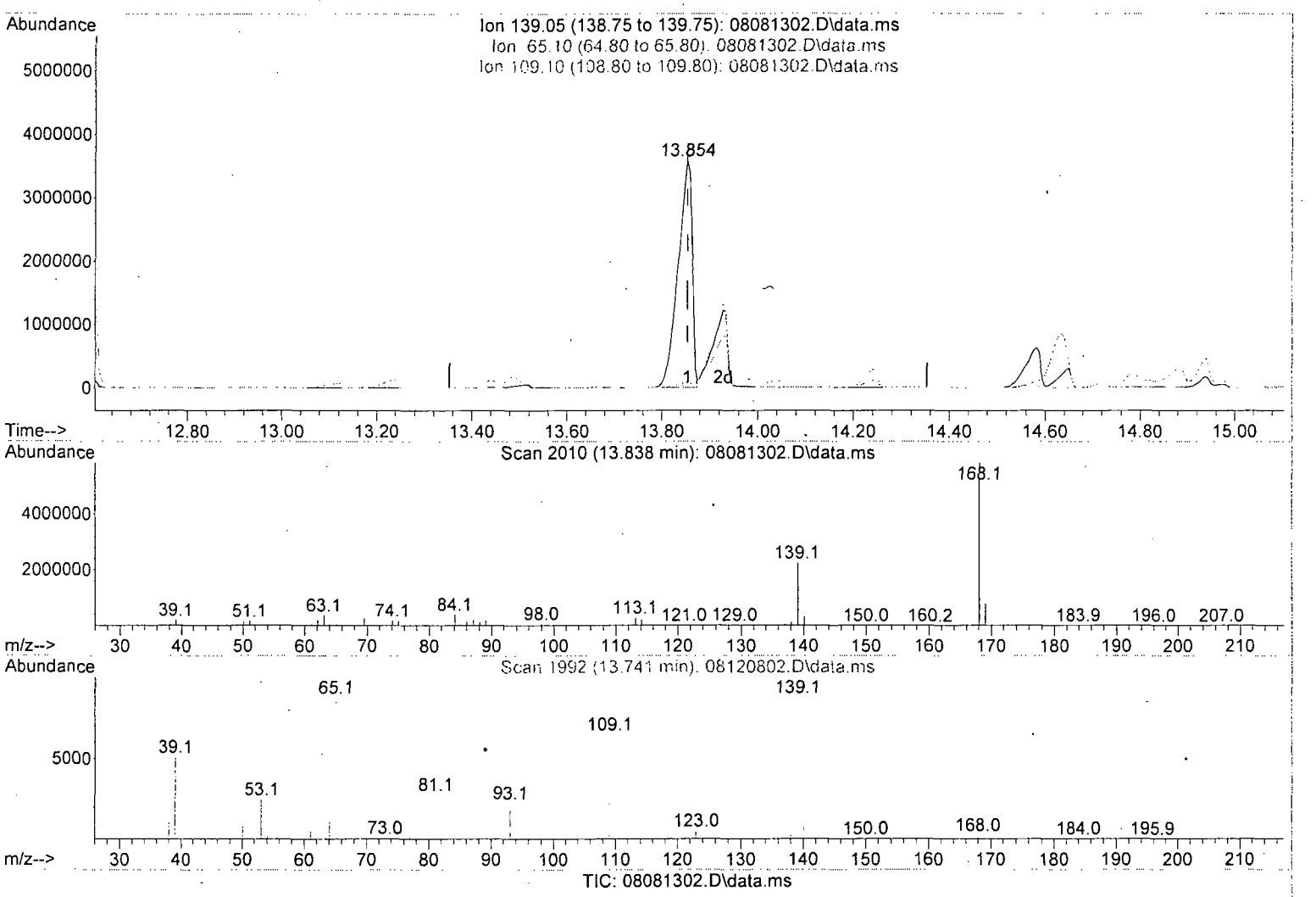
ERD
2/26/14

Freedom_0005790_0239

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(51) 4-Nitrophenol (T)

13.854min (+0.000) 235.36 ug/mL

response 7293723

Ion	Exp%	Act%
139.05	100	100
65.10	61.50	2.10#
109.10	47.20	1.13#
0.00	0.00	0.00

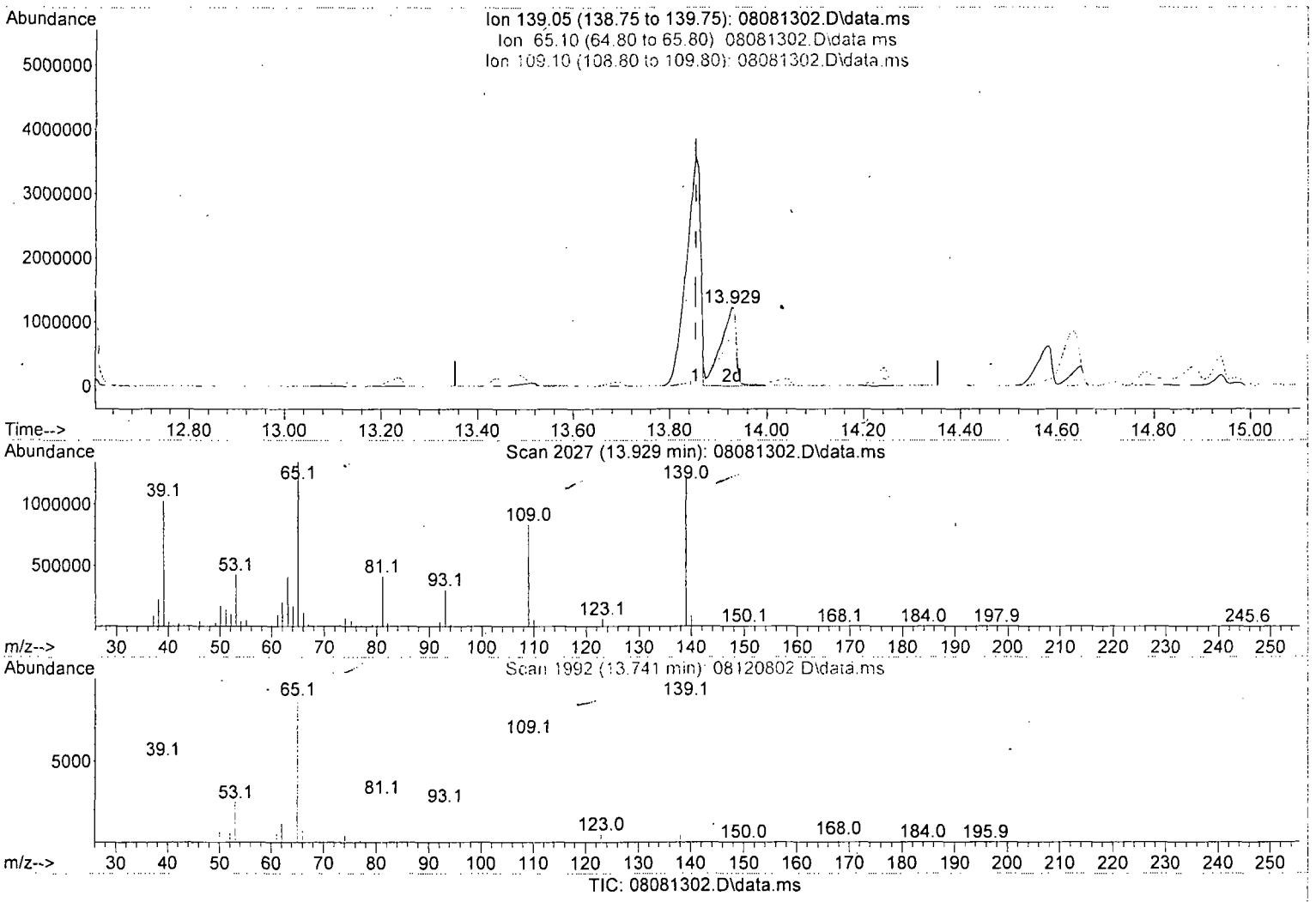
Retest
Wrong Peak Integrated
KLP
8/14/13

Freedom_0005790_0240

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(51) 4-Nitrophenol (T)

13.929min (+0.075) 86.89 ug/mL m

response 2692804

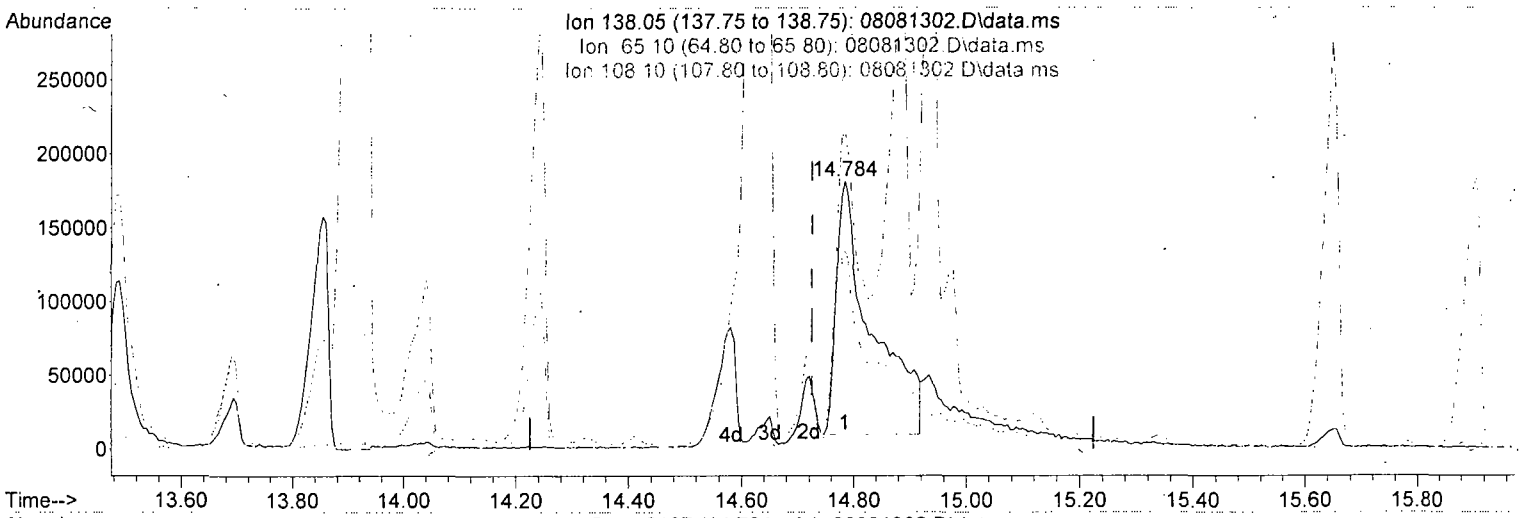
Ion	Exp%	Act%
139.05	100	100
65.10	61.50	5.69#
109.10	47.20	3.07#
0.00	0.00	0.00

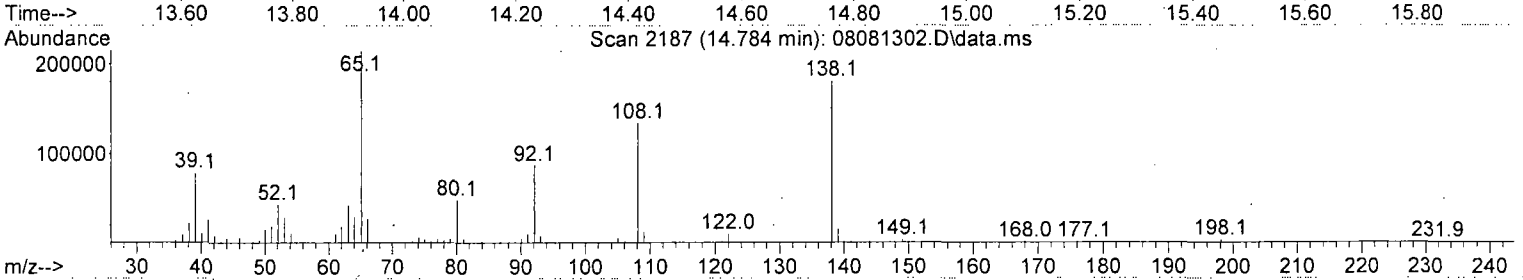
Atto
8/14/13
ERS
2/26/14

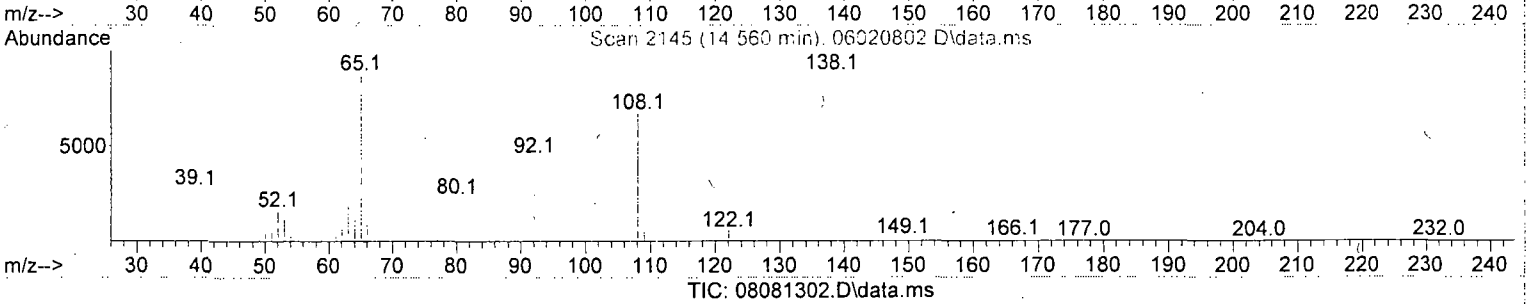
Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration







TIC: 08081302.D\data.ms

(57) 4-Nitroaniline (T)

14.784min (+0.059) 58.58 ug/mL

response 751887

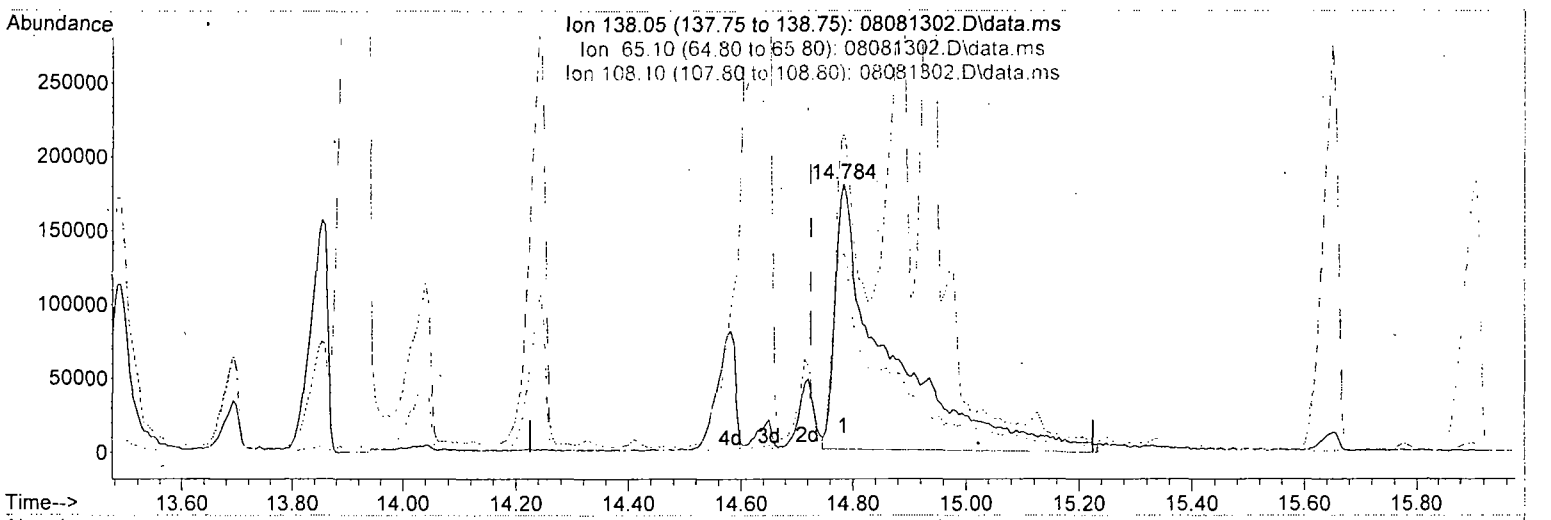
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	75.52
108.10	51.50	48.06
0.00	0.00	0.00

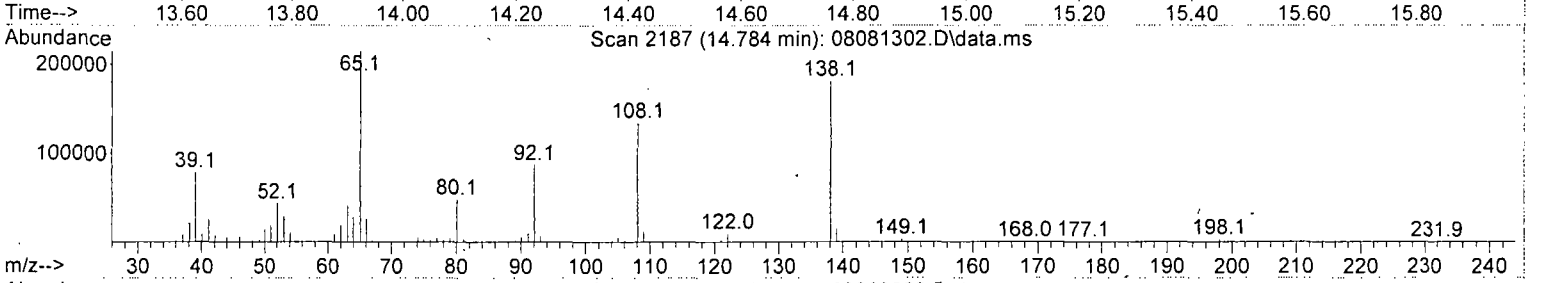
Before
Incomplete Integration
KP
8/14/13

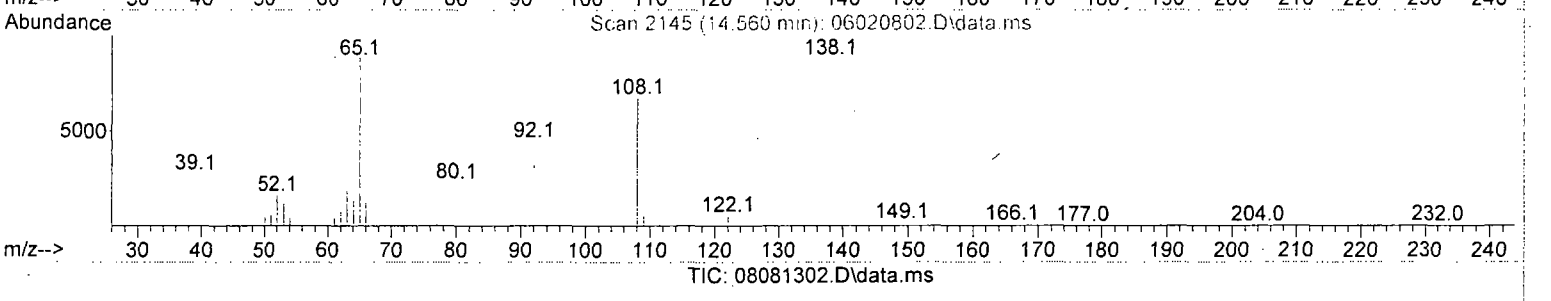
Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration







TIC: 08081302.D\data.ms

(57) 4-Nitroaniline (T)

14.784min (+0.059) 90.56 ug/mL m

response 1162373

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	48.85#
108.10	51.50	31.09#
0.00	0.00	0.00

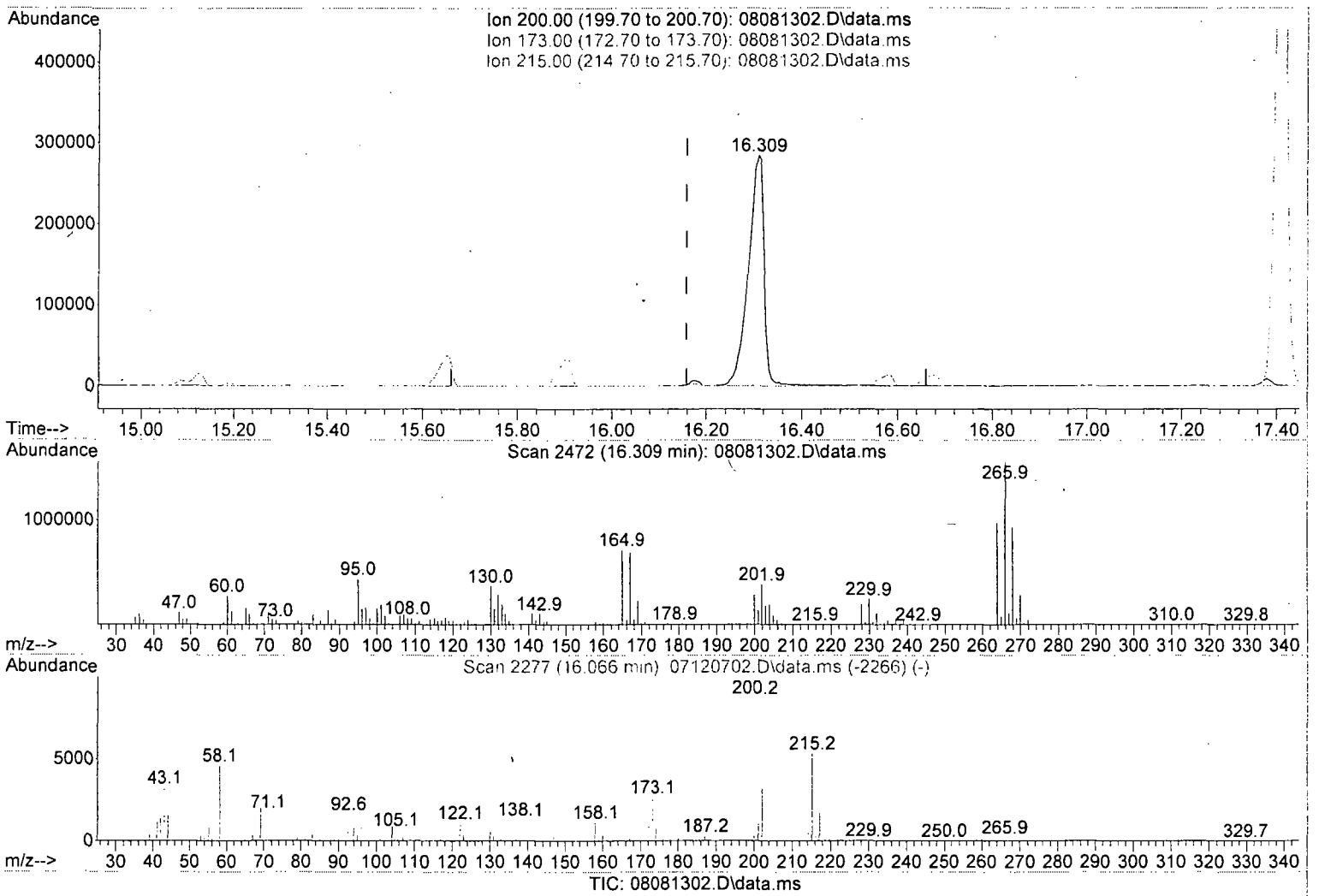
KLP 8/14/13

ERY 2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 10:37:00 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(65) Atrazine (T)

16.309min (+0.150) 23.71 ug/mL

response 646174

Ion	Exp%	Act%
200.00	100	100
173.00	25.00	0.00#
215.00	25.00	0.00#
0.00	0.00	0.00

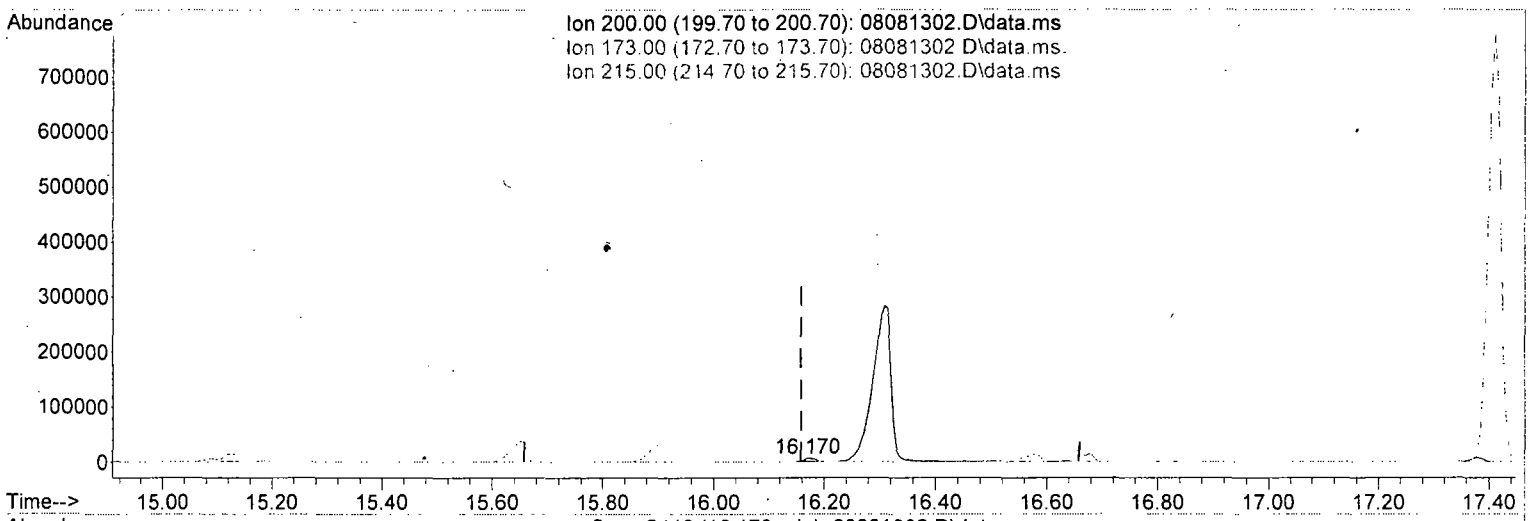
Below
Wrong Peak Integrated
LCP
8/14/13

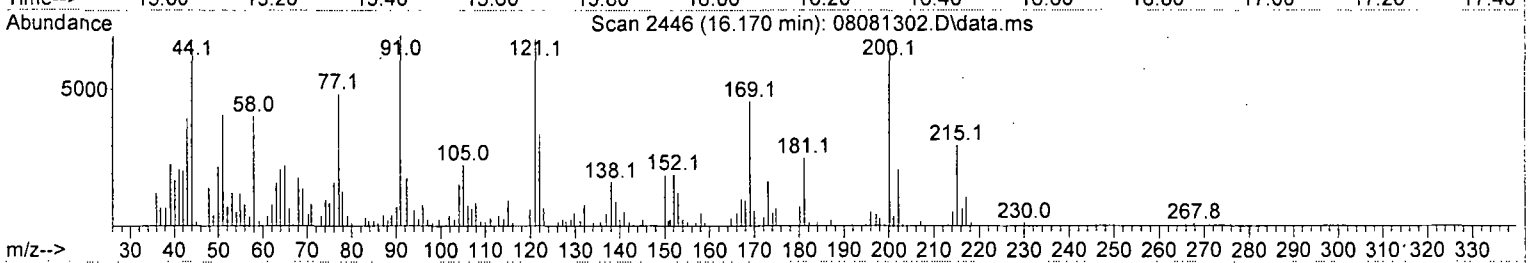
Freedom_0005790_0244

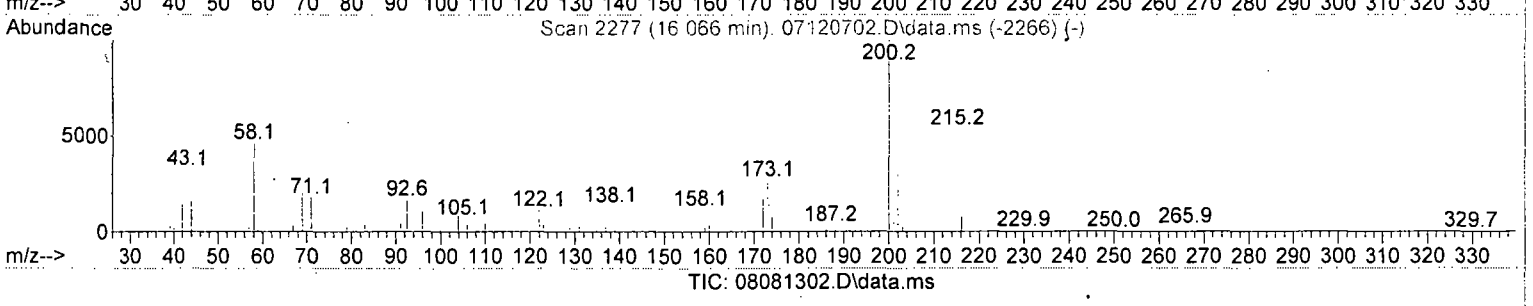
Quantitation Report .(Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 10:37:00 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration







TIC: 08081302.D\data.ms

(65) Atrazine (T)

16.170min (+0.011) 0.36 ug/mL m

response 9834

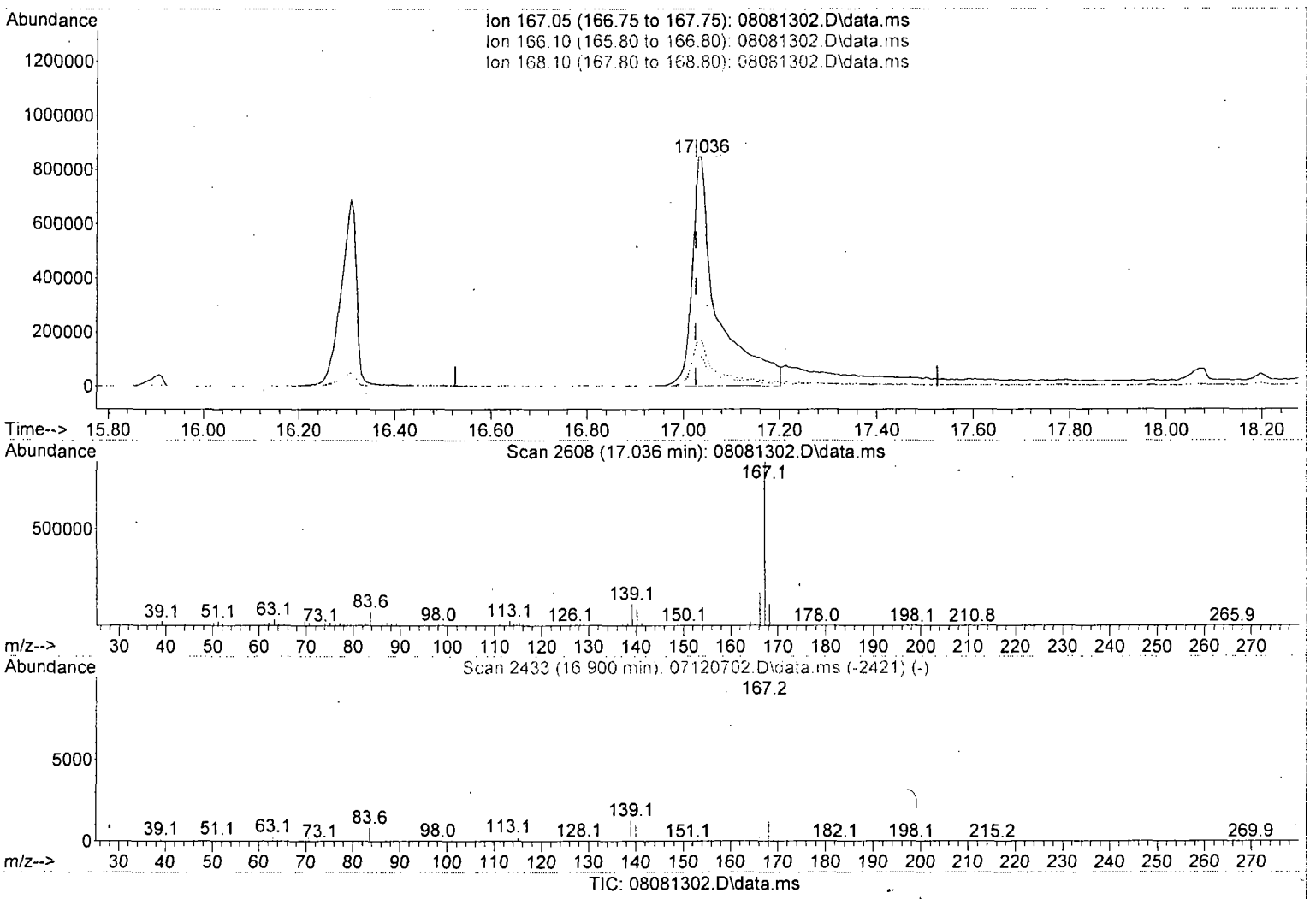
Ion	Exp%	Act%
200.00	100	100
173.00	25.00	0.00#
215.00	25.00	0.00#
0.00	0.00	0.00

After
LW
8/14/13
ABY
2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:25:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(69) Carbazole (T)

17.036min (+0.011) 41.82 ug/mL

response 3068962

Ion	Exp%	Act%
167.05	100	100
166.10	20.50	18.06
168.10	13.50	12.00
0.00	0.00	0.00

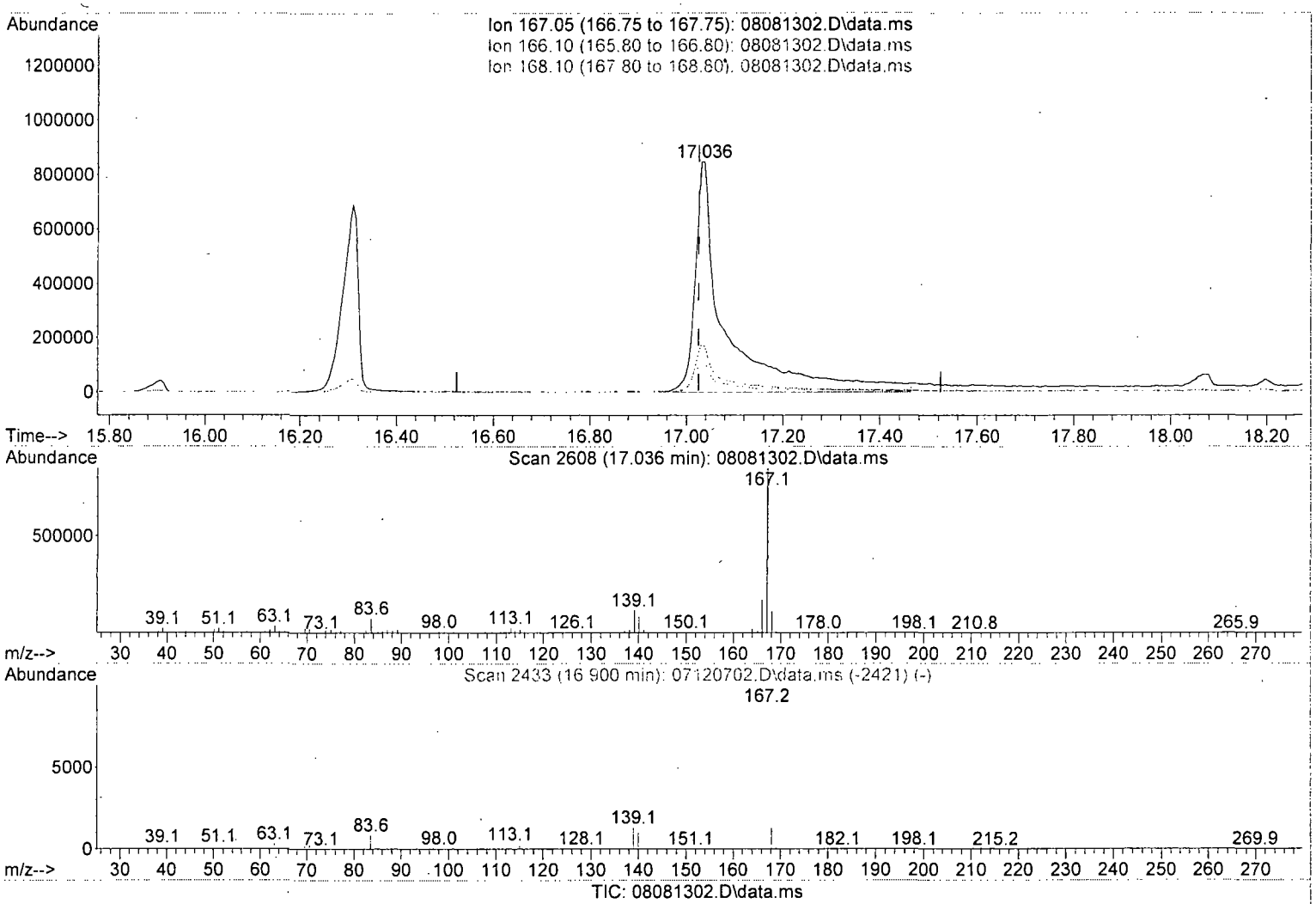
Bad Incorrect Integration
KLP
8/14/13

Freedom_0005790_0246

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:25:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(69) Carbazole (T)

17.036min (+0.011) 51.64 ug/mL m

response 3789333

Ion	Exp%	Act%
167.05	100	100
166.10	20.50	14.63#
168.10	13.50	9.72#
0.00	0.00	0.00

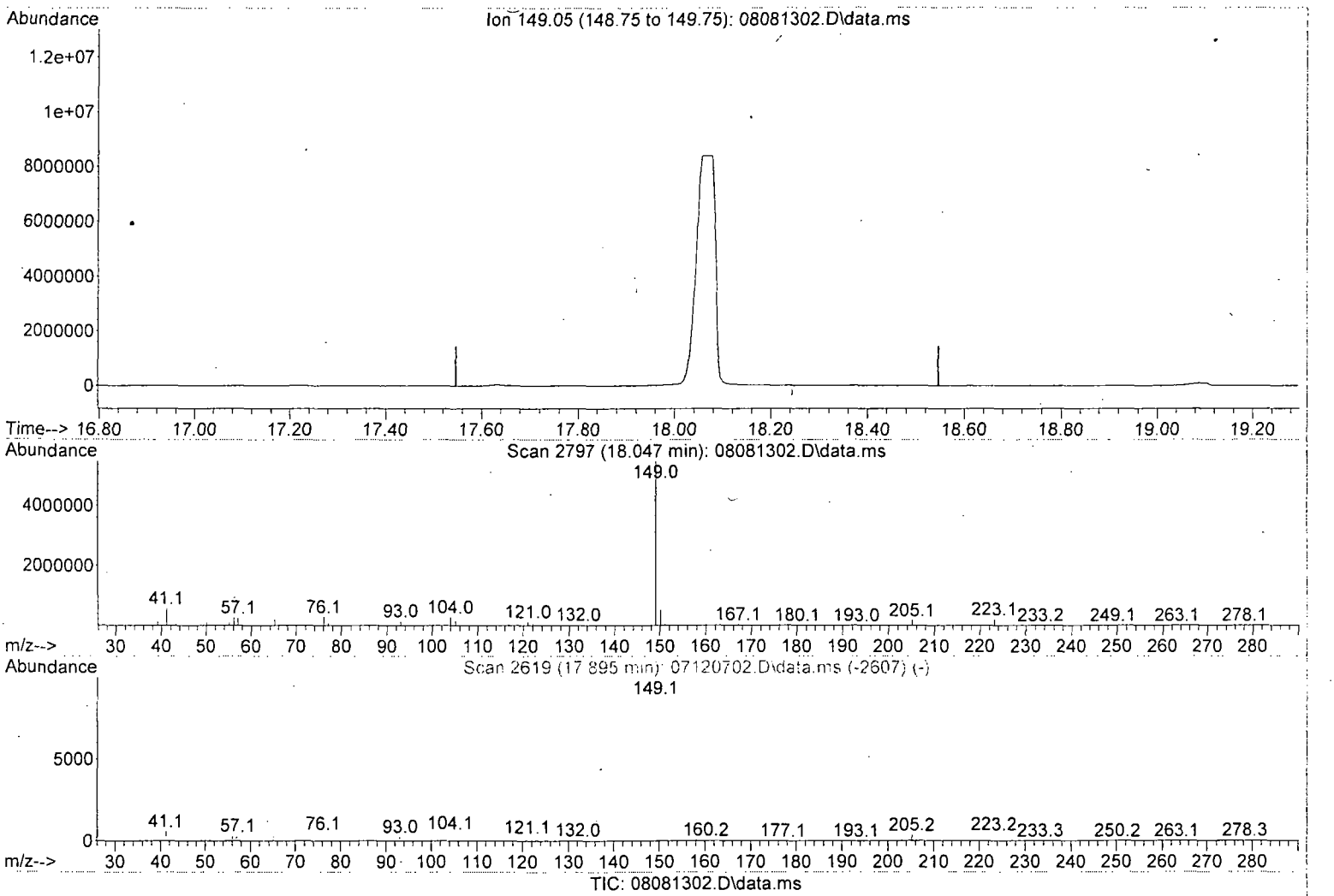
After KP 8/14/13

DRY 2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(70) Di-n-butylphthalate (T)

18.047min (-18.047) 0.00 ug/mL

response 0

Ion	Exp%	Act%
149.05	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

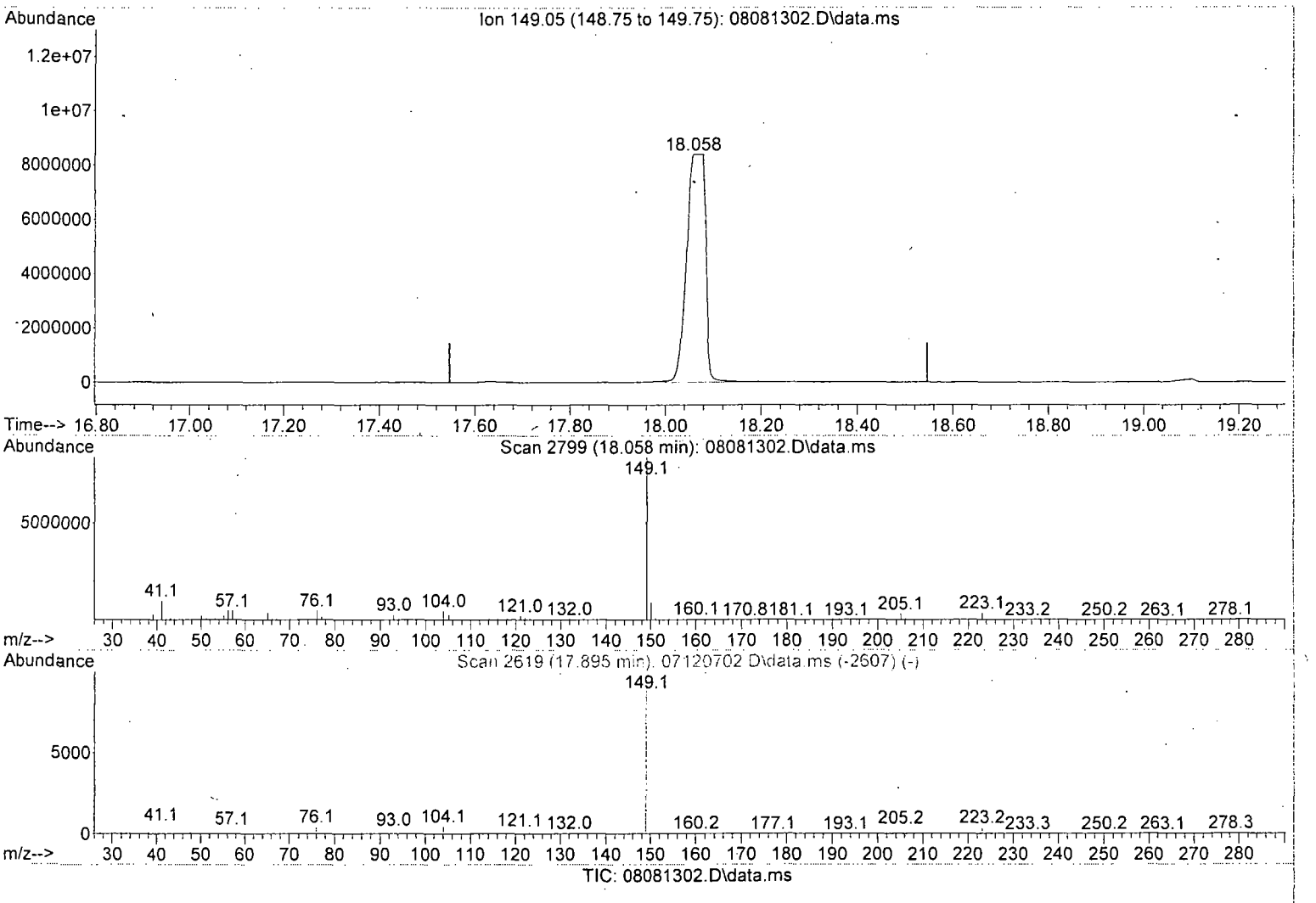
Before Missed Integration
KP 8/14/13

Freedom_0005790_0248

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(70) Di-n-butylphthalate (T)

18.058min (+0.011) 66.06 ug/mL m

response 22665823

Ion	Exp%	Act%
149.05	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

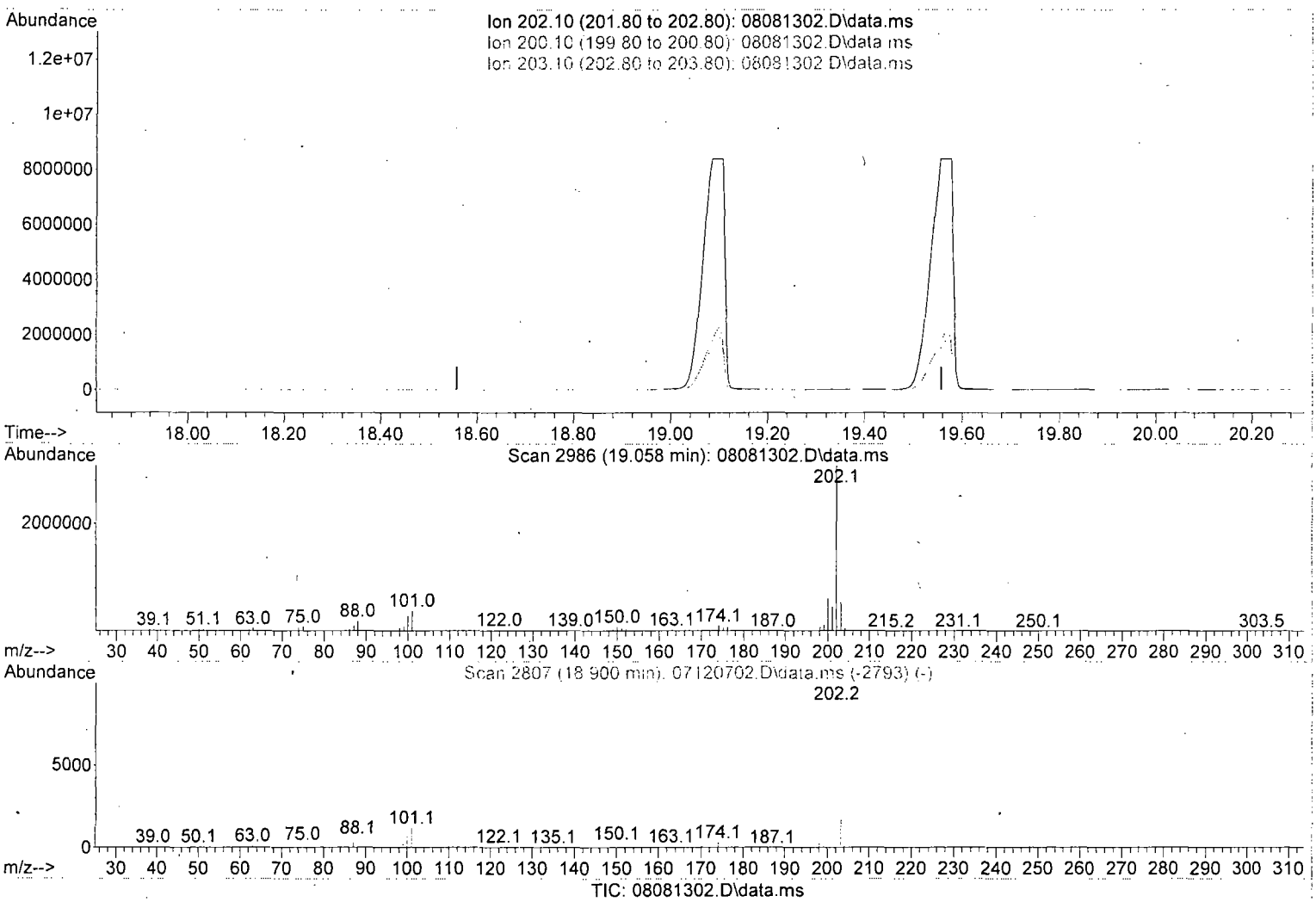
Affect
KP
8/14/13

SRM
2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(72) Fluoranthene (T)

19.058min (-19.058) 0.00 ug/mL

response 0

Ion	Exp%	Act%
202.10	100	0.00
200.10	20.50	0.00#
203.10	17.20	0.00#
0.00	0.00	0.00

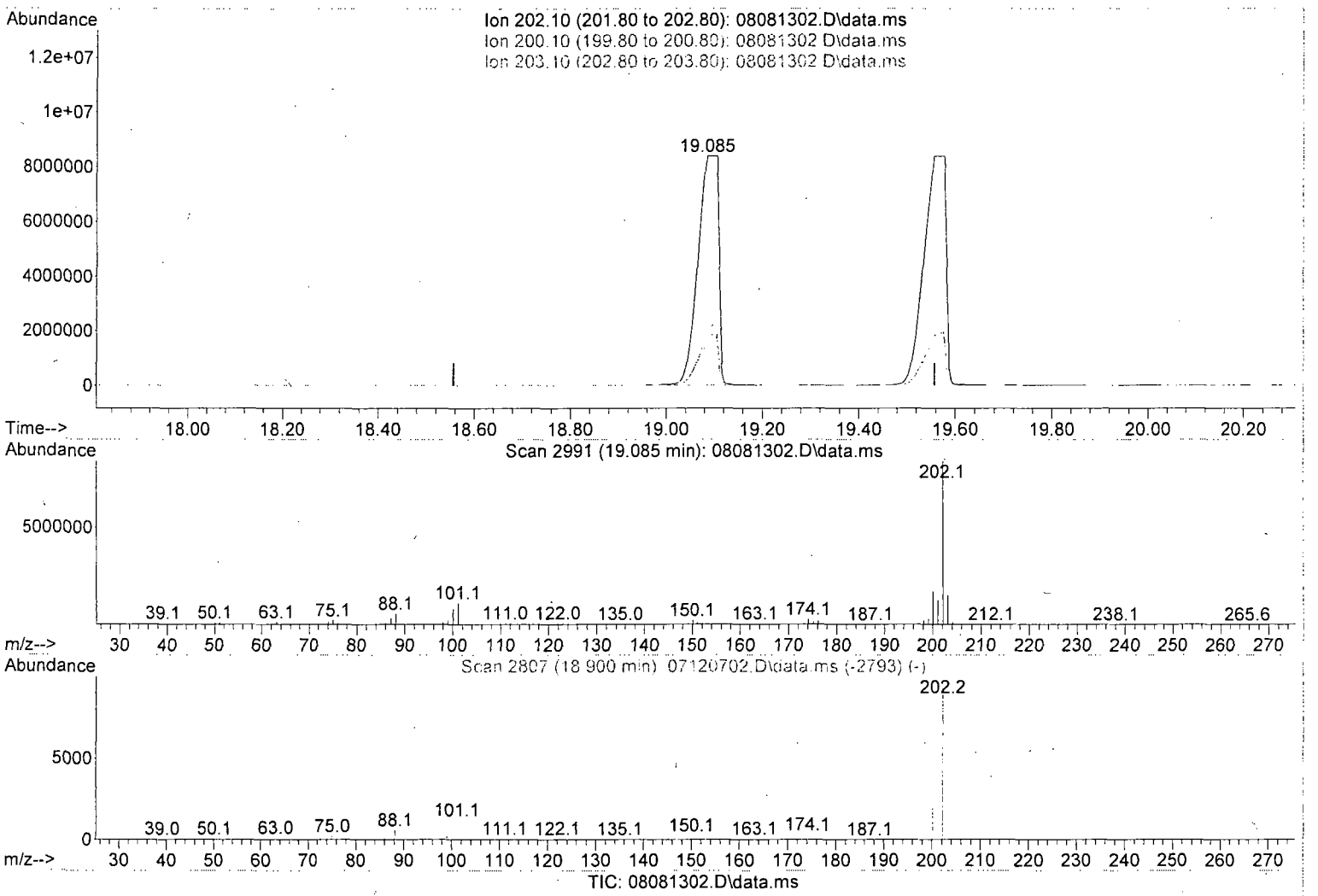
Before Missed Integration
KLP 8/14/13

Freedom_0005790_0250

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(72) Fluoranthene (T)

19.085min (+0.027) 73.28 ug/mL m

response 25015163

Ion	Exp%	Act%
202.10	100	100
200.10	20.50	0.00#
203.10	17.20	0.00#
0.00	0.00	0.00

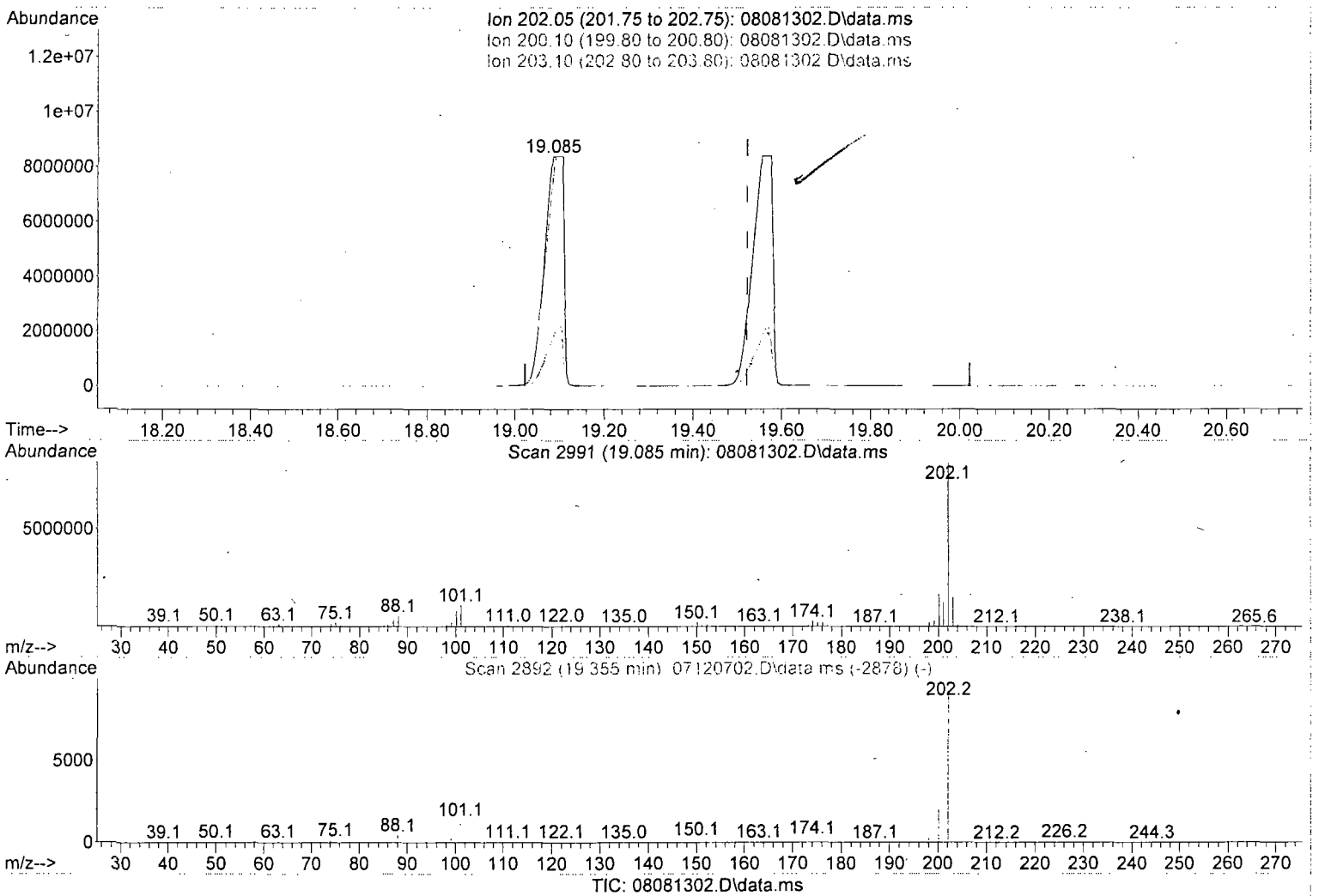
Rec
KW
8/14/13

EPY
2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(74) Pyrene (T)

19.085min (-0.439) 7.70 ug/mL

response 2750020

Ion	Exp%	Act%
202.05	100	100
200.10	20.70	198.13#
203.10	17.50	171.96#
0.00	0.00	0.00

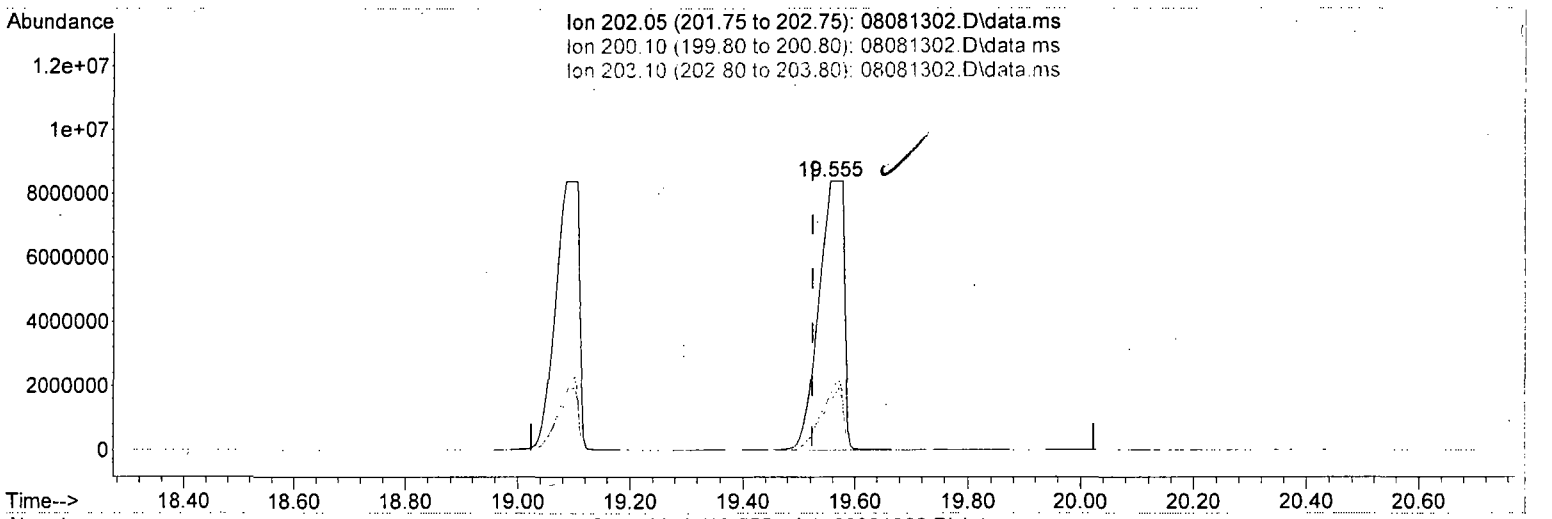
Before Incorrect Peak
KP 8/14/13

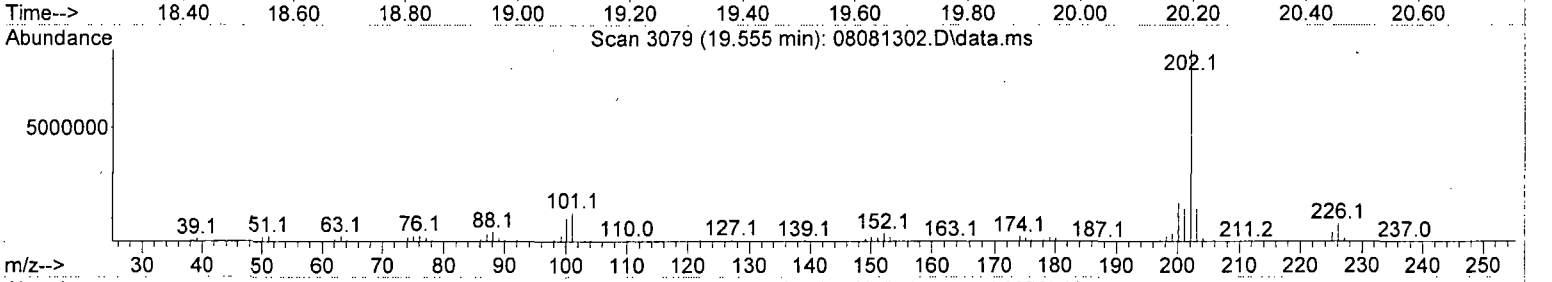
Freedom_0005790_0252

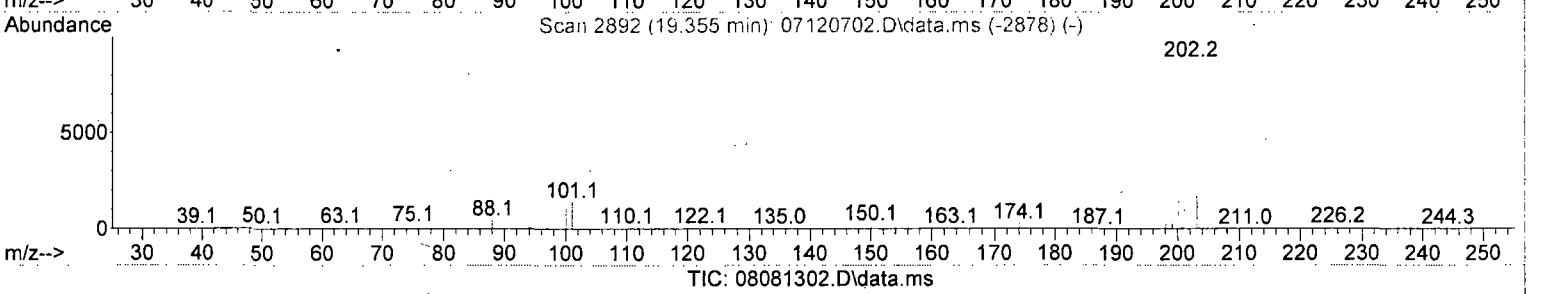
Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 10:37:00 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration







TIC: 08081302.D\data.ms

(74) Pyrene (T)

19.555min (+0.032) 73.75 ug/mL m

response 26333667

Ion	Exp%	Act%
202.05	100	100
200.10	20.70	20.69
203.10	17.50	17.96
0.00	0.00	0.00

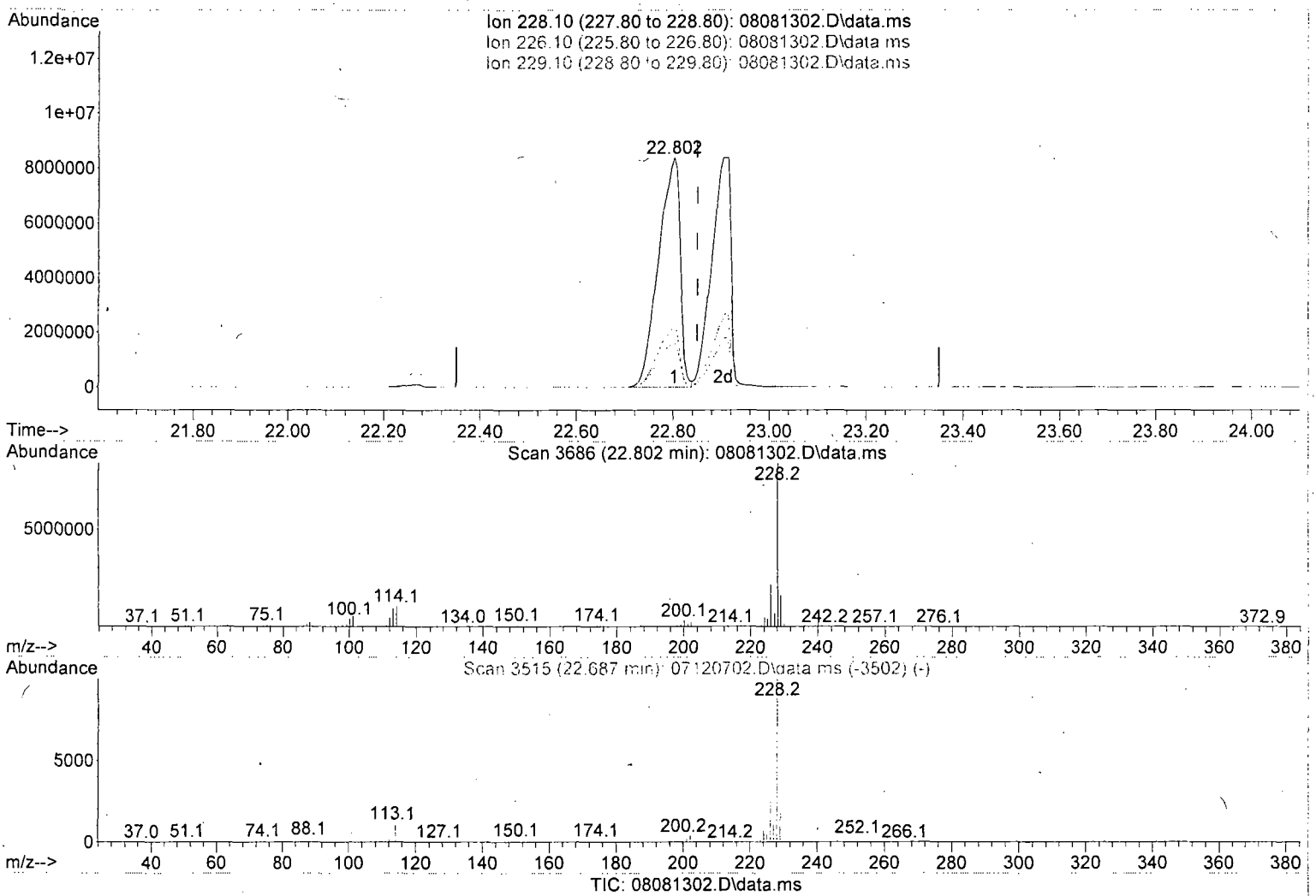
After
KLP
8/14/13
ERY
2/26/14

Freedom_0005790_0253

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(78) Chrysene (T)

22.802min (-0.048) 84.65 ug/mL

response 26291327

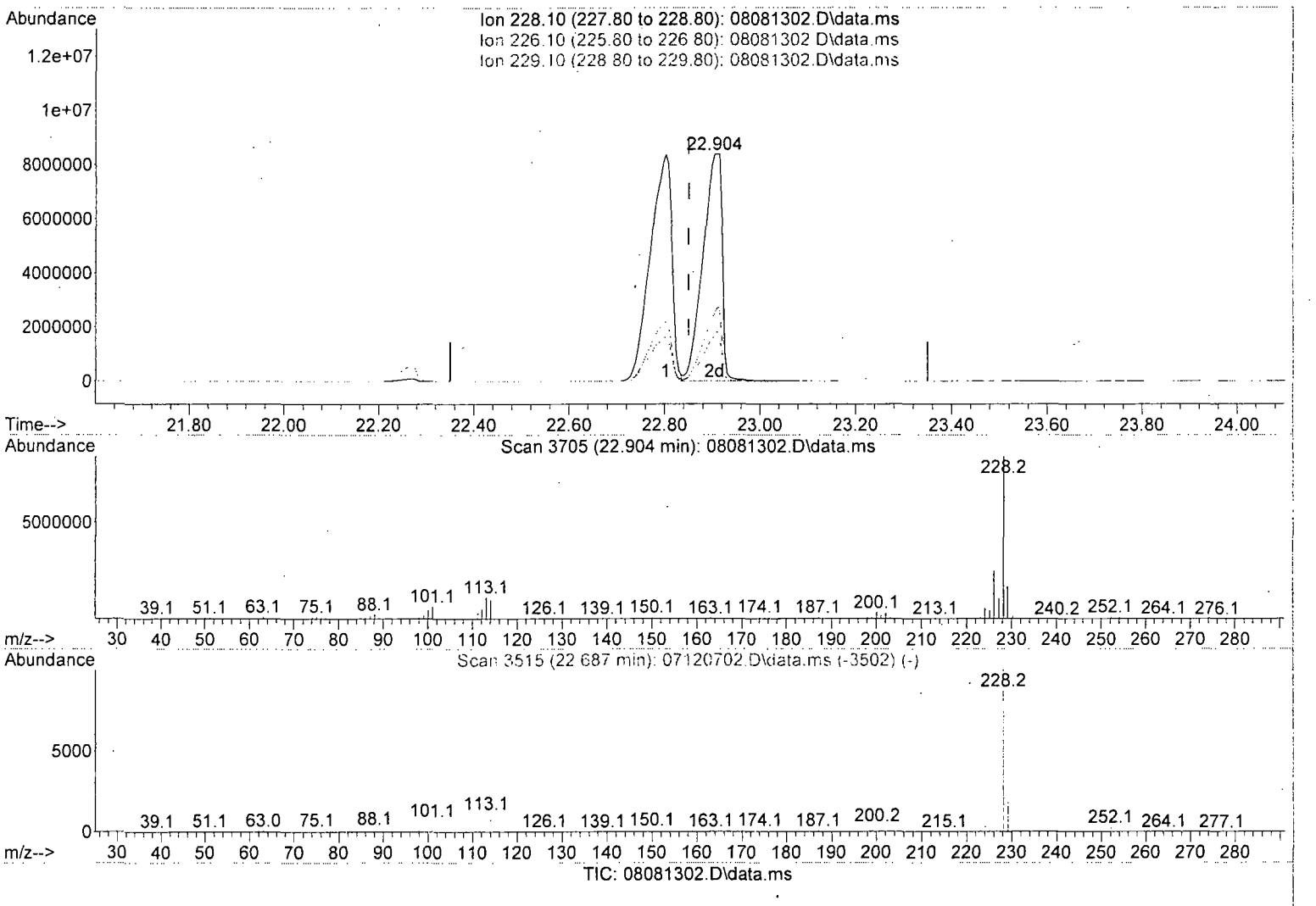
Ion	Exp%	Act%
228.10	100	100
226.10	29.60	25.98
229.10	19.80	19.30
0.00	0.00	0.00

Before
Wrong Peak Integrated
KP
8/14/13

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(78) Chrysene (T)

22.904min (+0.054) 75.37 ug/mL m

response 23410054

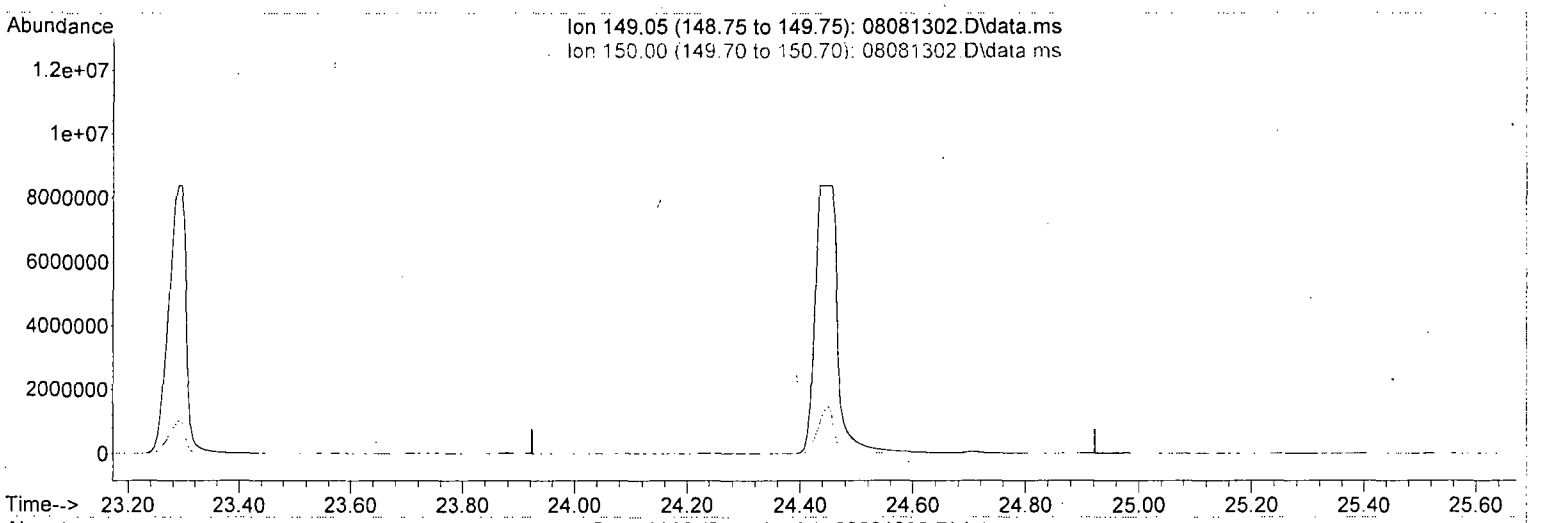
Ion	Exp%	Act%
228.10	100	100
226.10	29.60	29.18
229.10	19.80	21.68
0.00	0.00	0.00

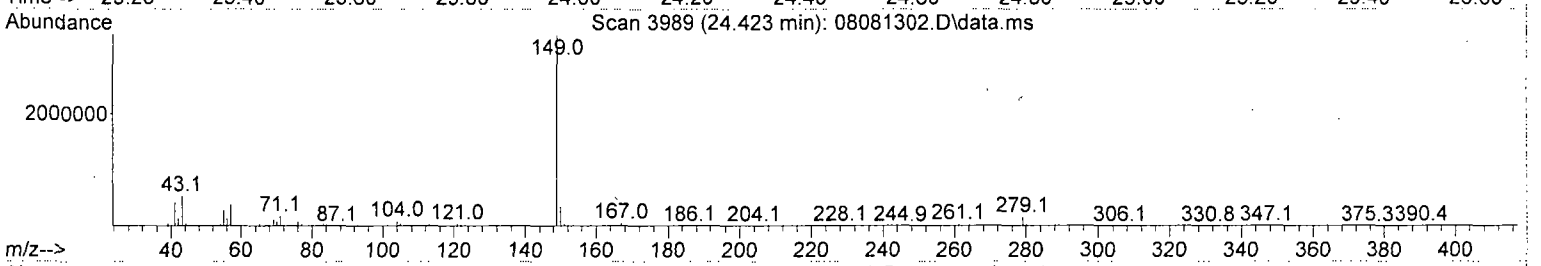
After
KB
8/14/13
EPY
8/20/14

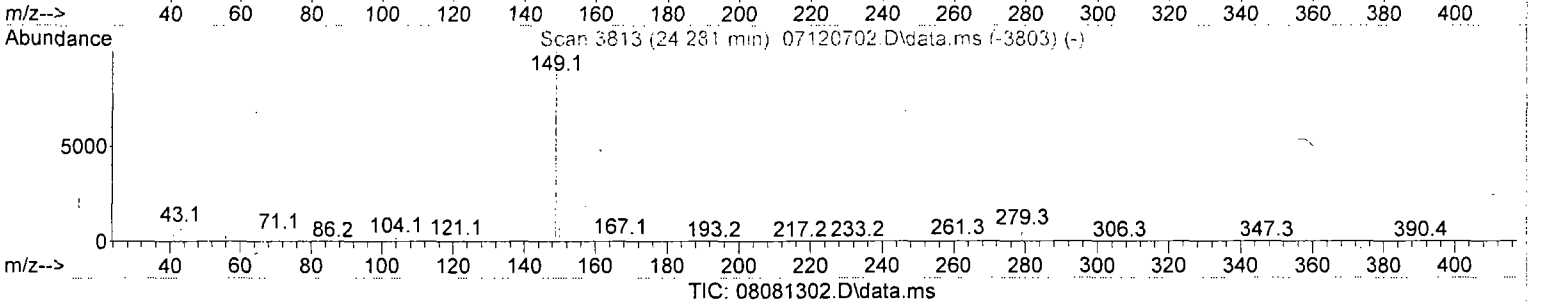
Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration







(82) Di-n-Octylphthalate (T)

24.423min (-24.423) 0.00 ug/mL

response 0

Ion	Exp%	Act%
149.05	100	0.00
150.00	15.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

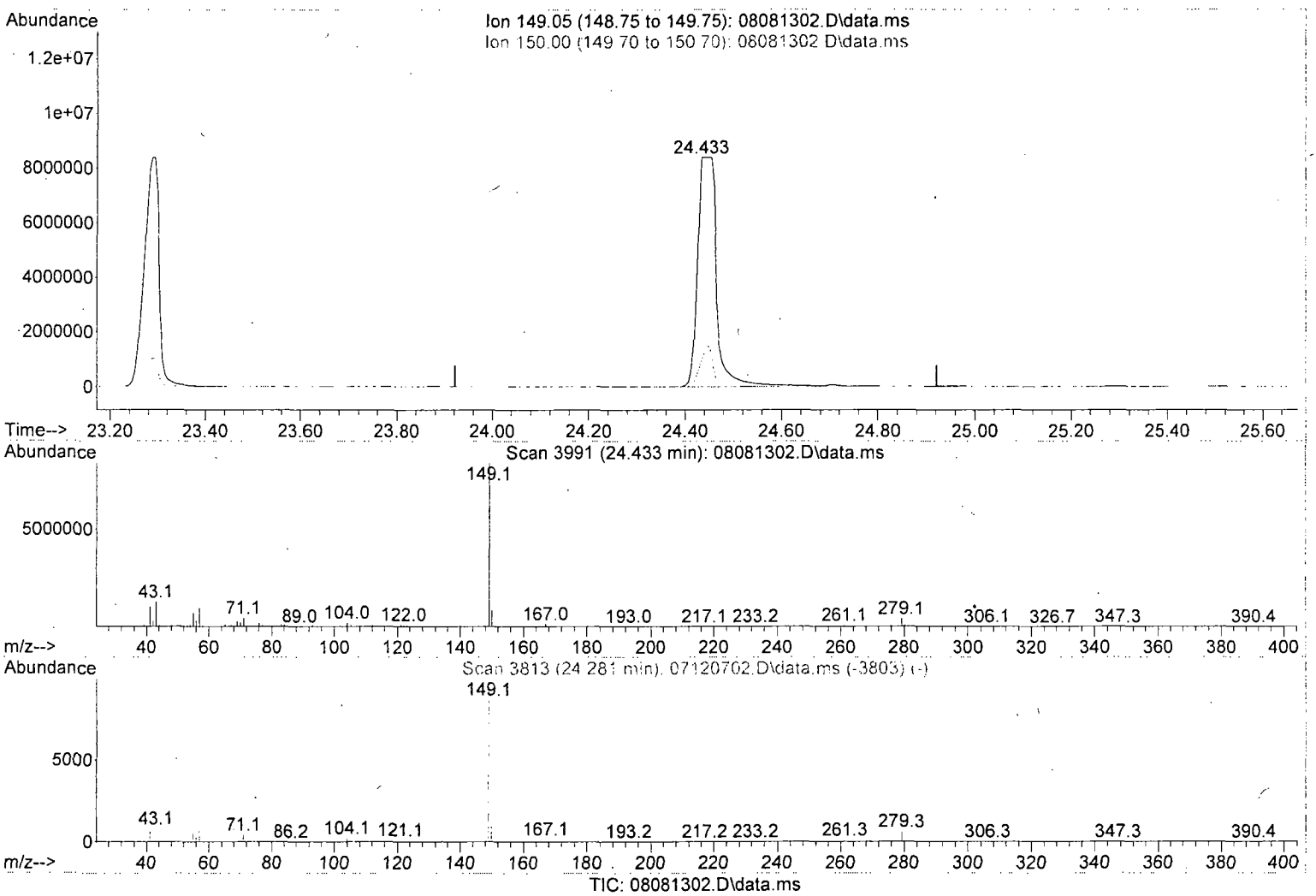
Before
Missed PEAK
KB
8/14/13

Freedom_0005790_0256

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(82) Di-n-Octylphthalate (T)

24.433min (+0.011) 75.87 ug/mL m

response 22935138

Ion	Exp%	Act%
149.05	100	100
150.00	15.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

A ~~[illegible]~~
LQ
8/14/13

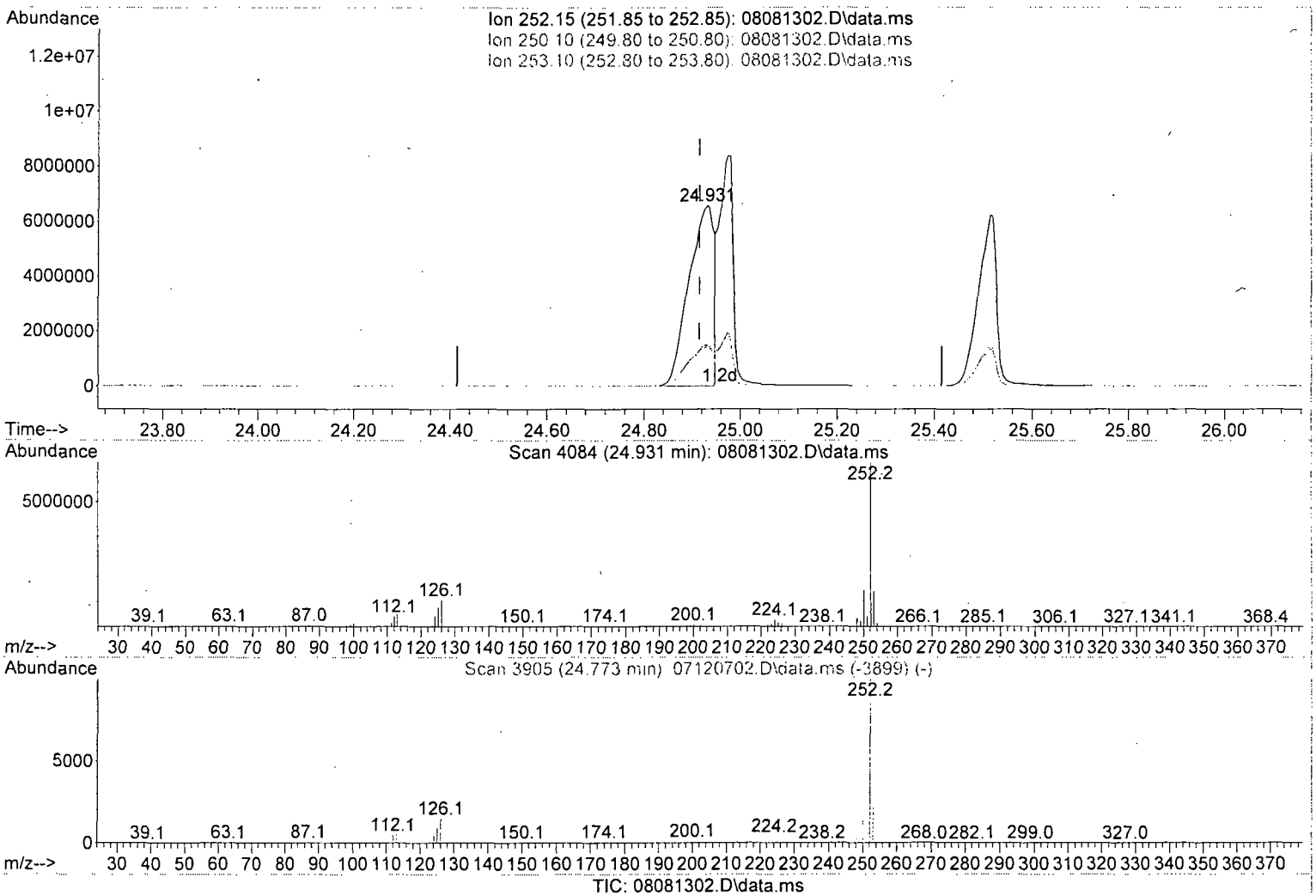
GPD
2/26/14

Freedom_0005790_0257

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(84) Benzo[k]fluoranthene (T)

24.931min (+0.016) 100.90 ug/mL

response 23792515

Ion	Exp%	Act%
252.15	100	100
250.10	23.00	22.50
253.10	21.50	21.51
0.00	0.00	0.00

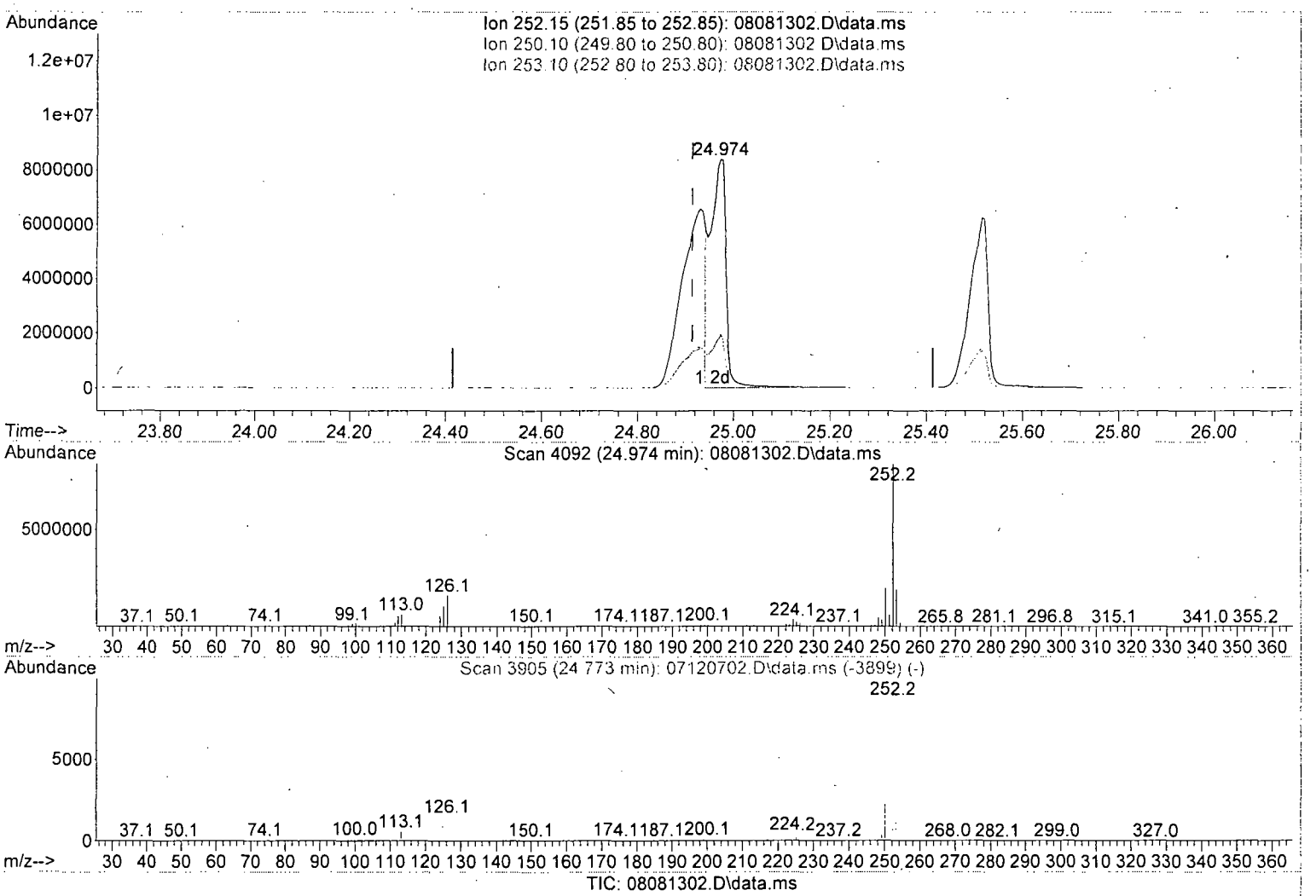
Before wrong peak integrated
ICP 8/14/13

Freedom_0005790_0258

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081302.D
Acq On : 8 Aug 2013 3:46 pm
Operator : KLP OX-HP5975MSD
Sample : 80 A959
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 12 09:16:01 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Fri Aug 09 14:48:28 2013
Response via : Initial Calibration



(84) Benzo[k]fluoranthene (T)

24.974min (+0.059) 78.63 ug/mL m

response 18541827

Ion	Exp%	Act%
252.15	100	100
250.10	23.00	28.87#
253.10	21.50	27.61#
0.00	0.00	0.00

After LS 8/14/13

ERY 2/26/14

Freedom_0005790_0259

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 09:24:26 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.312	150	2927841	20.00	ug/mL	# 0.00
20) Naphthalene-D8	9.773	136	6221267	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.436	164	3843069	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.523	188	6734163	20.00	ug/mL	0.00
73) Chrysene-D12	22.834	240	6941577	20.00	ug/mL	0.00
81) Perylene-D12	25.615	264	5481296	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.322	112	4145431	42.66	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 85.32%			
6) Phenol-D5	6.874	99	5339818	41.43	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 82.86%			
21) Nitrobenzene-D5	8.430	82	2731736	24.68	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 98.72%			
40) 2-Fluorobiphenyl	12.105	172	6168946	25.07	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 100.28%			
62) 2,4,6-Tribromophenol	15.132	330	1430136	49.83	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 99.66%			
75) Terphenyl-d14	20.074	244	7823796	25.62	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 102.48%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.846	74	5958695	53.92	ug/mL#	2
4) Benzaldehyde	6.569	106	966624	18.97	ug/mL#	89
5) Aniline	6.831	93	789726	7.27	ug/mL#	47
7) Phenol	6.906	94	7890472	50.80	ug/mL#	55
8) 2-Chlorophenol	7.007	128	5935512	50.10	ug/mL#	63
9) Bis(2-chloroethyl) ether	6.997	93	6440513	51.49	ug/mL#	59
10) 1,3-Dichlorobenzene	7.243	146	7042520	51.19	ug/mL	97
11) 1,4-Dichlorobenzene	7.344	146	6972394	50.57	ug/mL	99
12) 1,2-Dichlorobenzene	7.676	146	6452858	49.30	ug/mL#	85
13) Benzyl Alcohol	7.692	79	4930477	50.69	ug/mL	94
14) 2-Methylphenol	7.970	108	5461457	50.76	ug/mL#	90
15) bis(2-Chloroisopropyl)...	7.981	45	11732515	51.17	ug/mL#	93
16) Acetophenone	8.179	105	8682831	51.28	ug/mL	90
17) Hexachloroethane	8.232	117	2691502	51.09	ug/mL#	76
18) 4-Methylphenol	8.264	107	6368040	51.37	ug/mL	100
19) N-Nitroso-di-n-propyla...	8.312	70	4805365m	54.37	ug/mL	
22) Nitrobenzene	8.473	77	7052081	60.45	ug/mL#	72
23) Isophorone	8.960	82	12410044	60.13	ug/mL#	76
24) 2-Nitrophenol	9.088	139	3651987	57.81	ug/mL#	66
25) 2,4-Dimethylphenol	9.280	107	6446997	64.65	ug/mL	96
26) bis(2-Chloroethoxy)met...	9.478	93	7663308	60.37	ug/mL#	79
27) 2,4-Dichlorophenol	9.575	162	5378433	61.03	ug/mL#	82
28) 1,2,4-Trichlorobenzene	9.708	180	5956911	60.10	ug/mL	98
29) Naphthalene	9.810	128	17464746	54.30	ug/mL	96
30) 4-Chloroaniline	10.051	127	4347088	74.62	ug/mL#	93
31) Hexachlorobutadiene	10.227	225	3228684	58.21	ug/mL	100
32) Caprolactam	10.906	113	1626749	52.66	ug/mL#	9
33) 4-Chloro-3-methylphenol	11.136	107	5730620	60.52	ug/mL	89
34) 2-Methylnaphthalene	11.243	142	13618568	59.69	ug/mL	96

Freedom_0005790_0260

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 09:24:26 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35)	1,2,4,5-Tetrachloroben...	11.677	216	5800959	58.61 ug/ml	98
37)	Hexachlorocyclopentadiene	11.735	237	3745409	64.57 ug/mL	98
38)	2,4,6-Trichlorophenol	11.933	196	4164770	62.67 ug/mL#	88
39)	2,4,5-Trichlorophenol	12.019	196	4237160	62.75 ug/mL#	90
41)	2-Chloronaphthalene	12.244	162	12384960	59.34 ug/mL#	75
42)	Biphenyl	12.270	154	16180958	57.86 ug/mL	99
43)	2-Nitroaniline	12.602	138	4572673	63.69 ug/mL#	62
44)	Acenaphthylene	13.105	152	17928114	54.12 ug/mL	90
45)	Dimethylphthalate	13.126	163	14631289	59.11 ug/mL#	67
46)	2,6-Dinitrotoluene	13.244	165	3671713	61.60 ug/mL#	58
47)	3-Nitroaniline	12.602	138	4572673	63.68 ug/mL#	56
48)	Acenaphthene	13.517	153	13555803	59.06 ug/mL	99
49)	2,4-Dinitrophenol	13.698	184	2247186	71.70 ug/mL#	55
50)	Dibenzofuran	13.854	168	18525276	58.17 ug/mL	93
51)	4-Nitrophenol	13.934	139	2663761	66.67 ug/mL#	53
52)	2,4-Dinitrotoluene	14.041	165	5056080	61.34 ug/mL#	63
53)	2,3,4,6-tetrachlorophenol	14.249	232	3672146	61.09 ug/mL#	83
54)	Fluorene	14.586	166	15960258	58.97 ug/mL	100
55)	Diethylphthalate	14.634	149	14648476	55.76 ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.650	204	6807158	56.39 ug/mL#	87
57)	4-Nitroaniline	14.784	138	1114679m	63.40 ug/mL	
59)	4,6-Dinitro-2-methylph...	14.891	198	2967029	64.52 ug/mL#	77
60)	n-Nitrosodiphenylamine	14.945	169	8296742	53.51 ug/mL	94
61)	Azobenzene	14.891	77	802204	66.63 ug/mL#	1
63)	4-Bromophenyl-phenylether	15.656	248	4242684	59.82 ug/mL#	84
64)	Hexachlorobenzene	15.907	284	4376791	59.39 ug/mL	99
65)	Atrazine	16.175	200	12825m	0.36 ug/mL	
66)	Pentachlorophenol	16.314	266	3415789	65.21 ug/mL	96
67)	Phenanthrene	16.576	178	21452663	55.61 ug/mL	97
68)	Anthracene	16.667	178	20438901	54.21 ug/mL	97
69)	Carbazole	17.041	167	5201278m	54.47 ug/mL	
70)	Di-n-butylphthalate	18.063	149	22846122m	51.18 ug/mL	
71)	Benzidine	19.486	184	39870	16.97 ug/mL#	92
72)	Fluoranthene	19.084	202	24883793m	56.01 ug/mL	
74)	Pyrene	19.561	202	26289005	57.34 ug/mL	98
76)	Benzyl butyl phthalate	21.748	149	13970692	64.37 ug/mL#	84
77)	Benz[a]anthracene	22.802	228	26147514	61.59 ug/mL	98
78)	Chrysene	22.909	228	23527646	58.97 ug/mL	100
79)	3,3'-Dichlorobenzidine	22.871	252	4195649	66.75 ug/mL#	52
80)	bis(2-Ethylhexyl)phtha...	23.289	149	17933918	59.49 ug/mL#	83
82)	Di-n-Octylphthalate	24.438	149	22807208m	54.96 ug/mL	
83)	Benzo[b]fluoranthene	24.936	252	25276702	68.10 ug/mL	99
84)	Benzo[k]fluoranthene	24.973	252	16614109	51.33 ug/mL	99
85)	Benzo[a]pyrene	25.519	252	17051393	61.01 ug/mL	98
86)	Indeno[1,2,3-cd]pyrene	27.894	276	13285962	69.73 ug/mL	99
87)	Dibenz[a,h]anthracene	27.958	278	13151912	65.99 ug/mL#	95
88)	Benzo[ghi]perylene	28.509	276	12750772	64.45 ug/mL	99

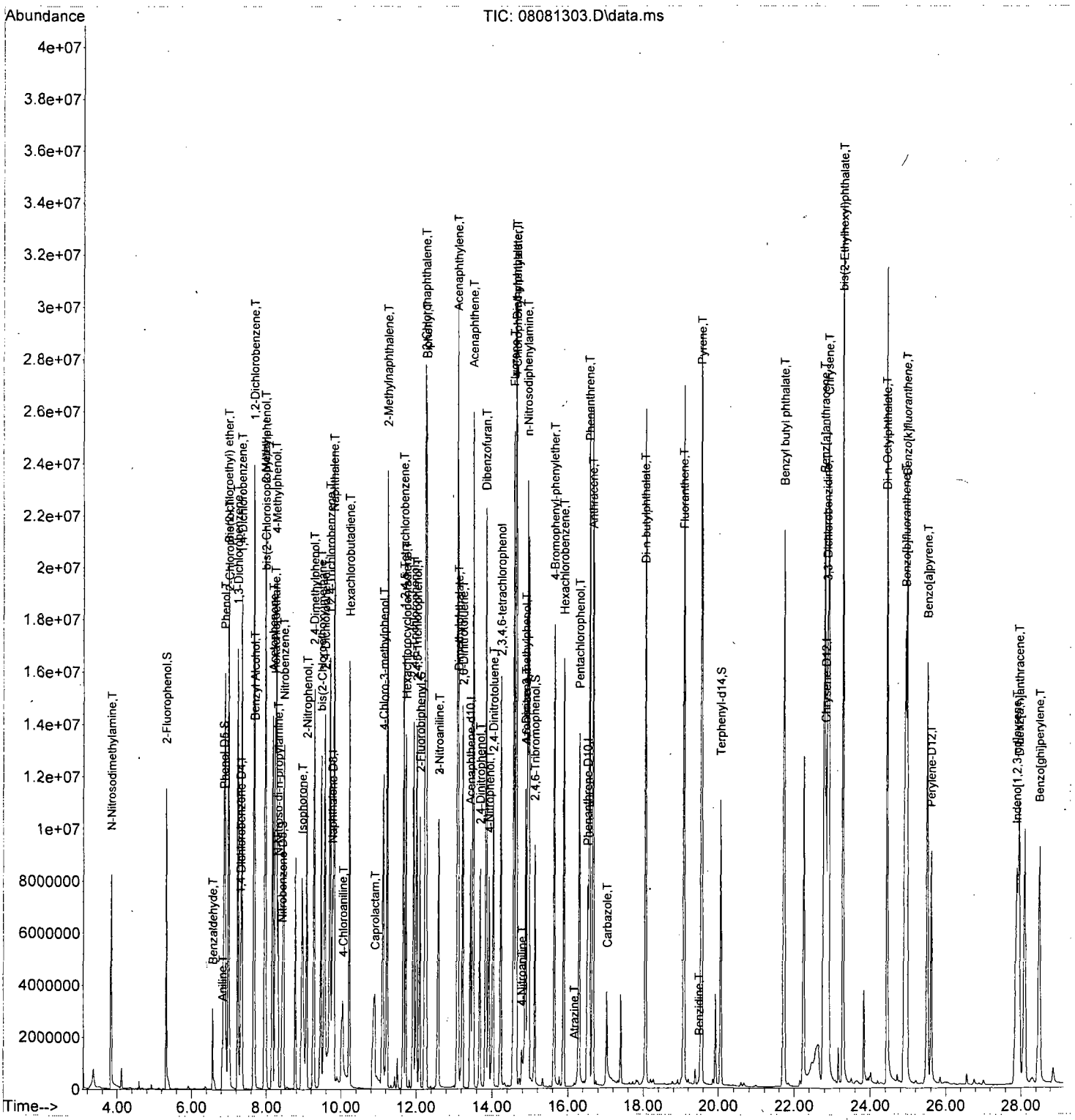
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0261

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 09:24:26 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration

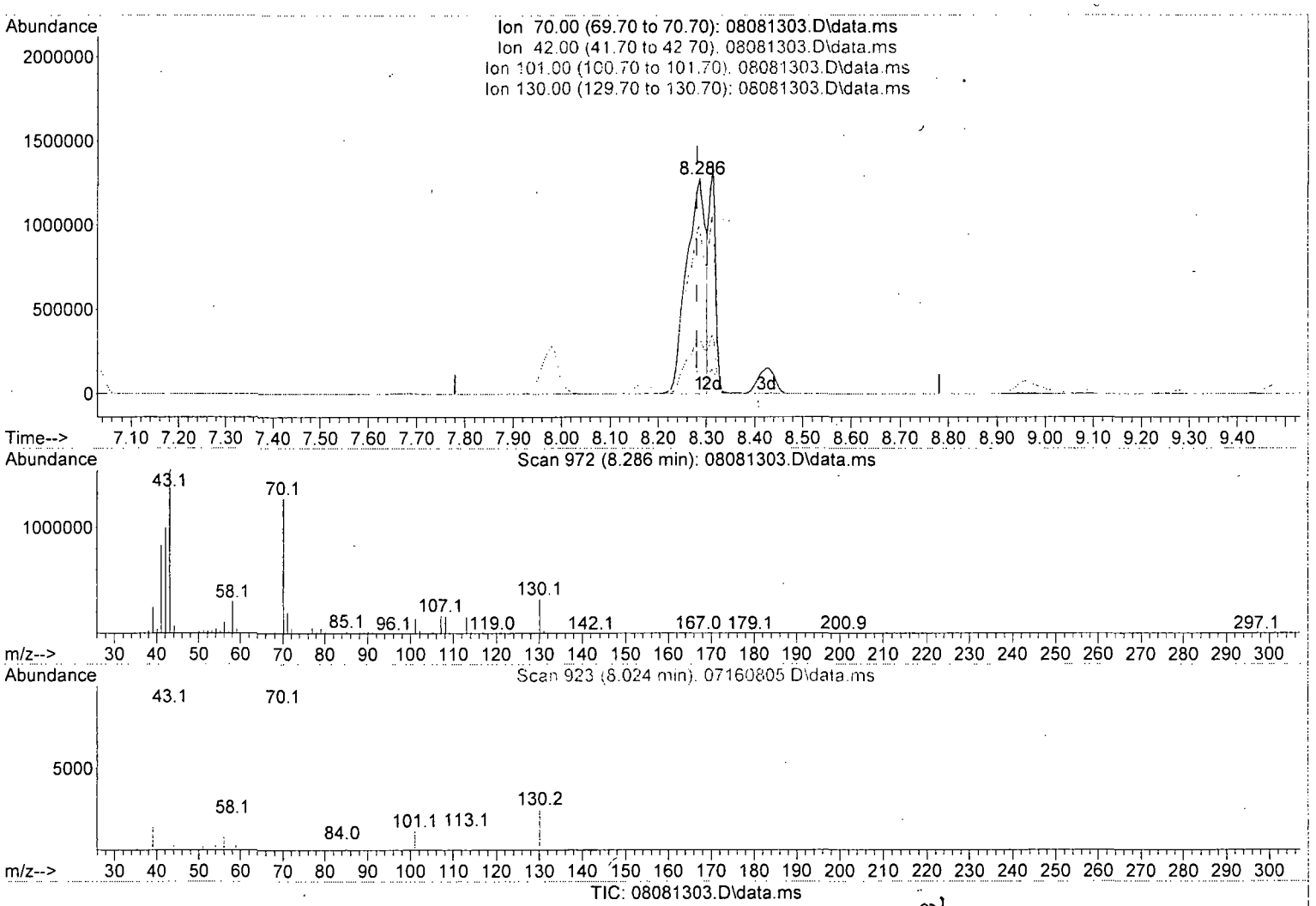


Freedom_0005790_0262

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



TIC: 08081303.D\data.ms

(19) N-Nitroso-di-n-propylamine (T)

8.286min (+0.005) 39.81 ug/mL

response 3519066

Ion	Exp%	Act%
70.00	100	100
42.00	25.00	79.21#
101.00	25.00	10.74#
130.00	25.00	25.54

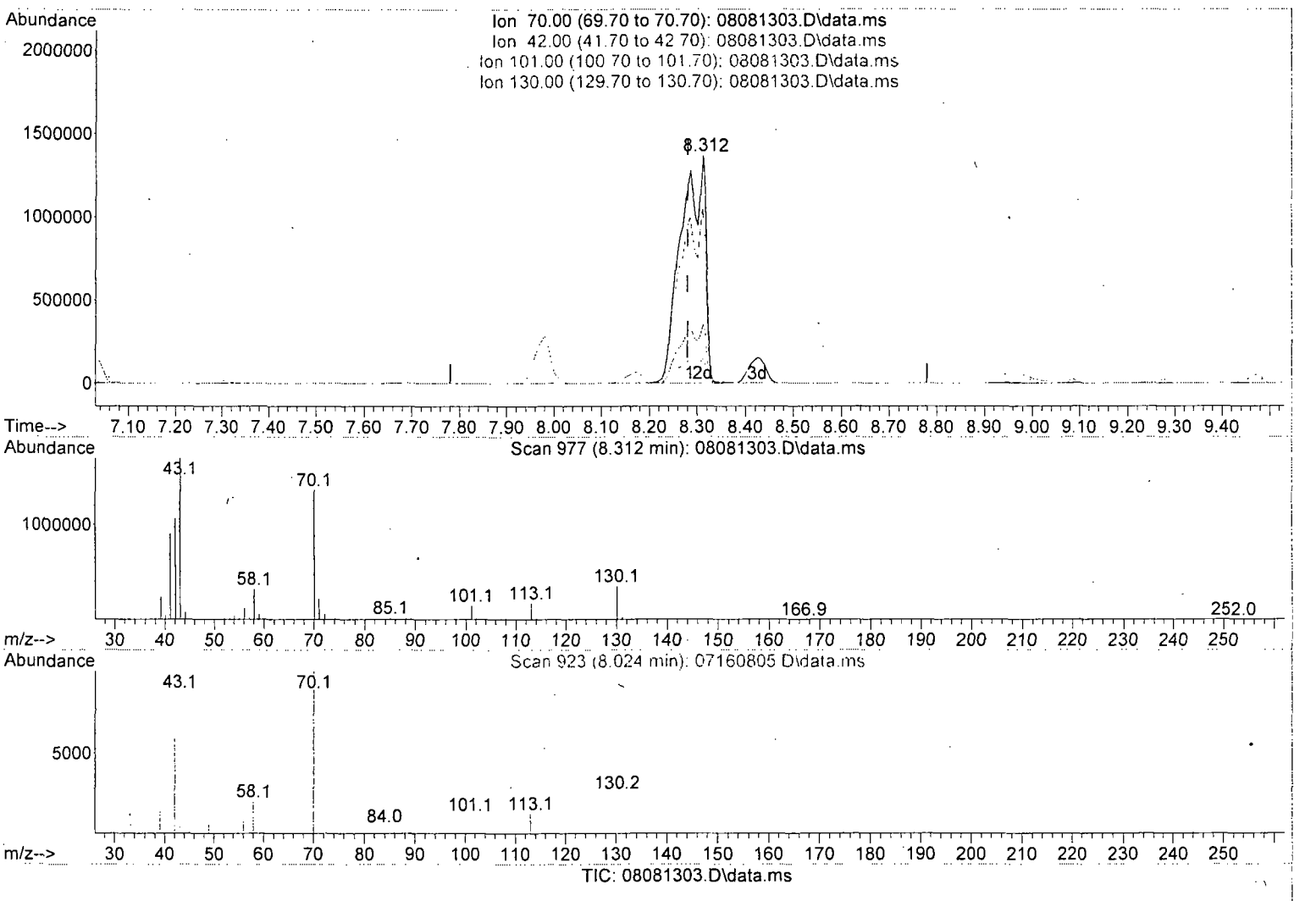
Retar
Incorrect Integration
KP
8/14/13

Freedom_0005790_0263

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc. :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(19) N-Nitroso-di-n-propylamine (T)

8.312min (+0.032) 54.37 ug/mL m

response 4805365

Ion	Exp%	Act%
70.00	100	100
42.00	25.00	58.01#
101.00	25.00	7.87#
130.00	25.00	18.70#

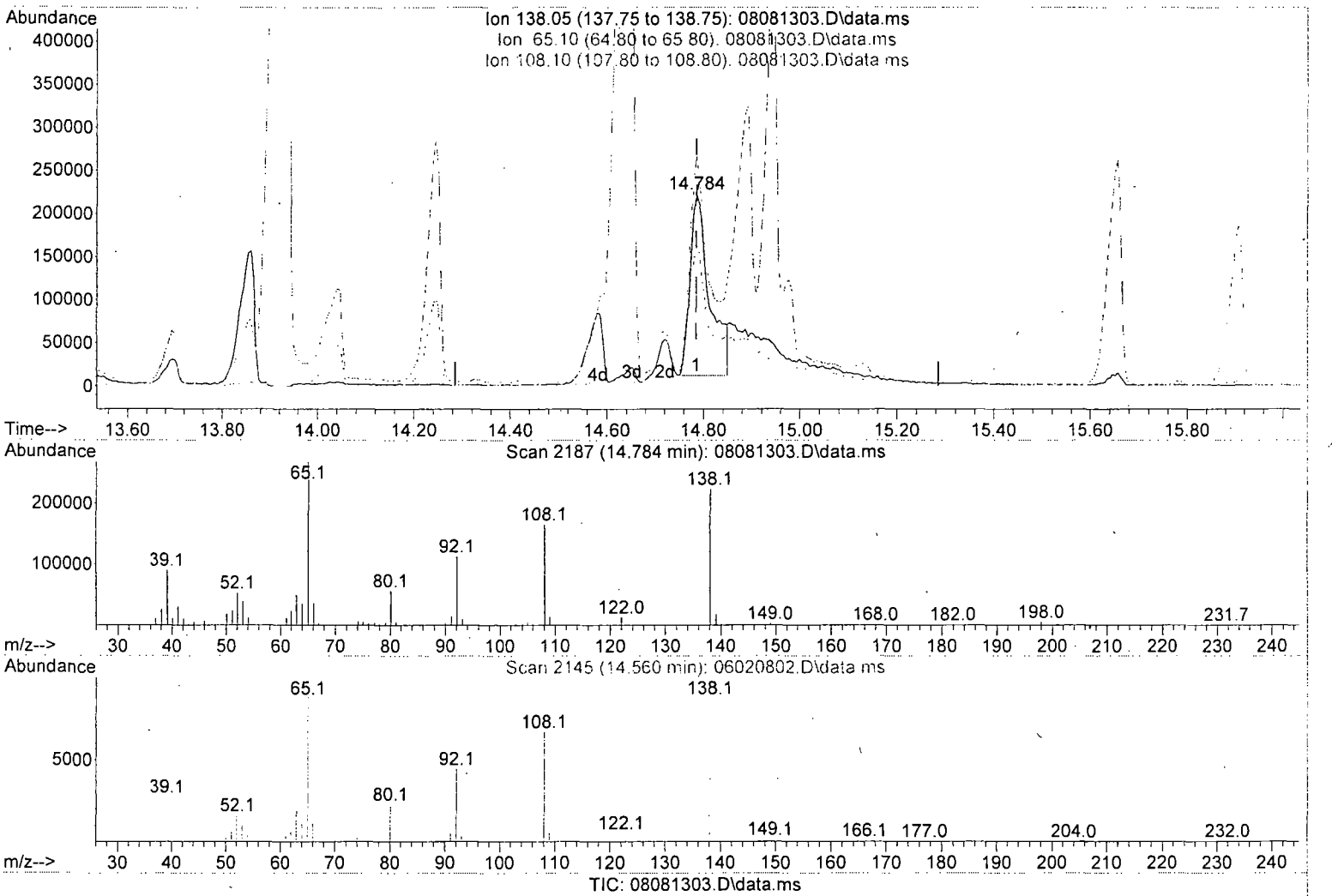
After
KP
8/14/13

EBY
2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.784min (-0.000) 33.27 ug/mL

response 584895

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	107.97#
108.10	51.50	68.74#
0.00	0.00	0.00

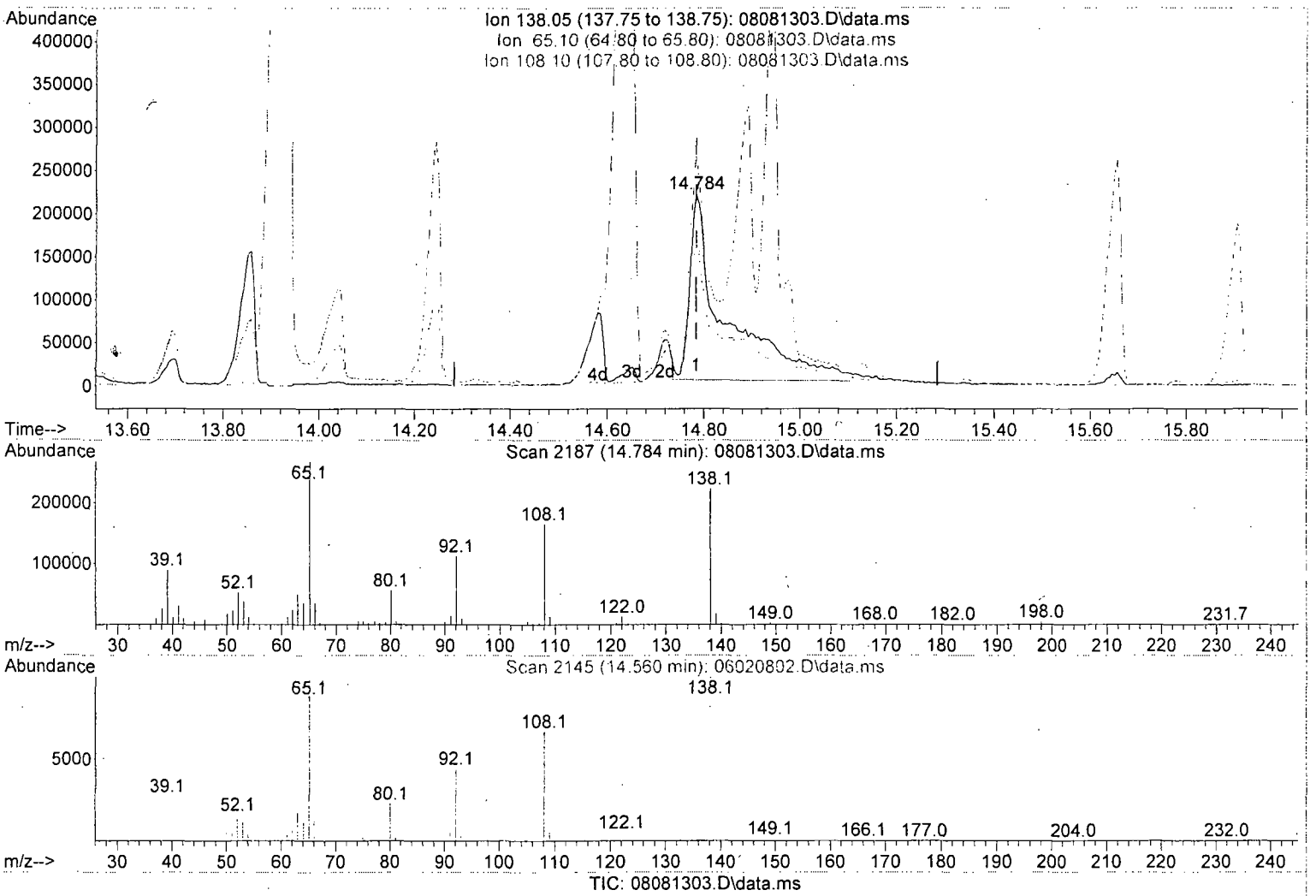
Before
KP
Incomplete Integration
8/14/13

Freedom_0005790_0265

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.784min (-0.000) 63.40 ug/mL m

response 1114679

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	56.65#
108.10	51.50	36.07#
0.00	0.00	0.00

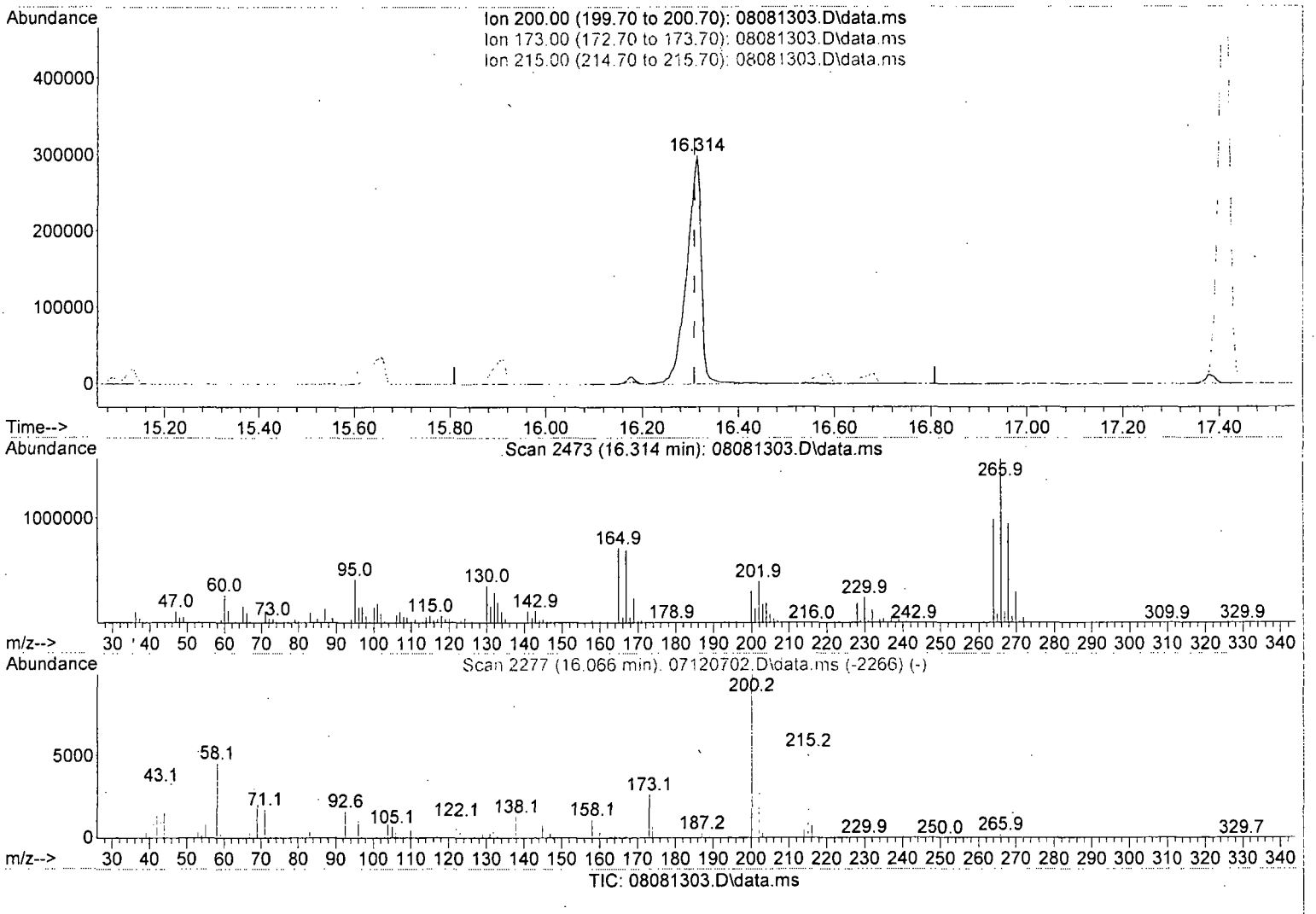
After
K? 8/14/13
ERD 2/26/14

Freedom_0005790_0266

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : Q8081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 10:39:43 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(65) Atrazine (T)

16.314min (+0.005) 17.88 ug/mL

response 634382

Ion	Exp%	Act%
200.00	100	100
173.00	25.00	0.00#
215.00	25.00	0.00#
0.00	0.00	0.00

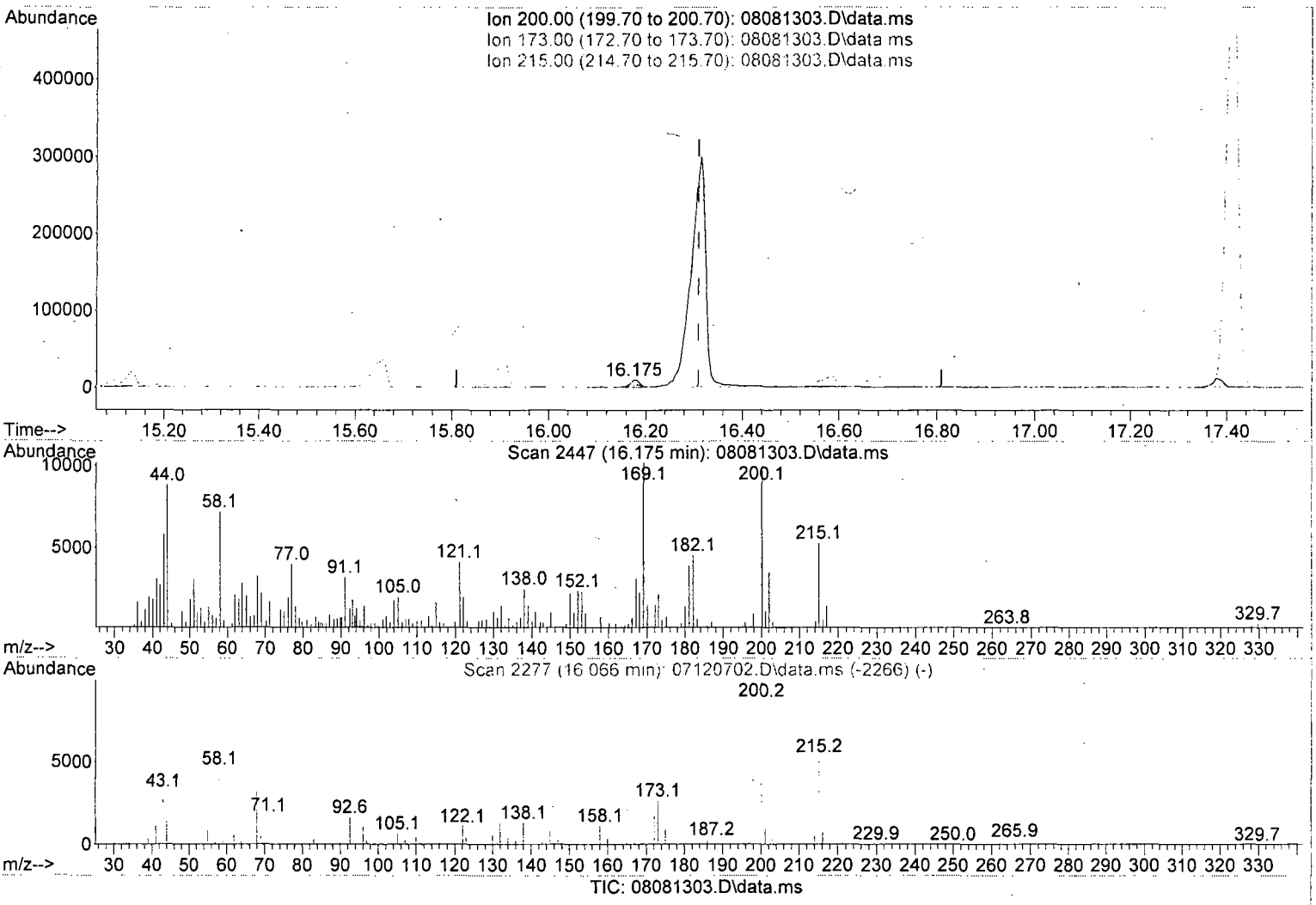
Before wrong peak integrated KP 8/14/13

Freedom_0005790_0267

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 10:39:43 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(65) Atrazine (T)

16.175min (-0.134) 0.36 ug/mL m

response 12825

Ion	Exp%	Act%
200.00	100	100
173.00	25.00	0.00#
215.00	25.00	0.00#
0.00	0.00	0.00

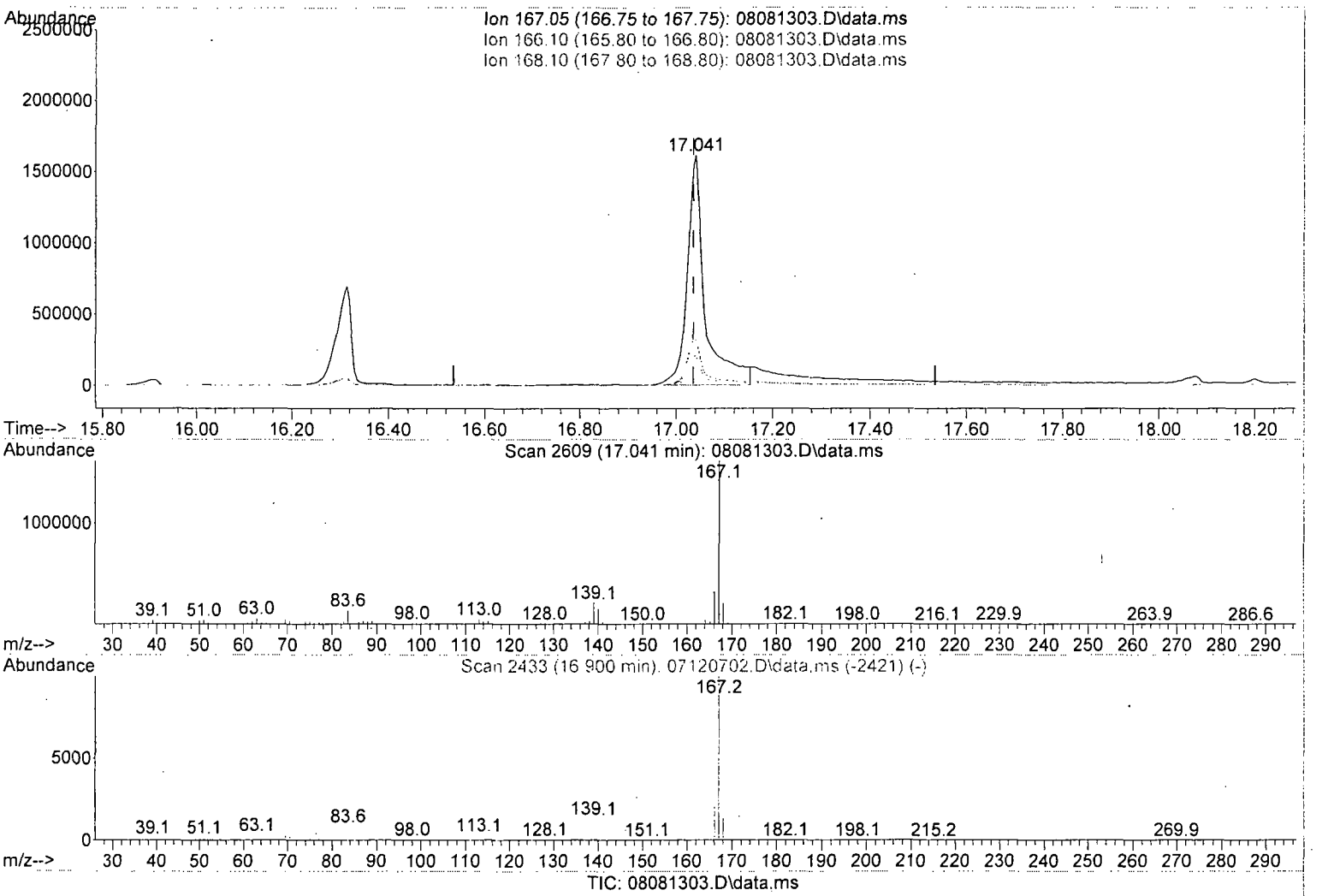
After ICV 8/14/13
CDD 2/26/14

Freedom_0005790_0268

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:36:31 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(69) Carbazole (T)

17.041min (+0.005) 43.08 ug/mL

response 4113582

Ion	Exp%	Act%
167.05	100	100
166.10	20.50	20.23
168.10	13.50	12.71
0.00	0.00	0.00

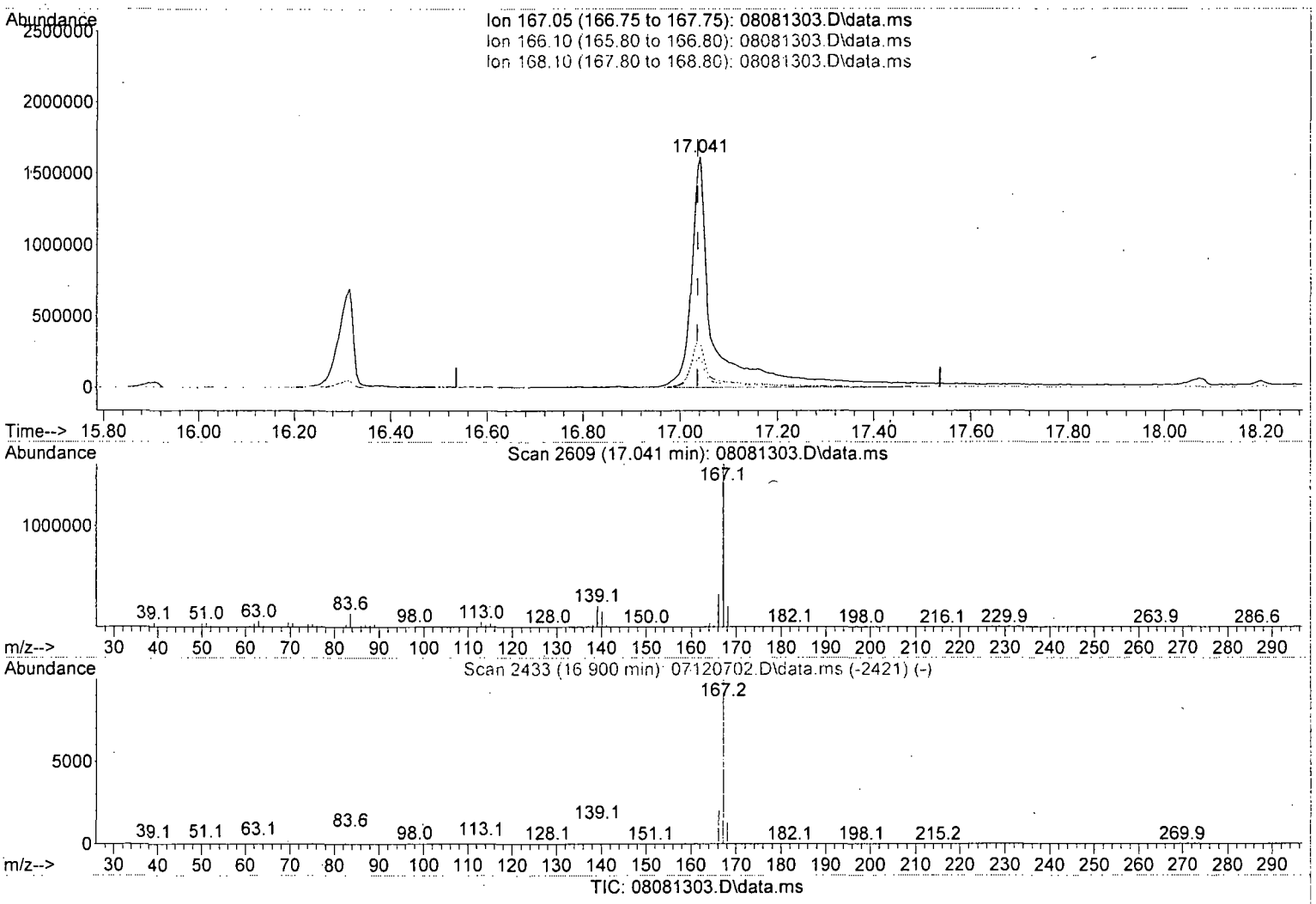
Before Incomplete Integration KP 8/14/13

Freedom_0005790_0269

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:36:31 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(69) Carbazole (T)

17.041min (+0.005) 54.47 ug/mL m

response 5201278

Ion	Exp%	Act%
167.05	100	100
166.10	20.50	16.00#
168.10	13.50	10.05#
0.00	0.00	0.00

A ~~[illegible]~~
KD
8/14/13

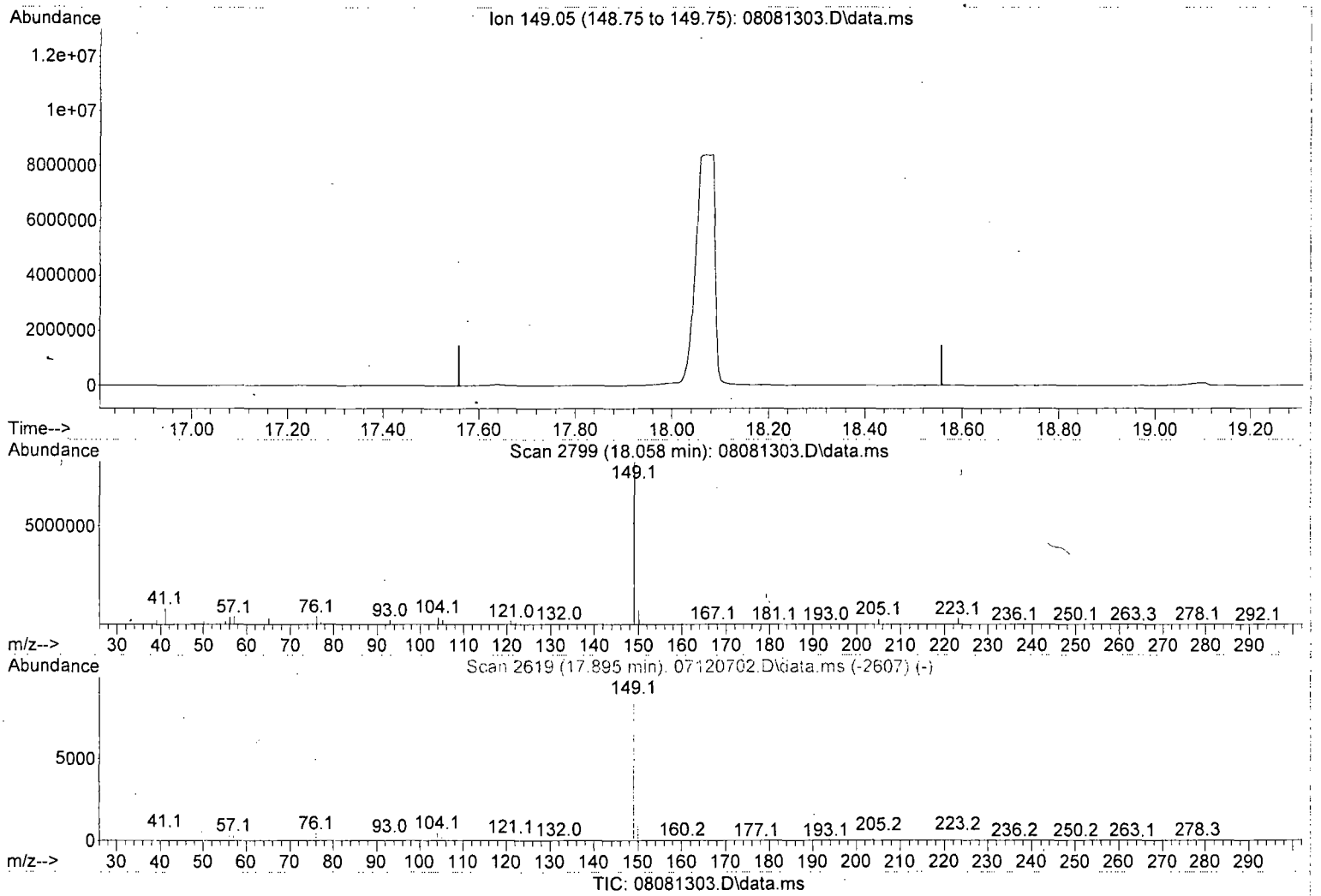
ERD
2/20/14

Freedom_0005790_0270

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(70) Di-n-butylphthalate (T)

18.058min (-18.058) 0.00 ug/mL

response 0

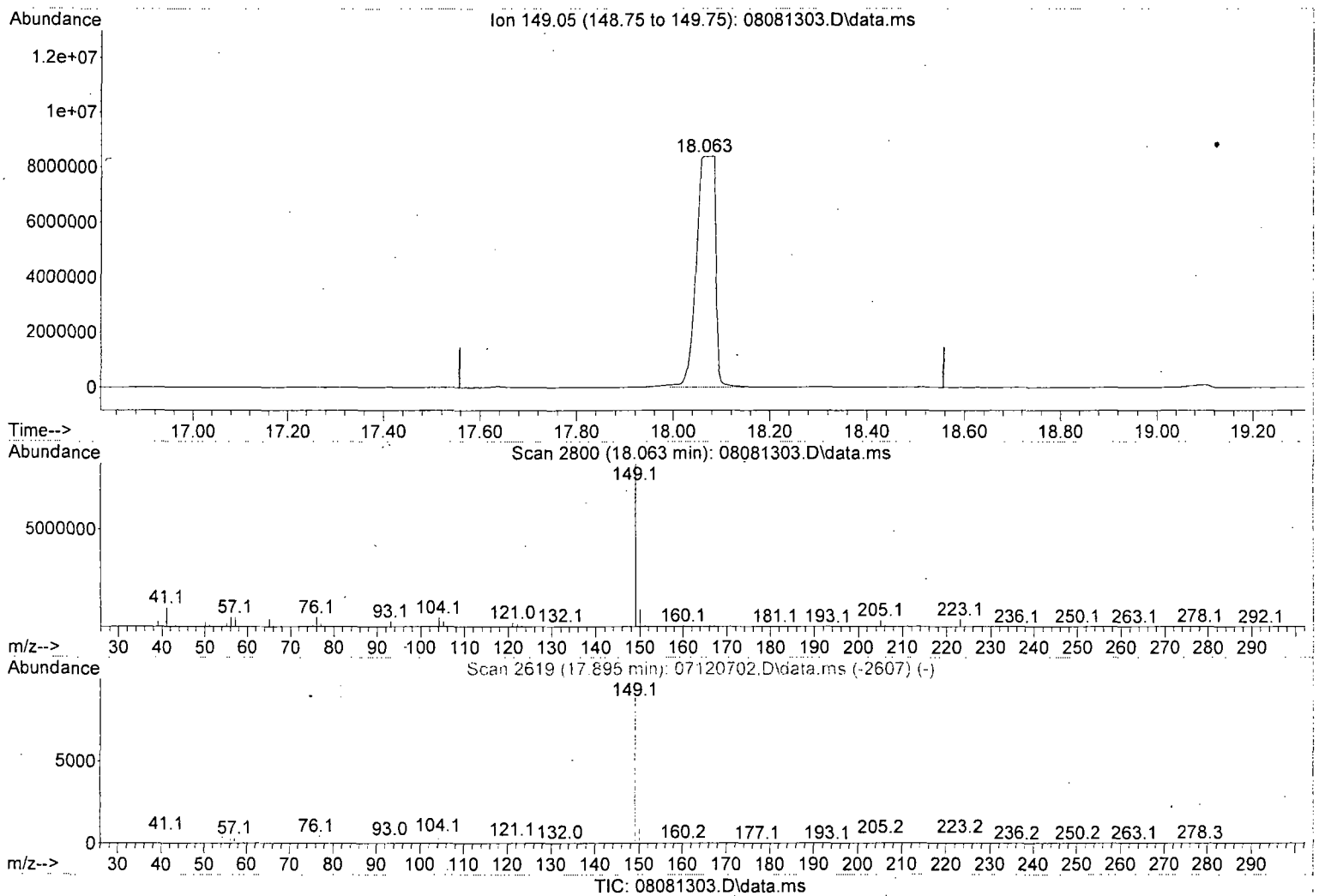
Ion	Exp%	Act%
149.05	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Below Missed Peak
KP
8/14/13

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(70) Di-n-butylphthalate (T)

18.063min (+0.005) 51.18 ug/mL m

response 22846122

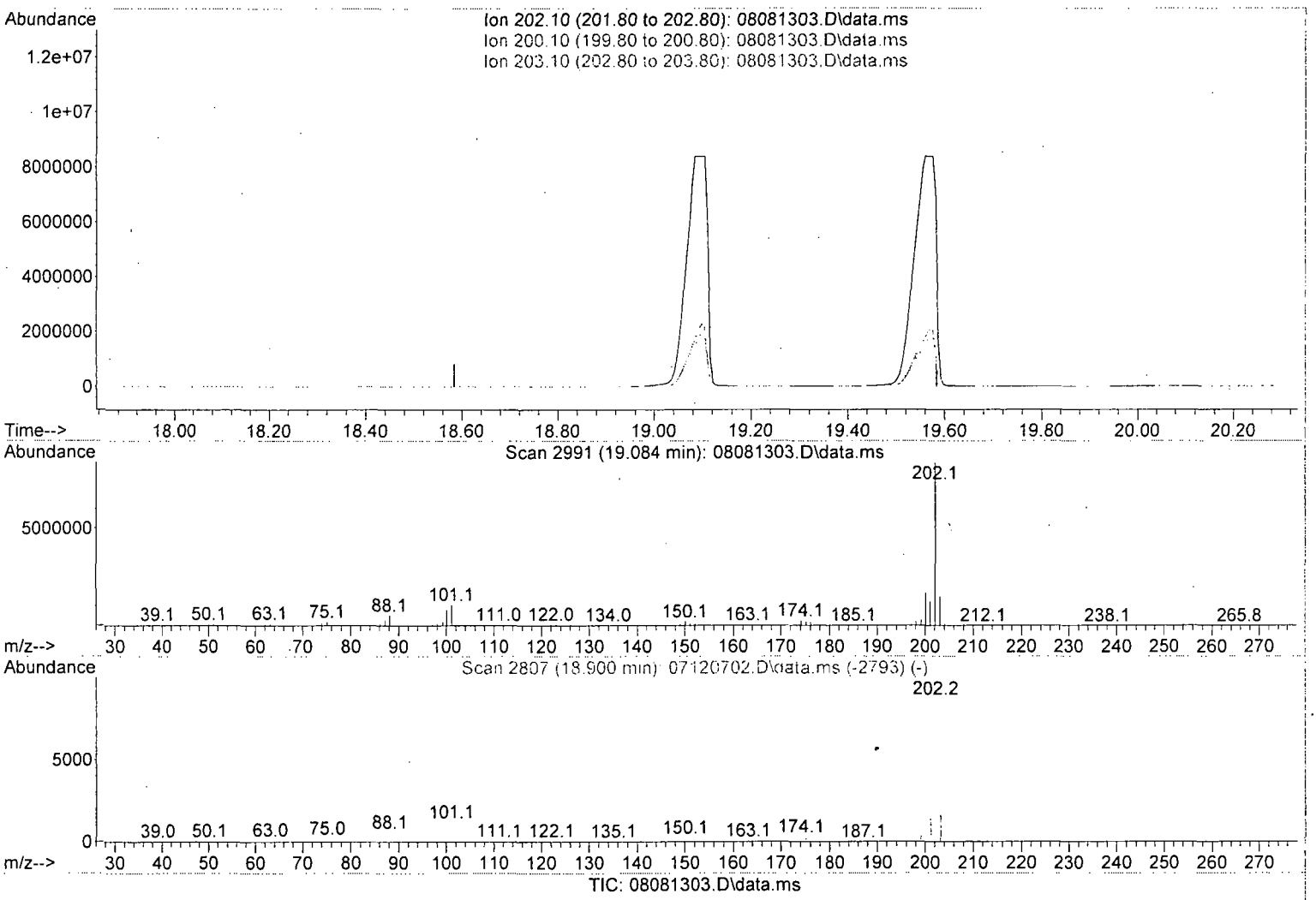
Ion	Exp%	Act%
149.05	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

After 5
ICB
8/14/13
ERY
2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(72) Fluoranthene (T)

19.085min (-19.085) 0.00 ug/mL

response 0

Ion	Exp%	Act%
202.10	100	0.00
200.10	20.50	0.00#
203.10	17.20	0.00#
0.00	0.00	0.00

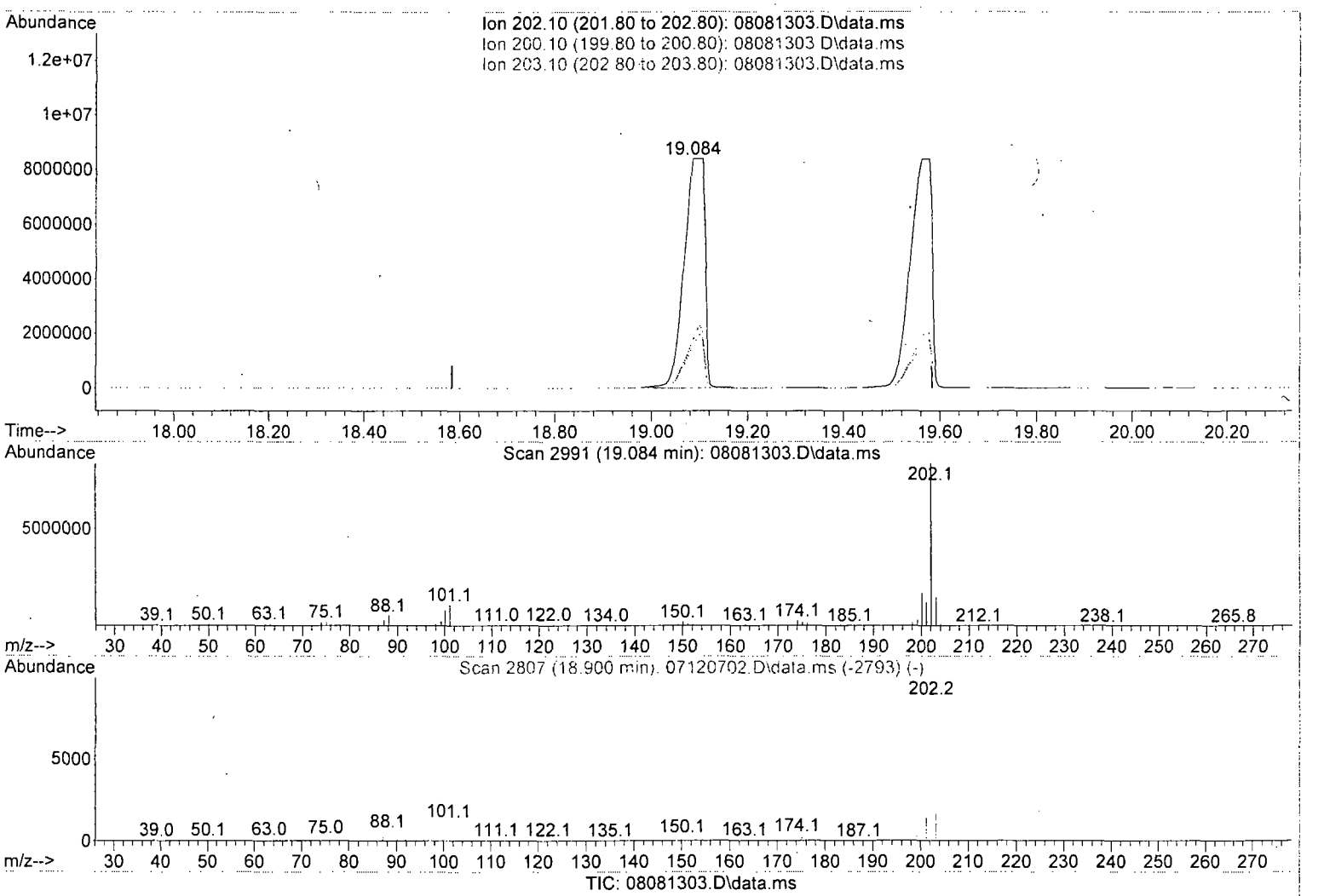
Before missed Peak
KP
8/14/13

Freedom_0005790_0273

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(72) Fluoranthene (T)

19.084min (-0.000) 56.01 ug/mL m

response 24883793

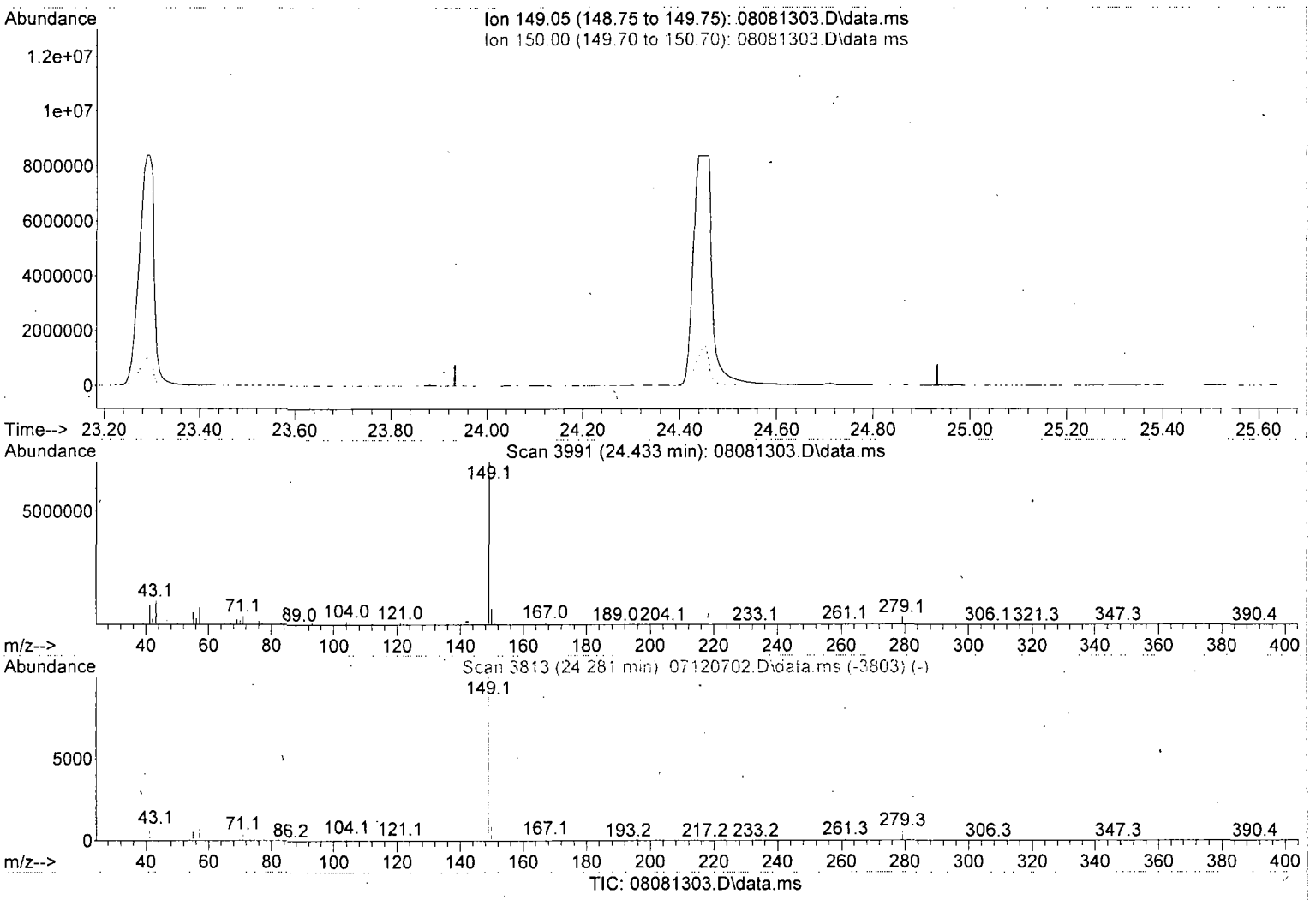
Ion	Exp%	Act%
202.10	100	100
200.10	20.50	0.00#
203.10	17.20	0.00#
0.00	0.00	0.00

After ICP 8/14/13 RDY 2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(82) Di-n-Octylphthalate (T)

24.433min (-24.433) 0.00 ug/mL

response 0

Ion	Exp%	Act%
149.05	100	0.00
150.00	15.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

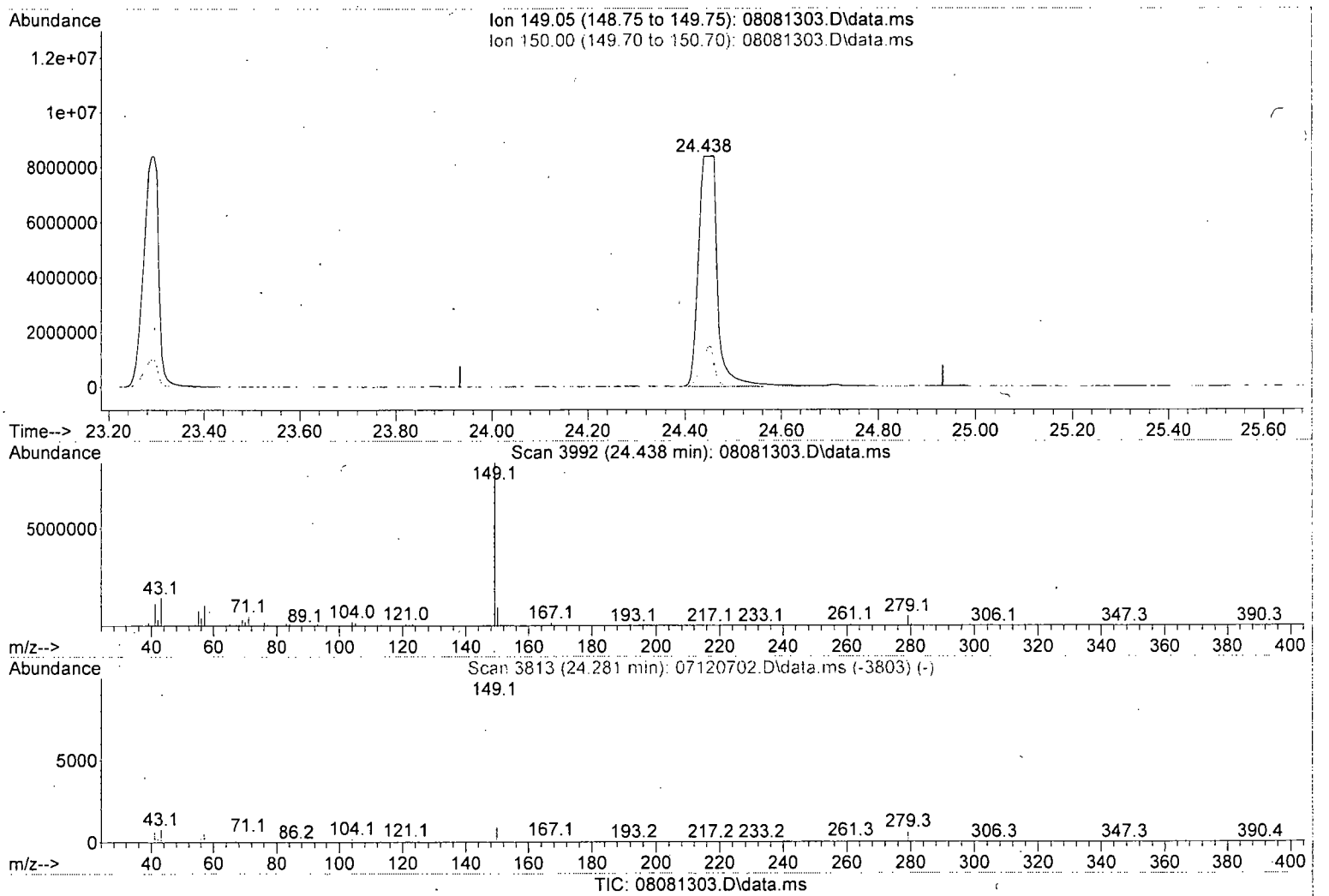
Before
Missed Peak
KLP
8/14/13

Freedom_0005790_0275

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081303.D
Acq On : 8 Aug 2013 4:24 pm
Operator : KLP OX-HP5975MSD
Sample : 60 A960
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 12 09:30:55 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:30:23 2013
Response via : Initial Calibration



(82) Di-n-Octylphthalate (T)

24.438min (+0.005) 54.96 ug/mL m

response 22807208

Ion	Exp%	Act%
149.05	100	100
150.00	15.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

After
18
8/14/13
EBY
2/26/14

Freedom_0005790_0276

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 14 09:28:03 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.296	150	2240201	20.00	ug/mL	-0.02
20) Naphthalene-D8	9.757	136	5139871	20.00	ug/mL	-0.02
36) Acenaphthene-d10	13.426	164	3239037	20.00	ug/mL	-0.01
58) Phenanthrene-D10	16.507	188	5606113	20.00	ug/mL	-0.02
73) Chrysene-D12	22.818	240	6108032	20.00	ug/mL	-0.02
81) Perylene-D12	25.599	264	4843450	20.00	ug/mL	-0.02
System Monitoring Compounds						
3) 2-Fluorophenol	5.307	112	3386994	45.55	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 91.10%			
6) Phenol-D5	6.852	99	4478697	45.41	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 90.82%			
21) Nitrobenzene-D5	8.414	82	2282852	24.97	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 99.88%			
40) 2-Fluorobiphenyl	12.089	172	5194557	25.04	ug/mL	-0.02
Spiked Amount 25.000	Range 43 - 116		Recovery = 100.16%			
62) 2,4,6-Tribromophenol	15.121	330	1209911	50.64	ug/mL	-0.01
Spiked Amount 50.000	Range 10 - 123		Recovery = 101.28%			
75) Terphenyl-d14	20.069	244	6502834	24.20	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 96.80%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.804	74	3341382	39.52	ug/mL#	10
4) Benzaldehyde	6.558	106	888903	22.80	ug/mL#	90
5) Aniline	6.831	93	2130318	29.95	ug/mL#	1
7) Phenol	6.879	94	4547148	38.26	ug/mL#	41
8) 2-Chlorophenol	6.991	128	3497727	38.59	ug/mL#	64
9) Bis(2-chloroethyl) ether	6.981	93	3694762	38.60	ug/mL#	58
10) 1,3-Dichlorobenzene	7.227	146	4050969	38.48	ug/mL	97
11) 1,4-Dichlorobenzene	7.328	146	4057700	38.47	ug/mL	100
12) 1,2-Dichlorobenzene	7.665	146	3815766	38.10	ug/mL#	86
13) Benzyl Alcohol	7.660	79	2872312	38.60	ug/mL	95
14) 2-Methylphenol	7.944	108	3248241	39.47	ug/mL#	89
15) bis(2-Chloroisopropyl)...	7.970	45	6808062	38.81	ug/mL#	94
16) Acetophenone	8.152	105	4985692	38.48	ug/mL	90
17) Hexachloroethane	8.222	117	1523211	37.79	ug/mL#	76
18) 4-Methylphenol	8.238	107	3654215	38.52	ug/mL	99
19) N-Nitroso-di-n-propyla...	8.259	70	2762540	40.88	ug/mL#	55
22) Nitrobenzene	8.452	77	4070686	42.24	ug/mL#	72
23) Isophorone	8.933	82	7122959	41.78	ug/mL#	76
24) 2-Nitrophenol	9.072	139	2116868	40.56	ug/mL#	67
25) 2,4-Dimethylphenol	9.259	107	3638538	44.16	ug/mL	96
26) bis(2-Chloroethoxy)met...	9.457	93	4441720	42.35	ug/mL#	79
27) 2,4-Dichlorophenol	9.553	162	3139173	43.11	ug/mL#	82
28) 1,2,4-Trichlorobenzene	9.698	180	3464139	42.30	ug/mL	98
29) Naphthalene	9.800	128	11710222	44.07	ug/mL	99
30) 4-Chloroaniline	10.008	127	1710643m	35.54	ug/mL	
31) Hexachlorobutadiene	10.217	225	1913968	41.77	ug/mL	99
32) Caprolactam	10.810	113	1079151	42.29	ug/mL#	13
33) 4-Chloro-3-methylphenol	11.110	107	3462244	44.25	ug/mL	89
34) 2-Methylnaphthalene	11.228	142	7899534	41.91	ug/mL	97

Freedom_0005790_0277

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 14 09:28:03 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35)	1,2,4,5-Tetrachloroben...	11.666	216	3240091	39.62	ug/ml	98
37)	Hexachlorocyclopentadiene	11.725	237	2235642	45.73	ug/mL	98
38)	2,4,6-Trichlorophenol	11.918	196	2402604	42.90	ug/mL#	88
39)	2,4,5-Trichlorophenol	11.992	196	2518310	44.25	ug/mL#	89
41)	2-Chloronaphthalene	12.228	162	7414617	42.15	ug/mL#	75
42)	Biphenyl	12.255	154	10043086	42.61	ug/mL	98
43)	2-Nitroaniline	12.581	138	2495243	41.23	ug/mL#	64
44)	Acenaphthylene	13.094	152	11388338	40.79	ug/mL	96
45)	Dimethylphthalate	13.105	163	8591366	41.18	ug/mL#	67
46)	2,6-Dinitrotoluene	13.217	165	2123319	42.26	ug/mL#	58
47)	3-Nitroaniline	12.581	138	2495243	41.23	ug/mL#	57
48)	Acenaphthene	13.501	153	8056661	41.65	ug/mL	99
49)	2,4-Dinitrophenol	13.672	184	1247471	47.23	ug/mL#	55
50)	Dibenzofuran	13.838	168	11376388	42.39	ug/mL	94
51)	4-Nitrophenol	13.902	139	1456692	43.26	ug/mL#	42
52)	2,4-Dinitrotoluene	14.014	165	2895170	41.67	ug/mL#	63
53)	2,3,4,6-tetrachlorophenol	14.223	232	2028527	40.04	ug/mL#	84
54)	Fluorene	14.565	166	9485345	41.58	ug/mL	100
55)	Diethylphthalate	14.613	149	9080786	41.01	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.635	204	4201035	41.29	ug/mL#	85
57)	4-Nitroaniline	14.763	138	755316m	46.58	ug/mL	
59)	4,6-Dinitro-2-methylph...	14.854	198	1736455	45.36	ug/mL#	78
60)	n-Nitrosodiphenylamine	14.918	169	4953653	38.38	ug/mL	98
61)	Azobenzene	14.854	77	437499	43.65	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.640	248	2484358	42.07	ug/mL#	83
64)	Hexachlorobenzene	15.892	284	2564187	41.80	ug/mL	99
65)	Atrazine	16.164	200	18503m	0.63	ug/mL	
66)	Pentachlorophenol	16.293	266	1937152	44.43	ug/mL	96
67)	Phenanthrene	16.566	178	13763855	42.85	ug/mL	99
68)	Anthracene	16.662	178	13455137	42.86	ug/mL	99
69)	Carbazole	17.031	167	1872654m	23.56	ug/mL	
70)	Di-n-butylphthalate	18.058	149	16278767	43.84	ug/mL	100
71)	Benzidine	19.475	184	5763	2.95	ug/mL#	76
72)	Fluoranthene	19.085	202	16301685	44.07	ug/mL	99
74)	Pyrene	19.550	202	16736205	41.49	ug/mL	99
76)	Benzyl butyl phthalate	21.727	149	8165803	42.76	ug/mL#	85
77)	Benz[a]anthracene	22.781	228	15820817	42.35	ug/mL	98
78)	Chrysene	22.888	228	14683654	41.82	ug/mL	99
79)	3,3'-Dichlorobenzidine	22.850	252	2427335	43.89	ug/mL#	53
80)	bis(2-Ethylhexyl)phtha...	23.278	149	11296794	42.58	ug/mL#	83
82)	Di-n-Octylphthalate	24.433	149	17532543	47.83	ug/mL#	88
83)	Benzo[b]fluoranthene	24.904	252	14371448m	43.82	ug/mL	
84)	Benzo[k]fluoranthene	24.952	252	12396193	43.34	ug/mL	98
85)	Benzo[a]pyrene	25.498	252	10536817	42.66	ug/mL	98
86)	Indeno[1,2,3-cd]pyrene	27.862	276	6646151	39.48	ug/mL	99
87)	Dibenz[a,h]anthracene	27.926	278	7094747	40.28	ug/mL#	94
88)	Benzo[ghi]perylene	28.466	276	6722157	38.45	ug/mL	98

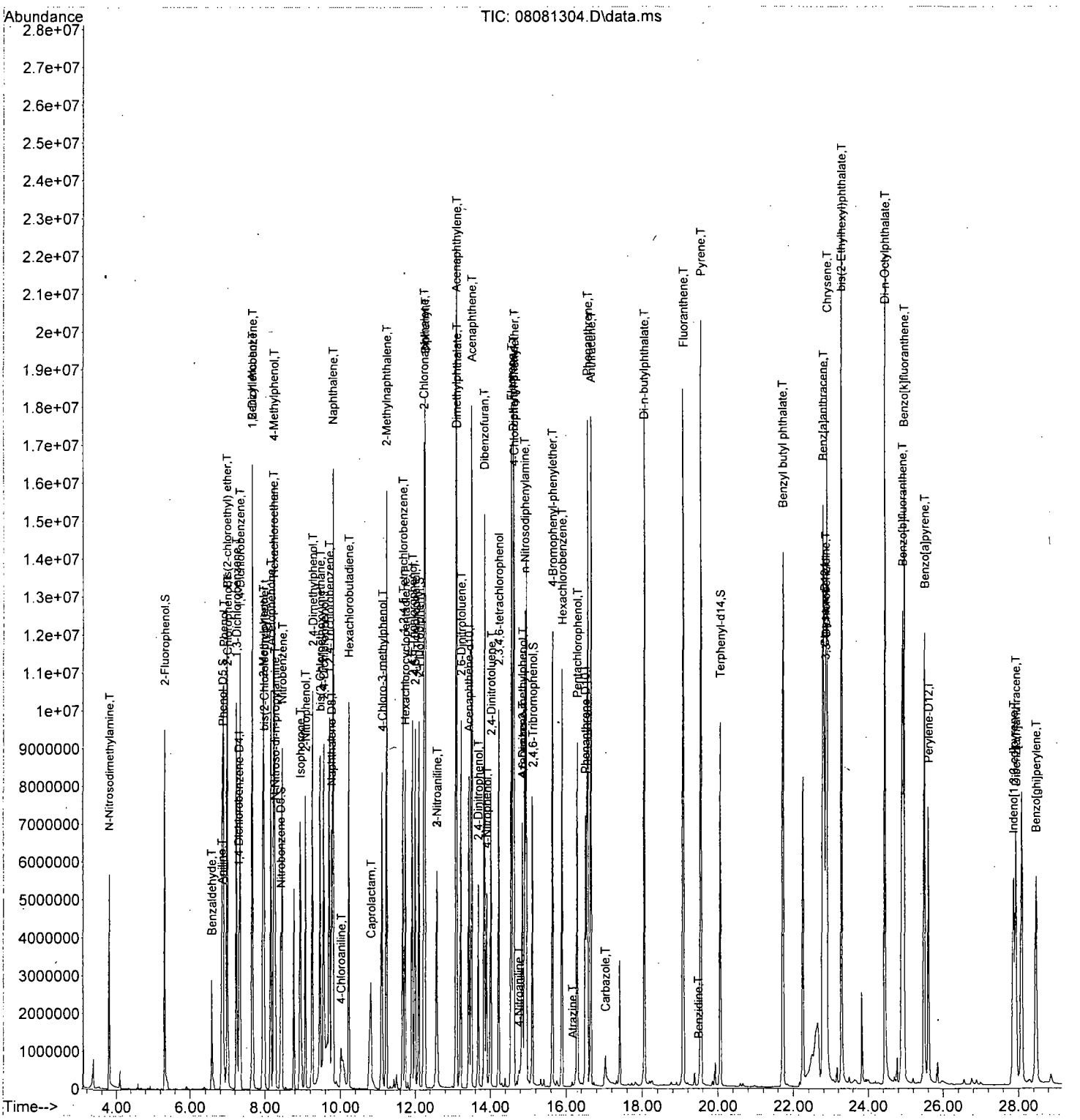
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0278

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 14 09:28:03 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration

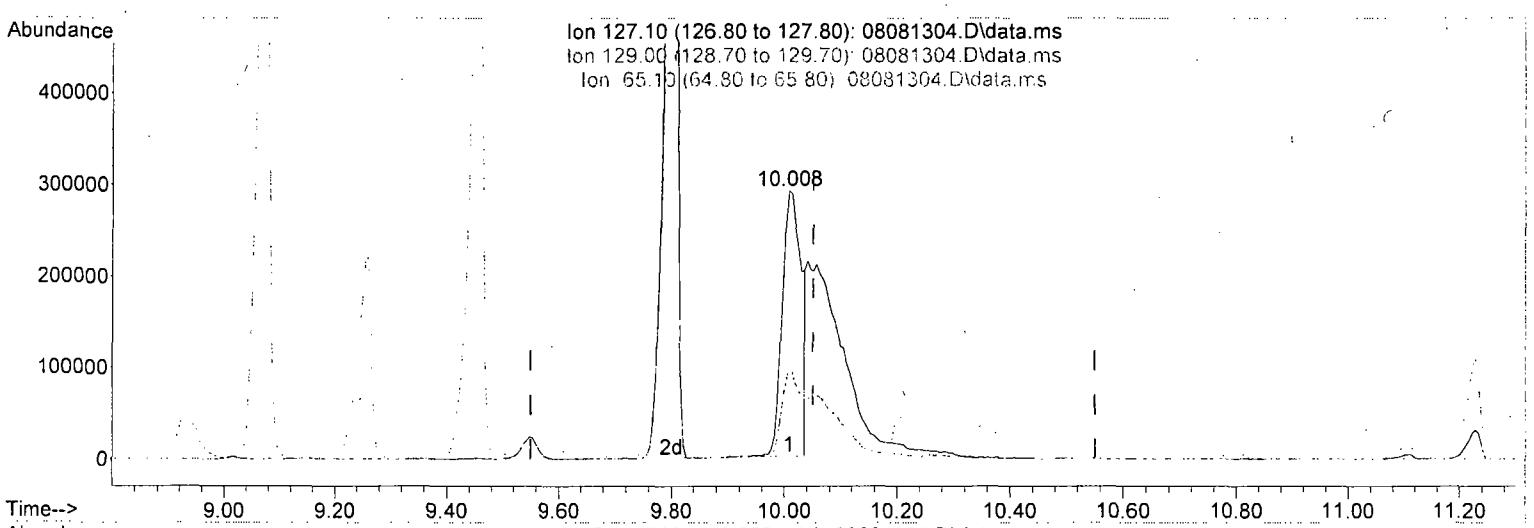


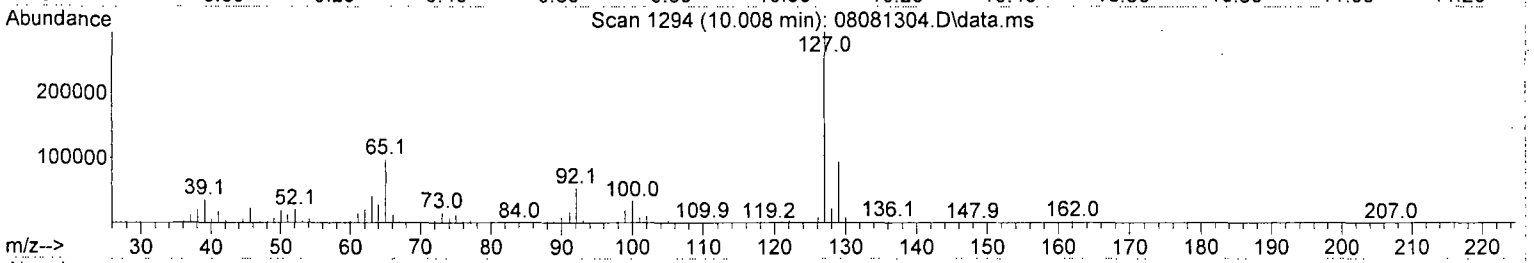
Freedom_0005790_0279

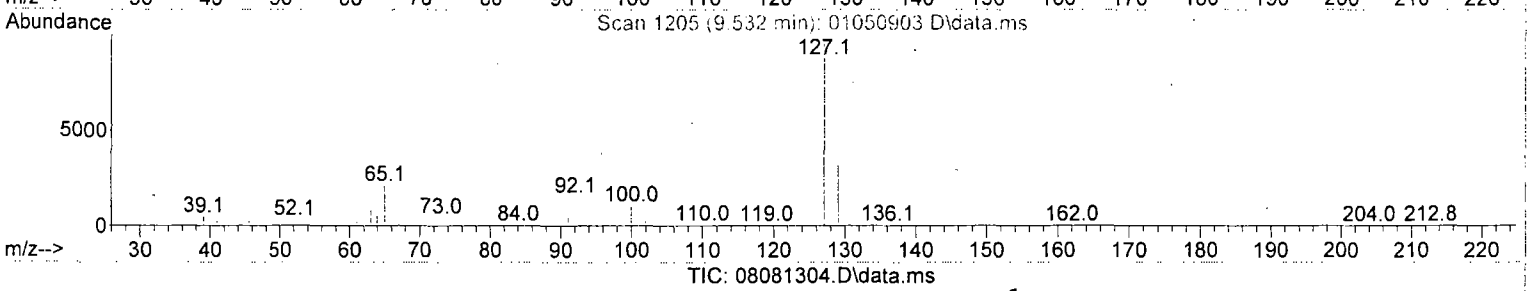
Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:39:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration







TIC: 08081304.D\data.ms

(30) 4-Chloroaniline (T)

10.008min (-0.043) 14.10 ug/mL

response 678565

Ion	Exp%	Act%
127.10	100	100
129.00	32.50	35.15
65.10	22.30	39.60#
0.00	0.00	0.00

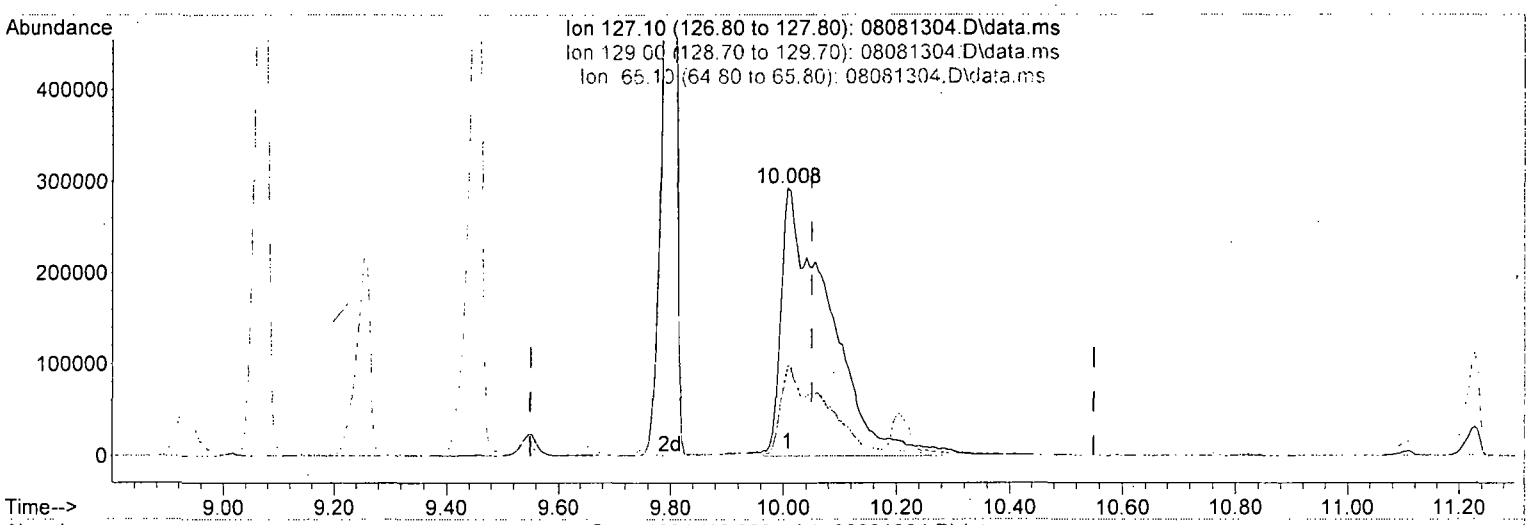
Bad Incorrect Integration
KD
8/14/13

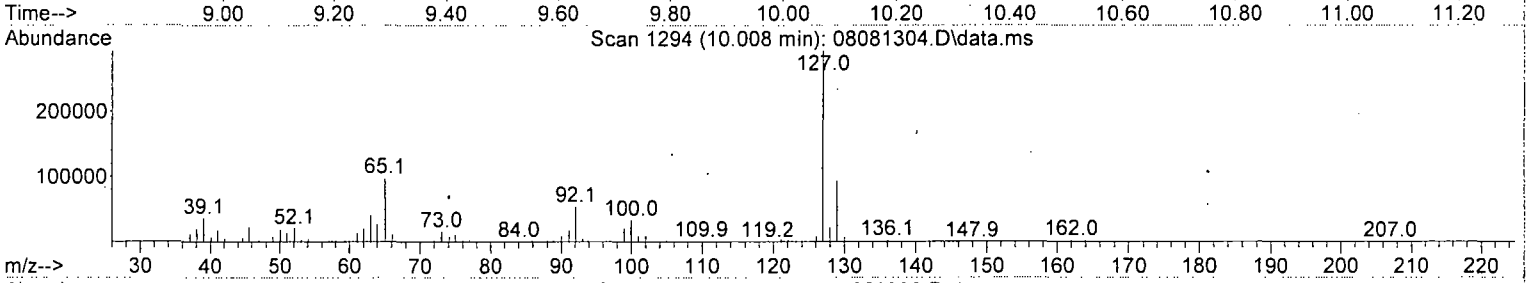
Freedom_0005790_0280

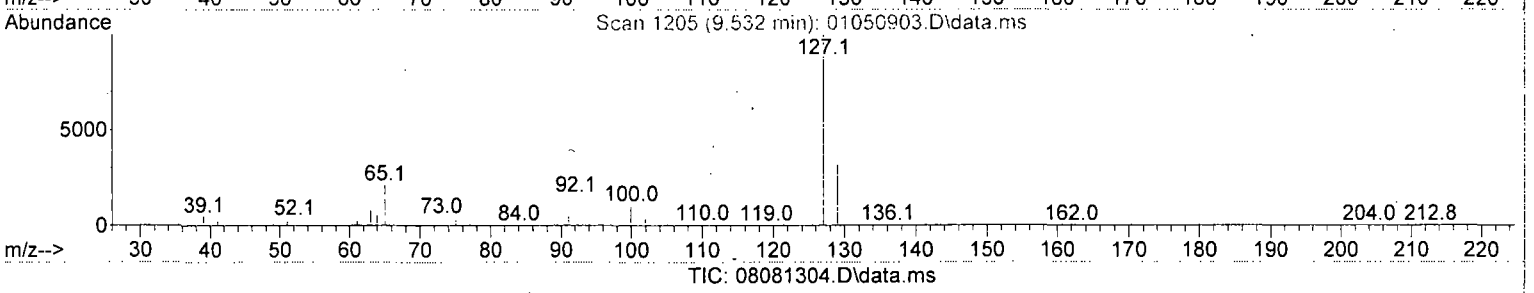
Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:39:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration







TIC: 08081304.D\data.ms

(30) 4-Chloroaniline (T)

10.008min (-0.043) 35.54 ug/mL m

response 1710643

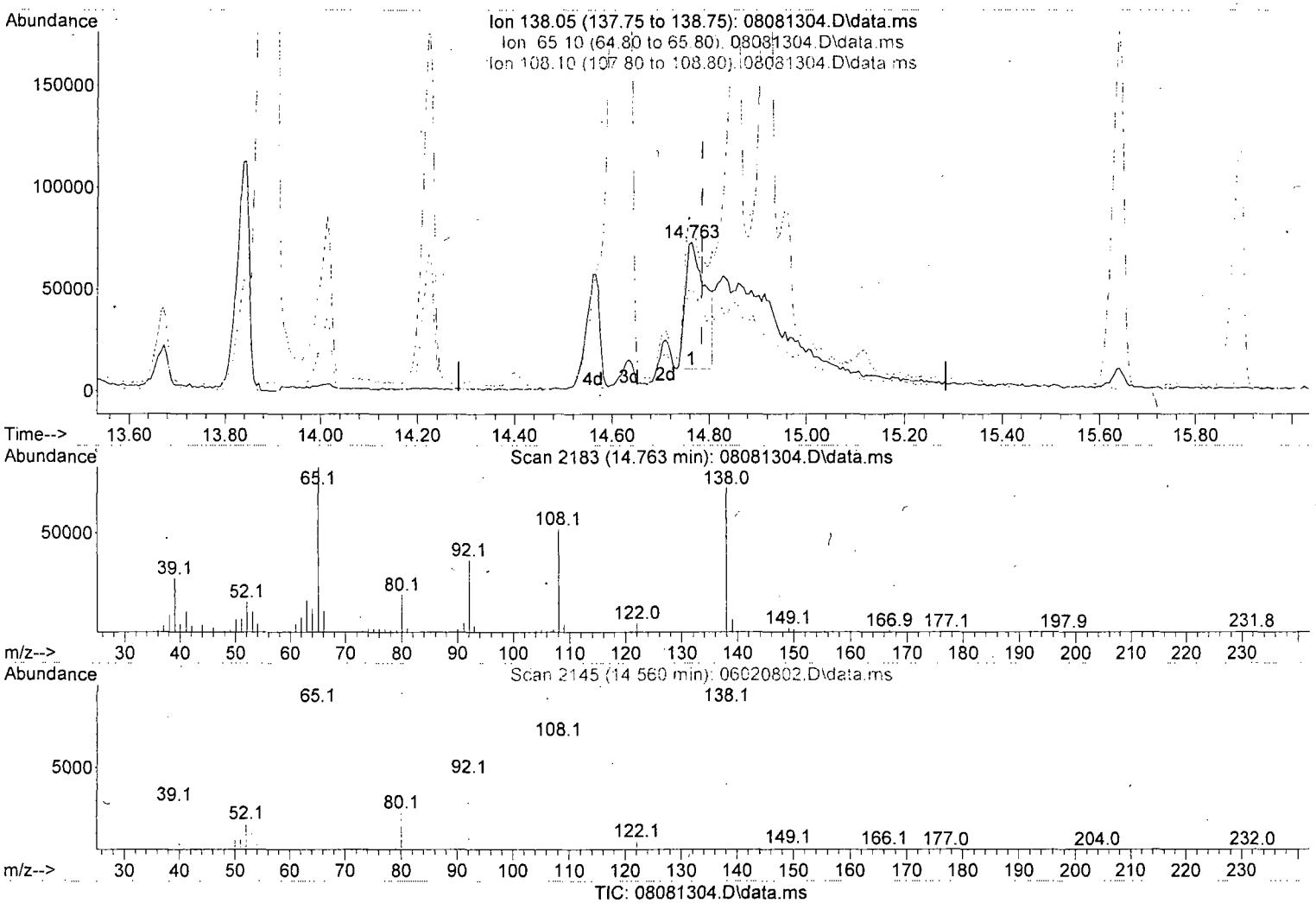
Ion	Exp%	Act%
127.10	100	100
129.00	32.50	13.94#
65.10	22.30	15.71#
0.00	0.00	0.00

Atts
KP
8/14/13
ERD
2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:39:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.763min (-0.021) 10.95 ug/mL

response 177567

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	98.26#
108.10	51.50	61.17
0.00	0.00	0.00

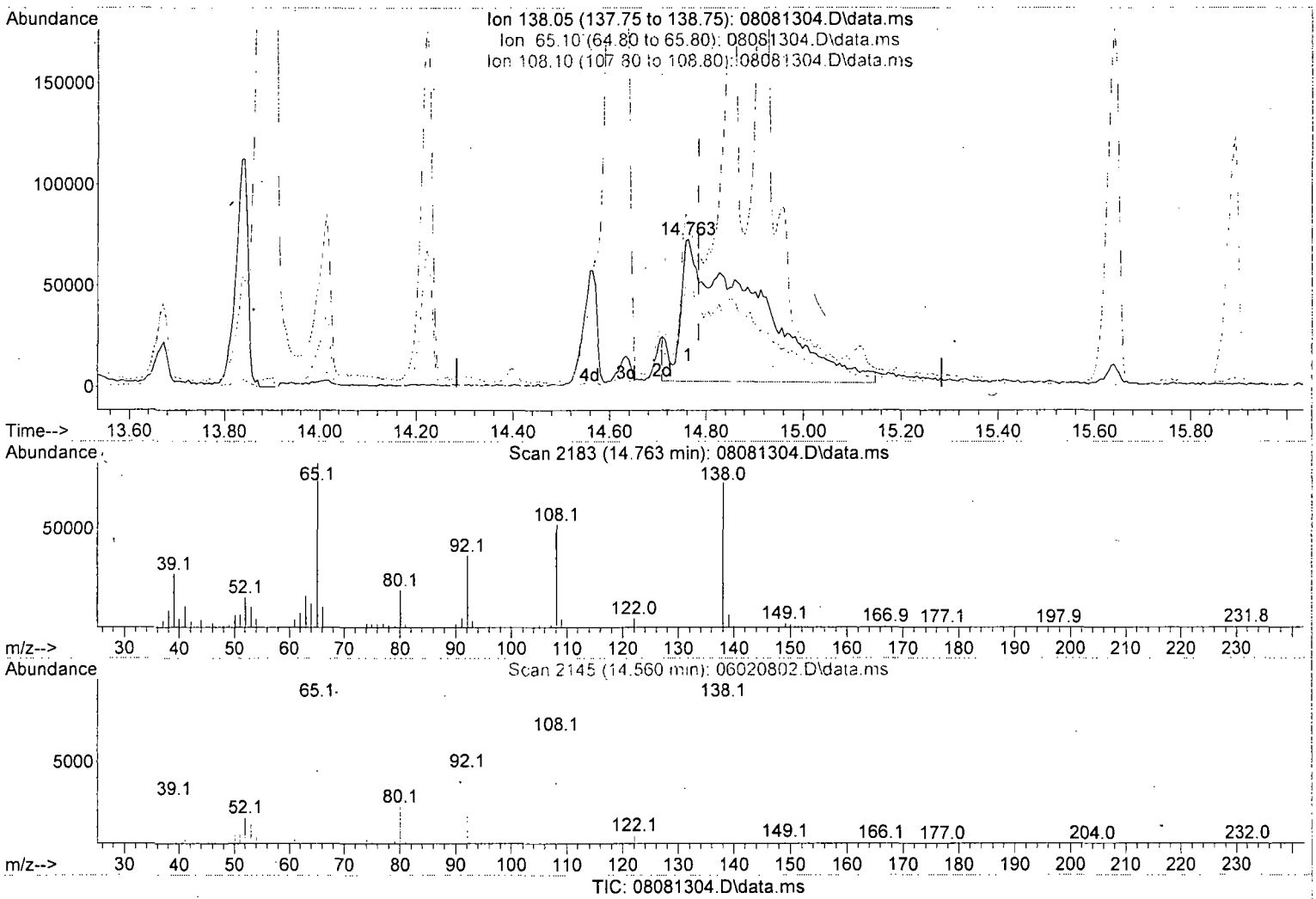
Bstone
KL
8/14/13

Freedom_0005790_0282

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:39:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.763min (-0.021) 46.58 ug/mL m

response 755316

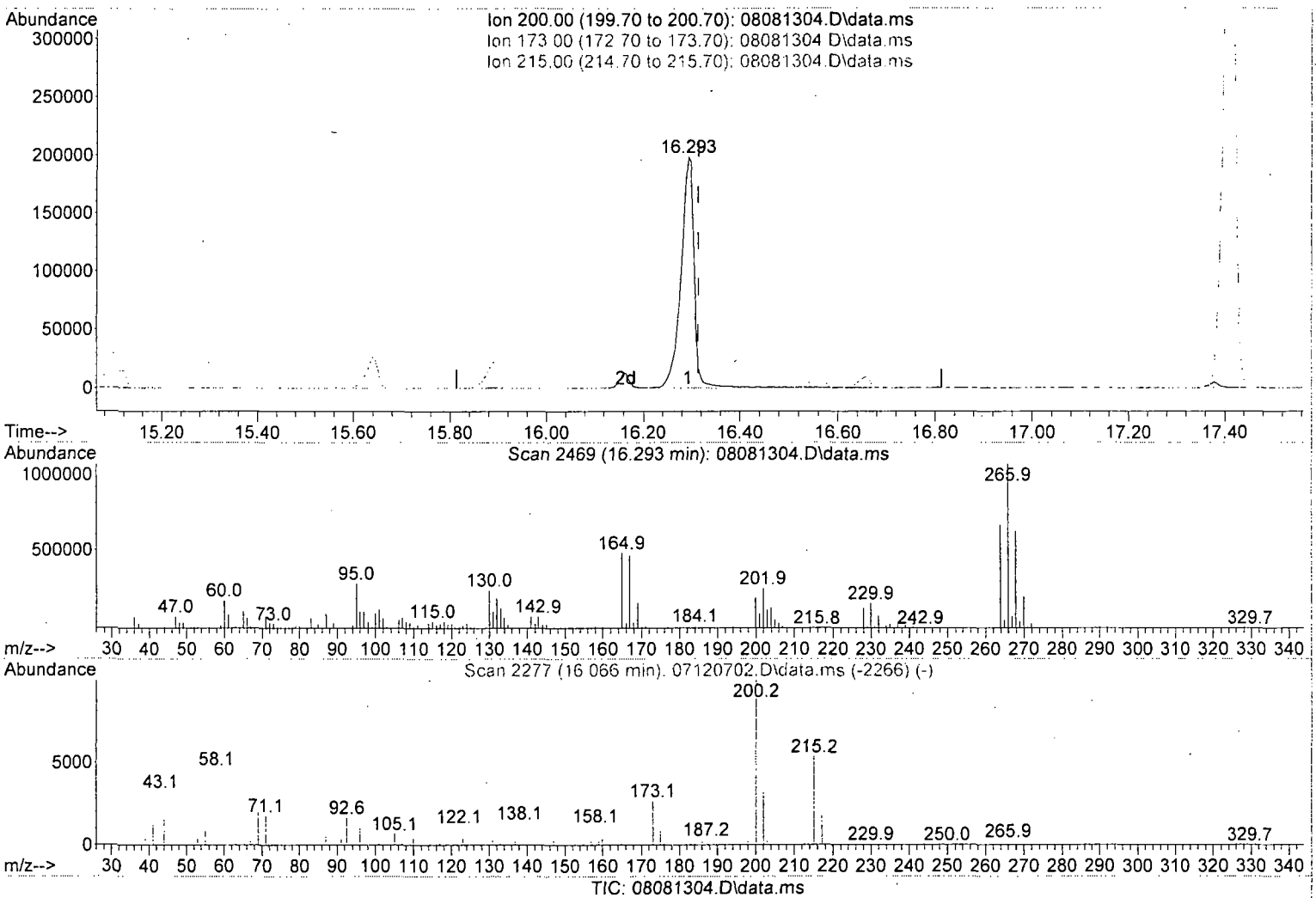
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	23.10#
108.10	51.50	14.38#
0.00	0.00	0.00

A-Xtos
KS
8/14/13
EDV
2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:43:49 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration



(65) Atrazine (T)

16.293min (-0.021) 12.57 ug/mL

response 371258

Ion	Exp%	Act%
200.00	100	100
173.00	25.00	0.00#
215.00	25.00	0.00#
0.00	0.00	0.00

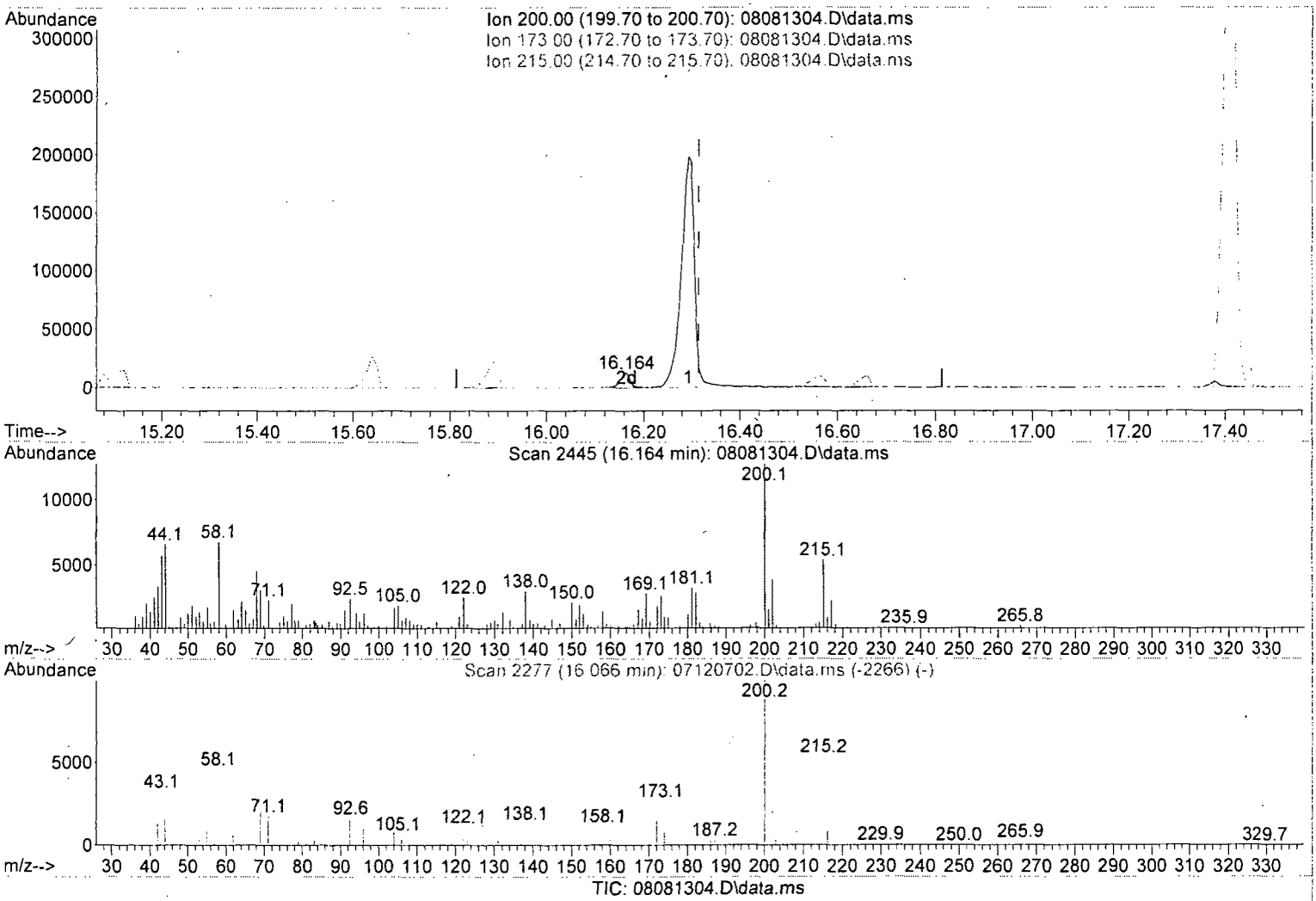
Before Initial Calib KLP 8/14/13

Freedom_0005790_0284

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:43:49 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration



(65) Atrazine (T)

16.164min (-0.150) 0.63 ug/mL m

response 18503

Ion	Exp%	Act%
200.00	100	100
173.00	25.00	0.00#
215.00	25.00	0.00#
0.00	0.00	0.00

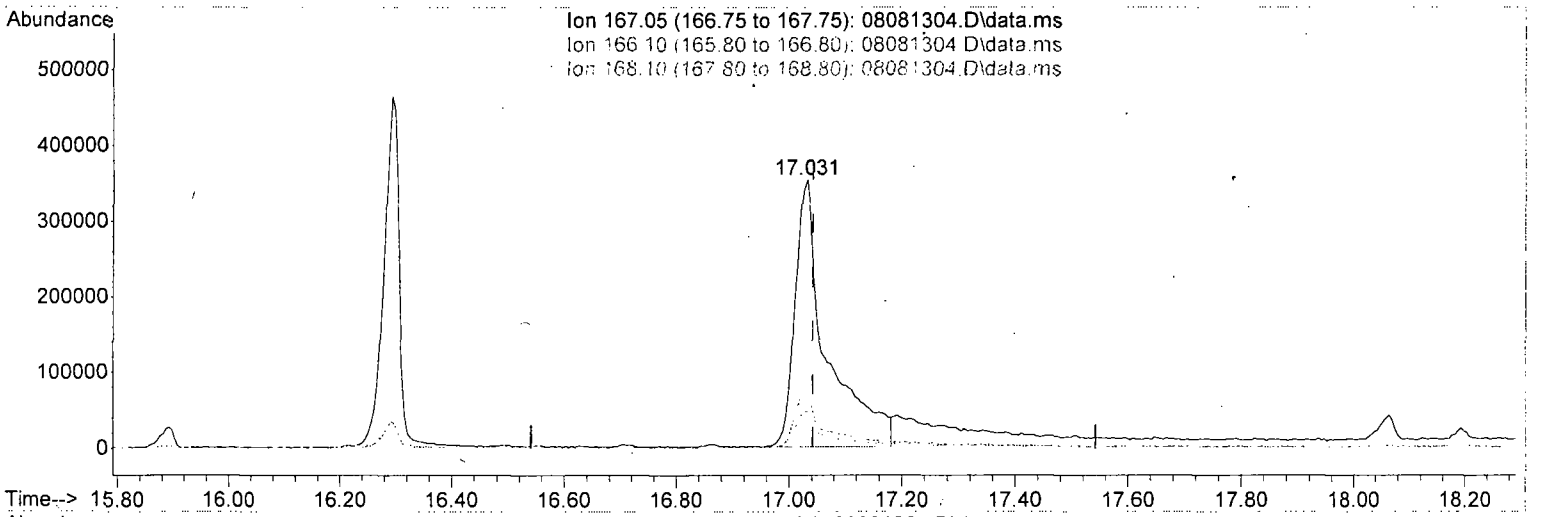
After (3) 8/14/13

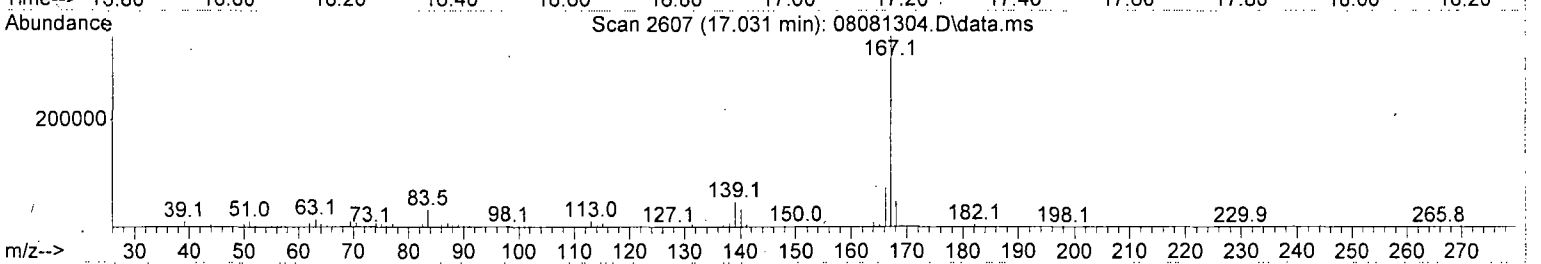
EDY 2/26/14

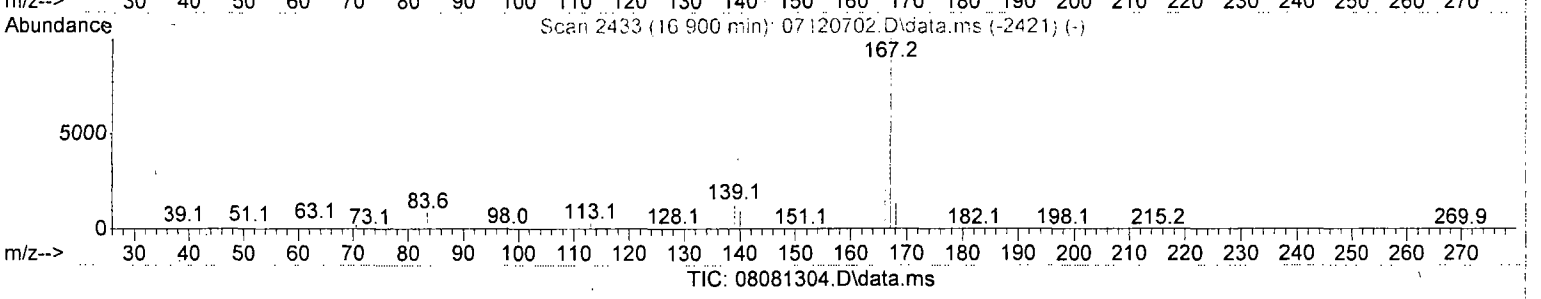
Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:39:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration







TIC: 08081304.D\data.ms

(69) Carbazole (T)

17.031min (-0.010) 17.25 ug/mL

response 1371510

Ion	Exp%	Act%
167.05	100	100
166.10	20.50	20.98
168.10	13.50	11.63
0.00	0.00	0.00

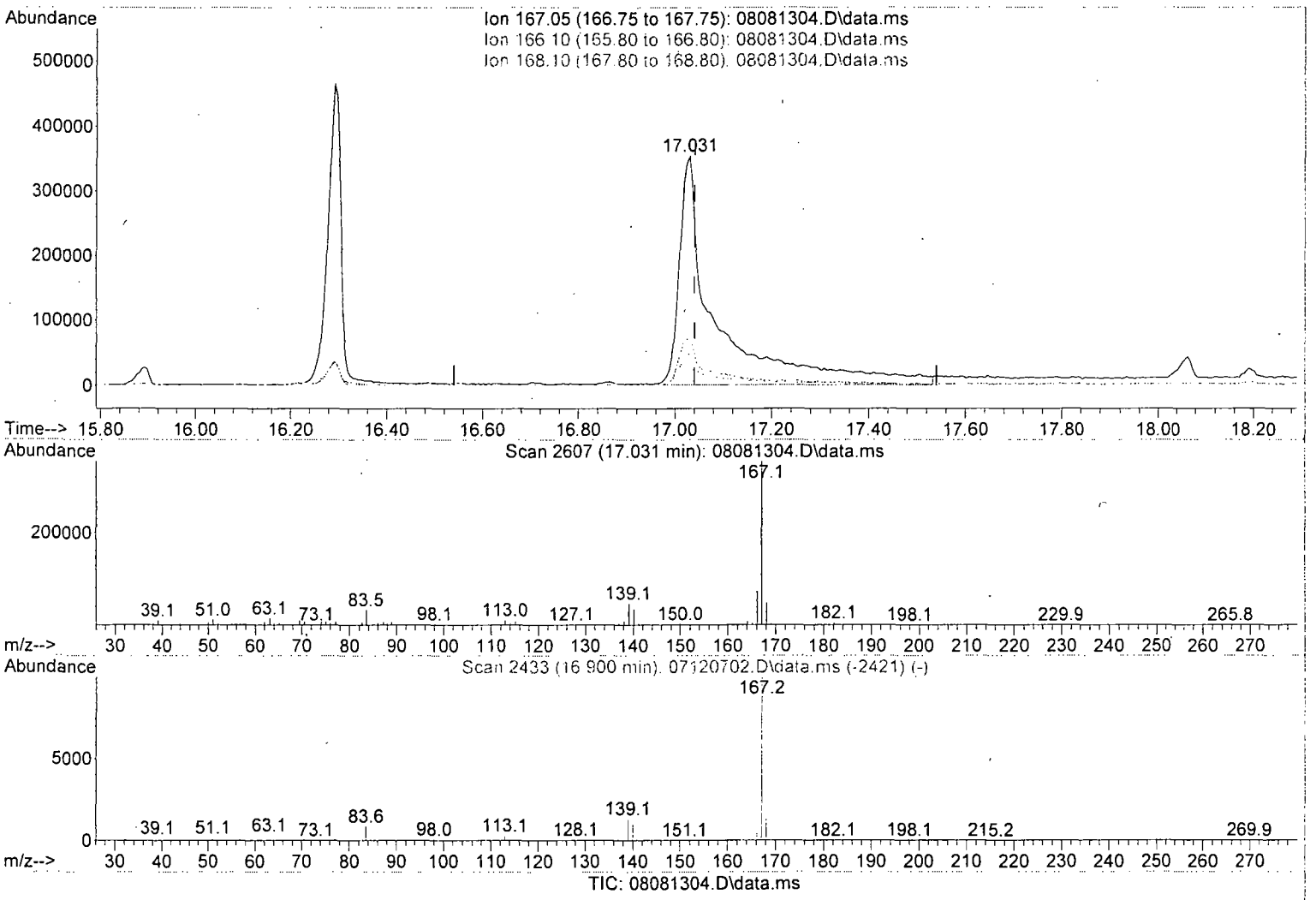
Before
KP
8/14/13
Incomplete Integration

Freedom_0005790_0286

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : Q8081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:39:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration



(69) Carbazole (T)

17.031min (-0.010) 23.56 ug/mL m

response 1872654

Ion	Exp%	Act%
167.05	100	100
166.10	20.50	15.37#
168.10	13.50	8.52#
0.00	0.00	0.00

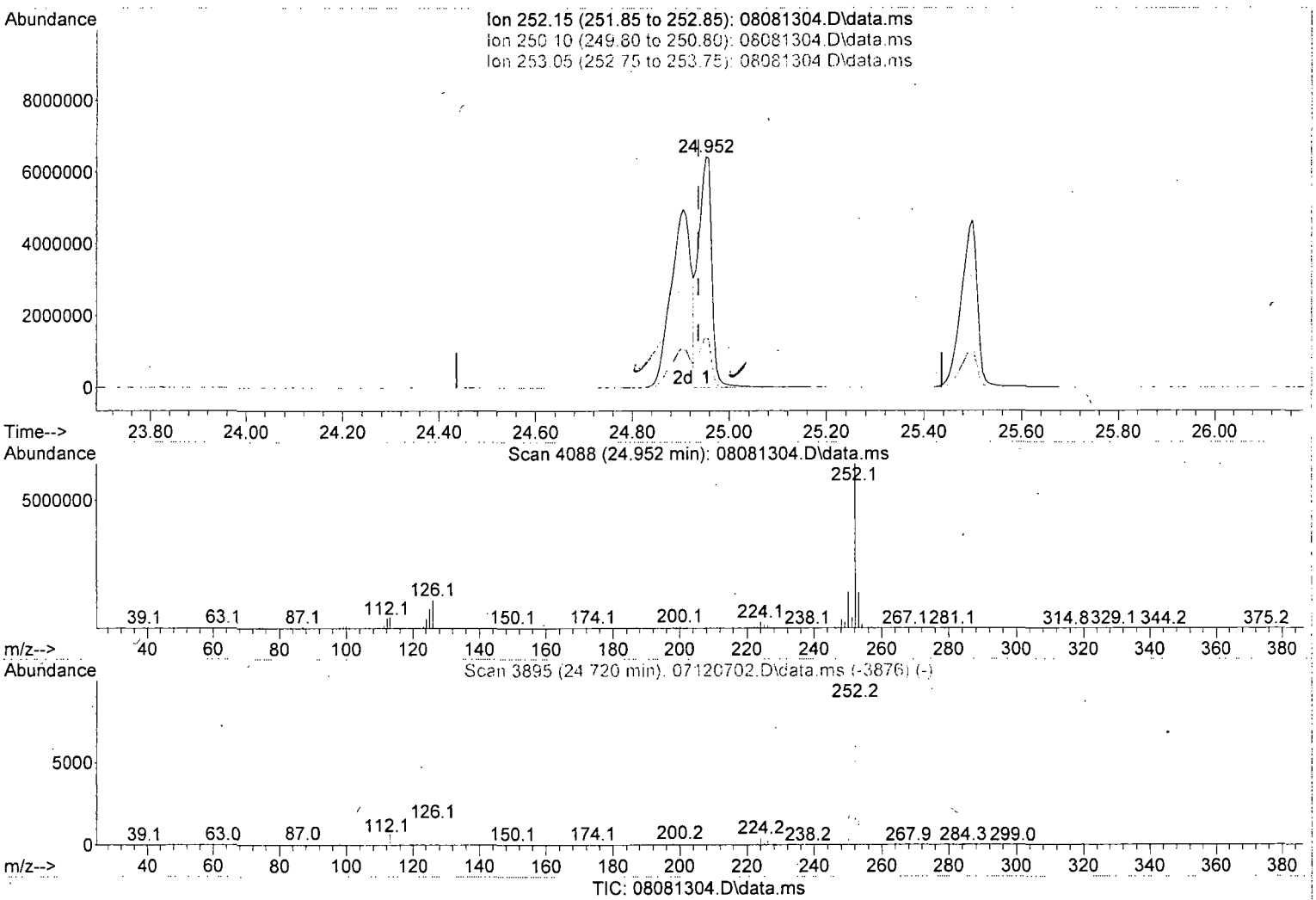
Alter
KP
8/14/13
EDS
2/26/14

Freedom_0005790_0287

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:39:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration



(83) Benzo[b]fluoranthene (T)

24.952min (+0.016) 37.79 ug/mL

response 12396193

Ion	Exp%	Act%
252.15	100	100
250.10	23.50	21.75
253.05	22.00	21.26
0.00	0.00	0.00

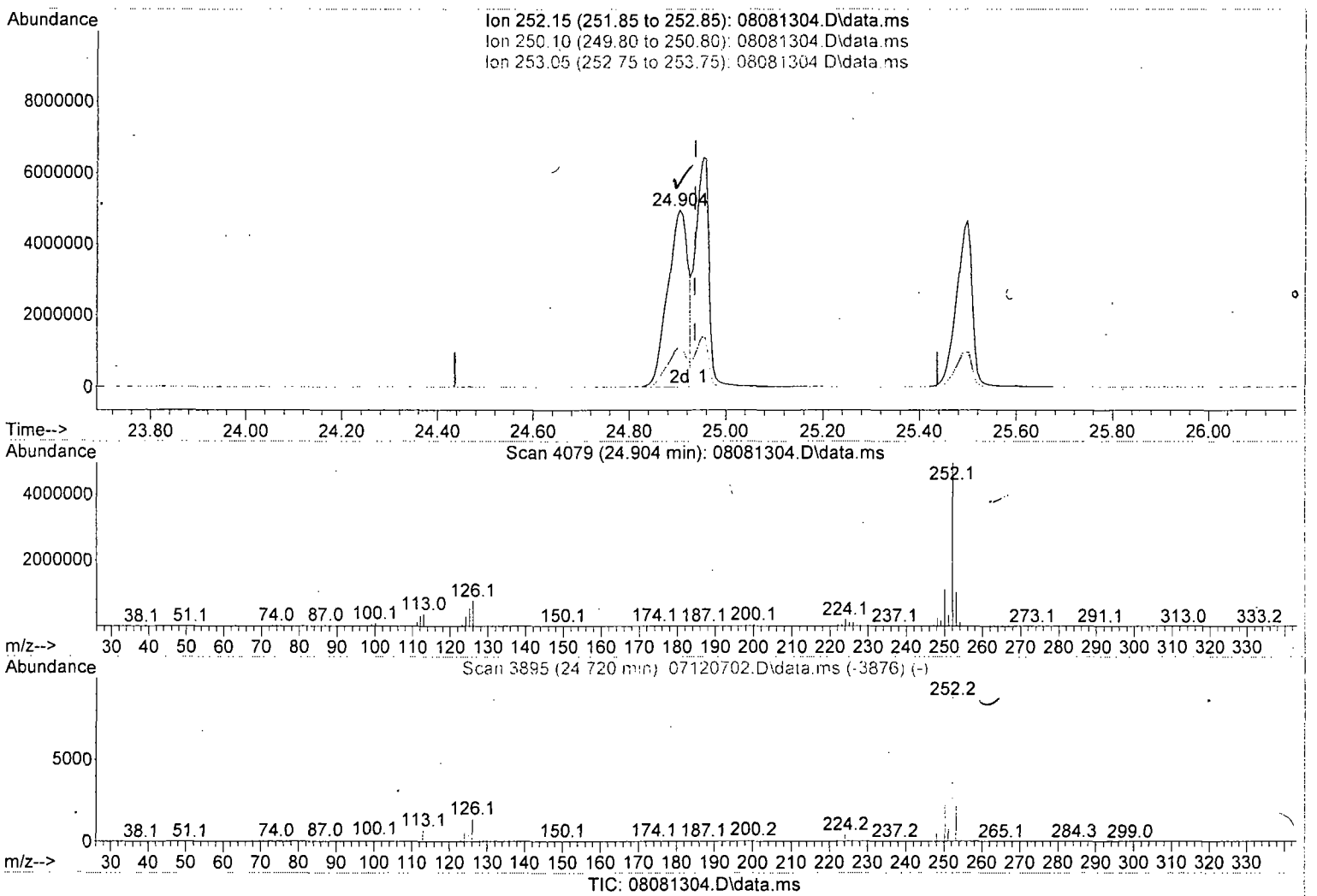
Before
Wrong Peak Integrated
KP
8/14/13

Freedom_0005790_0288

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081304.D
Acq On : 8 Aug 2013 5:01 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 12 09:39:04 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:37:31 2013
Response via : Initial Calibration



(83) Benzo[b]fluoranthene (T)

24.904min (-0.032) 43.82 ug/mL m

response 14371448

Ion	Exp%	Act%
252.15	100	100
250.10	23.50	18.76#
253.05	22.00	18.34
0.00	0.00	0.00

After
KP
8/14/13
EDY
2/26/14

Freedom_0005790_0289

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:42:30 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.296	150	2596932	20.00	ug/mL	0.00
20) Naphthalene-D8	9.757	136	6719687	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.426	164	4385787	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.512	188	8087738	20.00	ug/mL	0.00
73) Chrysene-D12	22.818	240	8507260	20.00	ug/mL	0.00
81) Perylene-D12	25.610	264	8384582	20.00	ug/mL	0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.307	112	4346429	50.42	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 100.84%			
6) Phenol-D5	6.847	99	5857545	51.24	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 102.48%			
21) Nitrobenzene-D5	8.409	82	2996280	25.07	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 100.28%			
40) 2-Fluorobiphenyl	12.089	172	6925528	24.66	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 98.64%			
62) 2,4,6-Tribromophenol	15.121	330	1730516	50.20	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 100.40%			
75) Terphenyl-d14	20.074	244	9092567	24.29	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 97.16%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.782	74	1884800	19.23	ug/mL#	2
4) Benzaldehyde	6.558	106	1174569	25.99	ug/mL#	89
5) Aniline	6.820	93	2148769	28.69	ug/mL	91
7) Phenol	6.868	94	2735675	19.86	ug/mL#	75
8) 2-Chlorophenol	6.981	128	2086347	19.85	ug/mL#	63
9) Bis(2-chloroethyl) ether	6.975	93	2170284	19.56	ug/mL#	57
10) 1,3-Dichlorobenzene	7.221	146	2397897	19.65	ug/mL	97
11) 1,4-Dichlorobenzene	7.323	146	2430841	19.88	ug/mL	100
12) 1,2-Dichlorobenzene	7.660	146	2321147	19.99	ug/mL#	87
13) Benzyl Alcohol	7.649	79	1736263	20.13	ug/mL	94
14) 2-Methylphenol	7.933	108	1915052	20.07	ug/mL#	89
15) bis(2-Chloroisopropyl)...	7.965	45	4046907	19.90	ug/mL#	95
16) Acetophenone	8.141	105	3002620	19.99	ug/mL	90
17) Hexachloroethane	8.222	117	901318	19.29	ug/mL#	77
18) 4-Methylphenol	8.222	107	2180785	19.83	ug/mL	100
19) N-Nitroso-di-n-propyla...	8.243	70	1661094	21.20	ug/mL#	55
22) Nitrobenzene	8.441	77	2443068	19.39	ug/mL#	72
23) Isophorone	8.922	82	4434621	19.89	ug/mL#	76
24) 2-Nitrophenol	9.067	139	1297771	19.02	ug/mL#	68
25) 2,4-Dimethylphenol	9.243	107	2081408	19.32	ug/mL	97
26) bis(2-Chloroethoxy)met...	9.441	93	2704184	19.72	ug/mL#	80
27) 2,4-Dichlorophenol	9.537	162	1876964	19.72	ug/mL#	82
28) 1,2,4-Trichlorobenzene	9.692	180	2085683	19.48	ug/mL	98
29) Naphthalene	9.794	128	7106670	20.46	ug/mL	99
30) 4-Chloroaniline	10.008	127	1114722	17.62	ug/mL#	90
31) Hexachlorobutadiene	10.217	225	1181266	19.72	ug/mL	99
32) Caprolactam	10.751	113	740261	22.19	ug/mL#	46
33) 4-Chloro-3-methylphenol	11.094	107	2072184	20.26	ug/mL	89
34) 2-Methylnaphthalene	11.222	142	4869776	19.76	ug/mL	97

Freedom_0005790_0290

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : Q8081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:42:30 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration

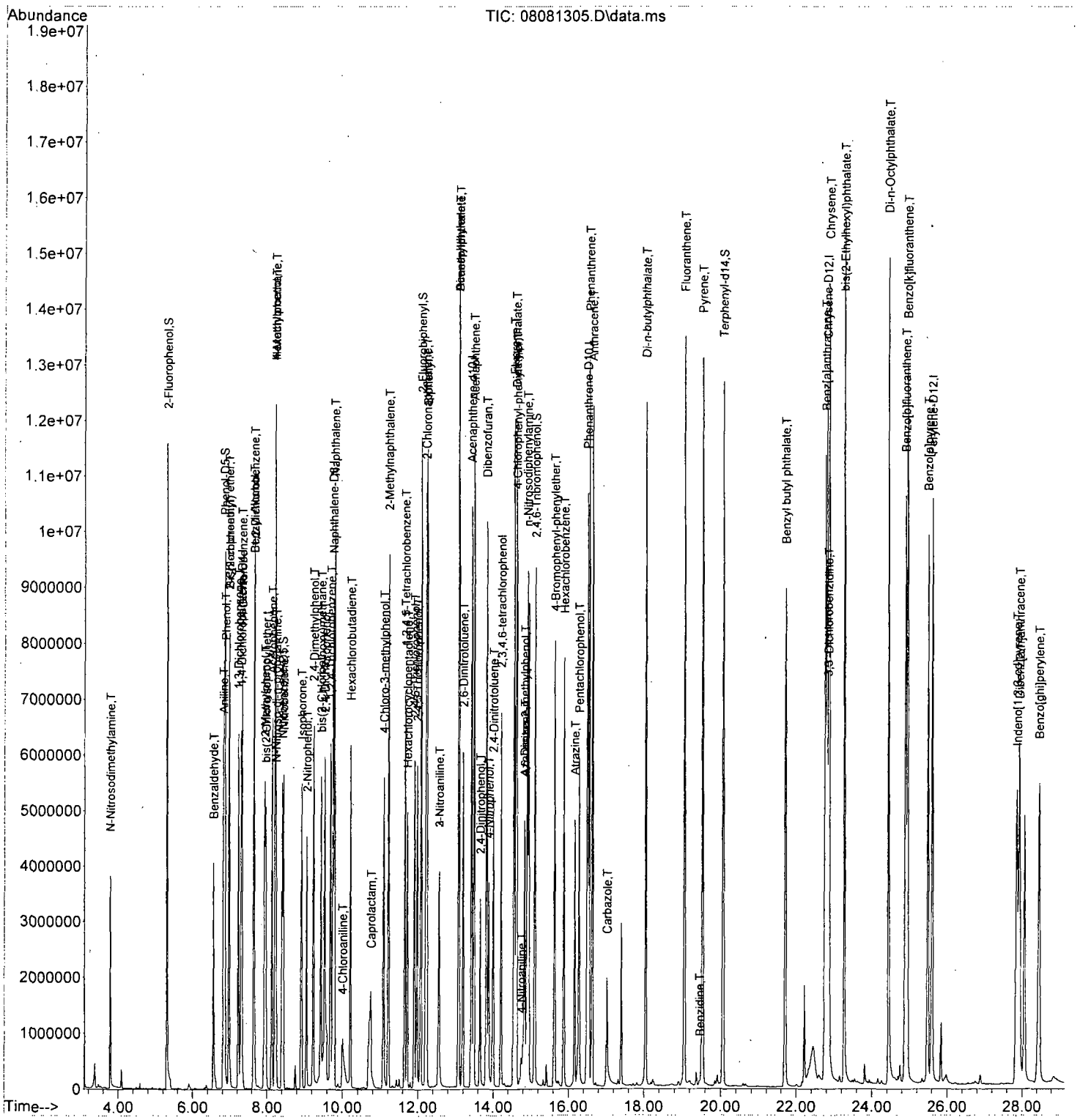
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35)	1,2,4,5-Tetrachloroben...	11.661	216	2151258	20.12 ug/ml	98
37)	Hexachlorocyclopentadiene	11.720	237	1334108	20.15 ug/mL	98
38)	2,4,6-Trichlorophenol	11.912	196	1475130	19.45 ug/mL#	88
39)	2,4,5-Trichlorophenol	11.982	196	1522971	19.76 ug/mL#	90
41)	2-Chloronaphthalene	12.222	162	4631007	19.44 ug/mL#	74
42)	Biphenyl	12.249	154	6295898	19.73 ug/mL	99
43)	2-Nitroaniline	12.570	138	1632916	19.93 ug/mL#	63
44)	Acenaphthylene	13.089	152	7977260	21.10 ug/mL	98
45)	Dimethylphthalate	13.094	163	5548409	19.64 ug/mL#	67
46)	2,6-Dinitrotoluene	13.207	165	1362864	20.03 ug/mL#	58
47)	3-Nitroaniline	12.570	138	1632916	19.93 ug/mL#	57
48)	Acenaphthene	13.495	153	5100814	19.47 ug/mL	99
49)	2,4-Dinitrophenol	13.661	184	791779	22.14 ug/mL#	53
50)	Dibenzofuran	13.832	168	7252775	19.96 ug/mL	92
51)	4-Nitrophenol	13.886	139	967232	21.21 ug/mL#	37
52)	2,4-Dinitrotoluene	14.003	165	1917782	20.39 ug/mL#	63
53)	2,3,4,6-tetrachlorophenol	14.217	232	1401405	20.43 ug/mL#	83
54)	Fluorene	14.560	166	6151247	19.92 ug/mL	100
55)	Diethylphthalate	14.613	149	6070937	20.25 ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.629	204	2770778	20.11 ug/mL#	85
57)	4-Nitroaniline	14.752	138	820122m	33.47 ug/mL	
59)	4,6-Dinitro-2-methylph...	14.843	198	1150768	20.84 ug/mL#	77
60)	n-Nitrosodiphenylamine	14.913	169	3917941	21.04 ug/mL	97
61)	Azobenzene	14.843	77	305896	21.50 ug/mL#	1
63)	4-Bromophenyl-phenylether	15.640	248	1652584	19.40 ug/mL#	83
64)	Hexachlorobenzene	15.886	284	1690754	19.10 ug/mL	99
65)	Atrazine	16.175	200	979638m	22.99 ug/mL	
66)	Pentachlorophenol	16.287	266	1242496	19.75 ug/mL	96
67)	Phenanthrene	16.560	178	9247803	19.96 ug/mL	99
68)	Anthracene	16.651	178	9200022	20.32 ug/mL	99
69)	Carbazole	17.031	167	2360996m	20.06 ug/mL	
70)	Di-n-butylphthalate	18.058	149	11521348	21.51 ug/mL	100
71)	Benzidine	19.464	184	45991	16.29 ug/mL#	86
72)	Fluoranthene	19.074	202	10798029	20.23 ug/mL	99
74)	Pyrene	19.539	202	11003767	19.58 ug/mL	99
76)	Benzyl butyl phthalate	21.722	149	5124338	19.27 ug/mL#	86
77)	Benz[a]anthracene	22.775	228	10305097	19.81 ug/mL	98
78)	Chrysene	22.877	228	9571369	19.57 ug/mL	99
79)	3,3'-Dichlorobenzidine	22.845	252	1701426	22.09 ug/mL#	52
80)	bis(2-Ethylhexyl)phtha...	23.278	149	7340179	19.87 ug/mL#	83
82)	Di-n-Octylphthalate	24.433	149	12606567	19.87 ug/mL#	87
83)	Benzo[b]fluoranthene	24.893	252	10532785	18.55 ug/mL	97
84)	Benzo[k]fluoranthene	24.947	252	9299325	18.78 ug/mL	99
85)	Benzo[a]pyrene	25.492	252	8510788	19.91 ug/mL	98
86)	Indeno[1,2,3-cd]pyrene	27.867	276	6465908	22.19 ug/mL	99
87)	Dibenz[a,h]anthracene	27.931	278	6814173	22.35 ug/mL#	94
88)	Benzo[ghi]perylene	28.466	276	6655436	21.99 ug/mL	99

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

Freedom_0005790_0291

Data Path : D:\DATA\080813\
Data File : 08081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:42:30 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration

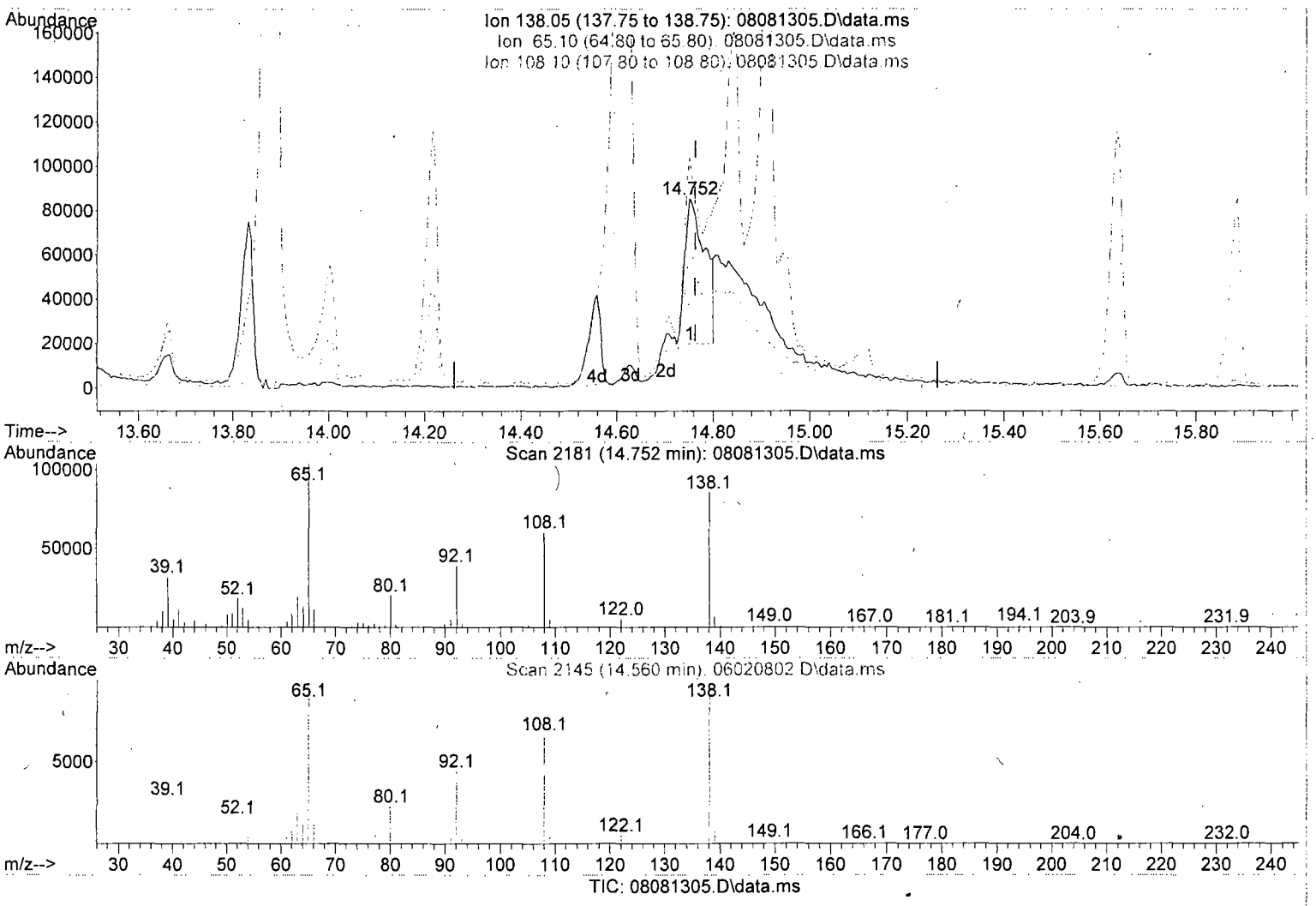


Freedom_0005790_0292

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : .08081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 09:46:00 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.752min (-0.011) 7.79 ug/mL

response 190856

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	84.16
108.10	51.50	56.54
0.00	0.00	0.00

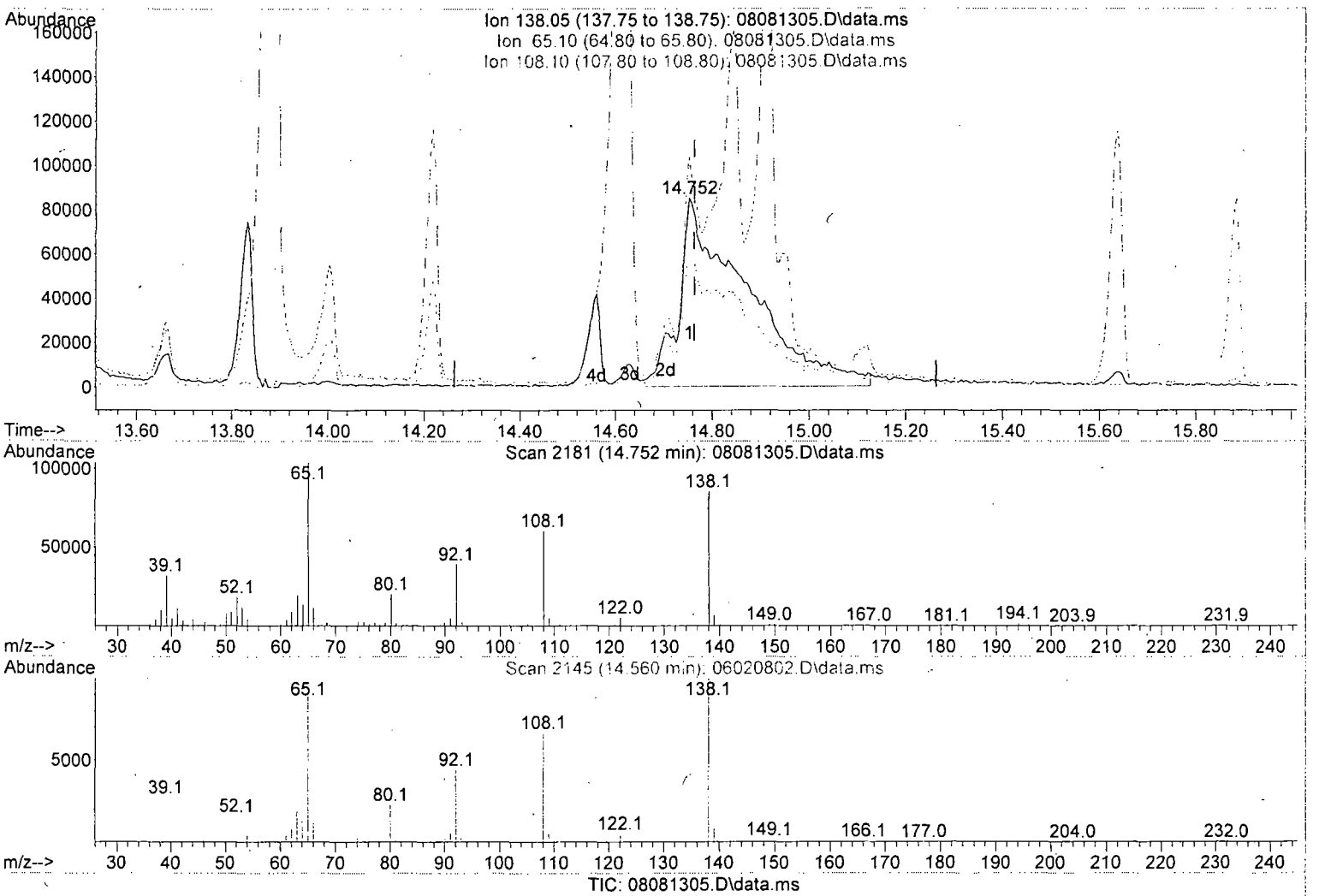
Before Incomplete Integration
KP
8/14/13

Freedom_0005790_0293

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 09:46:00 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.752min (-0.011) 33.47 ug/mL m

response 820122

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	19.59#
108.10	51.50	13.16#
0.00	0.00	0.00

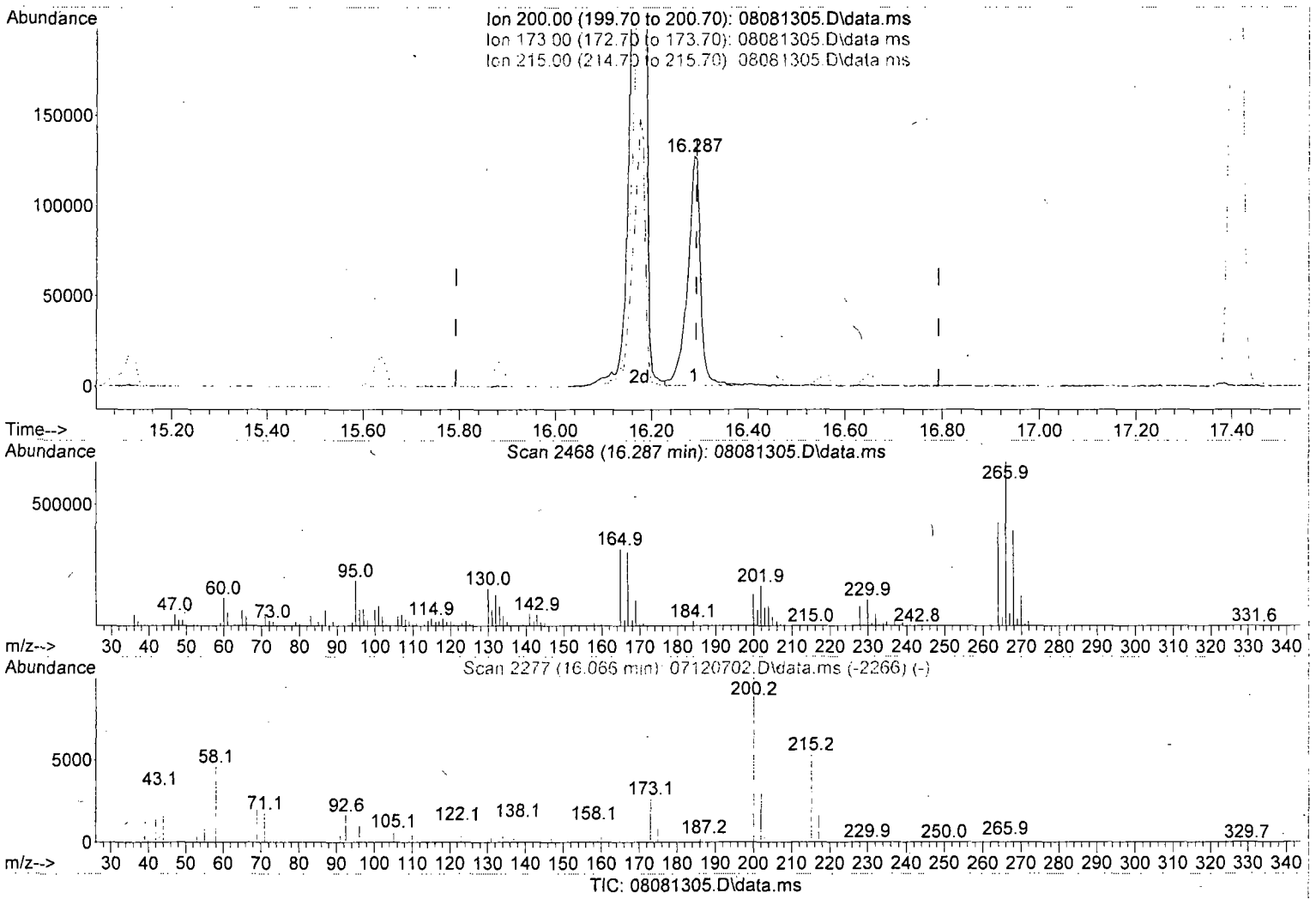
After ICB 8/14/13 ORY 2/26/14

Freedom_0005790_0294

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 09:46:00 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration



(65) Atrazine (T)

16.287min (-0.005) 5.58 ug/mL

response 237785

Ion	Exp%	Act%
200.00	100	100
173.00	25.00	0.00#
215.00	25.00	0.00#
0.00	0.00	0.00

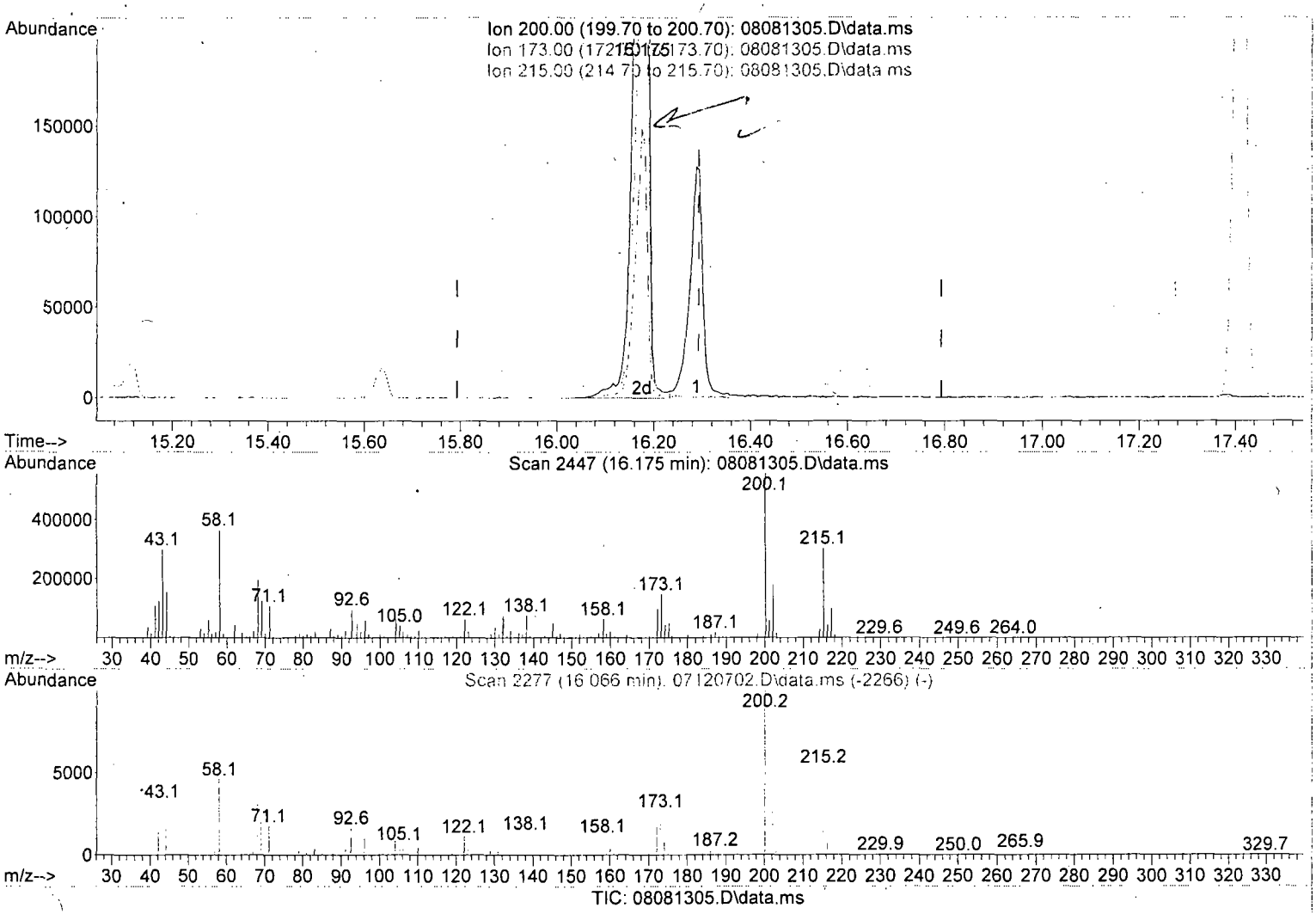
Below
Wrong Peak Integrated
KL
8/14/13

Freedom_0005790_0295

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 09:46:00 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration



(65) Atrazine (T)

16.175min (-0.118) 22.99 ug/mL m

response 979638

Ion	Exp%	Act%
200.00	100	100
173.00	25.00	0.00#
215.00	25.00	0.00#
0.00	0.00	0.00

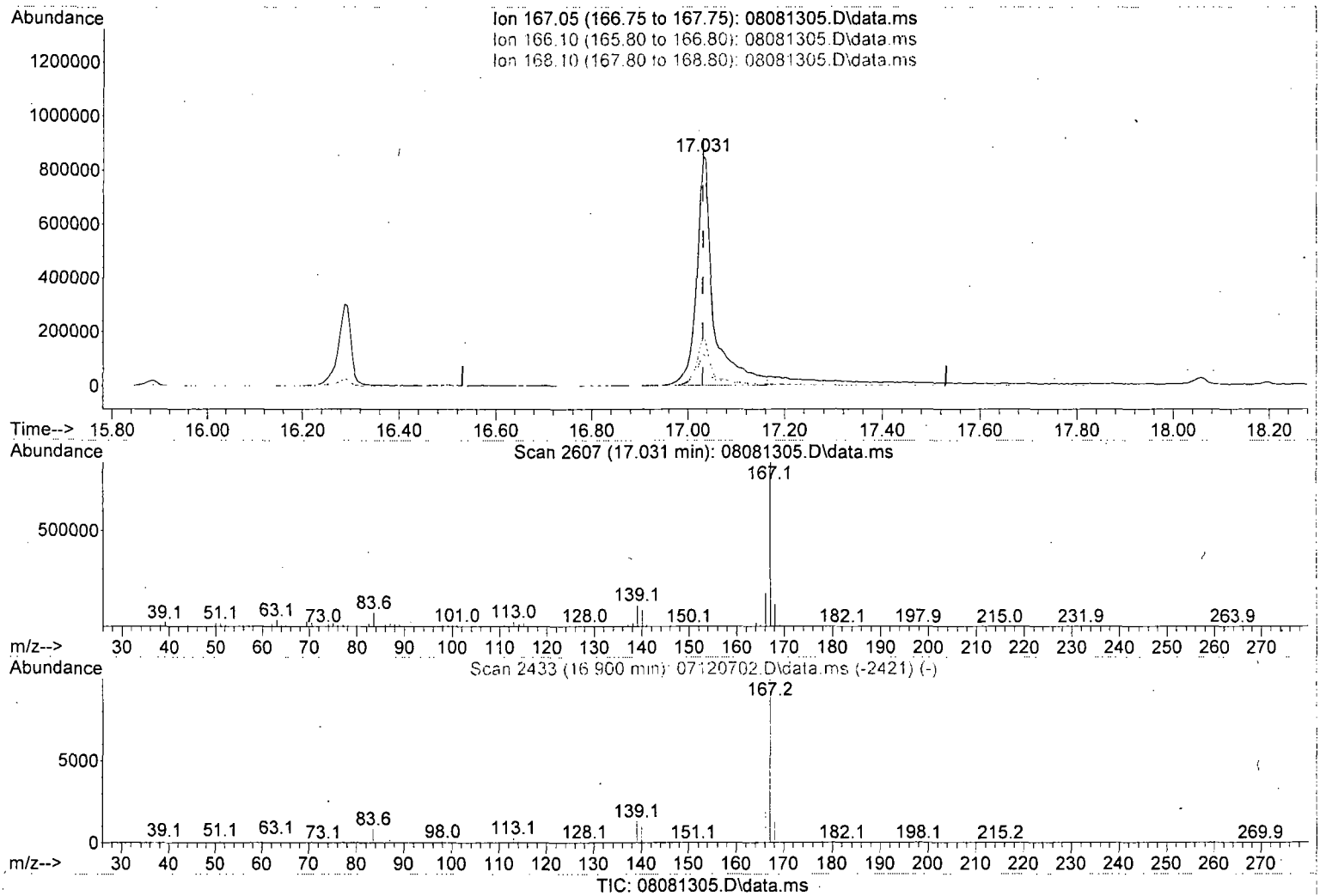
Atrz
KP
8/14/13

ERY
2/26/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:00:56 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration



(69) Carbazole (T)

17.031min (-0.000) 17.85 ug/mL

response 2100538

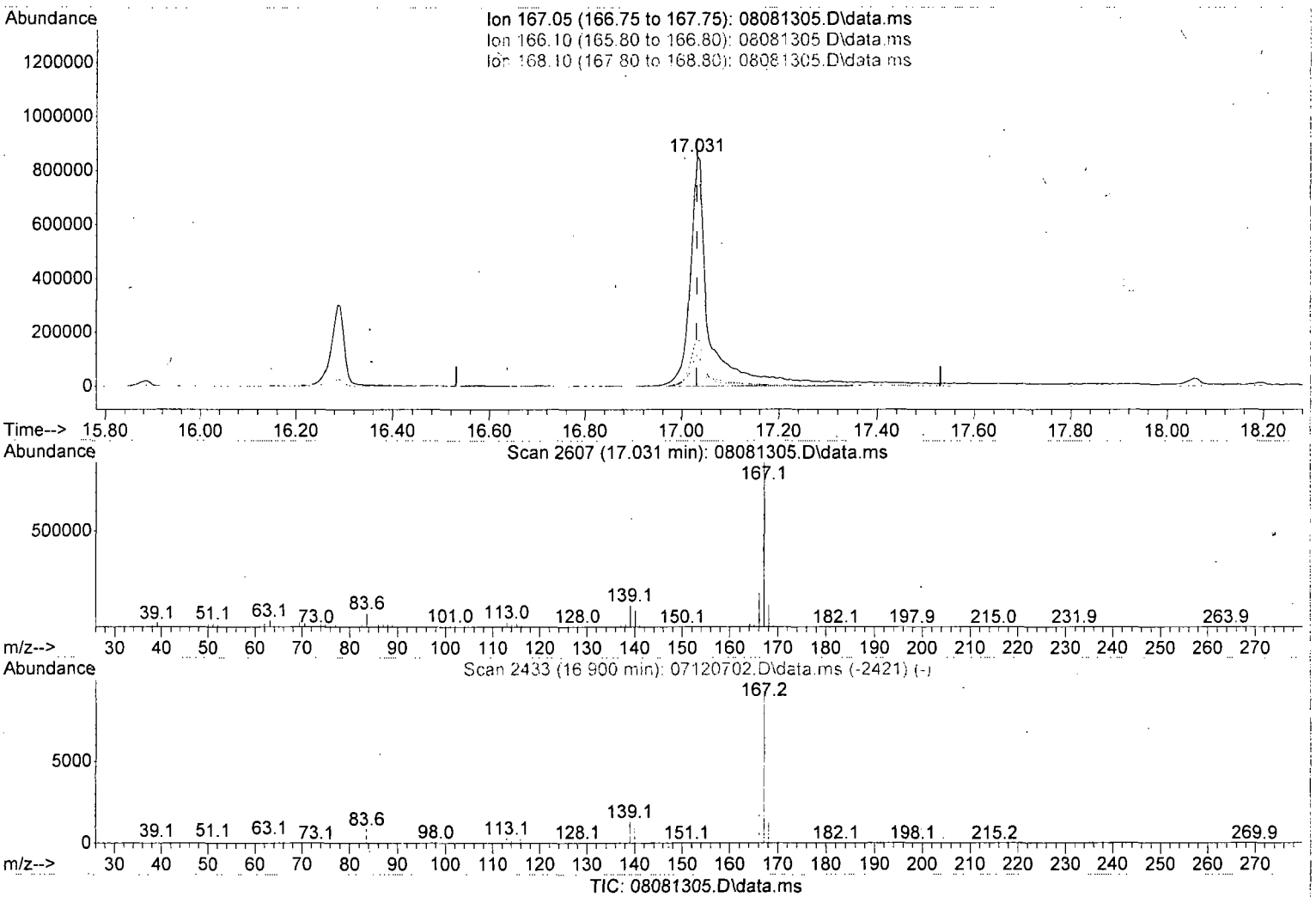
Ion	Exp%	Act%
167.05	100	100
166.10	20.50	20.66
168.10	13.50	13.36
0.00	0.00	0.00

Before Incomplete Integration
KP
8/14/13

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081305.D
Acq On : 8 Aug 2013 5:38 pm
Operator : KLP OX-HP5975MSD
Sample : 20 A962
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:00:56 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 09:44:42 2013
Response via : Initial Calibration



(69) Carbazole (T)

17.031min (-0.000) 20.06 ug/mL m

response 2360996

Ion	Exp%	Act%
167.05	100	100
166.10	20.50	18.38
168.10	13.50	11.88
0.00	0.00	0.00

After
12P
8/14/13
EPY
2/26/14

Freedom_0005790_0298

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081306.D
Acq On : 8 Aug 2013 6:15 pm
Operator : KLP OX-HP5975MSD
Sample : 10 A963
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 12 10:03:59 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:02:08 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.291	150	1895645	20.00	ug/mL	0.00
20) Naphthalene-D8	9.751	136	5012004	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.420	164	3180270	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.501	188	5695474	20.00	ug/mL	-0.01
73) Chrysene-D12	22.797	240	5676922	20.00	ug/mL	-0.02
81) Perylene-D12	25.589	264	4978122	20.00	ug/mL	-0.02
System Monitoring Compounds						
3) 2-Fluorophenol	5.296	112	3308923	52.59	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 105.18%			
6) Phenol-D5	6.831	99	4412534	52.88	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 105.76%			
21) Nitrobenzene-D5	8.398	82	2240102	25.12	ug/mL	-0.01
Spiked Amount 25.000	Range 35 - 114		Recovery = 100.48%			
40) 2-Fluorobiphenyl	12.083	172	5108047	25.08	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 100.32%			
62) 2,4,6-Tribromophenol	15.105	330	1195471	49.25	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 98.50%			
75) Terphenyl-d14	20.063	244	6211099	24.87	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 99.48%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.772	74	727831	10.17	ug/mL#	9
4) Benzaldehyde	6.553	106	578425	17.53	ug/mL#	90
5) Aniline	6.815	93	887732	16.24	ug/mL#	73
7) Phenol	6.847	94	1052296	10.46	ug/mL#	65
8) 2-Chlorophenol	6.975	128	821348	10.71	ug/mL#	65
9) Bis(2-chloroethyl) ether	6.965	93	833455	10.29	ug/mL#	57
10) 1,3-Dichlorobenzene	7.216	146	951387	10.68	ug/mL	96
11) 1,4-Dichlorobenzene	7.318	146	952523	10.67	ug/mL	100
12) 1,2-Dichlorobenzene	7.655	146	916975	10.82	ug/mL#	89
13) Benzyl Alcohol	7.639	79	655383	10.41	ug/mL	93
14) 2-Methylphenol	7.917	108	717221	10.30	ug/mL	99
15) bis(2-Chloroisopropyl)...	7.959	45	1530169	10.31	ug/mL#	95
16) Acetophenone	8.125	105	1139476	10.39	ug/mL	90
17) Hexachloroethane	8.216	117	361345	10.59	ug/mL#	77
18) 4-Methylphenol	8.206	107	833164	10.38	ug/mL	100
19) N-Nitroso-di-n-propyla...	8.227	70	622070	10.88	ug/mL#	55
22) Nitrobenzene	8.430	77	926636	9.86	ug/mL#	72
23) Isophorone	8.906	82	1644968	9.89	ug/mL#	76
24) 2-Nitrophenol	9.056	139	516159	10.14	ug/mL#	74
25) 2,4-Dimethylphenol	9.232	107	715600	8.91	ug/mL	97
26) bis(2-Chloroethoxy)met...	9.430	93	1002272	9.80	ug/mL#	79
27) 2,4-Dichlorophenol	9.527	162	693235	9.76	ug/mL#	83
28) 1,2,4-Trichlorobenzene	9.687	180	800938	10.03	ug/mL	99
29) Naphthalene	9.783	128	2709006	10.45	ug/mL	100
30) 4-Chloroaniline	10.003	127	451149	9.56	ug/mL#	91
31) Hexachlorobutadiene	10.211	225	455881	10.20	ug/mL	99
32) Caprolactam	10.661	113	268554	10.79	ug/mL#	14
33) 4-Chloro-3-methylphenol	11.072	107	728876	9.55	ug/mL#	89
34) 2-Methylnaphthalene	11.217	142	1842190	10.02	ug/mL	97

Freedom_0005790_0299

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081306.D
Acq On : 8 Aug 2013 6:15 pm
Operator : KLP OX-HP5975MSD
Sample : 10 A963
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 12 10:03:59 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:02:08 2013
Response via : Initial Calibration

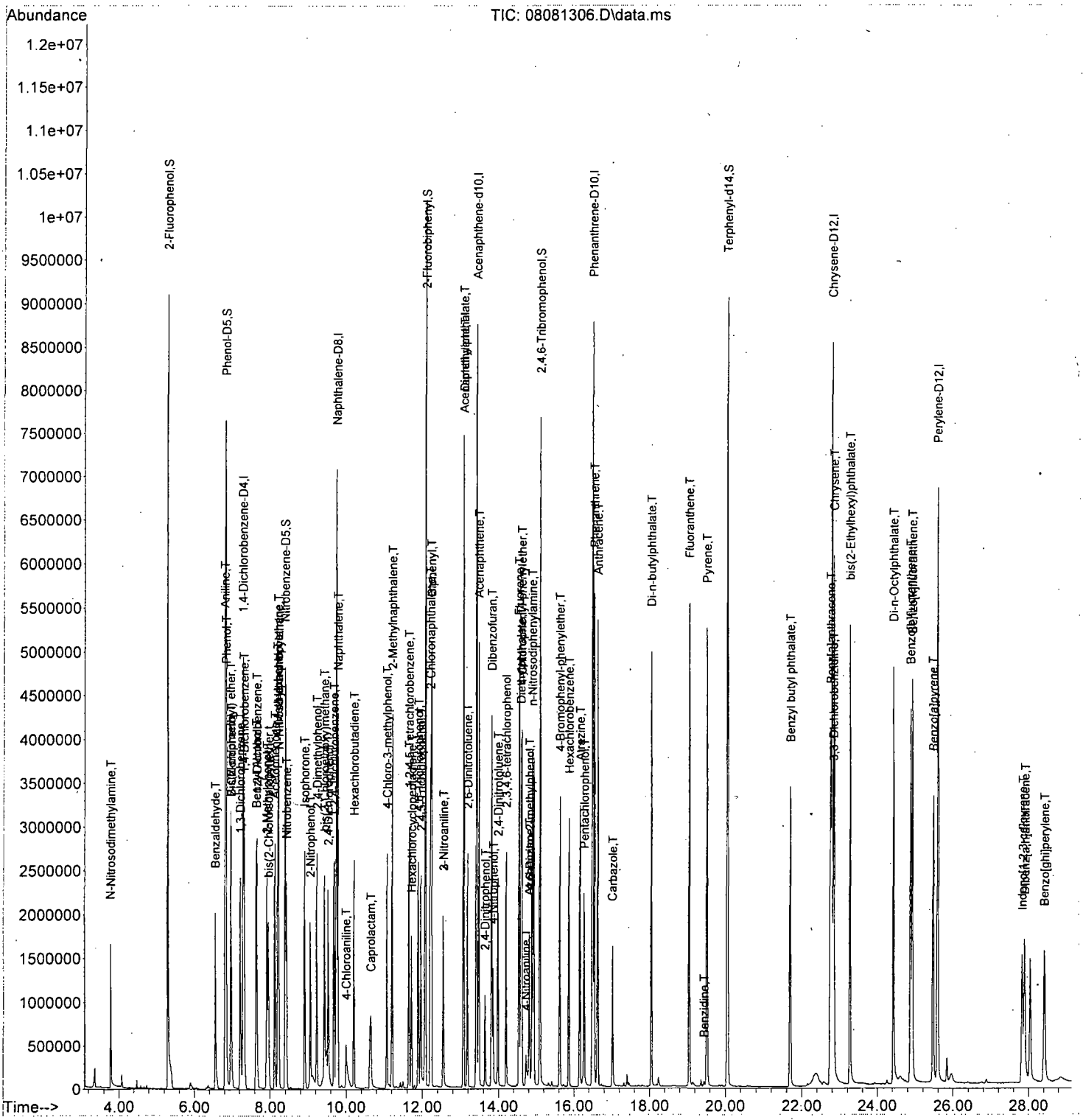
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35)	1,2,4,5-Tetrachloroben...	11.655	216	804145	10.08	ug/ml	98
37)	Hexachlorocyclopentadiene	11.720	237	431955	9.00	ug/mL	99
38)	2,4,6-Trichlorophenol	11.901	196	531865	9.67	ug/mL#	88
39)	2,4,5-Trichlorophenol	11.966	196	525301	9.40	ug/mL#	89
41)	2-Chloronaphthalene	12.212	162	1758392	10.18	ug/mL#	74
42)	Biphenyl	12.238	154	2376186	10.27	ug/mL	99
43)	2-Nitroaniline	12.554	138	574466	9.67	ug/mL#	63
44)	Acenaphthylene	13.083	152	3008246	10.97	ug/mL	98
45)	Dimethylphthalate	13.078	163	2082289	10.17	ug/mL#	67
46)	2,6-Dinitrotoluene	13.185	165	485238	9.84	ug/mL#	58
47)	3-Nitroaniline	12.554	138	574466	9.67	ug/mL#	56
48)	Acenaphthene	13.479	153	1925587	10.14	ug/mL	100
49)	2,4-Dinitrophenol	13.645	184	199485	7.69	ug/mL#	53
50)	Dibenzofuran	13.822	168	2693689	10.22	ug/mL	93
51)	4-Nitrophenol	13.859	139	290704	8.79	ug/mL#	38
52)	2,4-Dinitrotoluene	13.987	165	667743	9.79	ug/mL#	62
53)	2,3,4,6-tetrachlorophenol	14.207	232	489546	9.84	ug/mL#	83
54)	Fluorene	14.544	166	2267694	10.13	ug/mL	100
55)	Diethylphthalate	14.592	149	2278984	10.48	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.619	204	1045155	10.46	ug/mL#	84
57)	4-Nitroaniline	14.731	138	184923	9.18	ug/mL#	74
59)	4,6-Dinitro-2-methylph...	14.822	198	345646	8.89	ug/mL#	78
60)	n-Nitrosodiphenylamine	14.897	169	1504513	11.47	ug/mL	99
61)	Azobenzene	14.816	77	83313	8.32	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.629	248	604473	10.08	ug/mL#	84
64)	Hexachlorobenzene	15.875	284	633228	10.16	ug/mL	99
65)	Atrazine	16.164	200	586140	19.50	ug/mL#	69
66)	Pentachlorophenol	16.277	266	403139	9.10	ug/mL	96
67)	Phenanthrene	16.544	178	3393981	10.40	ug/mL	100
68)	Anthracene	16.635	178	3360282	10.54	ug/mL	100
69)	Carbazole	17.025	167	1083433	13.07	ug/mL	99
70)	Di-n-butylphthalate	18.047	149	4077089	10.81	ug/mL	100
71)	Benzidine	19.448	184	47842	24.07	ug/mL#	89
72)	Fluoranthene	19.058	202	3824507	10.18	ug/mL	99
74)	Pyrene	19.523	202	3921623	10.46	ug/mL	99
76)	Benzyl butyl phthalate	21.705	149	1687936	9.51	ug/mL#	87
77)	Benz[a]anthracene	22.754	228	3389051	9.76	ug/mL	98
78)	Chrysene	22.850	228	3313461	10.15	ug/mL	99
79)	3,3'-Dichlorobenzidine	22.834	252	458114	8.91	ug/mL#	52
80)	bis(2-Ethylhexyl)phtha...	23.267	149	2474490	10.04	ug/mL#	84
82)	Di-n-Octylphthalate	24.423	149	3872058	10.28	ug/mL#	87
83)	Benzo[b]fluoranthene	24.872	252	3010872	8.93	ug/mL	99
84)	Benzo[k]fluoranthene	24.920	252	3213438	10.93	ug/mL	98
85)	Benzo[a]pyrene	25.466	252	2467290	9.72	ug/mL	98
86)	Indeno[1,2,3-cd]pyrene	27.830	276	1435889	8.30	ug/mL	99
87)	Dibenz[a,h]anthracene	27.894	278	1543838	8.53	ug/mL#	93
88)	Benzo[ghi]perylene	28.423	276	1588591	8.84	ug/mL	99

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

Freedom_0005790_0300

Data Path : D:\DATA\080813\
Data File : 08081306.D
Acq On : 8 Aug 2013 6:15 pm
Operator : KLP OX-HP5975MSD
Sample : 10 A963
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 12 10:03:59 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:02:08 2013
Response via : Initial Calibration



Freedom_0005790_0301

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081307.D
Acq On : 8 Aug 2013 6:52 pm
Operator : KLP OX-HP5975MSD
Sample : 5 A964
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 12 10:09:07 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:07:32 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.291	150	2216626	20.00	ug/mL	0.00
20) Naphthalene-D8	9.751	136	6070989	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.420	164	3865844	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.501	188	6933845	20.00	ug/mL	0.00
73) Chrysene-D12	22.802	240	6879734	20.00	ug/mL	0.00
81) Perylene-D12	25.594	264	6465616	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.296	112	3923030	53.32	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 106.64%			
6) Phenol-D5	6.831	99	5280765	54.12	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 108.24%			
21) Nitrobenzene-D5	8.398	82	2691960	24.93	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 99.72%			
40) 2-Fluorobiphenyl	12.083	172	6129122	24.76	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 99.04%			
62) 2,4,6-Tribromophenol	15.111	330	1466648	49.63	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 99.26%			
75) Terphenyl-d14	20.069	244	7591525	25.08	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 100.32%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.766	74	421644	5.04	ug/mL#	3
4) Benzaldehyde	6.553	106	352521	9.14	ug/mL#	89
5) Aniline	6.810	93	565305	8.84	ug/mL#	64
7) Phenol	6.847	94	642764	5.47	ug/mL#	58
8) 2-Chlorophenol	6.975	128	487247	5.43	ug/mL#	64
9) Bis(2-chloroethyl) ether	6.965	93	491341	5.19	ug/mL#	56
10) 1,3-Dichlorobenzene	7.216	146	557030	5.35	ug/mL	97
11) 1,4-Dichlorobenzene	7.318	146	560111	5.37	ug/mL	98
12) 1,2-Dichlorobenzene	7.655	146	552084	5.57	ug/mL#	88
13) Benzyl Alcohol	7.633	79	391434	5.32	ug/mL	92
14) 2-Methylphenol	7.917	108	432469	5.31	ug/mL	99
15) bis(2-Chloroisopropyl)...	7.954	45	918831	5.29	ug/mL#	95
16) Acetophenone	8.125	105	681275	5.31	ug/mL	90
17) Hexachloroethane	8.216	117	220038	5.52	ug/mL#	76
18) 4-Methylphenol	8.200	107	498791	5.31	ug/mL	100
19) N-Nitroso-di-n-propyla...	8.222	70	375911	5.62	ug/mL#	55
22) Nitrobenzene	8.430	77	561266	4.93	ug/mL#	72
23) Isophorone	8.906	82	988901	4.91	ug/mL#	77
24) 2-Nitrophenol	9.056	139	344936	5.60	ug/mL#	83
25) 2,4-Dimethylphenol	9.227	107	434056	4.46	ug/mL	96
26) bis(2-Chloroethoxy)met...	9.430	93	603982	4.88	ug/mL#	79
27) 2,4-Dichlorophenol	9.527	162	405225	4.71	ug/mL#	83
28) 1,2,4-Trichlorobenzene	9.687	180	477110	4.93	ug/mL	99
29) Naphthalene	9.783	128	1620226	5.16	ug/mL	100
30) 4-Chloroaniline	10.003	127	357737	6.26	ug/mL#	90
31) Hexachlorobutadiene	10.211	225	275103	5.08	ug/mL	99
32) Caprolactam	10.628	113	162431	5.39	ug/mL#	18
33) 4-Chloro-3-methylphenol	11.067	107	423439	4.58	ug/mL#	90
34) 2-Methylnaphthalene	11.211	142	1098420	4.93	ug/mL	97

Freedom_0005790_0302

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081307.D
Acq On : 8 Aug 2013 6:52 pm
Operator : KLP OX-HP5975MSD
Sample : 5 A964
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 12 10:09:07 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:07:32 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35)	1,2,4,5-Tetrachloroben...	11.655	216	497701	5.15	ug/ml	97
37)	Hexachlorocyclopentadiene	11.720	237	236871	4.06	ug/mL	98
38)	2,4,6-Trichlorophenol	11.896	196	311387	4.66	ug/mL#	87
39)	2,4,5-Trichlorophenol	11.960	196	306506	4.51	ug/mL#	89
41)	2-Chloronaphthalene	12.212	162	1062564	5.06	ug/mL#	74
42)	Biphenyl	12.238	154	1456322	5.18	ug/mL	99
43)	2-Nitroaniline	12.549	138	340581	4.72	ug/mL#	63
44)	Acenaphthylene	13.078	152	1805768	5.42	ug/mL	99
45)	Dimethylphthalate	13.078	163	1278821	5.14	ug/mL#	67
46)	2,6-Dinitrotoluene	13.185	165	284131	4.74	ug/mL#	57
47)	3-Nitroaniline	12.549	138	340687	4.72	ug/mL#	57
48)	Acenaphthene	13.479	153	1181341	5.12	ug/mL	99
49)	2,4-Dinitrophenol	13.645	184	99974	3.17	ug/mL#	47
50)	Dibenzofuran	13.822	168	1634714	5.10	ug/mL	92
51)	4-Nitrophenol	13.854	139	157853	3.93	ug/mL#	27
52)	2,4-Dinitrotoluene	13.982	165	397232	4.79	ug/mL#	63
53)	2,3,4,6-tetrachlorophenol	14.207	232	293624	4.86	ug/mL#	83
54)	Fluorene	14.544	166	1384254	5.08	ug/mL	100
55)	Diethylphthalate	14.592	149	1424599	5.39	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.619	204	647692	5.33	ug/mL#	84
57)	4-Nitroaniline	14.726	138	141595	5.78	ug/mL#	68
59)	4,6-Dinitro-2-methylph...	14.822	198	194151	4.10	ug/mL#	75
60)	n-Nitrosodiphenylamine	14.897	169	943668	5.91	ug/mL	98
61)	Azobenzene	14.816	77	49424	4.05	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.629	248	370028	5.07	ug/mL#	83
64)	Hexachlorobenzene	15.870	284	388875	5.13	ug/mL	99
65)	Atrazine	16.159	200	365172	9.98	ug/mL#	69
66)	Pentachlorophenol	16.277	266	229241	4.25	ug/mL	97
67)	Phenanthrene	16.544	178	2088543	5.26	ug/mL	100
68)	Anthracene	16.635	178	2061361	5.31	ug/mL	99
69)	Carbazole	17.025	167	1018038	10.09	ug/mL	100
70)	Di-n-butylphthalate	18.047	149	2450502	5.34	ug/mL	100
71)	Benzidine	19.443	184	27941	11.55	ug/mL#	84
72)	Fluoranthene	19.058	202	2333098	5.10	ug/mL	99
74)	Pyrene	19.523	202	2409011	5.30	ug/mL	99
76)	Benzyl butyl phthalate	21.706	149	971103	4.51	ug/mL#	86
77)	Benz[a]anthracene	22.754	228	2008188	4.77	ug/mL	99
78)	Chrysene	22.850	228	2048750	5.18	ug/mL	99
79)	3,3'-Dichlorobenzidine	22.834	252	265002	4.25	ug/mL#	58
80)	bis(2-Ethylhexyl)phtha...	23.267	149	1460774	4.89	ug/mL#	84
82)	Di-n-Octylphthalate	24.423	149	2246214	4.59	ug/mL#	87
83)	Benzo[b]fluoranthene	24.872	252	1857301	4.24	ug/mL	98
84)	Benzo[k]fluoranthene	24.915	252	1996063	5.23	ug/mL	99
85)	Benzo[a]pyrene	25.466	252	1551449	4.71	ug/mL	98
86)	Indeno[1,2,3-cd]pyrene	27.830	276	913226	4.06	ug/mL	99
87)	Dibenz[a,h]anthracene	27.894	278	1012832	4.31	ug/mL#	93
88)	Benzo[ghi]perylene	28.418	276	1090375	4.67	ug/mL	98

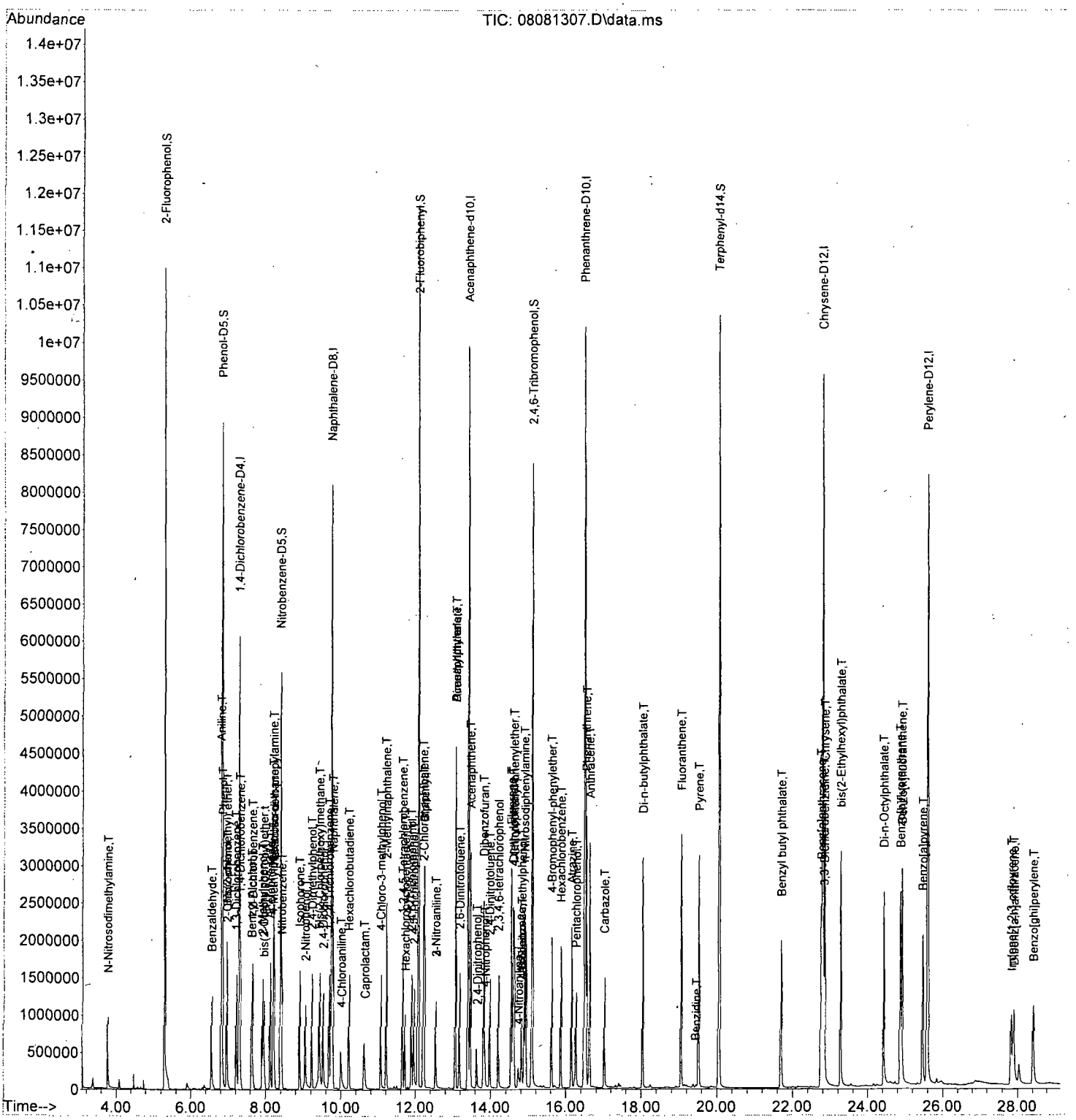
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0303

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081307.D
Acq On : 8 Aug 2013 6:52 pm
Operator : KLP OX-HP5975MSD
Sample : 5 A964
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 12 10:09:07 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:07:32 2013
Response via : Initial Calibration



Freedom_0005790_0304

Ex. 5 - Deliberative

Evaluate Continuing Calibration Report

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:54:39 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
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	AvgRF	CCRF	%Dev	Area%	Dev(min)	
47	T	3-Nitroaniline	0.374	0.373	0.3	93	0.00	
48	T	Acenaphthene	1.194	1.154	3.4	89	0.00	
49	T	2,4-Dinitrophenol	0.163	0.174	-6.7	86	0.00	
50	T	Dibenzofuran	1.657	1.602	3.3	87	0.00	
51	T	4-Nitrophenol	0.208	0.207	0.5	88	-0.01	
52	T	2,4-Dinitrotoluene	0.429	0.411	4.2	88	0.00	
53		2,3,4,6-tetrachlorophenol	0.313	0.303	3.2	93	0.00	
54	T	Fluorene	1.408	1.361	3.3	89	0.00	
55	T	Diethylphthalate	1.367	1.313	4.0	90	0.00	
56	T	4-Chlorophenyl-phenylether	0.628	0.602	4.1	89	0.00	
57	T	4-Nitroaniline	0.127	0.120	5.5	98	0.00	
58	I	Phenanthrene-D10	1.000	1.000	0.0	99	0.00	
59	T	4,6-Dinitro-2-methylphenol	0.137	0.137	0.0	88	0.00	
60	T	n-Nitrosodiphenylamine	0.460	0.600	-30.4#	135	0.00	(±40, ±20)
61	T	Azobenzene	0.035	0.031	11.4	80	0.00	
62	S	2,4,6-Tribromophenol	0.085	0.086	-1.2	99	0.00	
63	T	4-Bromophenyl-phenylether	0.211	0.200	5.2	90	0.00	
64	T	Hexachlorobenzene	0.219	0.208	5.0	90	0.00	
~~65~~	~~T~~	~~Atrazine~~	~~0.090~~	~~0.030~~	~~66.7#~~	~~1791#~~	~~0.13~~	Not in mix
66	T	Pentachlorophenol	0.156	0.155	0.6	89	0.00	
67	T	Phenanthrene	1.146	1.110	3.1	90	0.00	
68	T	Anthracene	1.120	1.114	0.5	92	0.00	
69	T	Carbazole	0.306	0.757	-147.4#	451#	0.02	±40 (out)
70	T	Di-n-butylphthalate	1.325	1.351	-2.0	93	0.00	
~~71~~	~~T~~	~~Benzidine~~	~~0.007~~	~~0.000~~	~~100.0#~~	~~2#~~	~~0.02~~	Not on list
72	T	Fluoranthene	1.320	1.293	2.0	88	0.00	
73	I	Chrysene-D12	1.000	1.000	0.0	96	0.00	
74	T	Pyrene	1.321	1.284	2.8	90	0.00	
75	S	Terphenyl-d14	0.880	0.845	4.0	95	0.00	
76	T	Benzyl butyl phthalate	0.625	0.601	3.8	86	0.00	
77	T	Benz[a]anthracene	1.223	1.197	2.1	89	0.00	
78	T	Chrysene	1.150	1.094	4.9	87	0.00	
79	T	3,3'-Dichlorobenzidine	0.181	0.230	-27.1#	111	0.00	(±40, ±20)
80	T	bis(2-Ethylhexyl)phthalate	0.869	0.831	4.4	86	0.00	
81	I	Perylene-D12	1.000	1.000	0.0	104	0.00	
82	T	Di-n-Octylphthalate	1.514	1.582	-4.5	91	0.00	
83	T	Benzo[b]fluoranthene	1.354	1.320	2.5	93	0.00	
84	T	Benzo[k]fluoranthene	1.181	1.260	-6.7	103	0.00	
85	T	Benzo[a]pyrene	1.020	1.132	-11.0	109	0.00	
86	T	Indeno[1,2,3-cd]pyrene	0.695	0.706	-1.6	107	0.01	
87	T	Dibenz[a,h]anthracene	0.727	0.706	2.9	101	0.00	
88	T	Benzo[ghi]perylene	0.722	0.678	6.1	102	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

KP 8/14/13

Freedom_0005790_0306

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:54:39 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.291	150	1750108	20.00	ug/mL	0.00
20) Naphthalene-D8	9.757	136	4912202	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.426	164	3095154	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.512	188	5577433	20.00	ug/mL	0.01
73) Chrysene-D12	22.818	240	5866818	20.00	ug/mL	0.02
81) Perylene-D12	25.605	264	5052152	20.00	ug/mL	0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	3122100	53.75	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery	=	107.50%	
6) Phenol-D5	6.836	99	4153783	53.92	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery	=	107.84%	
21) Nitrobenzene-D5	8.409	82	2133983	24.42	ug/mL	0.01
Spiked Amount 25.000	Range 35 - 114		Recovery	=	97.68%	
40) 2-Fluorobiphenyl	12.094	172	4918559	24.82	ug/mL	0.01
Spiked Amount 25.000	Range 43 - 116		Recovery	=	99.28%	
62) 2,4,6-Tribromophenol	15.116	330	1193543	50.21	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery	=	100.42%	
75) Terphenyl-d14	20.069	244	6197545	24.01	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery	=	96.04%	
Target Compounds						Qvalue
4) Benzaldehyde	6.564	106	2274477	74.68	ug/mL#	90
5) Aniline	6.975	93	2986564	59.17	ug/mL#	42
7) Phenol	6.863	94	3696853	39.81	ug/mL#	73
8) 2-Chlorophenol	6.981	128	3036271	42.88	ug/mL#	64
9) Bis(2-chloroethyl) ether	6.975	93	2986564	39.94	ug/mL#	55
13) Benzyl Alcohol	7.927	79	1606296	27.63	ug/mL#	23
14) 2-Methylphenol	7.927	108	2805782	43.64	ug/mL#	89
15) bis(2-Chloroisopropyl)...	7.965	45	5880889	42.91	ug/mL#	95
16) Acetophenone	8.147	105	4239710	41.89	ug/mL	90
17) Hexachloroethane	8.222	117	1325845	42.10	ug/mL#	78
18) 4-Methylphenol	8.238	107	2980649	40.22	ug/mL	89
19) N-Nitroso-di-n-propyla...	8.254	70	2330609	44.14	ug/mL#	55
22) Nitrobenzene	8.446	77	3448674	37.44	ug/mL#	73
23) Isophorone	8.933	82	6283247	38.56	ug/mL#	76
24) 2-Nitrophenol	9.072	139	1806948	36.23	ug/mL#	67
25) 2,4-Dimethylphenol	9.254	107	3097009	39.33	ug/mL	96
26) bis(2-Chloroethoxy)met...	9.452	93	3836012	38.27	ug/mL#	80
27) 2,4-Dichlorophenol	9.543	162	2697247	38.76	ug/mL#	83
28) 1,2,4-Trichlorobenzene	9.687	180	39414	0.50	ug/mL	98
29) Naphthalene	9.799	128	10108619	39.80	ug/mL	99
30) 4-Chloroaniline	10.013	127	3347848	72.39	ug/mL#	90
31) Hexachlorobutadiene	10.222	225	1732782	39.57	ug/mL	99
32) Caprolactam	11.078	113	83078	3.41	ug/mL#	61
33) 4-Chloro-3-methylphenol	11.078	107	2925189	39.12	ug/mL	89
34) 2-Methylnaphthalene	11.228	142	6737307	37.40	ug/mL	97
35) 1,2,4,5-Tetrachloroben...	11.666	216	3044635	38.96	ug/ml	98
37) Hexachlorocyclopentadiene	11.725	237	1689339	36.16	ug/mL	98
38) 2,4,6-Trichlorophenol	11.912	196	2081589	38.89	ug/mL#	88
39) 2,4,5-Trichlorophenol	11.971	196	2109661	38.79	ug/mL#	89

Freedom_0005790_0307

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:54:39 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41)	2-Chloronaphthalene	12.228	162	6487919	38.60	ug/mL#	75
42)	Biphenyl	12.254	154	8544728	37.93	ug/mL	99
43)	2-Nitroaniline	12.575	138	2308781	39.93	ug/mL#	64
44)	Acenaphthylene	13.094	152	10710308	40.14	ug/mL	98
45)	Dimethylphthalate	13.110	163	7531277	37.78	ug/mL#	67
46)	2,6-Dinitrotoluene	13.217	165	1871309	38.98	ug/mL#	58
47)	3-Nitroaniline	12.575	138	2308781	39.92	ug/mL#	57
48)	Acenaphthene	13.501	153	7146567	38.66	ug/mL	99
49)	2,4-Dinitrophenol	13.672	184	1076243	42.64	ug/mL#	56
50)	Dibenzofuran	13.843	168	9915419	38.66	ug/mL	93
51)	4-Nitrophenol	13.891	139	1284445m	39.92	ug/mL	
52)	2,4-Dinitrotoluene	14.020	165	2546046	38.35	ug/mL#	64
53)	2,3,4,6-tetrachlorophenol	14.223	232	1878738	38.81	ug/mL#	84
54)	Fluorene	14.565	166	8426559	38.66	ug/mL	100
55)	Diethylphthalate	14.613	149	8129925	38.42	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.635	204	3728122	38.34	ug/mL#	85
57)	4-Nitroaniline	14.763	138	742088m	37.85	ug/mL	
59)	4,6-Dinitro-2-methylph...	14.854	198	1531542	40.21	ug/mL#	79
60)	n-Nitrosodiphenylamine	14.918	169	6694368	52.13	ug/mL	98
61)	Azobenzene	14.854	77	350457	35.72	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.646	248	2233599	38.02	ug/mL#	84
64)	Hexachlorobenzene	15.892	284	2317478	37.97	ug/mL	100
65)	Atrazine	16.293	200	331306	11.25	ug/mL#	50
66)	Pentachlorophenol	16.293	266	1732872	39.95	ug/mL	95
67)	Phenanthrene	16.566	178	12385267	38.76	ug/mL.	99
68)	Anthracene	16.662	178	12428633	39.80	ug/mL	99
69)	Carbazole	17.052	167	8445690	104.05	ug/mL	99
70)	Di-n-butylphthalate	18.063	149	15069868	40.80	ug/mL	100
71)	Benzidine	19.454	184	127	0.07	ug/mL#	73
72)	Fluoranthene	19.079	202	14424287	39.19	ug/mL	99
74)	Pyrene	19.550	202	15060353	38.87	ug/mL	99
76)	Benzyl butyl phthalate	21.727	149	7056803	38.47	ug/mL#	85
77)	Benz[a]anthracene	22.781	228	14040086	39.13	ug/mL	98
78)	Chrysene	22.882	228	12831547	38.05	ug/mL	98
79)	3,3'-Dichlorobenzidine	22.850	252	2700825	50.84	ug/mL#	52
80)	bis(2-Ethylhexyl)phtha...	23.283	149	9749732	38.26	ug/mL#	83
82)	Di-n-Octylphthalate	24.439	149	15987565	41.81	ug/mL#	87
83)	Benzo[b]fluoranthene	24.899	252	13336375	38.98	ug/mL	98
84)	Benzo[k]fluoranthene	24.952	252	12735964m	42.69	ug/mL	
85)	Benzo[a]pyrene	25.503	252	11437224	44.40	ug/mL	98
86)	Indeno[1,2,3-cd]pyrene	27.873	276	7134708	40.63	ug/mL	99
87)	Dibenz[a,h]anthracene	27.931	278	7130600	38.82	ug/mL#	95
88)	Benzo[ghi]perylene	28.472	276	6848403	37.56	ug/mL	99

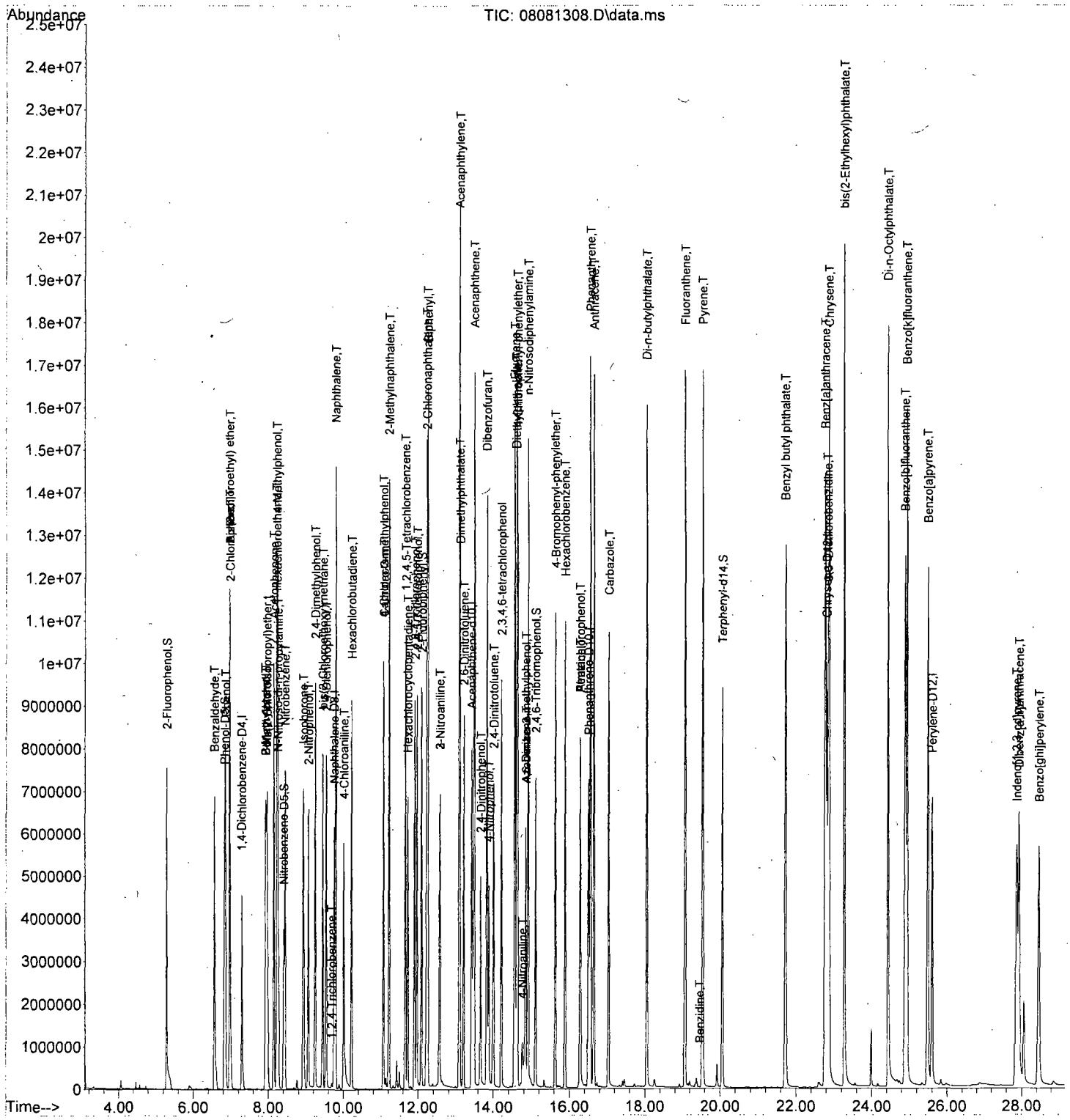
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0308

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:54:39 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
Response via : Initial Calibration

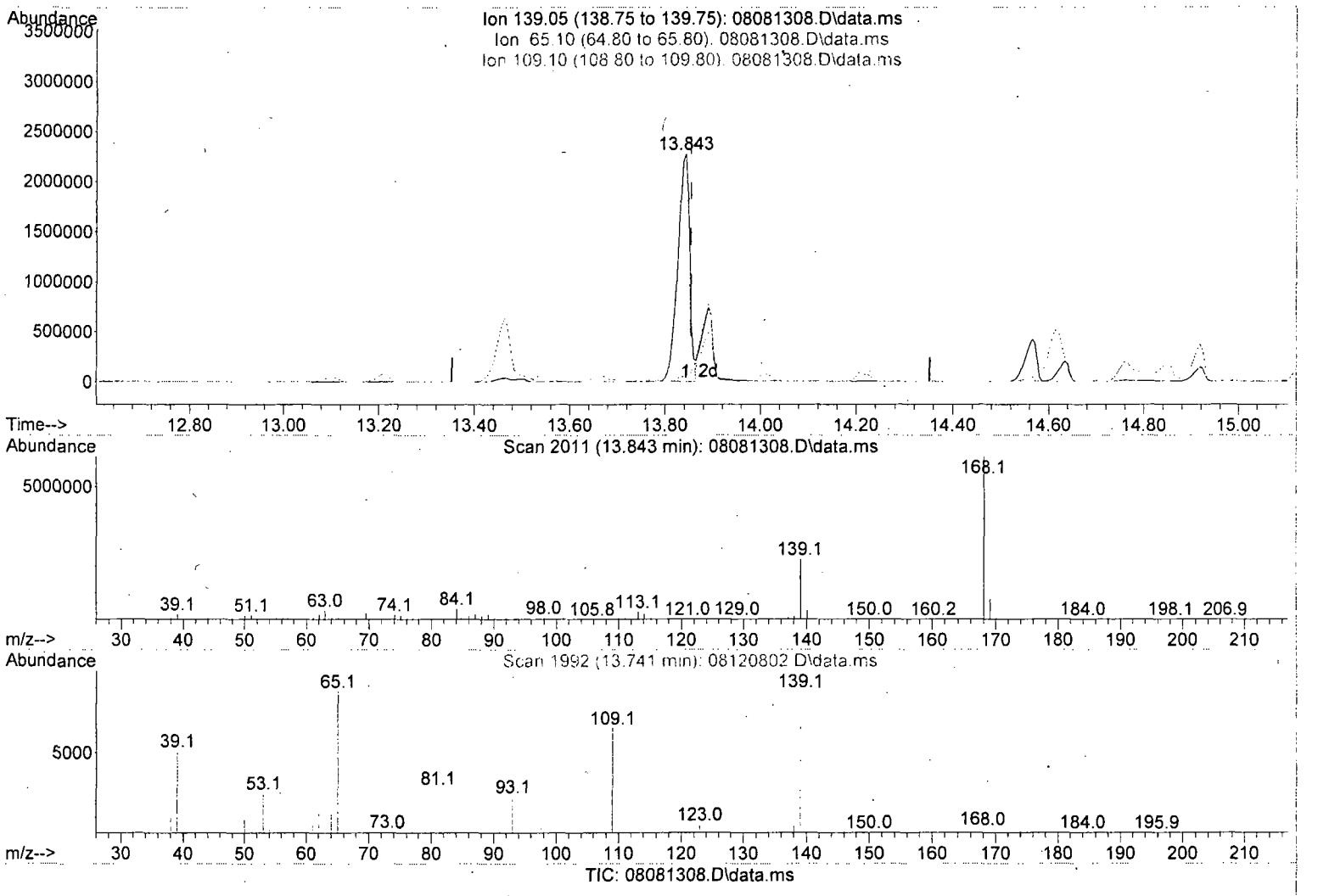


Freedom_0005790_0309

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:49:18 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
Response via : Initial Calibration



(51) 4-Nitrophenol (T)

13.843min (-0.011) 120.15 ug/mL

response 3866297

Ion	Exp%	Act%
139.05	100	100
65.10	61.50	0.00#
109.10	47.20	0.00#
0.00	0.00	0.00

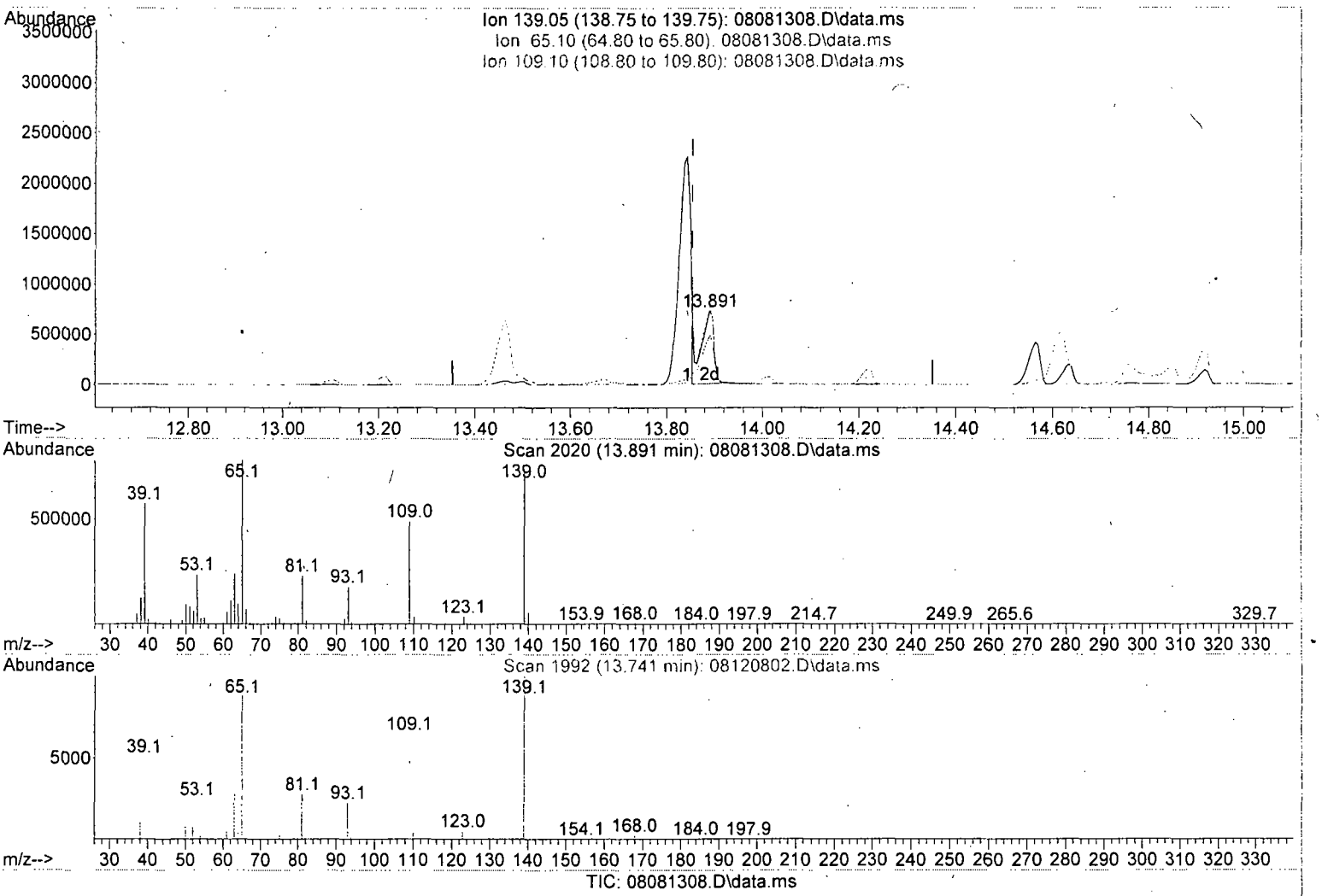
Before
wrong Peak Integrated
KLP
8/14/13

Freedom_0005790_0310

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:49:18 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
Response via : Initial Calibration



(51) 4-Nitrophenol (T)

13.891min (+0.037) 39.92 ug/mL m

response 1284445

Ion	Exp%	Act%
139.05	100	100
65.10	61.50	0.00#
109.10	47.20	0.00#
0.00	0.00	0.00

Acceptable 8/12/13

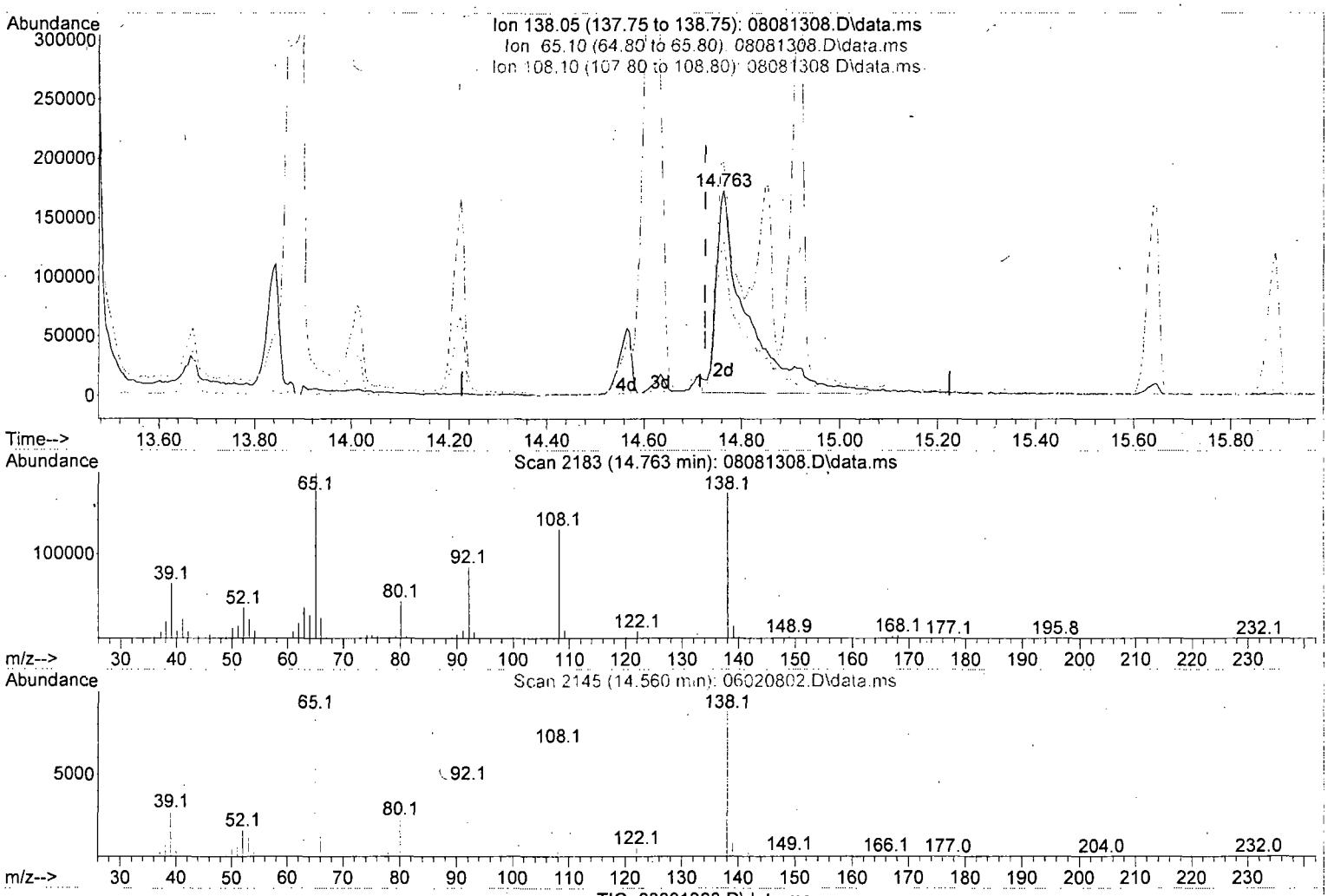
EBY 2/27/14

Freedom_0005790_0311

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:49:18 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.763min (+0.037) 37.85 ug/mL m

response 742088

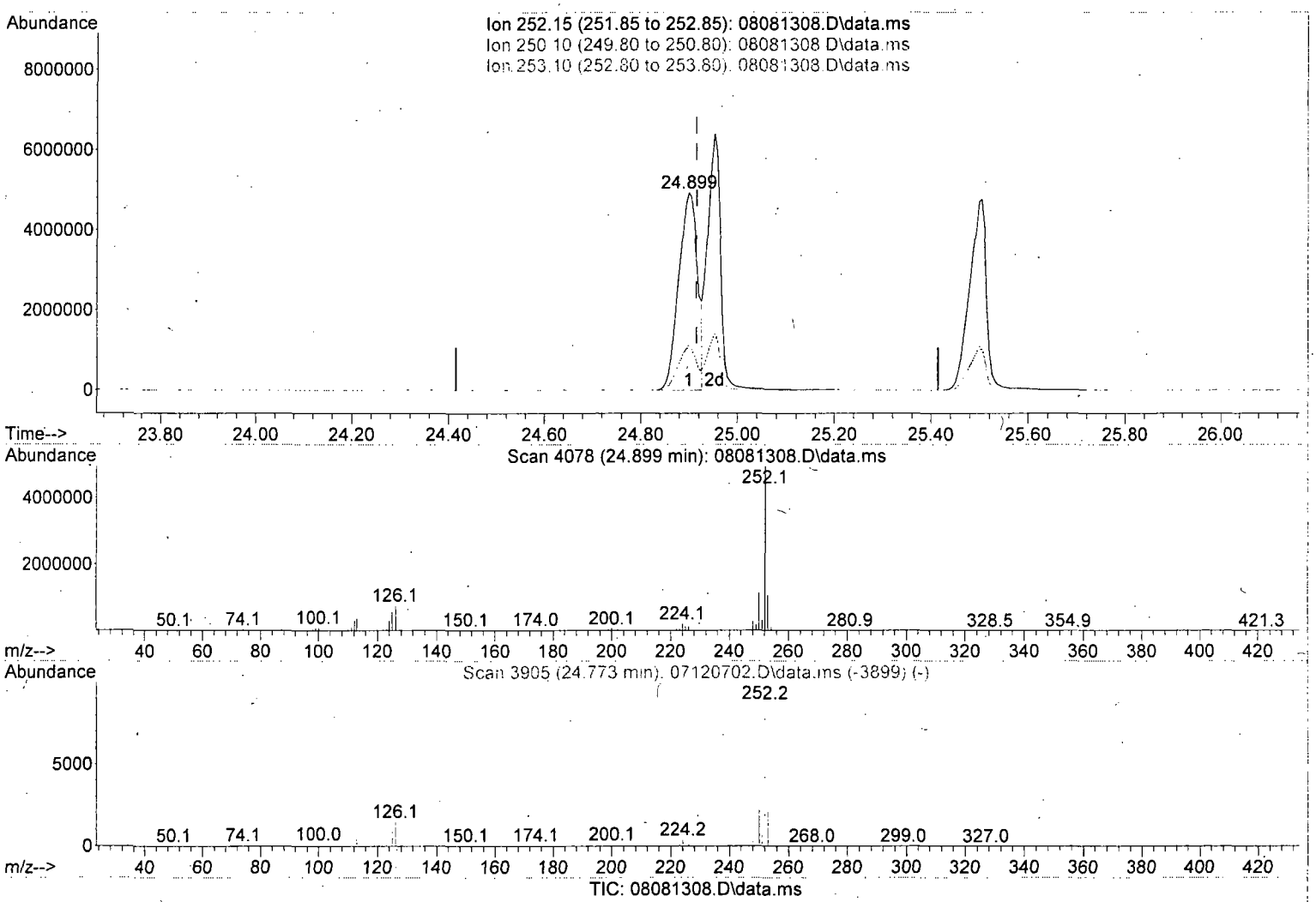
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	0.00#
108.10	51.50	1.79#
0.00	0.00	0.00

After only
Before did not print out
was incomplete integration
KLP 8/14/13
EBY 2/27/14

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:49:18 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
Response via : Initial Calibration



(84) Benzo[k]fluoranthene (T)

24.899min (-0.016) 44.70 ug/mL

response 13336375

Ion	Exp%	Act%
252.15	100	100
250.10	23.00	22.50
253.10	21.50	21.51
0.00	0.00	0.00

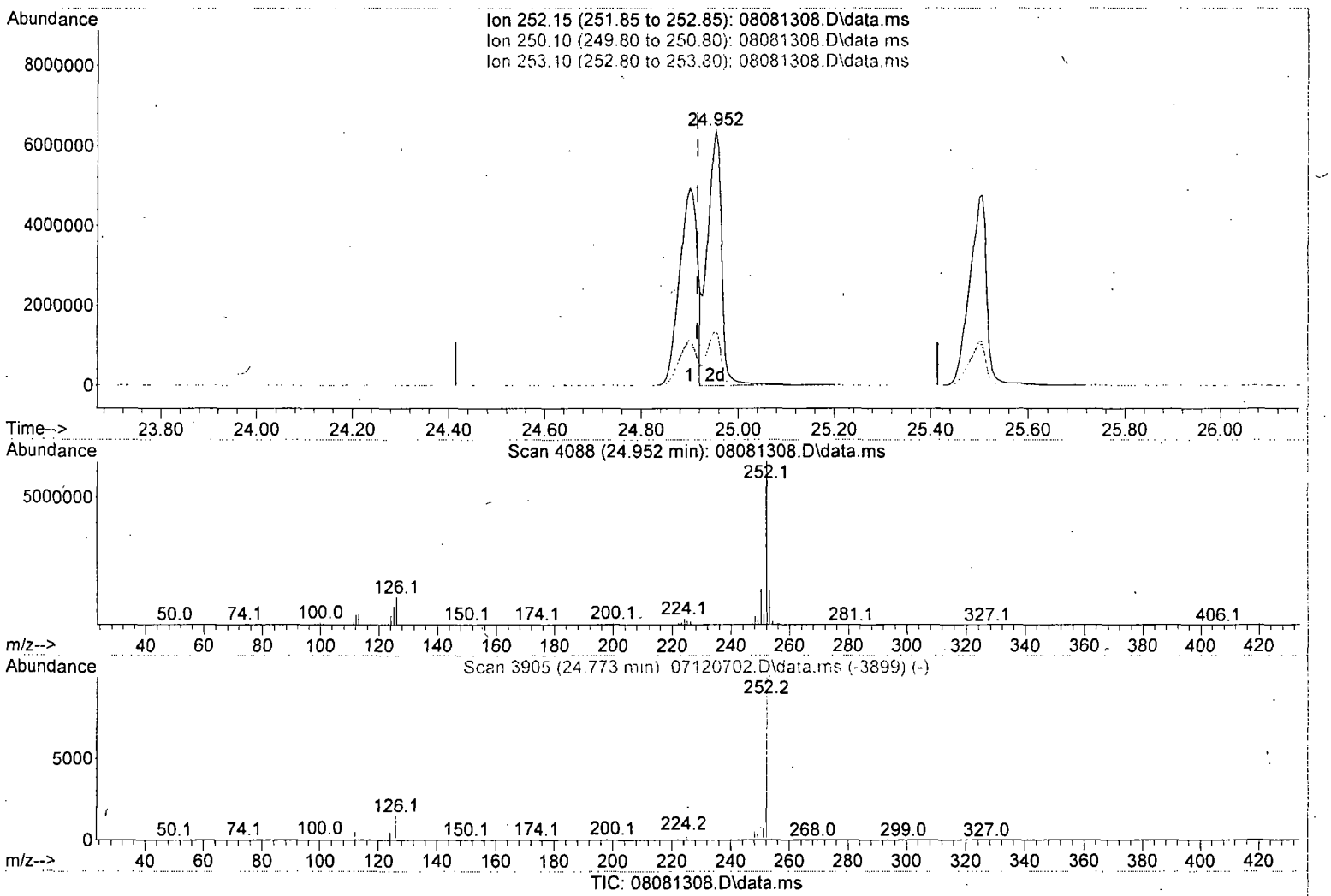
Before
KP
8/14/13
Wrong Peak Integrated

Freedom_0005790_0313

Quantitation Report (Qedit)

Data Path : D:\DATA\080813\
Data File : 08081308.D
Acq On : 8 Aug 2013 7:30 pm
Operator : KLP OX-HP5975MSD
Sample : SSV 40 A966
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 12 10:49:18 2013
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 12 10:12:21 2013
Response via : Initial Calibration



(84) Benzo[k]fluoranthene (T)

24.952min (+0.037) 42.69 ug/mL m

response 12735964

Ion	Exp%	Act%
252.15	100	100
250.10	23.00	23.56
253.10	21.50	22.52
0.00	0.00	0.00

A-Ref
KP
8/14/13
ERY
2/27/14

Evaluate Continuing Calibration Report

Data Path : D:\DATA\020514\
Data File : 02051402.D
Acq On : 6 Feb 2014 9:46 am
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 10:22:00 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Ex. 5 - Deliberative

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-D4	1.000	1.000	0.0	118	0.00
2	T	N-Nitrosodimethylamine	0.755	0.424	43.8#	67	0.01
3	S	2-Fluorophenol	0.664	0.489	26.4#	95	0.02
4	T	Benzaldehyde	0.348	0.117	66.4#	69	0.00
~~5~~	~~T~~	~~Aniline~~	~~0.577~~	~~0.296~~	~~48.7#~~	~~74~~	~~0.00~~
6	S	Phenol-D5	0.880	0.775	11.9	114	0.01
7	T	Phenol	1.061	0.985	7.2	115	0.00
8	T	2-Chlorophenol	0.809	0.767	5.2	116	0.00
9	T	Bis(2-chloroethyl) ether	0.854	0.768	10.1	110	0.00
10	T	1,3-Dichlorobenzene	0.940	0.911	3.1	119	0.00
11	T	1,4-Dichlorobenzene	0.942	0.912	3.2	119	0.00
12	T	1,2-Dichlorobenzene	0.894	0.863	3.5	120	0.00
13	T	Benzyl Alcohol	0.664	0.632	4.8	116	0.00
14	T	2-Methylphenol	0.735	0.714	2.9	116	0.01
15	t	bis(2-Chloroisopropyl)ether	1.566	1.318	15.8	102	0.00
16	T	Acetophenone	1.157	1.121	3.1	119	0.00
17	T	Hexachloroethane	0.360	0.351	2.5	122	0.00
18	T	4-Methylphenol	0.847	0.815	3.8	118	0.01
19	T	N-Nitroso-di-n-propylamine	0.603	0.618	-2.5	118	0.00
20	I	Naphthalene-D8	1.000	1.000	0.0	125	0.00
21	S	Nitrobenzene-D5	0.356	0.333	6.5	117	0.00
22	T	Nitrobenzene	0.375	0.372	0.8	118	0.00
23	T	Isophorone	0.663	0.637	3.9	115	0.01
24	T	2-Nitrophenol	0.203	0.192	5.4	117	0.00
25	T	2,4-Dimethylphenol	0.321	0.353	-10.0	125	0.00
26	T	bis(2-Chloroethoxy)methane	0.408	0.420	-2.9	122	0.00
27	T	2,4-Dichlorophenol	0.283	0.303	-7.1	124	0.00
28	T	1,2,4-Trichlorobenzene	0.319	0.334	-4.7	124	0.00
29	T	Naphthalene	1.034	1.121	-8.4	123	0.00
30	T	4-Chloroaniline	0.188	0.065	65.4#	49#	0.11 <40
31	T	Hexachlorobutadiene	0.178	0.180	-1.1	121	0.00
32	T	Caprolactam	0.099	0.100	-1.0	119	0.03
33	T	4-Chloro-3-methylphenol	0.304	0.324	-6.6	120	0.01
34	T	2-Methylnaphthalene	0.733	0.742	-1.2	121	0.00
35	T	1,2,4,5-Tetrachlorobenzene	0.318	0.300	5.7	119	0.00
36	I	Acenaphthene-d10	1.000	1.000	0.0	119	0.00
37	T	Hexachlorocyclopentadiene	0.302	0.357	-18.2	123	0.00
38	T	2,4,6-Trichlorophenol	0.346	0.376	-8.7	120	0.00
39	T	2,4,5-Trichlorophenol	0.351	0.382	-8.8	117	0.01
40	S	2-Fluorobiphenyl	1.281	1.276	0.4	118	0.00
41	T	2-Chloronaphthalene	1.086	1.148	-5.7	119	0.00
42	T	Biphenyl	1.455	1.567	-7.7	120	0.00
43	T	2-Nitroaniline	0.374	0.334	10.7	103	0.00
44	T	Acenaphthylene	1.724	1.827	-6.0	123	0.00
45	T	Dimethylphthalate	1.288	1.371	-6.4	123	0.00
46	T	2,6-Dinitrotoluene	0.310	0.333	-7.4	121	0.00

Ex. 5 - Deliberative

OUT

Evaluate Continuing Calibration Report

Data Path : D:\DATA\020514\
Data File : 02051402.D
Acq On : 6 Feb 2014 9:46 am
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 10:22:00 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
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	AvgRF	CCRF	%Dev	Area%	Dev(min)	
47	T	3-Nitroaniline	0.374	0.334	10.7	103	0.00	
48	T	Acenaphthene	1.194	1.265	-5.9	121	0.00	
49	T	2,4-Dinitrophenol	0.163	0.158	3.1	97	0.00	
50	T	Dibenzofuran	1.657	1.758	-6.1	119	0.00	
51	T	4-Nitrophenol	0.208	0.204	1.9	108	0.00	
52	T	2,4-Dinitrotoluene	0.429	0.454	-5.8	120	0.01	
53		2,3,4,6-tetrachlorophenol	0.313	0.310	1.0	118	0.01	
54	T	Fluorene	1.408	1.479	-5.0	120	0.00	
55	T	Diethylphthalate	1.367	1.427	-4.4	121	0.01	
56	T	4-Chlorophenyl-phenylether	0.628	0.650	-3.5	119	0.00	
57	T	4-Nitroaniline	0.127	0.003	97.6#	3#	-0.05	<40 out
58	I	Phenanthrene-D10	1.000	1.000	0.0	120	0.00	
59	T	4,6-Dinitro-2-methylphenol	0.137	0.124	9.5	96	0.01	
60	T	n-Nitrosodiphenylamine	0.460	0.388	15.7	105	0.00	
61	T	Azobenzene	0.035	0.033	5.7	100	0.01	
62	S	2,4,6-Tribromophenol	0.085	0.085	0.0	118	0.00	
63	T	4-Bromophenyl-phenylether	0.211	0.220	-4.3	119	0.00	
64	T	Hexachlorobenzene	0.219	0.226	-3.2	118	0.00	
65	T	Atrazine	0.090	0.033	63.3#	2385#	0.13	<40 out
66	T	Pentachlorophenol	0.156	0.166	-6.4	115	0.00	
67	T	Phenanthrene	1.146	1.236	-7.9	121	0.00	
68	T	Anthracene	1.120	1.189	-6.2	119	0.00	
69	T	Carbazole	0.306	0.113	63.1#	81	0.00	<40 out
70	T	Di-n-butylphthalate	1.325	1.472	-11.1	122	0.00	
~~71~~	~~T~~	~~Benzidine~~	~~0.007~~	~~0.000~~	~~100.0#~~	~~2#~~	~~-0.01~~	Not on Comp list.
72	T	Fluoranthene	1.320	1.393	-5.5	115	0.00	
73	I	Chrysene-D12	1.000	1.000	0.0	107	0.00	
74	T	Pyrene	1.321	1.470	-11.3	115	0.00	
75	S	Terphenyl-d14	0.880	0.887	-0.8	111	0.00	
76	T	Benzyl butyl phthalate	0.625	0.666	-6.6	106	0.00	
77	T	Benz[a]anthracene	1.223	1.306	-6.8	108	0.00	
78	T	Chrysene	1.150	1.203	-4.6	107	0.01	
79	T	3,3'-Dichlorobenzidine	0.181	0.194	-7.2	104	0.00	
80	T	bis(2-Ethylhexyl)phthalate	0.869	0.874	-0.6	101	0.00	
81	I	Perylene-D12	1.000	1.000	0.0	120	0.00	
82	T	Di-n-Octylphthalate	1.514	1.456	3.8	97	0.00	
83	T	Benzo[b]fluoranthene	1.354	1.384	-2.2	112	0.01	
84	T	Benzo[k]fluoranthene	1.181	1.102	6.7	103	0.01	
85	T	Benzo[a]pyrene	1.020	1.080	-5.9	119	0.00	
86	T	Indeno[1,2,3-cd]pyrene	0.695	0.611	12.1	107	0.01	
87	T	Dibenz[a,h]anthracene	0.727	0.634	12.8	104	0.01	
88	T	Benzo[ghi]perylene	0.722	0.615	14.8	106	0.02	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Freedom_0005790_0316

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051402.D
Acq On : 6 Feb 2014 9:46 am
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 10:22:00 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.302	150	2645248	20.00	ug/mL	0.00
20) Naphthalene-D8	9.762	136	6432831	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.431	164	3842424	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.512	188	6717191	20.00	ug/mL	0.00
73) Chrysene-D12	22.823	240	6527891	20.00	ug/mL	0.00
81) Perylene-D12	25.605	264	5815157	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.323	112	3234443	36.84	ug/mL	0.02
Spiked Amount 50.000	Range 21 - 110		Recovery	=	73.68%	
6) Phenol-D5	6.863	99	5127052	44.03	ug/mL	0.01
Spiked Amount 50.000	Range 10 - 110		Recovery	=	88.06%	
21) Nitrobenzene-D5	8.420	82	2674737	23.37	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery	=	93.48%	
40) 2-Fluorobiphenyl	12.094	172	6130848	24.92	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery	=	99.68%	
62) 2,4,6-Tribromophenol	15.121	330	1423479	49.72	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery	=	99.44%	
75) Terphenyl-d14	20.069	244	7241708	25.21	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery	=	100.84%	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.814	74	2241717	22.45	ug/mL#	1
4) Benzaldehyde	6.564	106	616588	13.39	ug/mL#	89
5) Aniline	6.826	93	1567214	20.54	ug/mL#	1
7) Phenol	6.885	94	5209486	37.12	ug/mL#	54
8) 2-Chlorophenol	6.997	128	4060109	37.93	ug/mL#	65
9) Bis(2-chloroethyl) ether	6.986	93	4065009	35.97	ug/mL#	58
10) 1,3-Dichlorobenzene	7.232	146	4820065	38.78	ug/mL	96
11) 1,4-Dichlorobenzene	7.334	146	4822450	38.72	ug/mL	99
12) 1,2-Dichlorobenzene	7.665	146	4566691	38.62	ug/mL#	87
13) Benzyl Alcohol	7.665	79	3341198	38.02	ug/mL	95
14) 2-Methylphenol	7.954	108	3779903	38.90	ug/mL#	89
15) bis(2-Chloroisopropyl)...	7.970	45	6974885	33.67	ug/mL	96
16) Acetophenone	8.157	105	5930742	38.77	ug/mL	91
17) Hexachloroethane	8.222	117	1854493	38.96	ug/mL#	77
18) 4-Methylphenol	8.248	107	4312439	38.50	ug/mL	100
19) N-Nitroso-di-n-propyla...	8.264	70	3271142	40.99	ug/mL#	58
22) Nitrobenzene	8.457	77	4791938	39.73	ug/mL#	74
23) Isophorone	8.944	82	8197193	38.41	ug/mL#	77
24) 2-Nitrophenol	9.077	139	2471402	37.84	ug/mL#	68
25) 2,4-Dimethylphenol	9.265	107	4546385	44.09	ug/mL	95
26) bis(2-Chloroethoxy)met...	9.457	93	5399271	41.13	ug/mL#	81
27) 2,4-Dichlorophenol	9.559	162	3893959	42.73	ug/mL#	82
28) 1,2,4-Trichlorobenzene	9.698	180	4303499	41.99	ug/mL	98
29) Naphthalene	9.805	128	14416688	43.35	ug/mL	100
30) 4-Chloroaniline	10.115	127	837843m	13.83	ug/mL	
31) Hexachlorobutadiene	10.217	225	2313208	40.33	ug/mL	99
32) Caprolactam	10.842	113	1281652	40.13	ug/mL#	19
33) 4-Chloro-3-methylphenol	11.121	107	4163609	42.52	ug/mL#	87
34) 2-Methylnaphthalene	11.233	142	9540525	40.44	ug/mL	96

Freedom_0005790_0317

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051402.D
Acq On : 6 Feb 2014 9:46 am
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 10:22:00 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35)	1,2,4,5-Tetrachloroben...	11.666	216	3863324	37.75	ug/ml	98
37)	Hexachlorocyclopentadiene	11.725	237	2742963	47.29	ug/mL	98
38)	2,4,6-Trichlorophenol	11.923	196	2892732	43.54	ug/mL#	87
39)	2,4,5-Trichlorophenol	12.003	196	2935726	43.48	ug/mL#	88
41)	2-Chloronaphthalene	12.228	162	8819085	42.26	ug/mL#	74
42)	Biphenyl	12.260	154	12044089	43.07	ug/mL	98
43)	2-Nitroaniline	12.586	138	2569106	35.79	ug/mL#	62
44)	Acenaphthylene	13.100	152	14043486	42.40	ug/mL	96
45)	Dimethylphthalate	13.110	163	10536154	42.57	ug/mL#	67
46)	2,6-Dinitrotoluene	13.223	165	2558798	42.93	ug/mL#	55
47)	3-Nitroaniline	12.586	138	2569106	35.79	ug/mL#	58
48)	Acenaphthene	13.506	153	9725049	42.38	ug/mL	99
49)	2,4-Dinitrophenol	13.677	184	1214852	38.77	ug/mL#	48
50)	Dibenzofuran	13.843	168	13512958	42.44	ug/mL	92
51)	4-Nitrophenol	13.907	139	1568822	39.27	ug/mL#	43
52)	2,4-Dinitrotoluene	14.025	165	3486698	42.31	ug/mL#	60
53)	2,3,4,6-tetrachlorophenol	14.234	232	2385811	39.70	ug/mL#	86
54)	Fluorene	14.570	166	11365435	42.00	ug/mL	99
55)	Diethylphthalate	14.624	149	10968196	41.76	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.640	204	4994869	41.38	ug/mL#	84
57)	4-Nitroaniline	14.715	138	20570	0.85	ug/mL#	19
59)	4,6-Dinitro-2-methylph...	14.865	198	1661698	36.23	ug/mL#	69
60)	n-Nitrosodiphenylamine	14.924	169	5218724	33.74	ug/mL	93
61)	Azobenzene	14.865	77	436671	36.95	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.646	248	2959765	41.83	ug/mL#	82
64)	Hexachlorobenzene	15.897	284	3029522	41.22	ug/mL	100
65)	Atrazine	16.298	200	441339	14.59	ug/mL#	50
66)	Pentachlorophenol	16.298	266	2232271	42.73	ug/mL	96
67)	Phenanthrene	16.571	178	16610153	43.16	ug/mL	99
68)	Anthracene	16.667	178	15979739	42.49	ug/mL	99
69)	Carbazole	17.036	167	1513257	14.73	ug/mL	95
70)	Di-n-butylphthalate	18.058	149	19779228	44.46	ug/mL	100
72)	Fluoranthene	19.090	202	18712643	42.22	ug/mL	99
74)	Pyrene	19.555	202	19186310	44.50	ug/mL	99
76)	Benzyl butyl phthalate	21.732	149	8692701	42.59	ug/mL#	84
77)	Benz[a]anthracene	22.786	228	17050785	42.71	ug/mL	98
78)	Chrysene	22.898	228	15712035	41.87	ug/mL	99
79)	3,3'-Dichlorobenzidine	22.856	252	2530878	42.81	ug/mL#	53
80)	bis(2-Ethylhexyl)phtha...	23.283	149	11415322	40.26	ug/mL#	83
82)	Di-n-Octylphthalate	24.439	149	16939194	38.49	ug/mL#	87
83)	Benzo[b]fluoranthene	24.915	252	16095550	40.87	ug/mL	98
84)	Benzo[k]fluoranthene	24.963	252	12819427	37.33	ug/mL	98
85)	Benzo[a]pyrene	25.503	252	12556795	42.35	ug/mL	97
86)	Indeno[1,2,3-cd]pyrene	27.873	276	7110337	35.18	ug/mL	99
87)	Dibenz[a,h]anthracene	27.937	278	7377673	34.89	ug/mL#	95
88)	Benzo[ghi]perylene	28.482	276	7150204	34.07	ug/mL	98

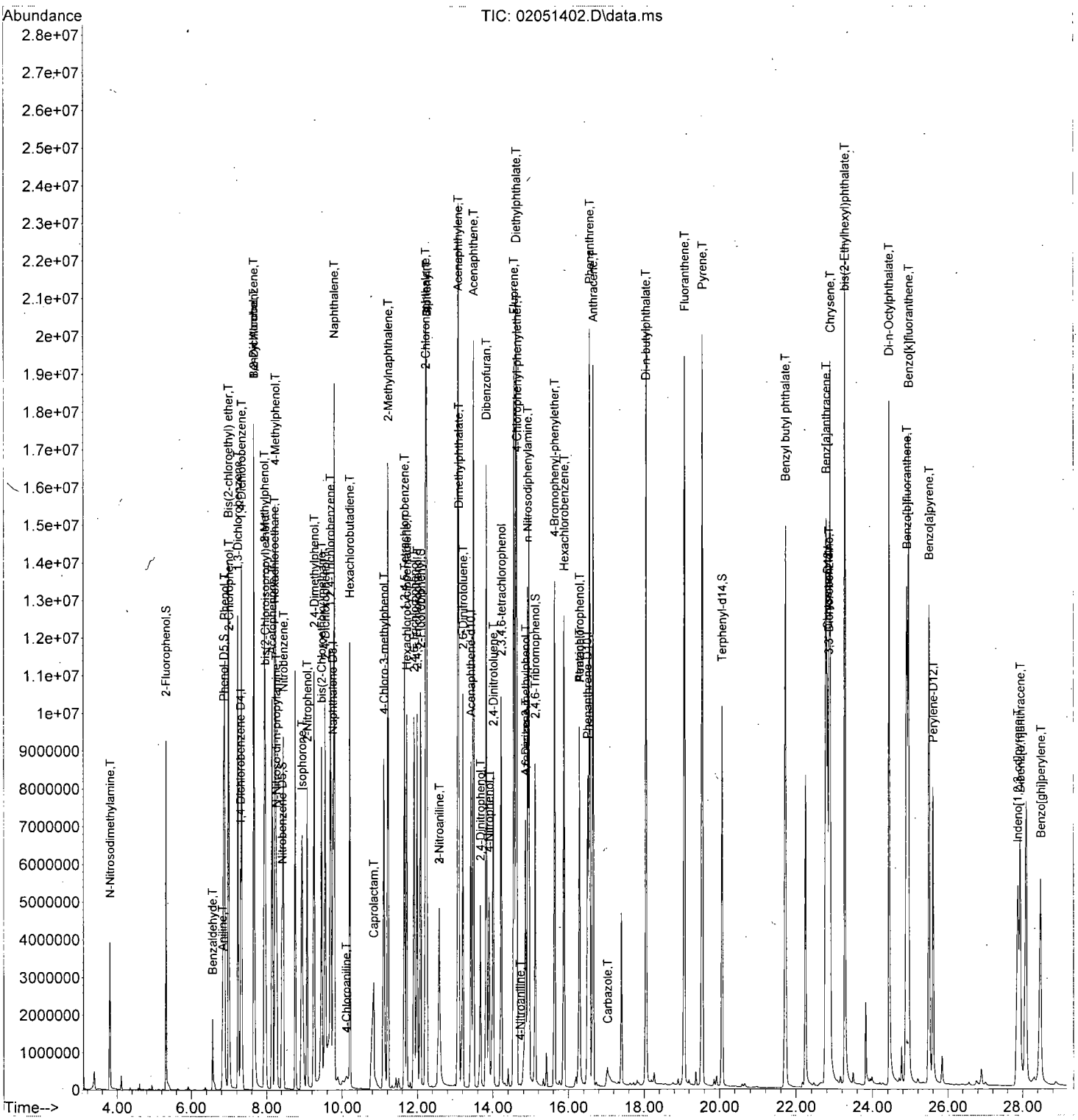
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0318

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051402.D
Acq On : 6 Feb 2014 9:46 am
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

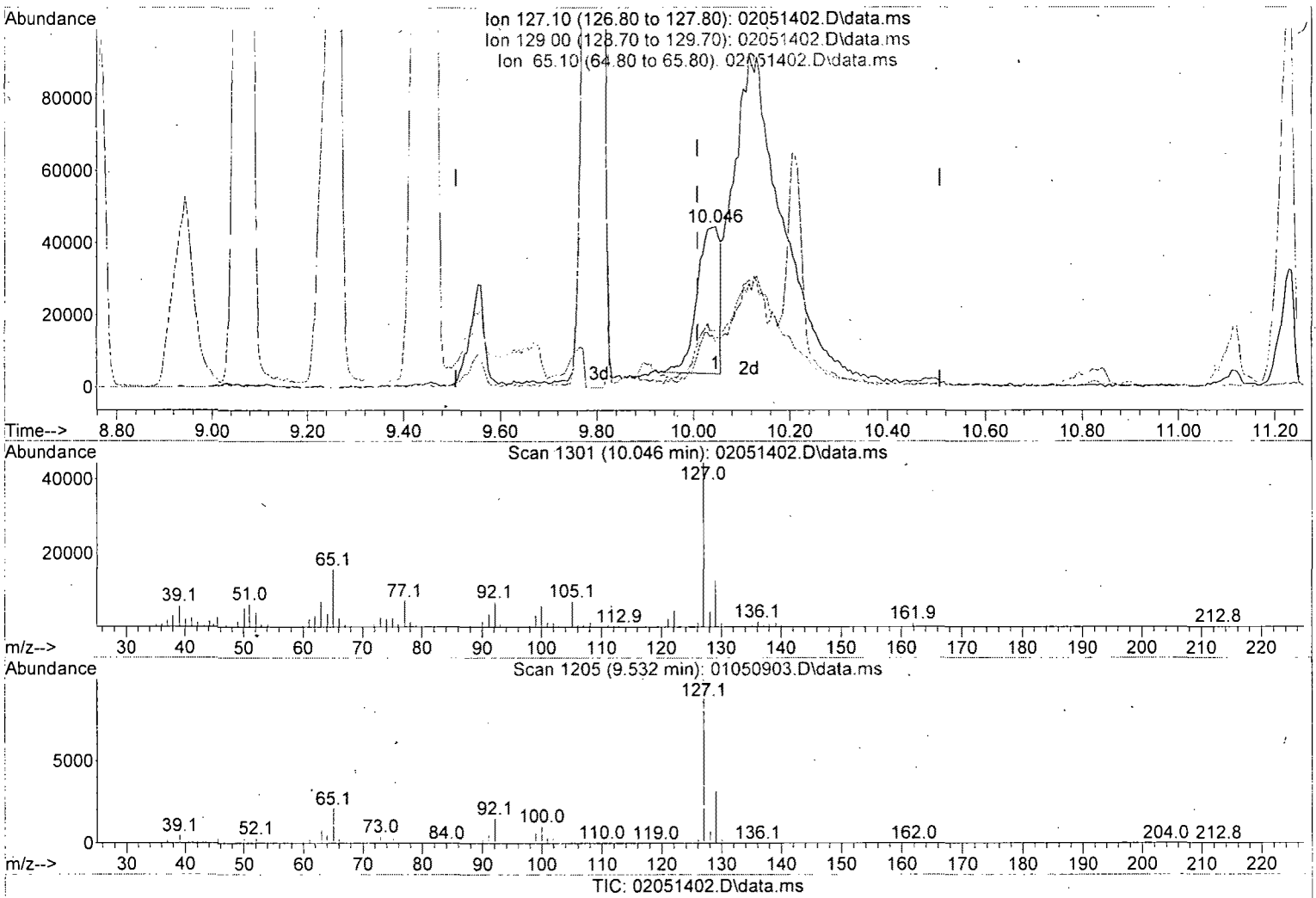
Quant Time: Feb 06 10:22:00 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02051402.D
Acq On : 6 Feb 2014 9:46 am
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 10:18:46 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



(30) 4-Chloroaniline (T)

10.046min (+0.037) 2.22 ug/mL

response 134309

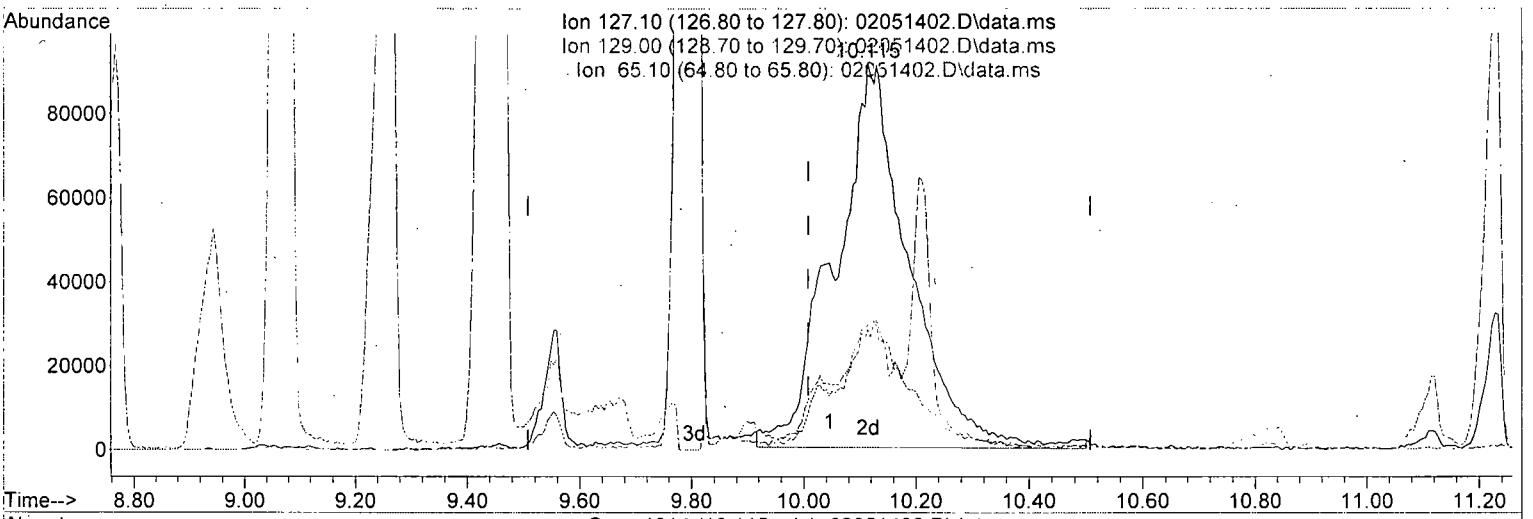
Ion	Exp%	Act%
127.10	100	100
129.00	32.50	0.00#
65.10	22.30	31.44#
0.00	0.00	0.00

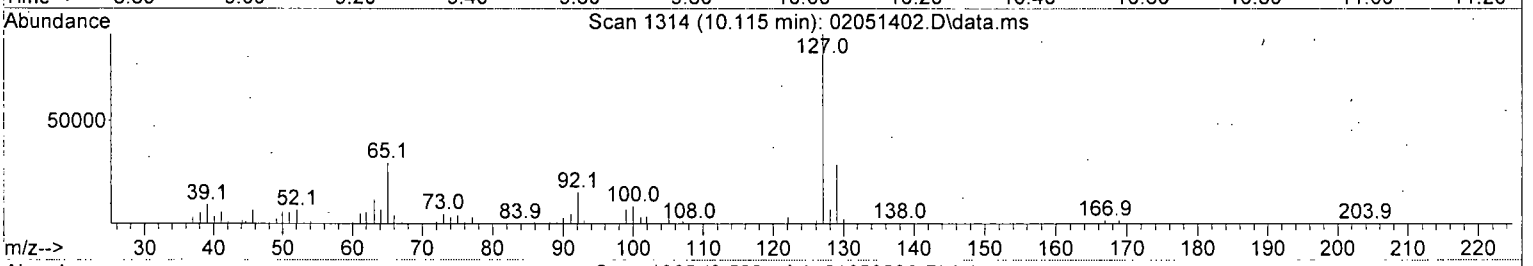
Before Incomplete Integration
KP
2/6/2014

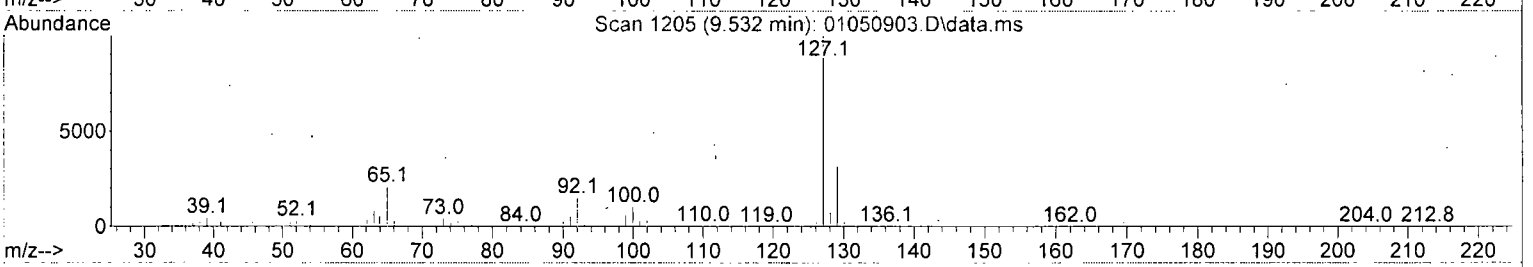
Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02051402.D
Acq On : 6 Feb 2014 9:46 am
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 06 10:18:46 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02051402.D\data.ms

(30) 4-Chloroaniline (T)

10.115min (+0.107) 13.83 ug/mL m

response 837843

Ion	Exp%	Act%
127.10	100	100
129.00	32.50	0.00#
65.10	22.30	5.04#
0.00	0.00	0.00

ICP 2/6/14
2/27/14

Evaluate Continuing Calibration Report

Data Path : D:\DATA\020514\
Data File : 02111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:07:25 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Ex. 5 - Deliberative

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	1,4-Dichlorobenzene-D4	1.000	1.000	0.0	97	0.00	
2	T	N-Nitrosodimethylamine	0.755	0.544	27.9#	71	0.01	~~<35~~ ±20
3	S	2-Fluorophenol	0.664	0.614	7.5	99	0.02	
4	T	Benzaldehyde	0.348	0.112	67.8#	55	0.00	<40 out
5	T	~~Aniline~~	~~0.577~~	~~0.234~~	~~59.4#~~	~~48#~~	~~0.00~~	not on list
6	S	Phenol-D5	0.880	0.781	11.2	95	0.02	
7	T	Phenol	1.061	0.995	6.2	95	0.01	
8	T	2-Chlorophenol	0.809	0.790	2.3	98	0.00	
9	T	Bis(2-chloroethyl) ether	0.854	0.763	10.7	90	0.00	
10	T	1,3-Dichlorobenzene	0.940	0.912	3.0	98	0.00	
11	T	1,4-Dichlorobenzene	0.942	0.921	2.2	99	0.00	
12	T	1,2-Dichlorobenzene	0.894	0.876	2.0	100	0.00	
13	T	Benzyl Alcohol	0.664	0.641	3.5	97	0.02	
14	T	2-Methylphenol	0.735	0.707	3.8	95	0.02	
15	t	bis(2-Chloroisopropyl)ether	1.566	1.176	24.9#	75	0.00	~~<35~~ ±40
16	T	Acetophenone	1.157	1.097	5.2	96	0.01	
17	T	Hexachloroethane	0.360	0.350	2.8	100	0.00	
18	T	4-Methylphenol	0.847	0.839	0.9	100	0.01	
19	T	N-Nitroso-di-n-propylamine	0.603	0.587	2.7	93	0.01	
20	I	Naphthalene-D8	1.000	1.000	0.0	93	0.00	
21	S	Nitrobenzene-D5	0.356	0.351	1.4	91	0.00	
22	T	Nitrobenzene	0.375	0.391	-4.3	92	0.00	
23	T	Isophorone	0.663	0.657	0.9	88	0.01	
24	T	2-Nitrophenol	0.203	0.211	-3.9	95	0.00	
25	T	2,4-Dimethylphenol	0.321	0.366	-14.0	96	0.01	
26	T	bis(2-Chloroethoxy)methane	0.408	0.423	-3.7	91	0.00	
27	T	2,4-Dichlorophenol	0.283	0.313	-10.6	95	0.01	
28	T	1,2,4-Trichlorobenzene	0.319	0.346	-8.5	95	0.00	
29	T	Naphthalene	1.034	1.180	-14.1	96	0.00	
30	T	4-Chloroaniline	0.188	0.093	50.5#	52	0.09	<40 out
31	T	Hexachlorobutadiene	0.178	0.195	-9.6	97	0.00	
32	T	Caprolactam	0.099	0.094	5.1	83	0.05	
33	T	4-Chloro-3-methylphenol	0.304	0.321	-5.6	88	0.01	
34	T	2-Methylnaphthalene	0.733	0.788	-7.5	95	0.00	
35	T	1,2,4,5-Tetrachlorobenzene	0.318	0.322	-1.3	95	0.00	
36	I	Acenaphthene-d10	1.000	1.000	0.0	88	0.00	
37	T	Hexachlorocyclopentadiene	0.302	0.367	-21.5#	94	0.00	~~<35~~ ±40
38	T	2,4,6-Trichlorophenol	0.346	0.396	-14.5	94	0.00	
39	T	2,4,5-Trichlorophenol	0.351	0.404	-15.1	92	0.01	
40	S	2-Fluorobiphenyl	1.281	1.335	-4.2	92	0.00	
41	T	2-Chloronaphthalene	1.086	1.228	-13.1	95	0.00	
42	T	Biphenyl	1.455	1.693	-16.4	96	0.00	
43	T	2-Nitroaniline	0.374	0.355	5.1	81	0.00	
44	T	Acenaphthylene	1.724	1.822	-5.7	92	0.00	
45	T	Dimethylphthalate	1.288	1.447	-12.3	96	0.00	
46	T	2,6-Dinitrotoluene	0.310	0.336	-8.4	91	0.01	

Freedom_0005790_0322

Evaluate Continuing Calibration Report

Data Path : D:\DATA\020514\
Data File : Q2111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:07:25 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
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	AvgRF	CCRF	%Dev	Area%	Dev(min)	
47	T	3-Nitroaniline	0.374	0.355	5.1	81	0.00	
48	T	Acenaphthene	1.194	1.304	-9.2	93	0.00	
49	T	2,4-Dinitrophenol	0.163	0.168	-3.1	77	0.01	
50	T	Dibenzofuran	1.657	1.813	-9.4	91	0.00	
51	T	4-Nitrophenol	0.208	0.211	-1.4	83	0.01	
52	T	2,4-Dinitrotoluene	0.429	0.450	-4.9	89	0.02	
53		2,3,4,6-tetrachlorophenol	0.313	0.320	-2.2	90	0.01	
54	T	Fluorene	1.408	1.513	-7.5	91	0.00	
55	T	Diethylphthalate	1.367	1.468	-7.4	93	0.01	
56	T	4-Chlorophenyl-phenylether	0.628	0.689	-9.7	94	0.00	
57	T	4-Nitroaniline	0.127	0.103	18.9	78	0.09	
58	I	Phenanthrene-D10	1.000	1.000	0.0	85	0.01	
59	T	4,6-Dinitro-2-methylphenol	0.137	0.149	-8.8	82	0.02	
60	T	n-Nitrosodiphenylamine	0.460	0.418	9.1	80	0.01	
61	T	Azobenzene	0.035	0.043	-22.9#	94	0.02	
62	S	2,4,6-Tribromophenol	0.085	0.093	-9.4	92	0.00	
63	T	4-Bromophenyl-phenylether	0.211	0.233	-10.4	89	0.00	
64	T	Hexachlorobenzene	0.219	0.242	-10.5	90	0.00	
65	T	Atrazine	0.090	0.034	62.2#	1744#	0.14 <40	out
66	T	Pentachlorophenol	0.156	0.176	-12.8	86	0.01	
67	T	Phenanthrene	1.146	1.296	-13.1	89	0.00	
68	T	Anthracene	1.120	1.232	-10.0	87	0.00	
69	T	Carbazole	0.306	0.105	65.7#	53	0.01 <40	out
70	T	Di-n-butylphthalate	1.325	1.570	-18.5	92	0.01	
71	T	~~Benzidine~~	~~0.007~~	~~0.000~~	~~100.0#~~	~~4#~~	~~0.00~~	Not on list
72	T	Fluoranthene	1.320	1.433	-8.6	84	0.00	
73	I	Chrysene-D12	1.000	1.000	0.0	67	0.00	
74	T	Pyrene	1.321	1.678	-27.0#	82	0.00 ~~<35~~	±25
75	S	Terphenyl-d14	0.880	0.975	-10.8	77	0.00	
76	T	Benzyl butyl phthalate	0.625	0.738	-18.1	74	0.00	
77	T	Benz[a]anthracene	1.223	1.333	-9.0	69	0.00	
78	T	Chrysene	1.150	1.264	-9.9	71	0.00	
79	T	3,3'-Dichlorobenzidine	0.181	0.179	1.1	61	0.00	
80	T	bis(2-Ethylhexyl)phthalate	0.869	0.898	-3.3	65	0.00	
81	I	Perylene-D12	1.000	1.000	0.0	49#	0.00	
82	T	Di-n-Octylphthalate	1.514	2.122	-40.2#	57	0.00 <40	out
83	T	Benzo[b]fluoranthene	1.354	1.590	-17.4	53	0.00	
84	T	Benzo[k]fluoranthene	1.181	1.382	-17.0	53	0.00	
85	T	Benzo[a]pyrene	1.020	1.117	-9.5	50	0.00	
86	T	Indeno[1,2,3-cd]pyrene	0.695	0.610	12.2	44#	0.00	
87	T	Dibenz[a,h]anthracene	0.727	0.648	10.9	43#	0.00	
88	T	Benzo[ghi]perylene	0.722	0.591	18.1	42#	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Freedom_0005790_0323

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:07:25 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.302	150	2180922	20.00	ug/mL	# 0.00
20) Naphthalene-D8	9.762	136	4763535	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.431	164	2861860	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.517	188	4750774	20.00	ug/mL	0.01
73) Chrysene-D12	22.823	240	4095380	20.00	ug/mL	0.00
81) Perylene-D12	25.605	264	2374915	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.328	112	3349896	46.28	ug/mL	0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 92.56%			
6) Phenol-D5	6.868	99	4257206	44.34	ug/mL	0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 88.68%			
21) Nitrobenzene-D5	8.419	82	2087192	24.63	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 98.52%			
40) 2-Fluorobiphenyl	12.094	172	4776793	26.07	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 104.28%			
62) 2,4,6-Tribromophenol	15.127	330	1110340	54.84	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 109.68%			
75) Terphenyl-d14	20.069	244	4989620	27.69	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 110.76%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.814	74	2371017	28.80	ug/mL#	3
4) Benzaldehyde	6.563	106	488007	12.86	ug/mL#	80
5) Aniline	6.831	93	1020620	16.23	ug/mL#	1
7) Phenol	6.890	94	4338932	37.50	ug/mL#	52
8) 2-Chlorophenol	6.997	128	3444373	39.03	ug/mL#	68
9) Bis(2-chloroethyl) ether	6.986	93	3327637	35.71	ug/mL#	60
10) 1,3-Dichlorobenzene	7.232	146	3979152	38.83	ug/mL	97
11) 1,4-Dichlorobenzene	7.334	146	4017382	39.12	ug/mL	100
12) 1,2-Dichlorobenzene	7.665	146	3821194	39.19	ug/mL#	87
13) Benzyl Alcohol	7.676	79	2796044	38.59	ug/mL	97
14) 2-Methylphenol	7.959	108	3081730	38.46	ug/mL#	91
15) bis(2-Chloroisopropyl)...	7.970	45	5131437	30.05	ug/mL	96
16) Acetophenone	8.163	105	4784927	37.94	ug/mL	92
17) Hexachloroethane	8.227	117	1525699	38.88	ug/mL#	78
18) 4-Methylphenol	8.248	107	3661650	39.65	ug/mL	100
19) N-Nitroso-di-n-propyla...	8.270	70	2560279	38.91	ug/mL#	60
22) Nitrobenzene	8.457	77	3726300	41.72	ug/mL#	77
23) Isophorone	8.944	82	6257992	39.60	ug/mL#	77
24) 2-Nitrophenol	9.077	139	2005851	41.47	ug/mL#	71
25) 2,4-Dimethylphenol	9.270	107	3488461	45.69	ug/mL	95
26) bis(2-Chloroethoxy)met...	9.462	93	4028645	41.45	ug/mL#	84
27) 2,4-Dichlorophenol	9.564	162	2977669	44.13	ug/mL#	85
28) 1,2,4-Trichlorobenzene	9.703	180	3299516	43.47	ug/mL	98
29) Naphthalene	9.805	128	11243987	45.66	ug/mL	99
30) 4-Chloroaniline	10.099	127	885316m	19.74	ug/mL	
31) Hexachlorobutadiene	10.217	225	1860035	43.80	ug/mL	99
32) Caprolactam	10.858	113	892693	37.74	ug/mL#	18
33) 4-Chloro-3-methylphenol	11.120	107	3060121	42.20	ug/mL	89
34) 2-Methylnaphthalene	11.233	142	7505246	42.96	ug/mL	96

Freedom_0005790_0324

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:07:25 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35)	1,2,4,5-Tetrachloroben...	11.666	216	3066471	40.46	ug/ml	98
37)	Hexachlorocyclopentadiene	11.725	237	2102525	48.67	ug/mL	98
38)	2,4,6-Trichlorophenol	11.923	196	2264915	45.77	ug/mL#	87
39)	2,4,5-Trichlorophenol	12.003	196	2310142	45.94	ug/mL#	90
41)	2-Chloronaphthalene	12.233	162	7029408	45.23	ug/mL#	74
42)	Biphenyl	12.260	154	9688924	46.52	ug/mL	99
43)	2-Nitroaniline	12.586	138	2031957	38.00	ug/mL#	65
44)	Acenaphthylene	13.099	152	10426235	42.26	ug/mL	92
45)	Dimethylphthalate	13.110	163	8280212	44.92	ug/mL#	67
46)	2,6-Dinitrotoluene	13.228	165	1925480	43.38	ug/mL#	58
47)	3-Nitroaniline	12.586	138	2032165	38.01	ug/mL#	58
48)	Acenaphthene	13.506	153	7464684	43.67	ug/mL	99
49)	2,4-Dinitrophenol	13.682	184	961312	41.19	ug/mL#	50
50)	Dibenzofuran	13.843	168	10375671	43.75	ug/mL	94
51)	4-Nitrophenol	13.912	139	1205160	40.51	ug/mL#	50
52)	2,4-Dinitrotoluene	14.030	165	2577293	41.99	ug/mL#	63
53)	2,3,4,6-tetrachlorophenol	14.233	232	1832481	40.94	ug/mL#	84
54)	Fluorene	14.570	166	8658733	42.96	ug/mL	100
55)	Diethylphthalate	14.624	149	8401948	42.95	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.640	204	3946406	43.90	ug/mL#	85
57)	4-Nitroaniline	14.848	138	590887m	32.59	ug/mL	
59)	4,6-Dinitro-2-methylph...	14.870	198	1418181	43.72	ug/mL#	76
60)	n-Nitrosodiphenylamine	14.929	169	3975093	36.34	ug/mL	95
61)	Azobenzene	14.870	77	409098	48.95	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.645	248	2216094	44.29	ug/mL#	82
64)	Hexachlorobenzene	15.897	284	2297292	44.19	ug/mL	100
65)	Atrazine	16.303	200	322720	15.09	ug/mL#	50
66)	Pentachlorophenol	16.303	266	1673875	45.30	ug/mL	95
67)	Phenanthrene	16.571	178	12309305	45.23	ug/mL	99
68)	Anthracene	16.667	178	11705130	44.00	ug/mL	99
69)	Carbazole	17.041	167	1001234	13.78	ug/mL#	88
70)	Di-n-butylphthalate	18.068	149	14919808	47.42	ug/mL	100
71)	Benzidine	19.480	184	231	0.14	ug/mL#	1
72)	Fluoranthene	19.090	202	13617258	43.44	ug/mL	99
74)	Pyrene	19.555	202	13747407	50.83	ug/mL	99
76)	Benzyl butyl phthalate	21.732	149	6047501	47.23	ug/mL#	85
77)	Benz[a]anthracene	22.786	228	10920127	43.60	ug/mL	98
78)	Chrysene	22.893	228	10355710	43.99	ug/mL	99
79)	3,3'-Dichlorobenzidine	22.855	252	1469599	39.63	ug/mL#	52
80)	bis(2-Ethylhexyl)phtha...	23.283	149	7357897	41.37	ug/mL#	85
82)	Di-n-Octylphthalate	24.439	149	10076792	56.06	ug/mL#	87
83)	Benzo[b]fluoranthene	24.904	252	7551156	46.95	ug/mL	99
84)	Benzo[k]fluoranthene	24.957	252	6565351	46.81	ug/mL	99
85)	Benzo[a]pyrene	25.498	252	5303304	43.79	ug/mL	98
86)	Indeno[1,2,3-cd]pyrene	27.862	276	2896385	35.09	ug/mL	98
87)	Dibenz[a,h]anthracene	27.926	278	3079807	35.66	ug/mL	98
88)	Benzo[ghi]perylene	28.466	276	2807598	32.75	ug/mL	99

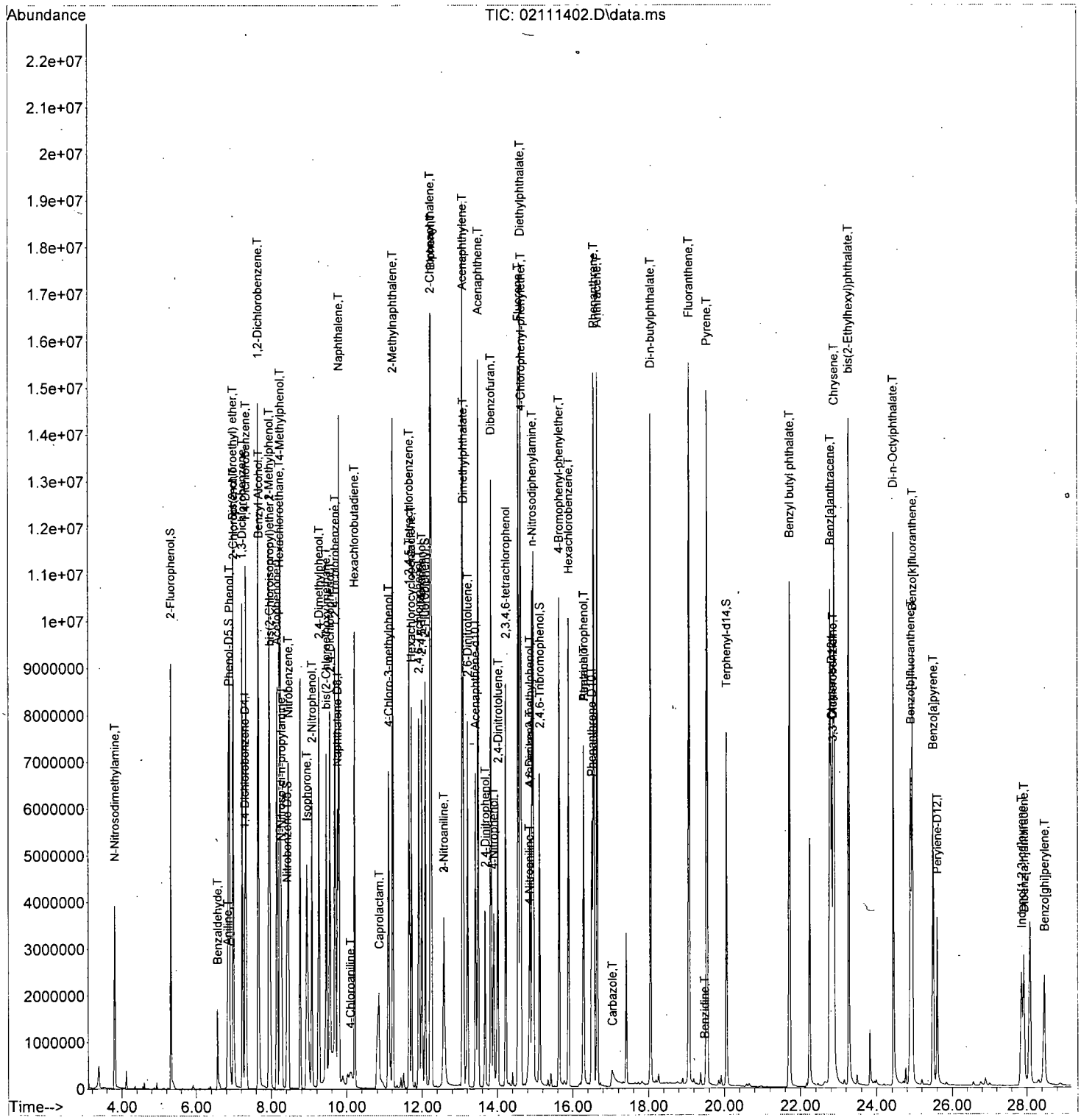
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0325

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:07:25 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

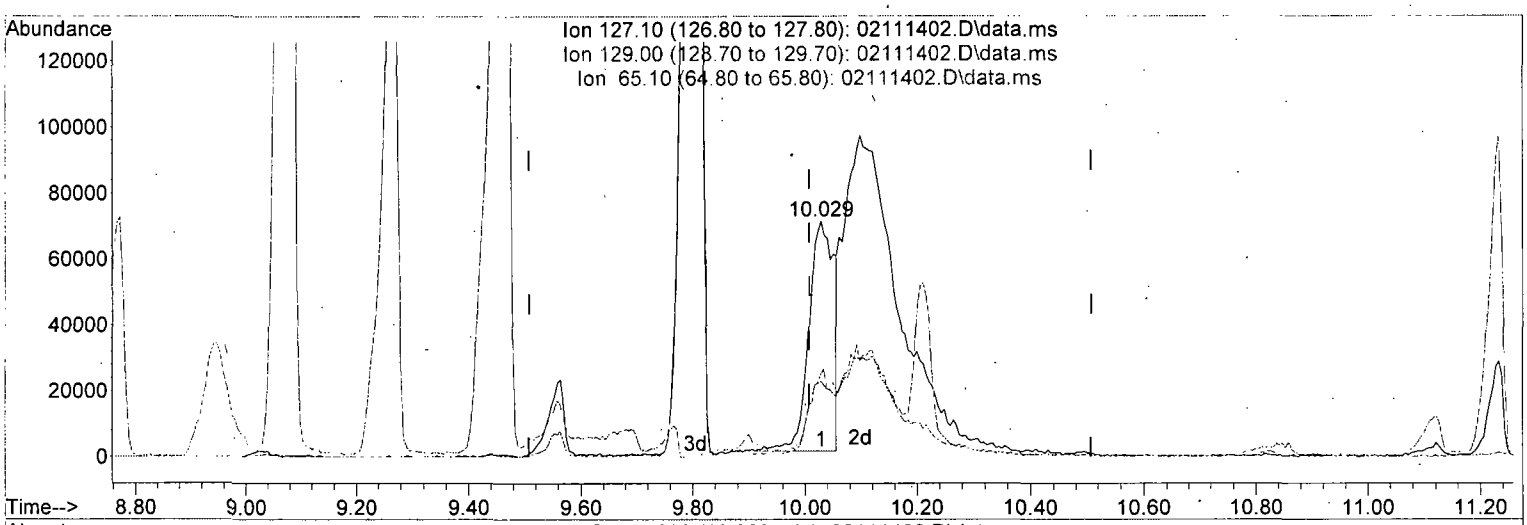


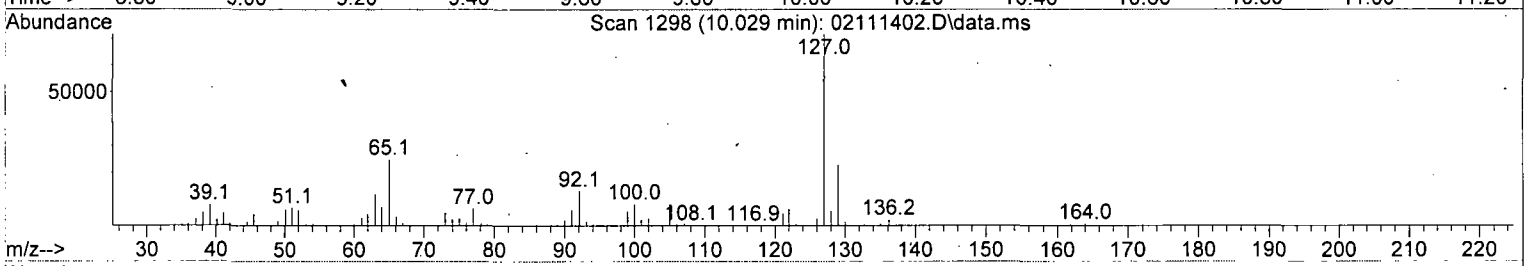
Freedom_0005790_0326

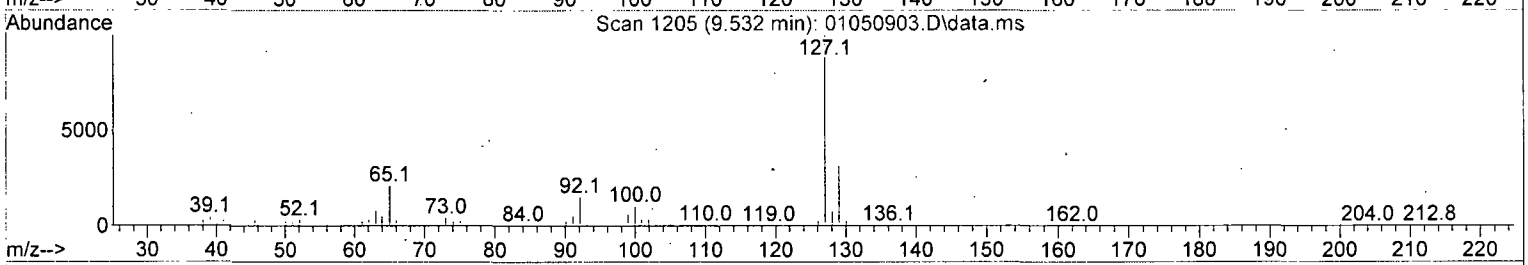
Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:04:33 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02111402.D\data.ms

(30) 4-Chloroaniline (T)

10.029min (+0.021) 4.86 ug/mL

response 217739

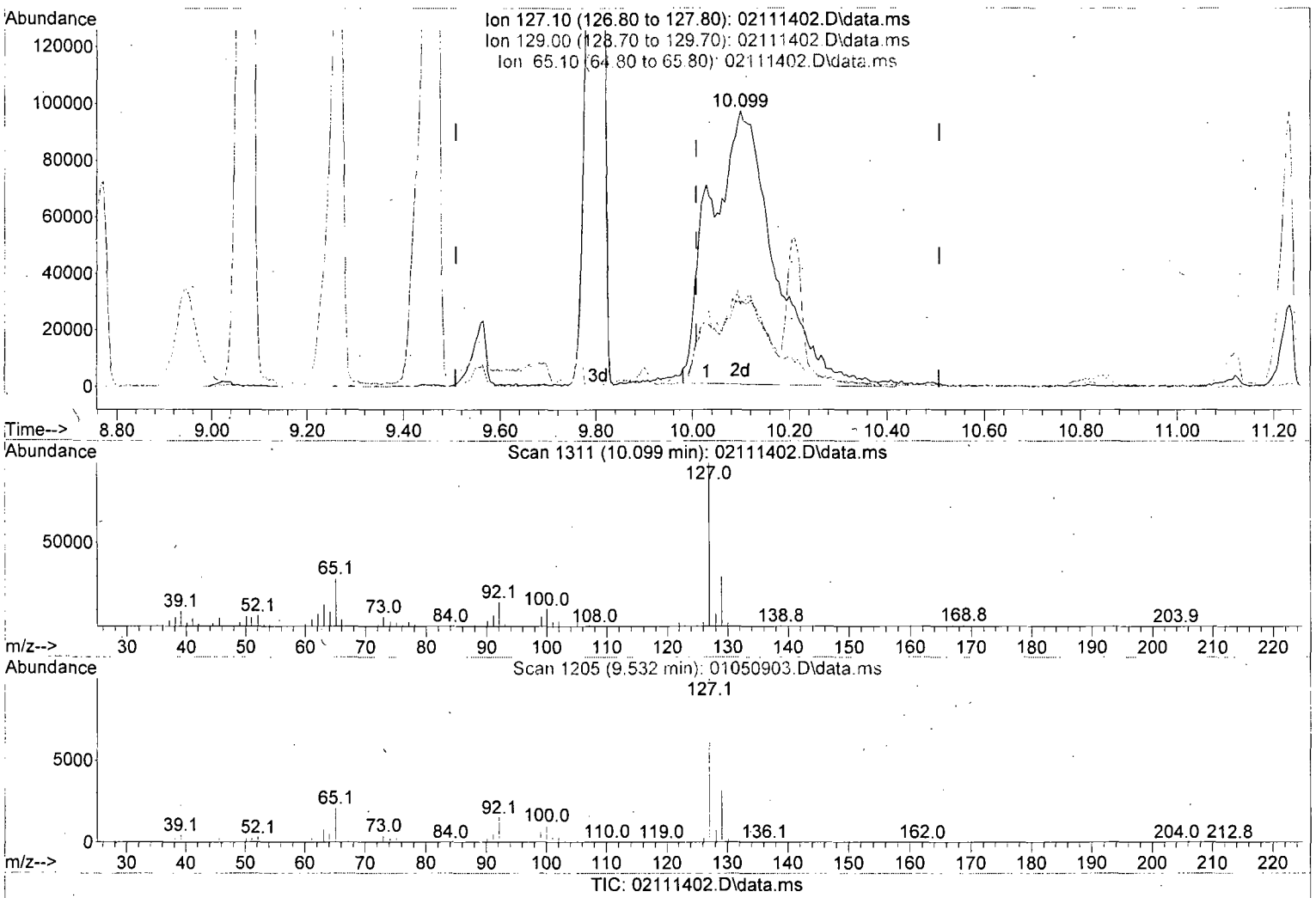
Ion	Exp%	Act%
127.10	100	100
129.00	32.50	31.17
65.10	22.30	25.22
0.00	0.00	0.00

Before Incorporation
KP 2/11/14

Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:04:33 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



(30) 4-Chloroaniline (T)

10.099min (+0.091) 19.74 ug/mL m

response 885316

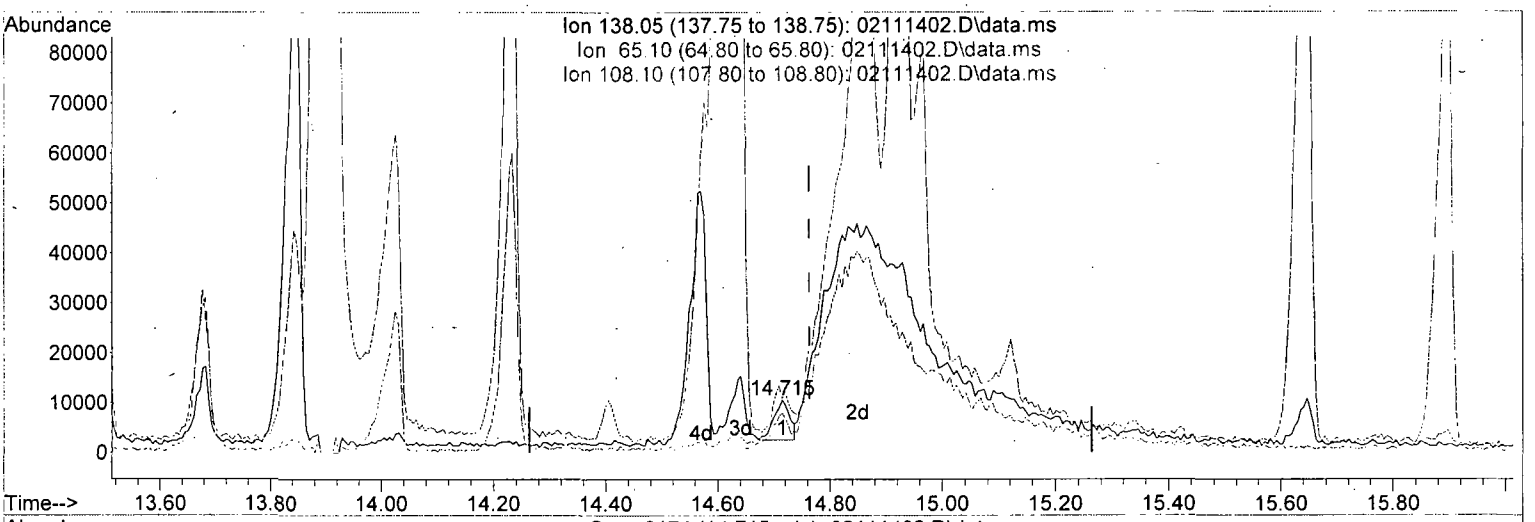
Ion	Exp%	Act%
127.10	100	100
129.00	32.50	7.67#
65.10	22.30	6.20#
0.00	0.00	0.00

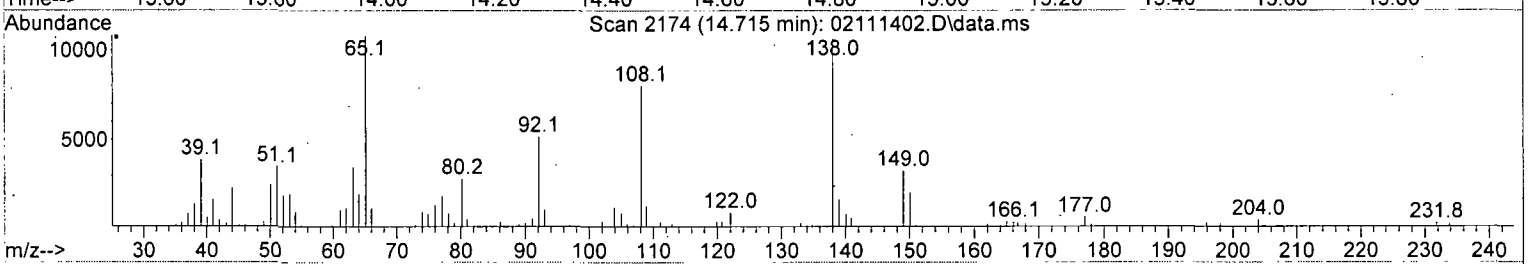
After
LCP
2/11/14
EPD 2/27/14

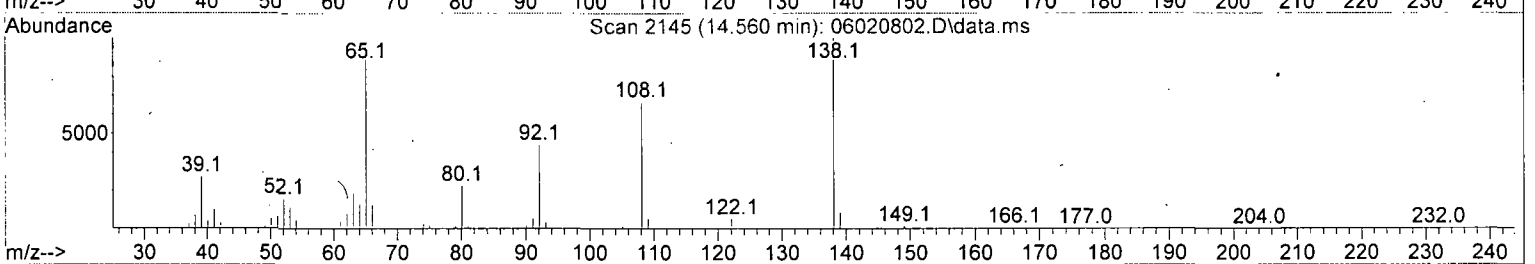
Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:04:33 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02111402.D\data.ms

(57) 4-Nitroaniline (T)

14.715min (-0.048) 0.86 ug/mL

response 15622

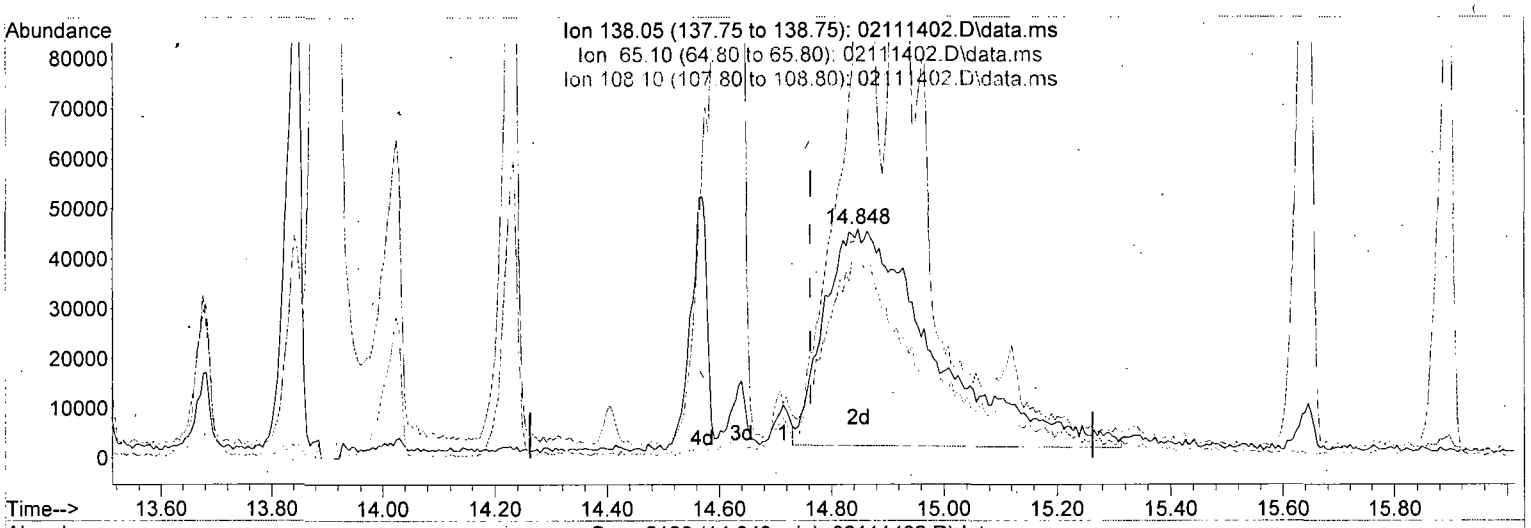
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	0.00#
108.10	51.50	76.01#
0.00	0.00	0.00

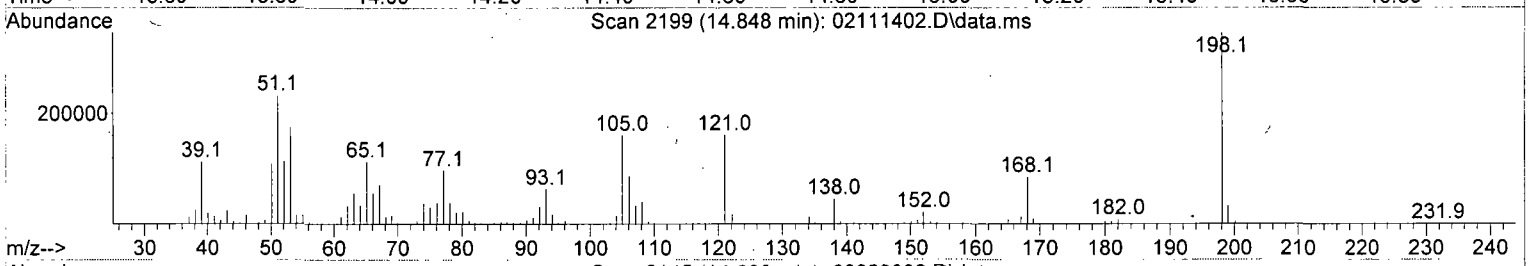
Before Incorrect Integration KP 2/11/14

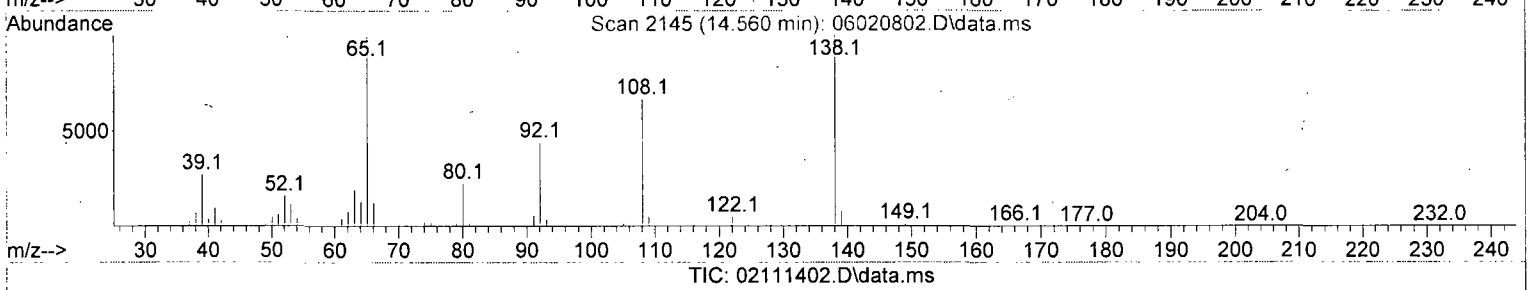
Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02111402.D
Acq On : 11 Feb 2014 2:12 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 11 15:04:33 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02111402.D\data.ms

(57) 4-Nitroaniline (T)

14.848min (+0.085) 32.59 ug/mL m

response 590887

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	0.00#
108.10	51.50	2.01#
0.00	0.00	0.00

After LS 2/11/14 EBY 2/27/14

Evaluate Continuing Calibration Report

8 out

Data Path : D:\DATA\022414\
Data File : 02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 11:05:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
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	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	1,4-Dichlorobenzene-D4	1.000	1.000	0.0	94	0.00	
2	T	N-Nitrosodimethylamine	0.755	0.520	31.1#	65	0.01	-out
3	S	2-Fluorophenol	0.664	0.610	8.1	94	0.02	
4	T	Benzaldehyde	0.348	0.139	60.1#	66	0.00	-out
5	T	Aniline	0.577	0.000	~~100.0#~~	~~0#~~	~~-6.83#~~	Not in mix
6	S	Phenol-D5	0.880	0.767	12.8	90	0.02	
7	T	Phenol	1.061	0.968	8.8	89	0.02	
8	T	2-Chlorophenol	0.809	0.792	2.1	95	0.00	
9	T	Bis(2-chloroethyl) ether	0.854	0.756	11.5	86	0.00	
10	T	1,3-Dichlorobenzene	0.940	0.000	~~100.0#~~	~~0#~~	~~-7.23#~~	
11	T	1,4-Dichlorobenzene	0.942	0.000	~~100.0#~~	~~0#~~	~~-7.33#~~	Not in mix
12	T	1,2-Dichlorobenzene	0.894	0.000	~~100.0#~~	~~0#~~	~~-7.67#~~	
13	T	Benzyl Alcohol	0.664	0.000	~~100.0#~~	~~0#~~	~~-7.66#~~	
14	T	2-Methylphenol	0.735	0.698	5.0	90	0.02	
15	t	bis(2-Chloroisopropyl)ether	1.566	1.141	27.1#	70	0.00	
16	T	Acetophenone	1.157	1.094	5.4	92	0.01	
17	T	Hexachloroethane	0.360	0.348	3.3	96	0.00	
18	T	4-Methylphenol	0.847	0.830	2.0	95	0.02	
19	T	N-Nitroso-di-n-propylamine	0.603	0.578	4.1	88	0.02	
20	I	Naphthalene-D8	1.000	1.000	0.0	88	0.01	
21	S	Nitrobenzene-D5	0.356	0.347	2.5	86	0.00	
22	T	Nitrobenzene	0.375	0.388	-3.5	87	0.01	
23	T	Isophorone	0.663	0.651	1.8	83	0.02	
24	T	2-Nitrophenol	0.203	0.207	-2.0	89	0.01	
25	T	2,4-Dimethylphenol	0.321	0.363	-13.1	91	0.01	
26	T	bis(2-Chloroethoxy)methane	0.408	0.418	-2.5	86	0.00	
27	T	2,4-Dichlorophenol	0.283	0.311	-9.9	90	0.01	
28	T	1,2,4-Trichlorobenzene	0.319	0.349	-9.4	92	0.00	
29	T	Naphthalene	1.034	1.179	-14.0	91	0.01	
30	T	4-Chloroaniline	0.188	0.085	54.8#	45#	0.10	-out
31	T	Hexachlorobutadiene	0.178	0.197	-10.7	94	0.00	
32	T	Caprolactam	0.099	0.100	-1.0	84	0.05	
33	T	4-Chloro-3-methylphenol	0.304	0.315	-3.6	83	0.02	
34	T	2-Methylnaphthalene	0.733	0.787	-7.4	91	0.00	
35	T	1,2,4,5-Tetrachlorobenzene	0.318	0.323	-1.6	91	0.00	
36	I	Acenaphthene-d10	1.000	1.000	0.0	84	0.01	
37	T	Hexachlorocyclopentadiene	0.302	0.352	-16.6	86	0.00	
38	T	2,4,6-Trichlorophenol	0.346	0.395	-14.2	90	0.01	
39	T	2,4,5-Trichlorophenol	0.351	0.405	-15.4	88	0.02	
40	S	2-Fluorobiphenyl	1.281	1.335	-4.2	88	0.01	
41	T	2-Chloronaphthalene	1.086	1.232	-13.4	91	0.01	
42	T	Biphenyl	1.455	1.706	-17.3	93	0.01	
43	T	2-Nitroaniline	0.374	0.360	3.7	79	0.01	
44	T	Acenaphthylene	1.724	1.862	-8.0	89	0.01	
45	T	Dimethylphthalate	1.288	1.459	-13.3	93	0.01	
46	T	2,6-Dinitrotoluene	0.310	0.338	-9.0	87	0.02	

Freedom_0005790_0331

Evaluate Continuing Calibration Report

Data Path : D:\DATA\022414\
Data File : 02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 11:05:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
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	AvgRF	CCRF	%Dev	Area%	Dev(min)	
47	T	3-Nitroaniline	0.374	0.360	3.7	79	0.01	
48	T	Acenaphthene	1.194	1.305	-9.3	89	0.01	
49	T	2,4-Dinitrophenol	0.163	0.166	-1.8	73	0.01	
50	T	Dibenzofuran	1.657	1.820	-9.8	87	0.01	
51	T	4-Nitrophenol	0.208	0.204	1.9	77	0.02	
52	T	2,4-Dinitrotoluene	0.429	0.456	-6.3	86	0.02	
53		2,3,4,6-tetrachlorophenol	0.313	0.321	-2.6	86	0.02	
54	T	Fluorene	1.408	1.524	-8.2	88	0.01	
55	T	Diethylphthalate	1.367	1.495	-9.4	90	0.02	
56	T	4-Chlorophenyl-phenylether	0.628	0.693	-10.4	90	0.01	
57	T	4-Nitroaniline	0.127	0.106	16.5	77	0.09	
58	I	Phenanthrene-D10	1.000	1.000	0.0	81	0.02	
59	T	4,6-Dinitro-2-methylphenol	0.137	0.149	-8.8	78	0.02	
60	T	n-Nitrosodiphenylamine	0.460	0.420	8.7	77	0.02	
61	T	Azobenzene	0.035	0.044	~~-25.7#~~	~~91~~	~~0~~.02	Not of concern
62	S	2,4,6-Tribromophenol	0.085	0.094	-10.6	89	0.01	
63	T	4-Bromophenyl-phenylether	0.211	0.234	-10.9	86	0.01	
64	T	Hexachlorobenzene	0.219	0.243	-11.0	87	0.01	
65	T	Atrazine	0.090	0.034	62.2#	1674#	0.14	out
66	T	Pentachlorophenol	0.156	0.173	-10.9	81	0.02	
67	T	Phenanthrene	1.146	1.301	-13.5	86	0.02	
68	T	Anthracene	1.120	1.236	-10.4	84	0.01	
69	T	Carbazole	0.306	0.102	66.7#	50#	0.01	
70	T	Di-n-butylphthalate	1.325	1.584	-19.5	89	0.02	
71	T	Benzidine	0.007	0.000	~~100.0#~~	~~1#~~	~~-0.01~~	Not of concern
72	T	Fluoranthene	1.320	1.440	-9.1	81	0.01	
73	I	Chrysene-D12	1.000	1.000	0.0	62	0.01	
74	T	Pyrene	1.321	1.746	-32.2#	78	0.02	out
75	S	Terphenyl-d14	0.880	1.009	-14.7	73	0.01	
76	T	Benzyl butyl phthalate	0.625	0.760	-21.6#	70	0.01	out
77	T	Benz[a]anthracene	1.223	1.336	-9.2	64	0.01	
78	T	Chrysene	1.150	1.265	-10.0	65	0.01	
79	T	3,3'-Dichlorobenzidine	0.181	0.170	6.1	53	0.01	
80	T	bis(2-Ethylhexyl)phthalate	0.869	0.910	-4.7	61	0.01	
81	I	Perylene-D12	1.000	1.000	0.0	45#	0.01	
82	T	Di-n-Octylphthalate	1.514	2.137	-41.1#	53	0.01	out
83	T	Benzo[b]fluoranthene	1.354	1.587	-17.2	48#	0.00	
84	T	Benzo[k]fluoranthene	1.181	1.484	-25.7#	52	0.01	out
85	T	Benzo[a]pyrene	1.020	1.116	-9.4	46#	0.00	
86	T	Indeno[1,2,3-cd]pyrene	0.695	0.646	7.1	42#	0.01	
87	T	Dibenz[a,h]anthracene	0.727	0.706	2.9	43#	0.01	
88	T	Benzo[ghi]perylene	0.722	0.669	7.3	43#	0.01	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Freedom_0005790_0332

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 11:05:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.302	150	2095102	20.00	ug/mL	# 0.00
20) Naphthalene-D8	9.767	136	4545799	20.00	ug/mL	0.01
36) Acenaphthene-d10	13.437	164	2733473	20.00	ug/mL	0.01
58) Phenanthrene-D10	16.523	188	4564068	20.00	ug/mL	0.02
73) Chrysene-D12	22.829	240	3762295	20.00	ug/mL	0.01
81) Perylene-D12	25.610	264	2177549	20.00	ug/mL	0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.328	112	3196946	45.97	ug/mL	0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 91.94%			
6) Phenol-D5	6.868	99	4016520	43.55	ug/mL	0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 87.10%			
21) Nitrobenzene-D5	8.420	82	1969509	24.35	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 97.40%			
40) 2-Fluorobiphenyl	12.099	172	4560711	26.06	ug/mL	0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 104.24%			
62) 2,4,6-Tribromophenol	15.132	330	1072082	55.11	ug/mL	0.01
Spiked Amount 50.000	Range 10 - 123		Recovery = 110.22%			
75) Terphenyl-d14	20.080	244	4744512	28.66	ug/mL	0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 114.64%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.814	74	2180400	27.57	ug/mL#	1
4) Benzaldehyde	6.564	106	582318	15.97	ug/mL	90
7) Phenol	6.895	94	4055493	36.48	ug/mL#	51
8) 2-Chlorophenol	6.997	128	3320257	39.17	ug/mL#	69
9) Bis(2-chloroethyl) ether	6.986	93	3169149	35.41	ug/mL#	60
14) 2-Methylphenol	7.960	108	2926320	38.02	ug/mL#	90
15) bis(2-Chloroisopropyl)...	7.976	45	4781836	29.15	ug/mL	95
16) Acetophenone	8.163	105	4583963	37.83	ug/mL	92
17) Hexachloroethane	8.227	117	1458616	38.69	ug/mL#	79
18) 4-Methylphenol	8.254	107	3477202	39.20	ug/mL	100
19) N-Nitroso-di-n-propyla...	8.275	70	2423647	38.35	ug/mL#	60
22) Nitrobenzene	8.462	77	3526640	41.37	ug/mL#	77
23) Isophorone	8.949	82	5915281	39.23	ug/mL#	77
24) 2-Nitrophenol	9.083	139	1886279	40.87	ug/mL#	70
25) 2,4-Dimethylphenol	9.270	107	3295719	45.23	ug/mL	95
26) bis(2-Chloroethoxy)met...	9.463	93	3799222	40.96	ug/mL#	84
27) 2,4-Dichlorophenol	9.564	162	2825587	43.88	ug/mL#	84
28) 1,2,4-Trichlorobenzene	9.703	180	3174317	43.83	ug/mL	97
29) Naphthalene	9.810	128	10714638	45.59	ug/mL	100
30) 4-Chloroaniline	10.104	127	770399m	18.00	ug/mL	
31) Hexachlorobutadiene	10.222	225	1791737	44.21	ug/mL	99
32) Caprolactam	10.864	113	907535	40.21	ug/mL#	32
33) 4-Chloro-3-methylphenol	11.126	107	2860416	41.34	ug/mL#	89
34) 2-Methylnaphthalene	11.233	142	7152119	42.90	ug/mL	96
35) 1,2,4,5-Tetrachloroben...	11.672	216	2934836	40.58	ug/ml	97
37) Hexachlorocyclopentadiene	11.730	237	1926353	46.69	ug/mL	98
38) 2,4,6-Trichlorophenol	11.928	196	2161683	45.73	ug/mL#	87
39) 2,4,5-Trichlorophenol	12.009	196	2214170	46.10	ug/mL#	90
41) 2-Chloronaphthalene	12.238	162	6737916	45.39	ug/mL#	75

Freedom_0005790_0333

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 11:05:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42)	Biphenyl	12.265	154	9325863	46.88	ug/mL	99
43)	2-Nitroaniline	12.592	138	1965841	38.49	ug/mL#	65
44)	Acenaphthylene	13.105	152	10177848	43.19	ug/mL	93
45)	Dimethylphthalate	13.116	163	7974588	45.29	ug/mL#	67
46)	2,6-Dinitrotoluene	13.233	165	1848787	43.61	ug/mL#	58
47)	3-Nitroaniline	12.592	138	1965841	38.49	ug/mL#	59
48)	Acenaphthene	13.511	153	7134834	43.71	ug/mL	100
49)	2,4-Dinitrophenol	13.683	184	908619	40.76	ug/mL#	50
50)	Dibenzofuran	13.848	168	9947627	43.92	ug/mL	93
51)	4-Nitrophenol	13.918	139	1117343	39.32	ug/mL#	43
52)	2,4-Dinitrotoluene	14.036	165	2491533	42.50	ug/mL#	64
53)	2,3,4,6-tetrachlorophenol	14.239	232	1753039	41.00	ug/mL#	85
54)	Fluorene	14.576	166	8329301	43.27	ug/mL	100
55)	Diethylphthalate	14.629	149	8170656	43.73	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.645	204	3786051	44.09	ug/mL#	85
57)	4-Nitroaniline	14.854	138	581963m	33.61	ug/mL	
59)	4,6-Dinitro-2-methylph...	14.875	198	1360589	43.66	ug/mL#	76
60)	n-Nitrosodiphenylamine	14.934	169	3829587	36.44	ug/mL	94
61)	Azobenzene	14.875	77	398636	49.65	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.651	248	2133389	44.38	ug/mL#	81
64)	Hexachlorobenzene	15.902	284	2219554	44.44	ug/mL	99
65)	Atrazine	16.309	200	309691	15.07	ug/mL#	50
66)	Pentachlorophenol	16.309	266	1578320	44.46	ug/mL	96
67)	Phenanthrene	16.582	178	11880112	45.43	ug/mL	99
68)	Anthracene	16.673	178	11281557	44.15	ug/mL	99
69)	Carbazole	17.042	167	927283	13.29	ug/mL#	91
70)	Di-n-butylphthalate	18.074	149	14456638	47.83	ug/mL	100
72)	Fluoranthene	19.095	202	13142227	43.64	ug/mL	99
74)	Pyrene	19.566	202	13136347	52.87	ug/mL	99
76)	Benzyl butyl phthalate	21.738	149	5717298	48.61	ug/mL#	85
77)	Benz[a]anthracene	22.791	228	10056328	43.70	ug/mL	98
78)	Chrysene	22.898	228	9520208	44.02	ug/mL	99
79)	3,3'-Dichlorobenzidine	22.861	252	1281835	37.62	ug/mL#	52
80)	bis(2-Ethylhexyl)phtha...	23.289	149	6844634	41.89	ug/mL#	85
82)	Di-n-Octylphthalate	24.444	149	9308003	56.48	ug/mL#	87
83)	Benzo[b]fluoranthene	24.909	252	6909481	46.86	ug/mL	99
84)	Benzo[k]fluoranthene	24.963	252	6463271	50.26	ug/mL	99
85)	Benzo[a]pyrene	25.503	252	4858582	43.76	ug/mL	99
86)	Indeno[1,2,3-cd]pyrene	27.873	276	2813354	37.17	ug/mL	99
87)	Dibenz[a,h]anthracene	27.937	278	3076807	38.86	ug/mL	98
88)	Benzo[ghi]perylene	28.477	276	2914237	37.08	ug/mL	99

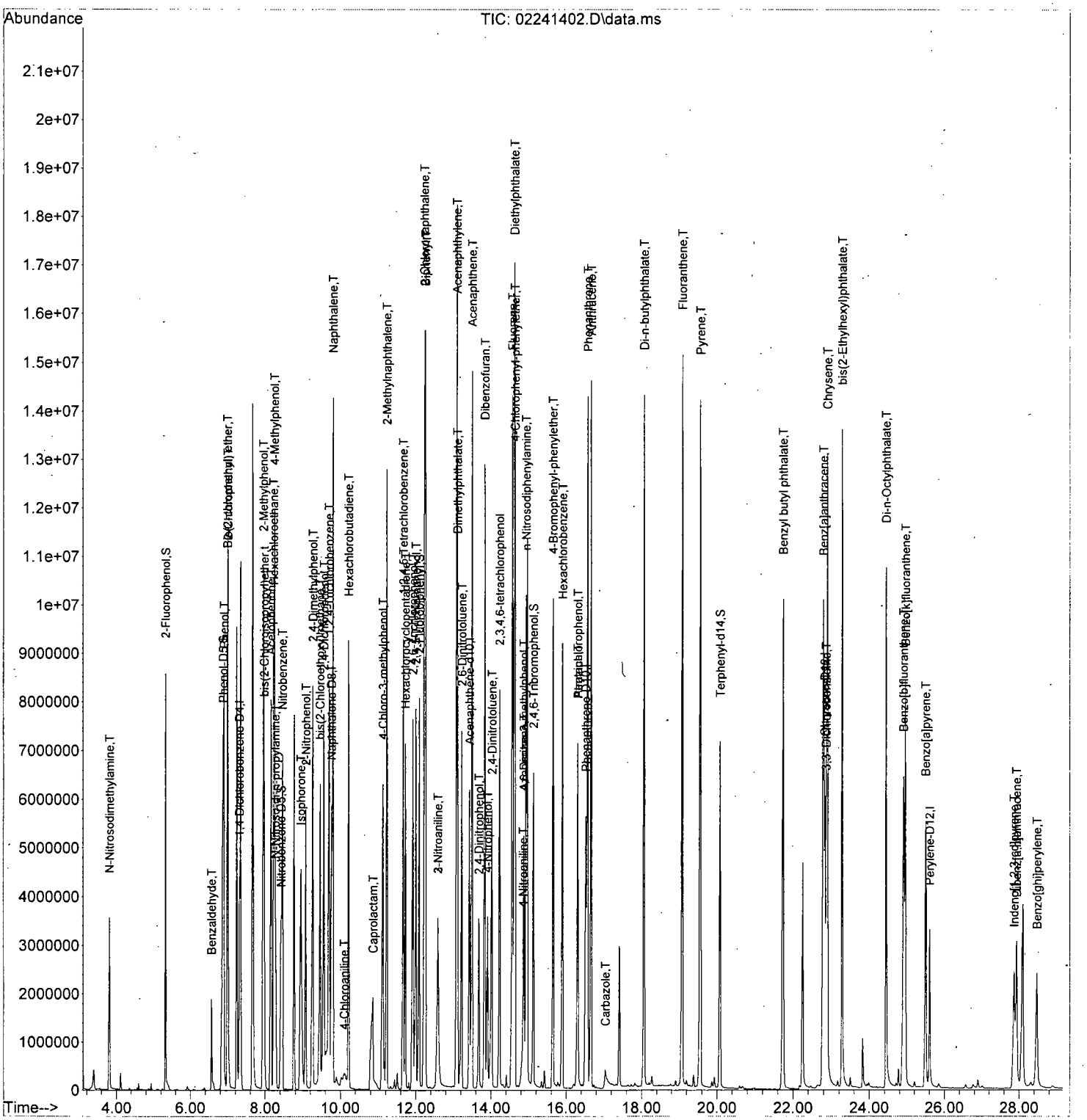
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0334

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 11:05:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

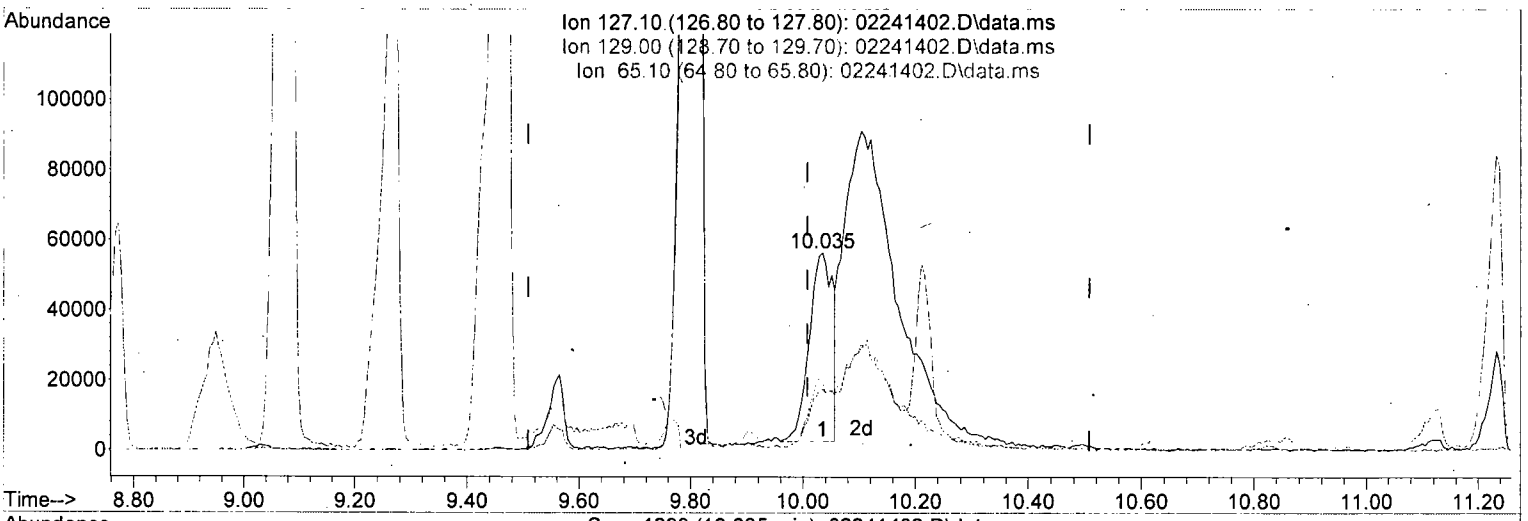


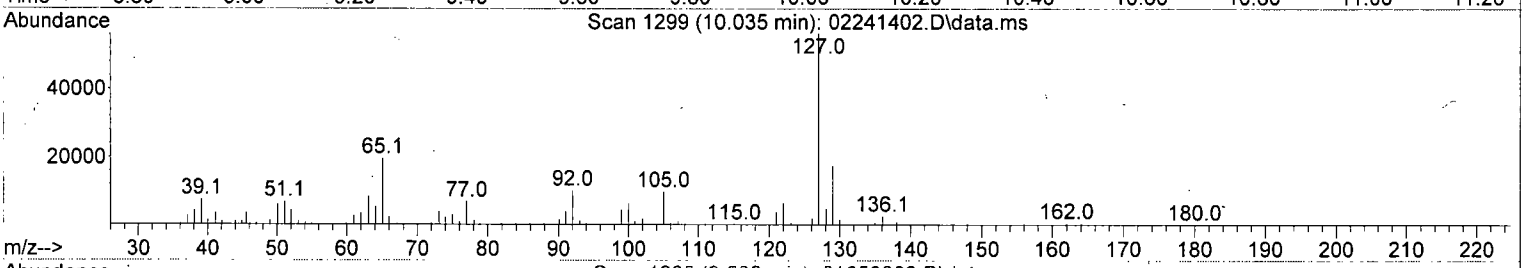
Freedom_0005790_0335

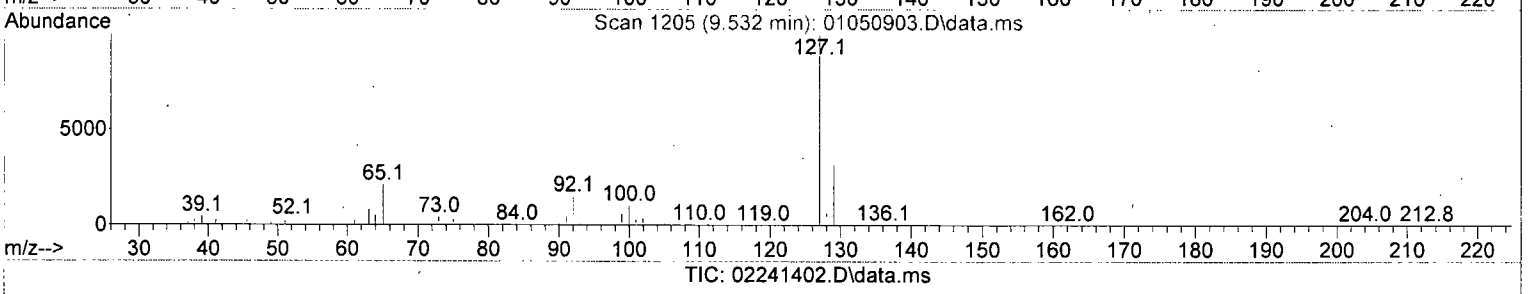
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 10:59:28 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241402.D\data.ms

(30) 4-Chloroaniline (T)

10.035min (+0.027) 3.62 ug/mL

response 154990

Ion	Exp%	Act%
127.10	100	100
129.00	32.50	25.27#
65.10	22.30	33.49#
0.00	0.00	0.00

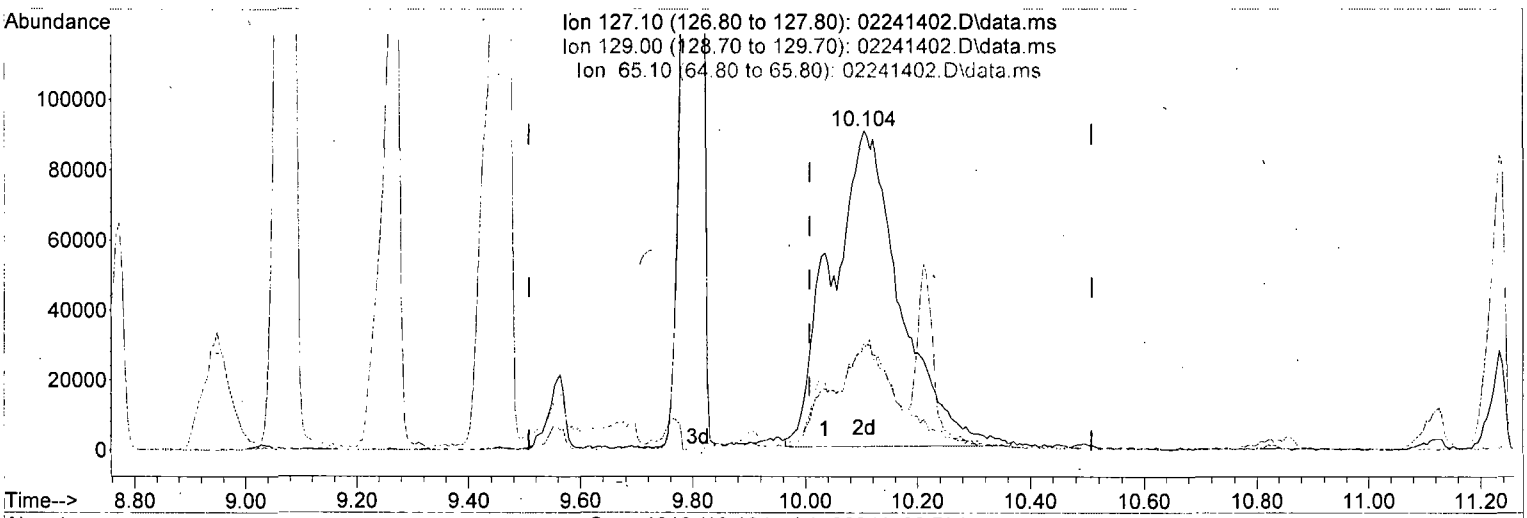
Before Incorrect Integration KLP 2/25/14

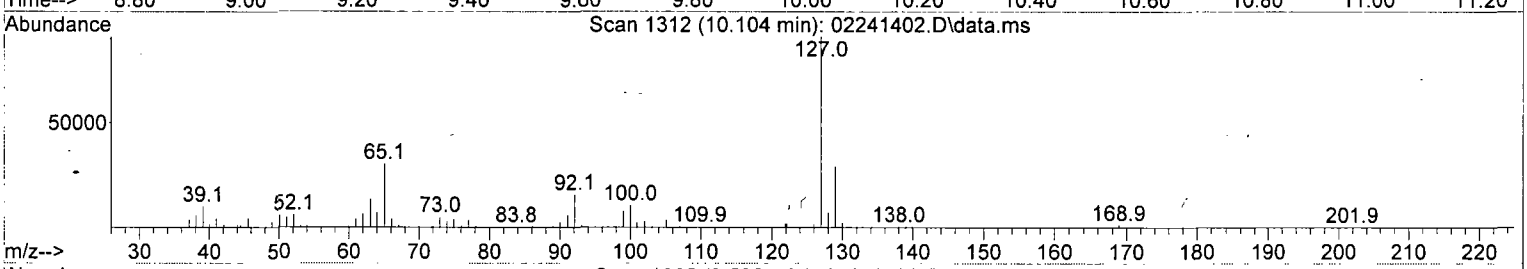
Freedom_0005790_0336

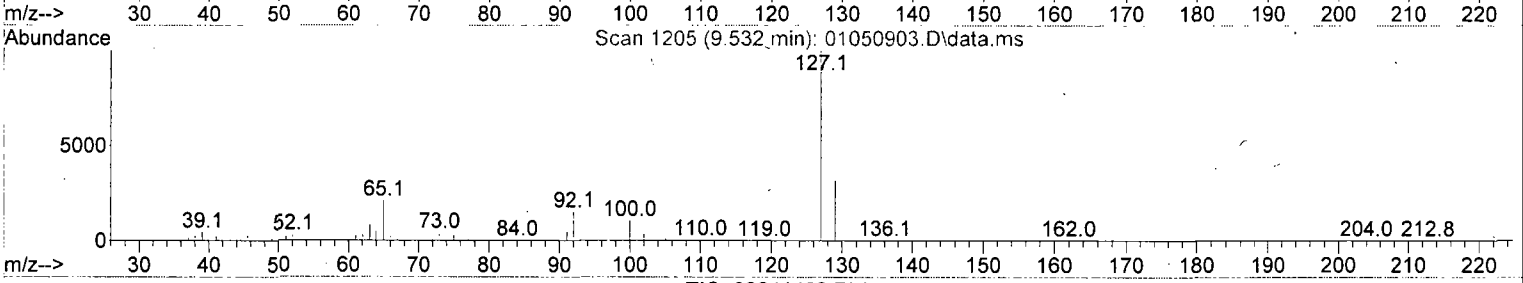
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 10:59:28 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241402.D\data.ms

(30) 4-Chloroaniline (T)

10.104min (+0.096) 18.00 ug/mL m

response 770399

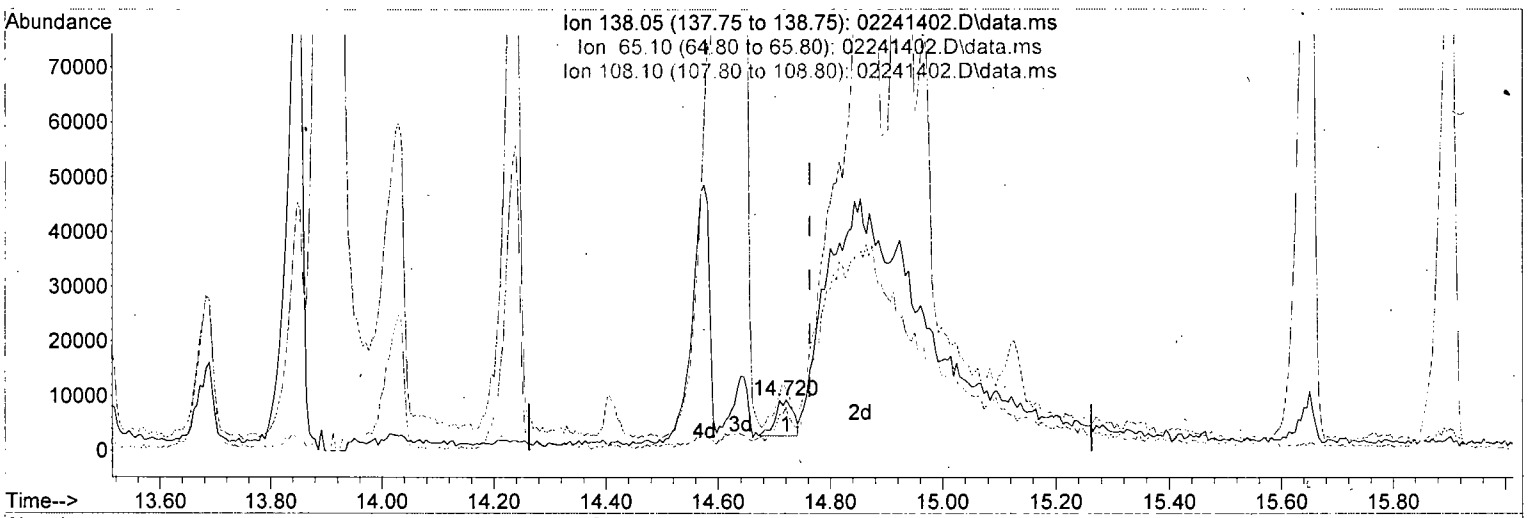
Ion	Exp%	Act%
127.10	100	100
129.00	32.50	5.08#
65.10	22.30	6.74#
0.00	0.00	0.00

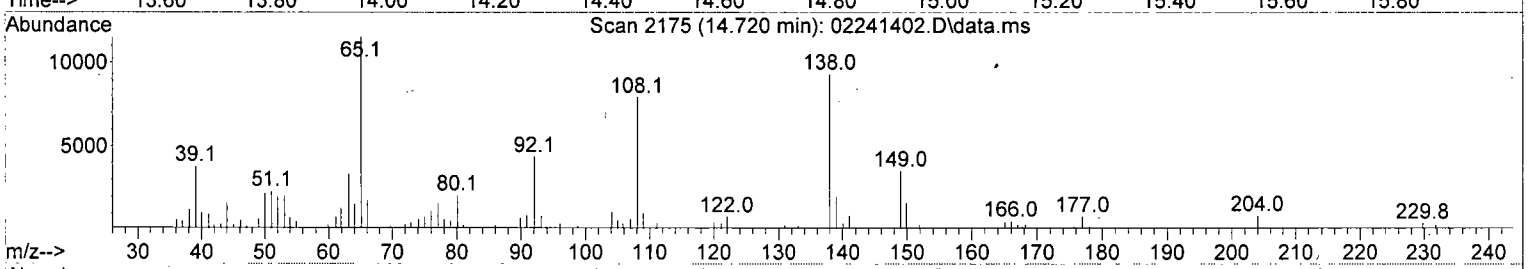
After ICP 2/25/14 [illegible] 2/27/14

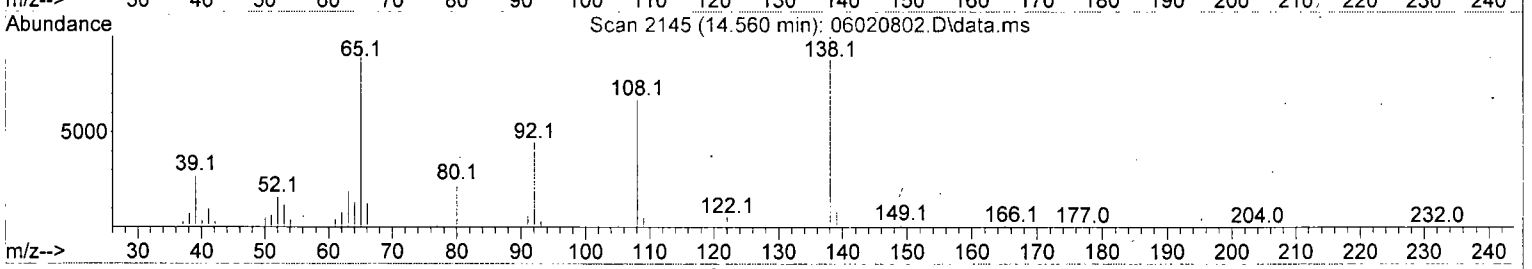
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 10:59:28 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241402.D\data.ms

(57) 4-Nitroaniline (T)

14.720min (-0.043) 0.84 ug/mL

response 14519

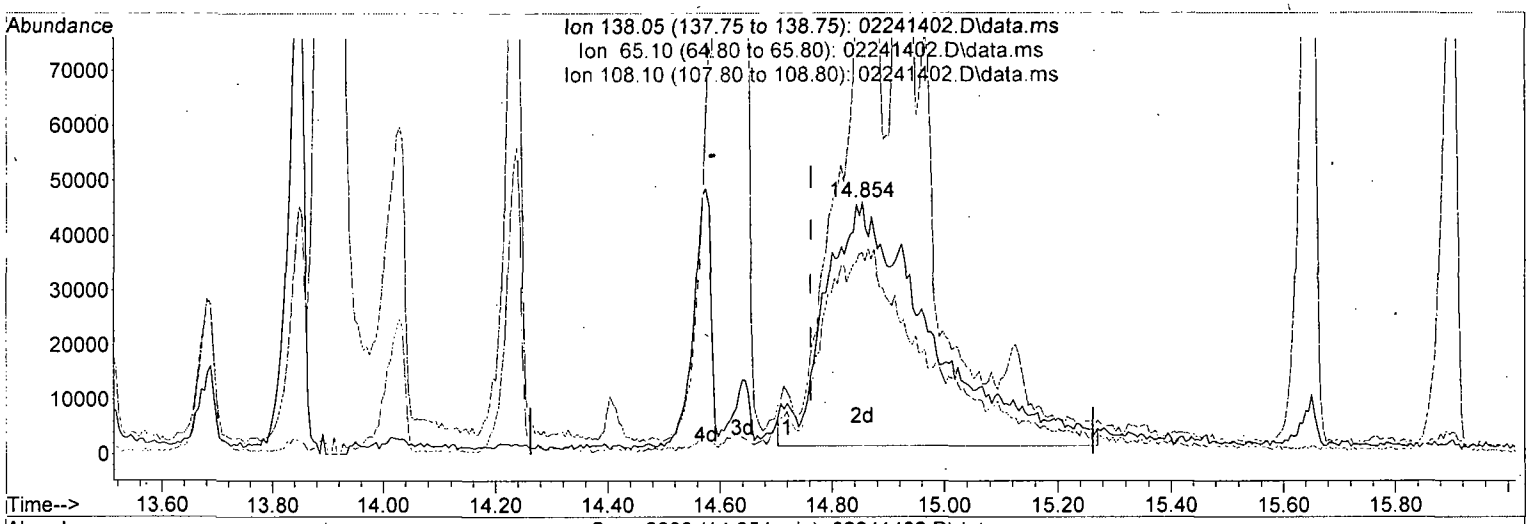
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	0.00#
108.10	51.50	89.29#
0.00	0.00	0.00

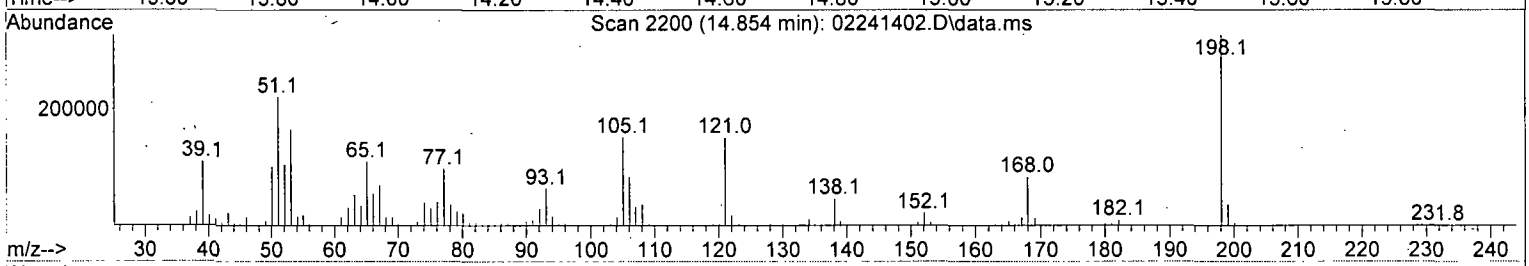
Before KP Incorporated system 2/25/14

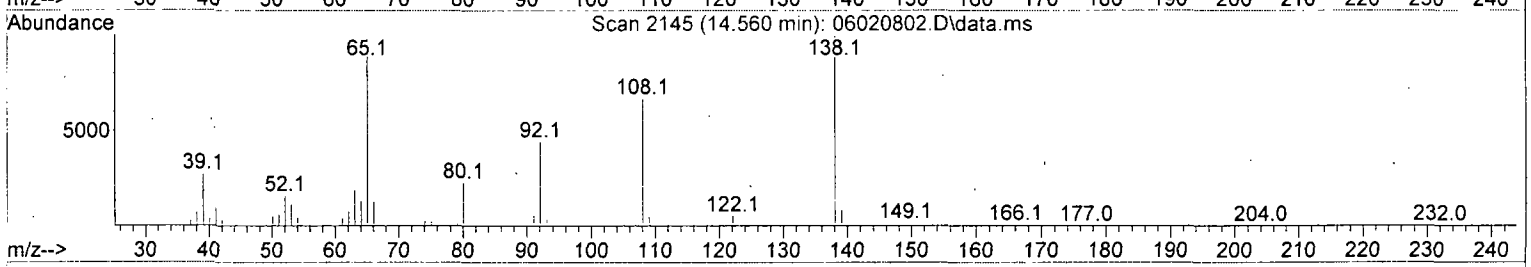
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : ,02241402.D
Acq On : 24 Feb 2014 3:07 pm
Operator : KLP OX-HP5975MSD
Sample : 40 A961
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 25 10:59:28 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241402.D\data.ms

(57) 4-Nitroaniline (T)

14.854min (+0.091) 33.61 ug/mL m

response 581963

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	0.00#
108.10	51.50	2.23#
0.00	0.00	0.00

Actor CCP 2/25/14 EDY 2/27/14

Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Sample Data

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051405.D
Acq On : 6 Feb 2014 11:38 am
Operator : KLP OX-HP5975MSD
Sample : 1401014-01
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 10 13:58:53 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.285	150	1634471	20.00	ug/mL	-0.01
20) Naphthalene-D8	9.746	136	4286855	20.00	ug/mL	-0.01
36) Acenaphthene-d10	13.420	164	2615230	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.501	188	4703442	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.802	240	3901107	20.00	ug/mL	-0.02
81) Perylene-D12	25.588	264	2671652	20.00	ug/mL	-0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.296	112	2314843	42.67	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 85.34%			
6) Phenol-D5	6.831	99	3195567	44.41	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 88.82%			
21) Nitrobenzene-D5	8.398	82	1530746	20.07	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 80.28%			
40) 2-Fluorobiphenyl	12.083	172	3541240	21.15	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 84.60%			
62) 2,4,6-Tribromophenol	15.105	330	879443	43.87	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 87.74%			
75) Terphenyl-d14	20.069	244	3963327	23.09	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 92.36%			
Target Compounds						Qvalue
29) Naphthalene	9.783	128	18693	0.08	ug/mL#	68
70) Di-n-butylphthalate	18.047	149	105536	0.34	ug/mL	100
76) Benzyl butyl phthalate	21.695	149	8593	0.07	ug/mL#	87
80) bis(2-Ethylhexyl)phtha...	23.267	149	291571	1.72	ug/mL#	83

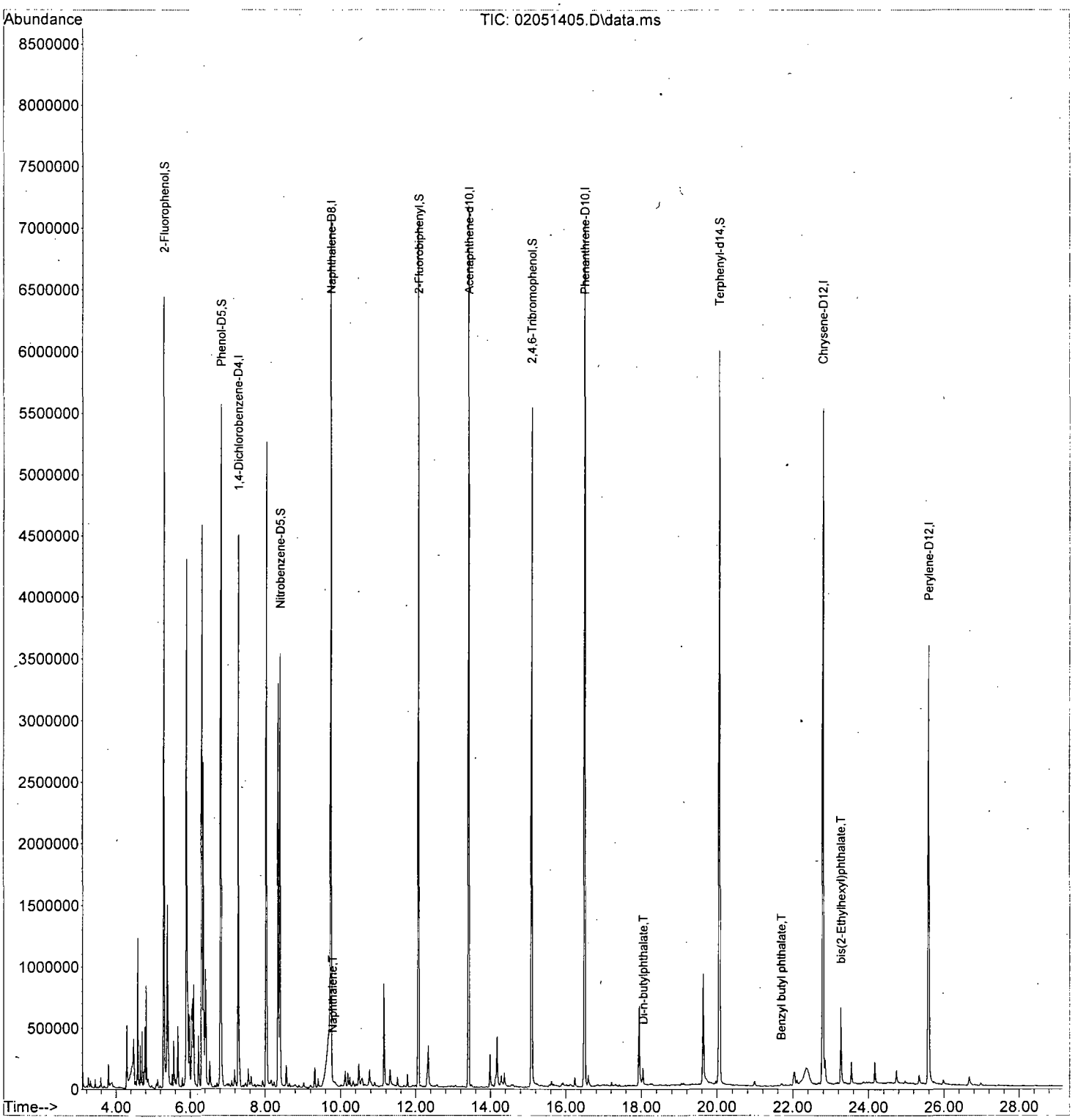
(#) = qualifier out of range (m) = manual integration (+) = signals summed

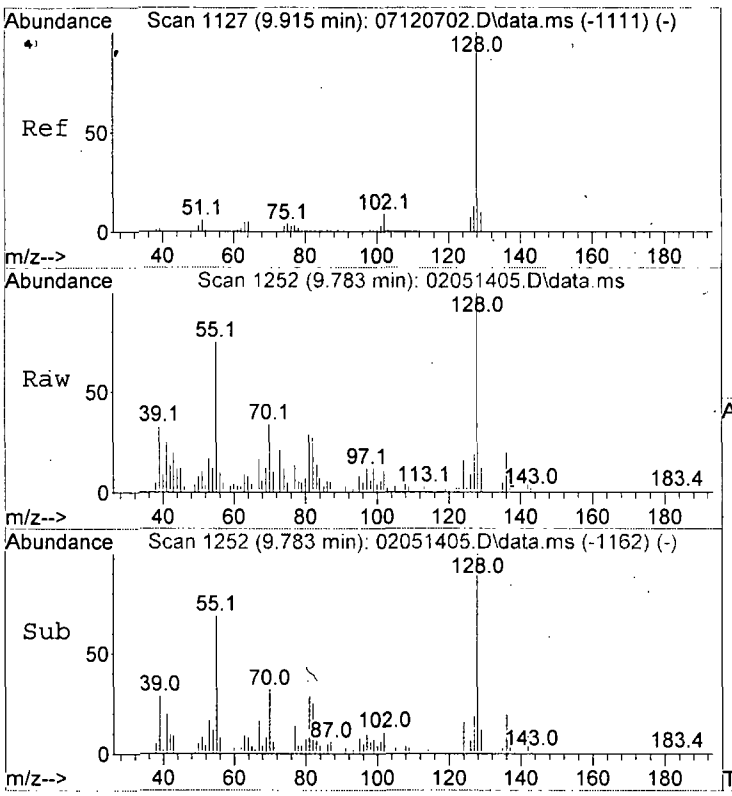
Freedom_0005790_0341

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051405.D
Acq On : 6 Feb 2014 11:38 am
Operator : KLP OX-HP5975MSD
Sample : 1401014-01
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 10 13:58:53 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

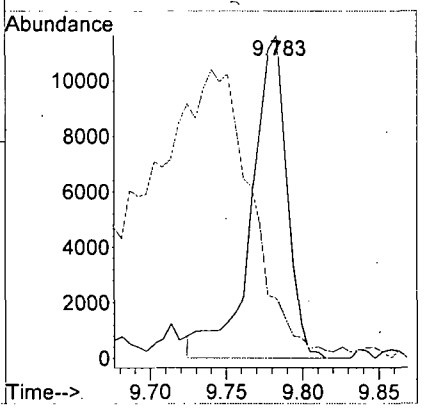


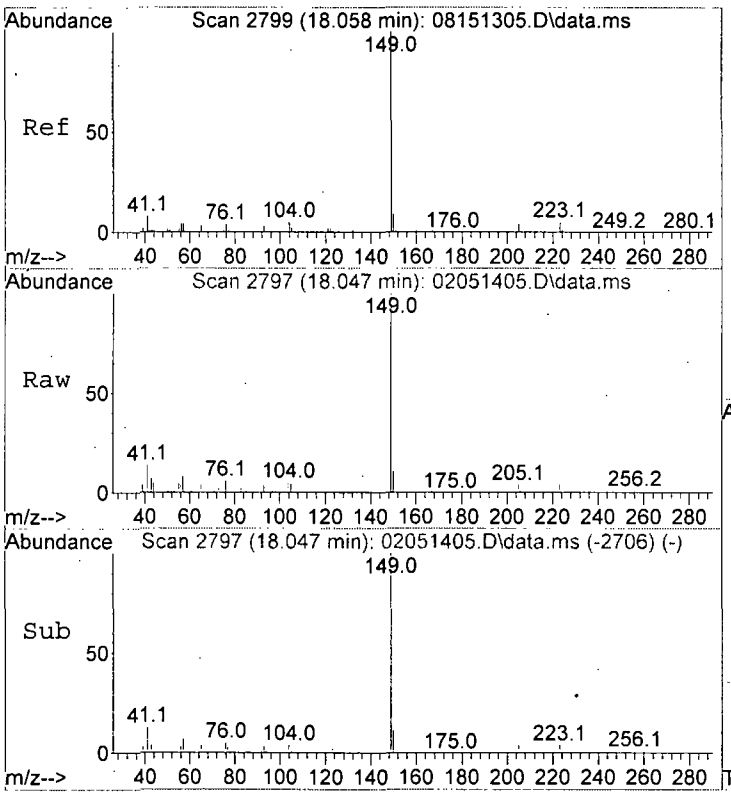


#29
Naphthalene
Concen: 0.08 ug/mL
RT: 9.783 min Scan# 1252
Delta R.T. -0.016 min
Lab File: 02051405.D
Acq: 6 Feb 2014 11:38 am

Tgt Ion:128 Resp: 18693

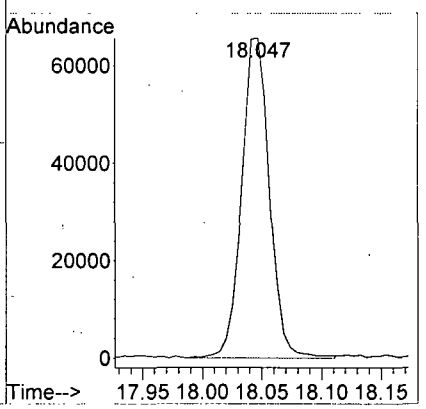
Ion	Ratio	Lower	Upper
128	100		
127	0.0	10.2	15.4#



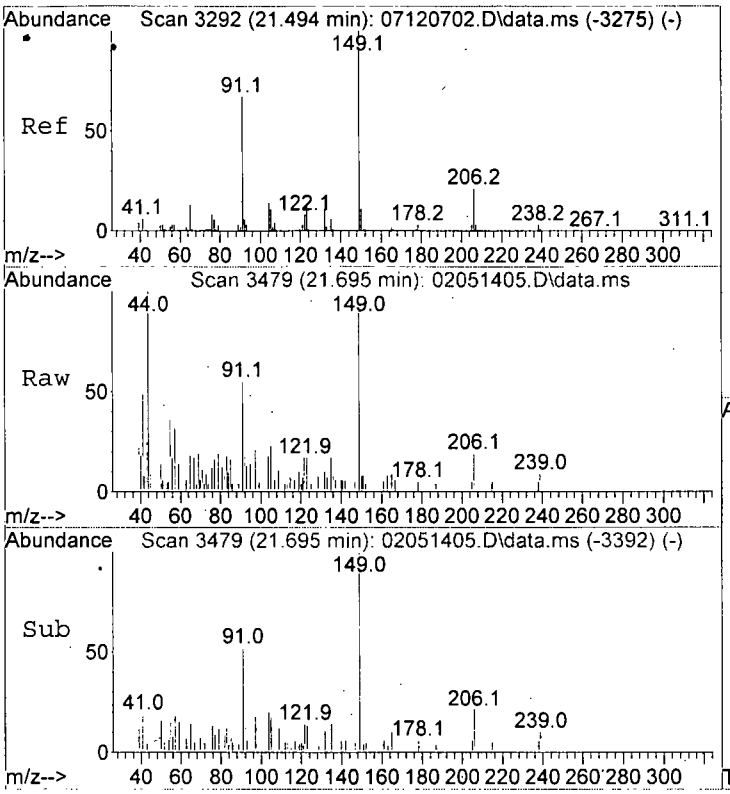


#70
Di-n-butylphthalate
Concen: 0.34 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02051405.D
Acq: 6 Feb 2014 11:38 am

Tgt Ion:149 Resp: 105536



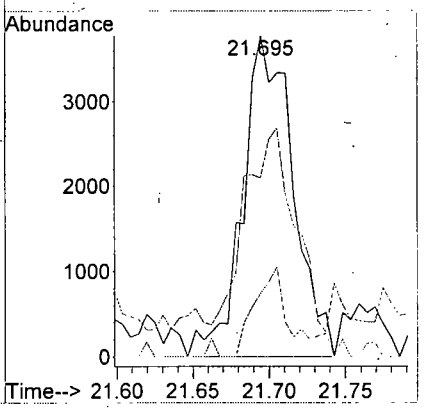
Freedom_0005790_0343

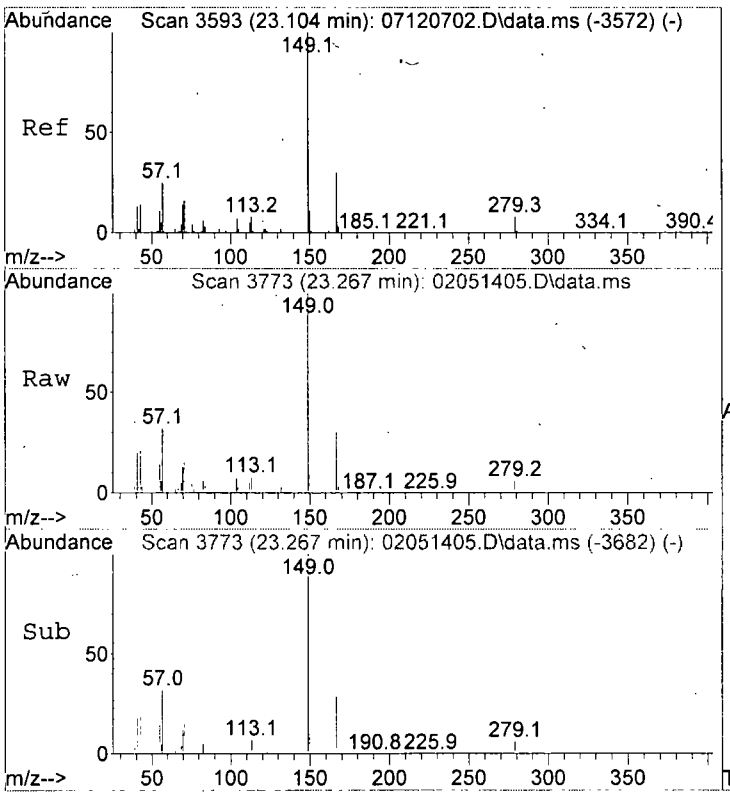


#76
Benzyl butyl phthalate
Concen: 0.07 ug/mL
RT: 21.695 min Scan# 3479
Delta R.T. -0.032 min
Lab File: 02051405.D
Acq: 6 Feb 2014 11:38 am

Tgt Ion:149 Resp: 8593

Ion	Ratio	Lower	Upper
149	100		
91	67.9	46.8	70.2
206	20.7	22.7	34.1#

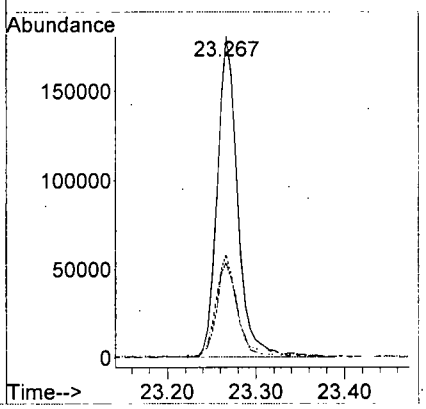




#80
bis(2-Ethylhexyl)phthalate
Concen: 1.72 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02051405.D
Acq: 6 Feb 2014 11:38 am

Tgt Ion:149 Resp: 291571

Ion	Ratio	Lower	Upper
149	100		
167	30.5	28.2	42.2
57	33.5	14.7	22.1#



Freedom_0005790_0344

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051406.D
Acq On : 6 Feb 2014 12:15 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-02
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 10 14:01:52 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.285	150	1716631	20.00	ug/mL	-0.01
20) Naphthalene-D8	9.746	136	4502769	20.00	ug/mL	-0.01
36) Acenaphthene-d10	13.420	164	2733084	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.501	188	4833080	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.797	240	3941721	20.00	ug/mL	-0.02
81) Perylene-D12	25.589	264	2436127	20.00	ug/mL	-0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.290	112	2447415	42.95	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 85.90%			
6) Phenol-D5	6.826	99	3398454	44.97	ug/mL	-0.03
Spiked Amount 50.000	Range 10 - 110		Recovery = 89.94%			
21) Nitrobenzene-D5	8.398	82	1600741	19.98	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 79.92%			
40) 2-Fluorobiphenyl	12.078	172	3717559	21.24	ug/mL	-0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 84.96%			
62) 2,4,6-Tribromophenol	15.105	330	922420	44.78	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 89.56%			
75) Terphenyl-d14	20.069	244	4185165	24.13	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 96.52%			
Target Compounds						Qvalue
29) Naphthalene	9.778	128	27941	0.12	ug/mL	94
70) Di-n-butylphthalate	18.047	149	120501	0.38	ug/mL	100
76) Benzyl butyl phthalate	21.695	149	13004	0.11	ug/mL#	85
80) bis(2-Ethylhexyl)phtha...	23.267	149	103673	0.61	ug/mL#	86

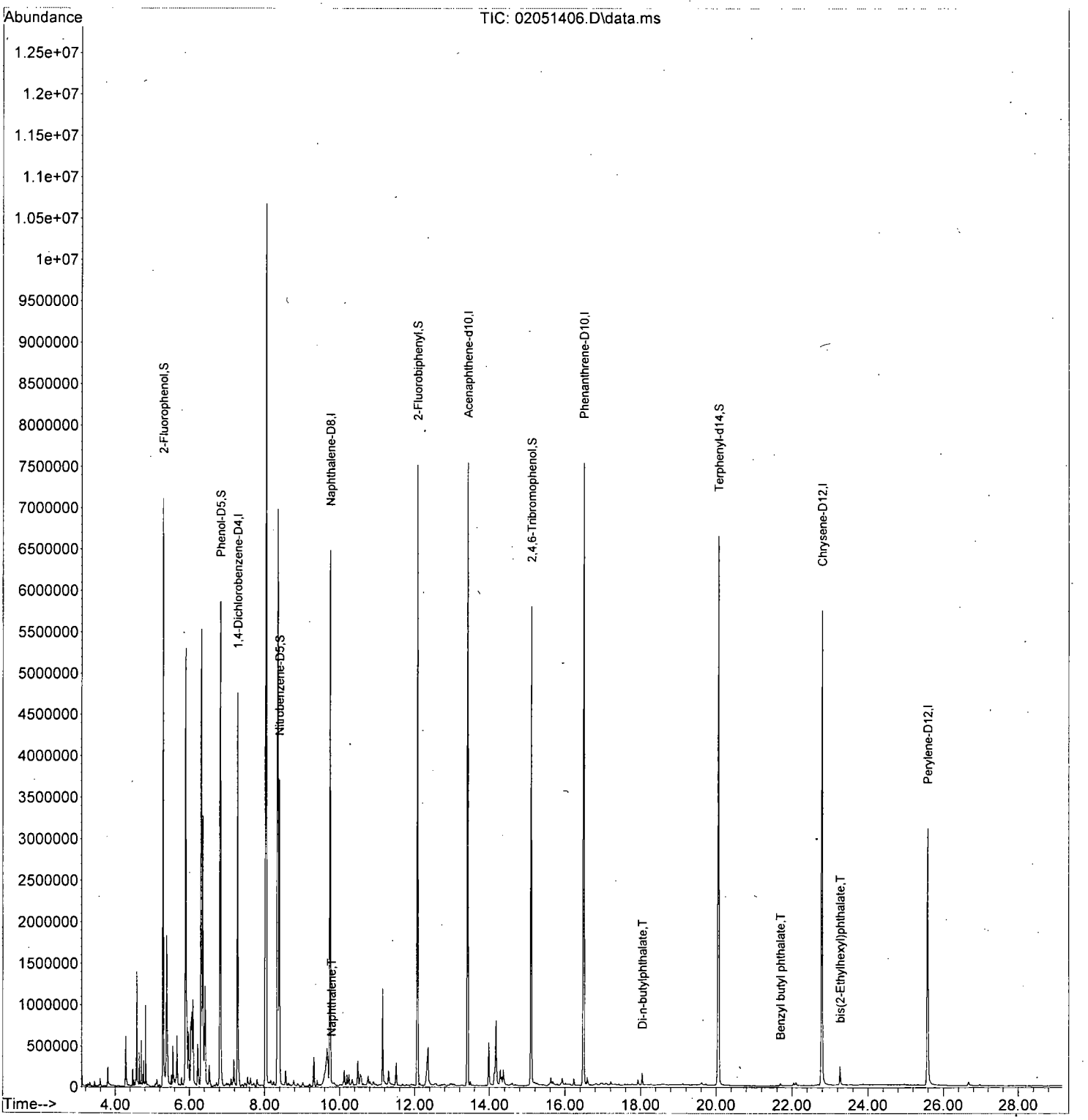
(#) = qualifier out of range (m) = manual integration (+) = signals summed

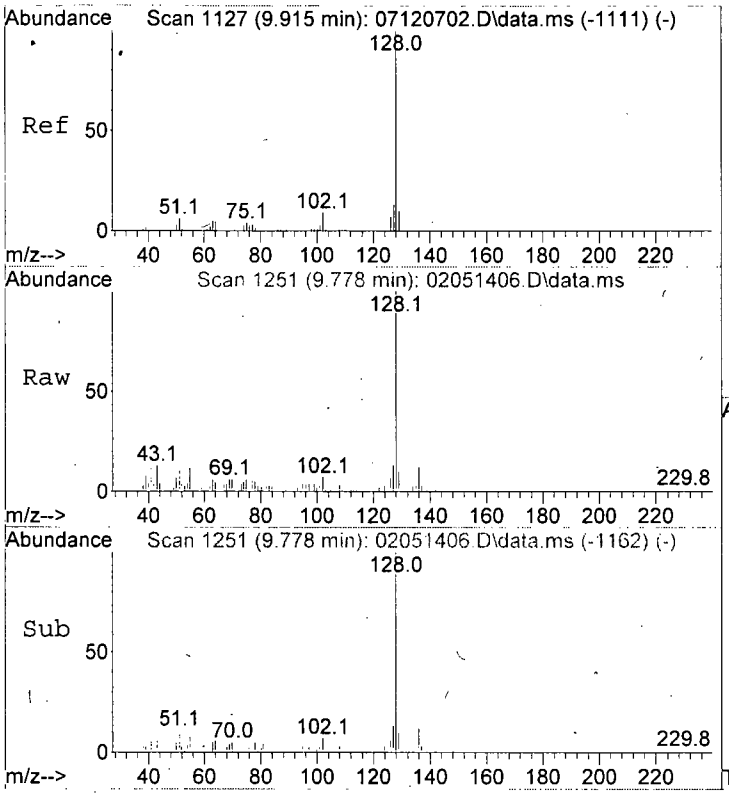
Freedom_0005790_0345

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051406.D
Acq On : 6 Feb 2014 12:15 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-02
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 10 14:01:52 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

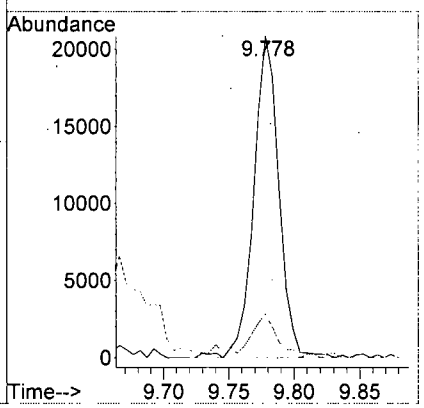


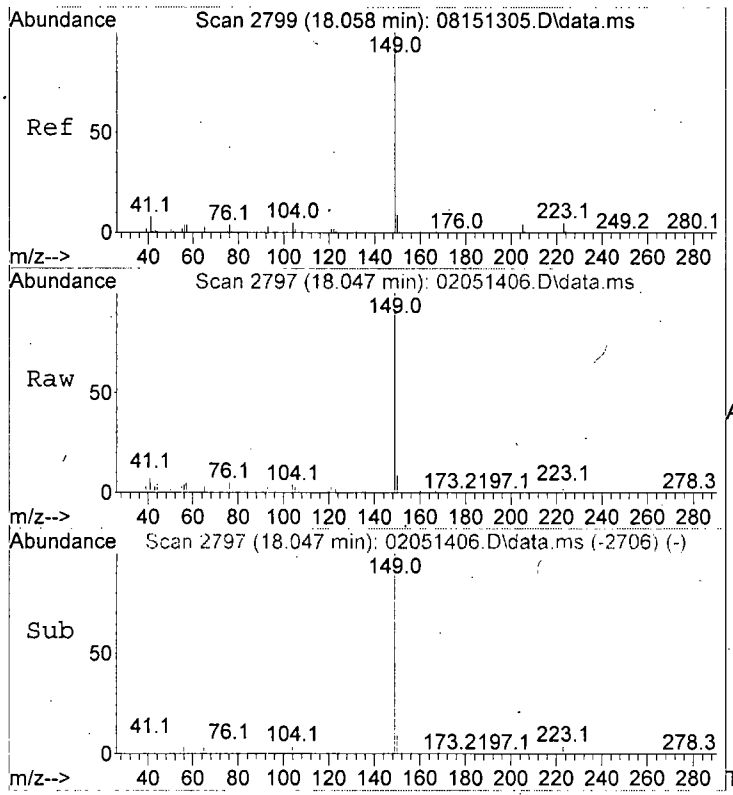


#29
Naphthalene
Concen: 0.12 ug/mL
RT: 9.778 min Scan# 1251
Delta R.T. -0.022 min
Lab File: 02051406.D
Acq: 6 Feb 2014 12:15 pm

Tgt Ion:128 Resp: 27941

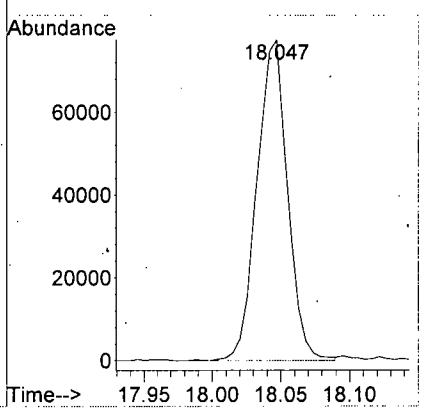
Ion	Ratio	Lower	Upper
128	100		
127	10.5	10.2	15.4



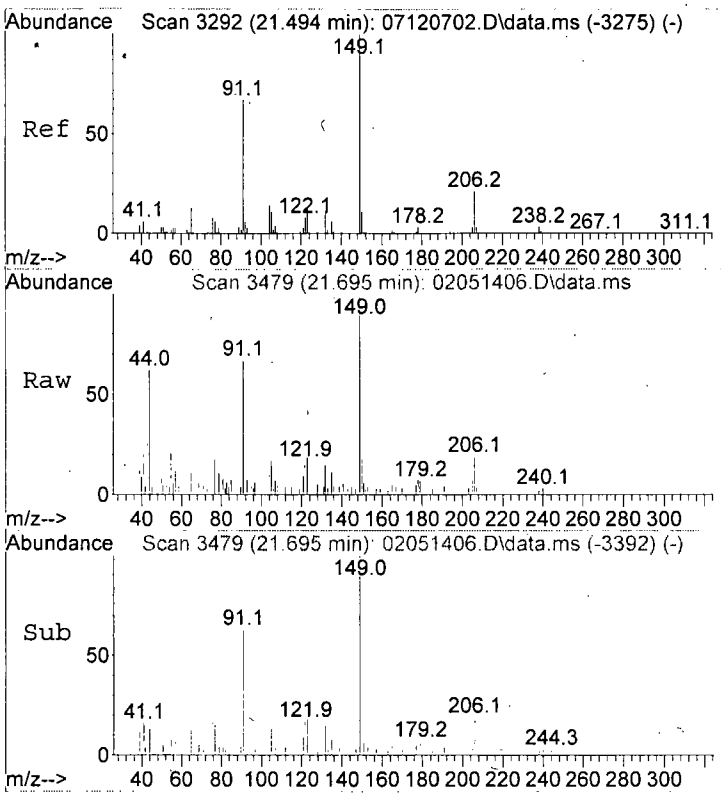


#70
Di-n-butylphthalate
Concen: 0.38 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02051406.D
Acq: 6 Feb 2014 12:15 pm

Tgt Ion:149 Resp: 120501



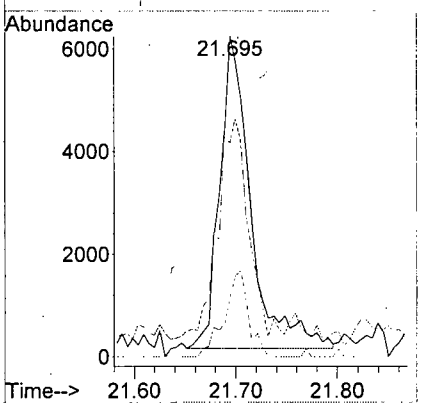
Freedom_0005790_0347

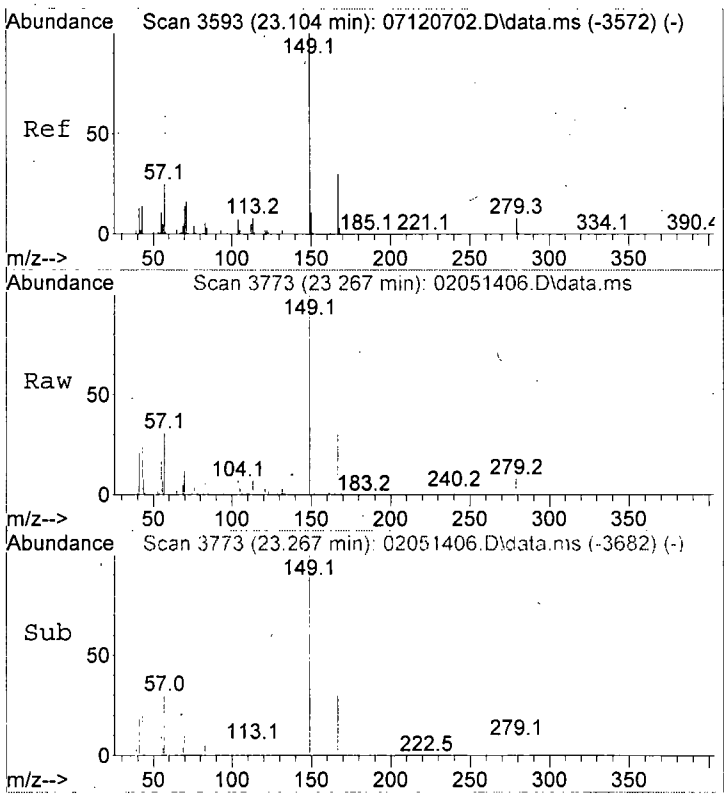


#76
Benzyl butyl phthalate
Concen: 0.11 ug/mL
RT: 21.695 min Scan# 3479
Delta R.T. -0.032 min
Lab File: 02051406.D
Acq: 6 Feb 2014 12:15 pm

Tgt Ion:149 Resp: 13004

Ion	Ratio	Lower	Upper
149	100		
91	70.6	46.8	70.2#
206	21.1	22.7	34.1#

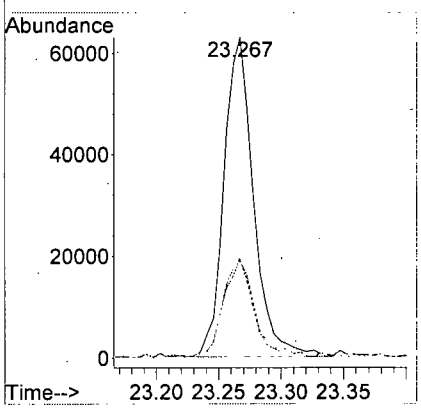




#80
bis(2-Ethylhexyl)phthalate
Concen: 0.61 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02051406.D
Acq: 6 Feb 2014 12:15 pm

Tgt Ion:149 Resp: 103673

Ion	Ratio	Lower	Upper
149	100		
167	31.2	28.2	42.2
57	31.2	14.7	22.1#



Freedom_0005790_0348

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051407.D
Acq On : 6 Feb 2014 12:53 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-03
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 10 14:05:00 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.286	150	2145935	20.00	ug/mL	-0.01
20) Naphthalene-D8	9.746	136	5690649	20.00	ug/mL	-0.01
36) Acenaphthene-d10	13.421	164	3477005	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.507	188	6271969	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.802	240	5444647	20.00	ug/mL	-0.02
81) Perylene-D12	25.594	264	3851595	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	2810972	39.46	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 78.92%			
6) Phenol-D5	6.831	99	3805464	40.28	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 80.56%			
21) Nitrobenzene-D5	8.398	82	1796543	17.75	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 71.00%			
40) 2-Fluorobiphenyl	12.078	172	4162136	18.69	ug/mL	-0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 74.76%			
62) 2,4,6-Tribromophenol	15.105	330	1075587	40.24	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 80.48%			
75) Terphenyl-d14	20.074	244	5182204	21.63	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 86.52%			
Target Compounds						Qvalue
16) Acetophenone	8.131	105	7573	0.06	ug/mL	98
29) Naphthalene	9.778	128	28583	0.10	ug/mL	94
70) Di-n-butylphthalate	18.042	149	139423	0.34	ug/mL	100
76) Benzyl butyl phthalate	21.706	149	16324	0.10	ug/mL#	81
80) bis(2-Ethylhexyl)phtha...	23.267	149	141512	0.60	ug/mL#	83

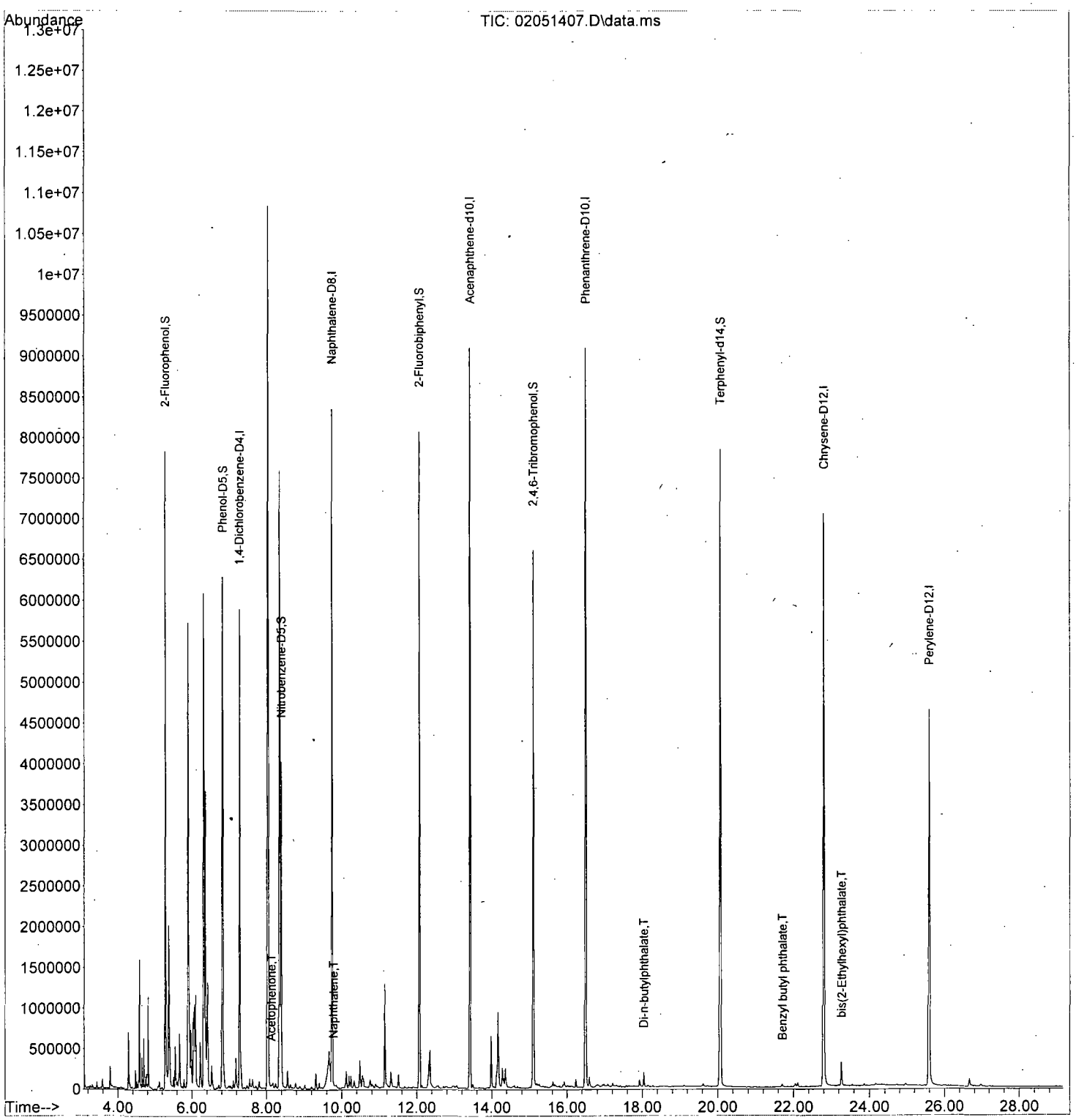
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0349

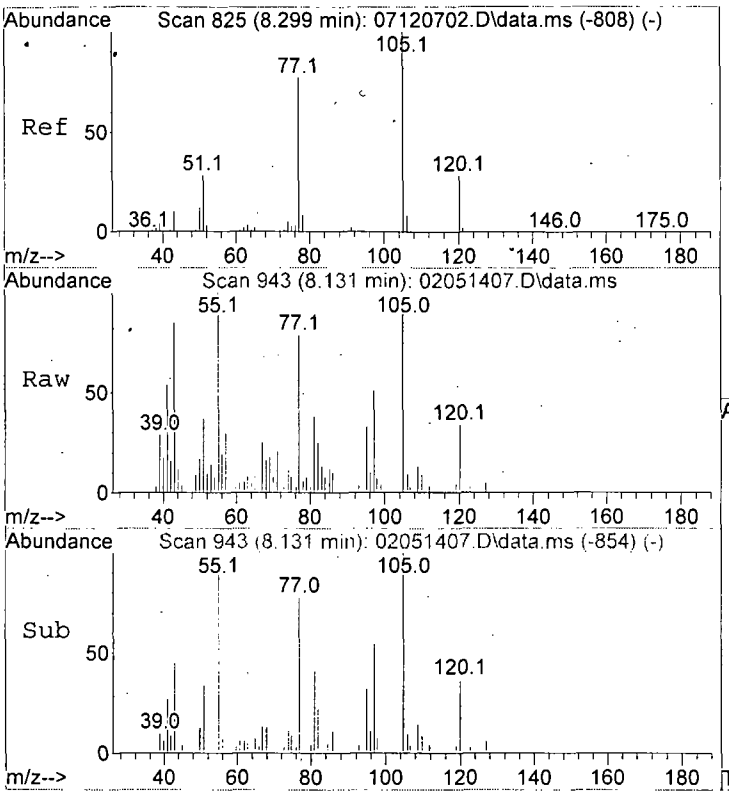
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051407.D
Acq On : 6 Feb 2014 12:53 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-03
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 10 14:05:00 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



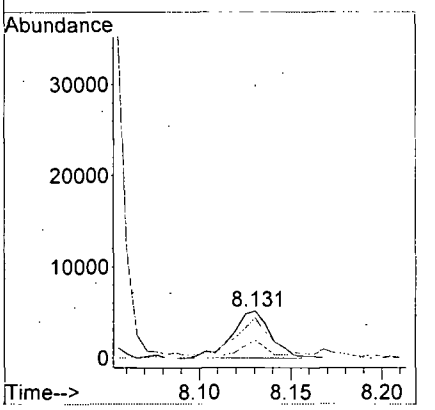
Freedom_0005790_0350

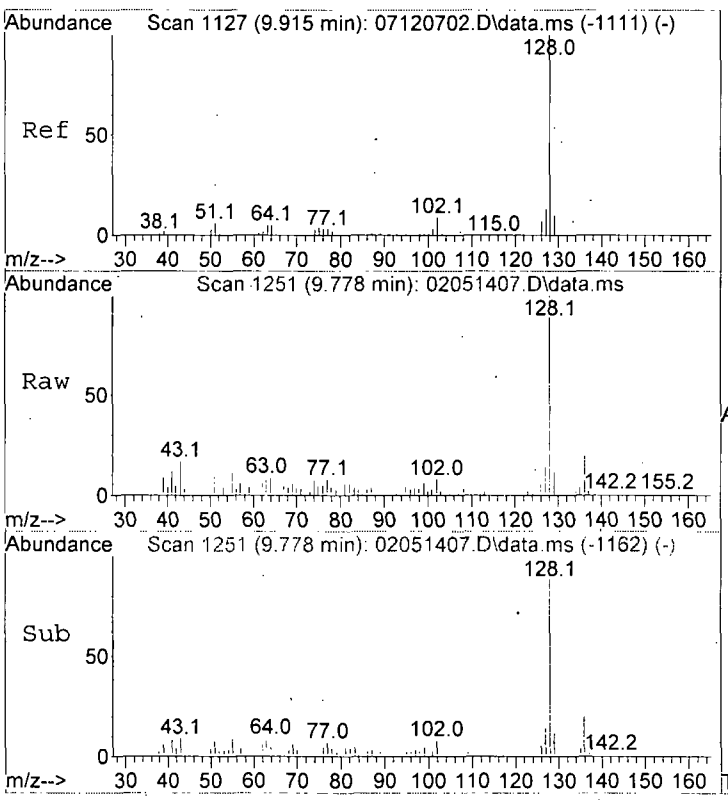


#16
Acetophenone
Concen: 0.06 ug/mL
RT: 8.131 min Scan# 943
Delta R.T. -0.021 min
Lab File: 02051407.D
Acq: 6 Feb 2014 12:53 pm

Tgt Ion:105 Resp: 7573

Ion	Ratio	Lower	Upper
105	100		
77	71.6	57.8	86.6
120	27.5	24.6	37.0

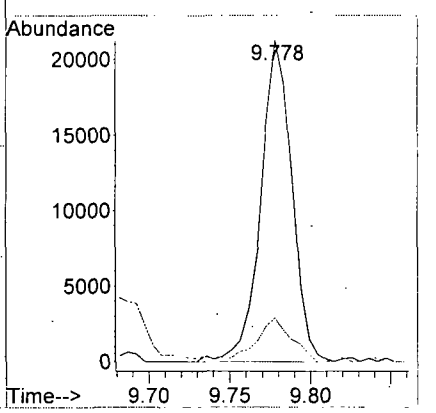




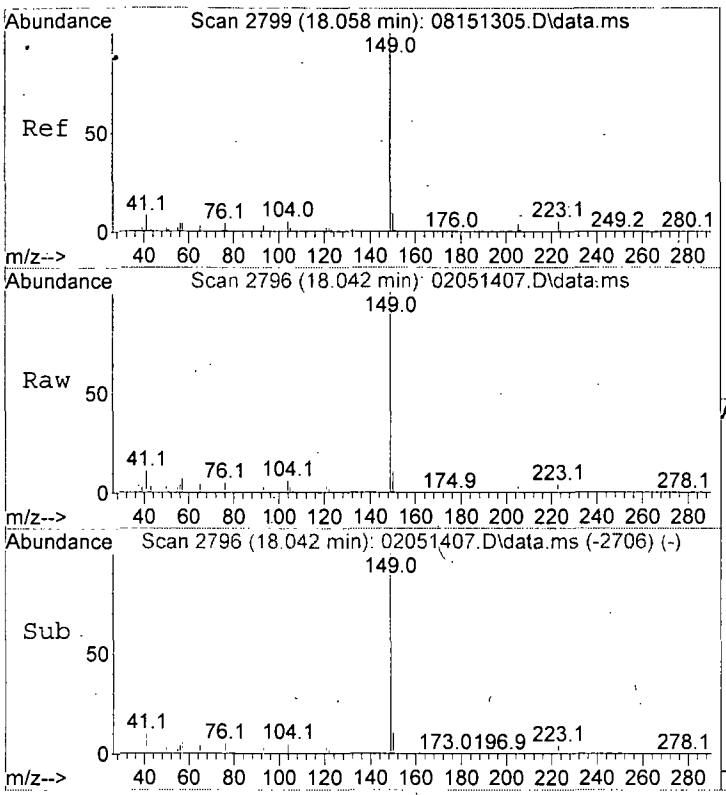
#29
Naphthalene
Concen: 0.10 ug/mL
RT: 9.778 min Scan# 1251
Delta R.T. -0.021 min
Lab File: 02051407.D
Acq: 6 Feb 2014 12:53 pm

Tgt Ion:128 Resp: 28583

Ion	Ratio	Lower	Upper
128	100		
127	15.0	10.2	15.4

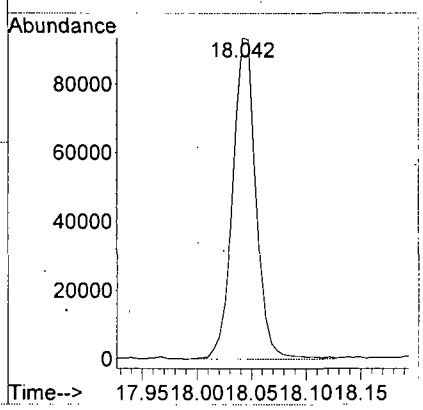


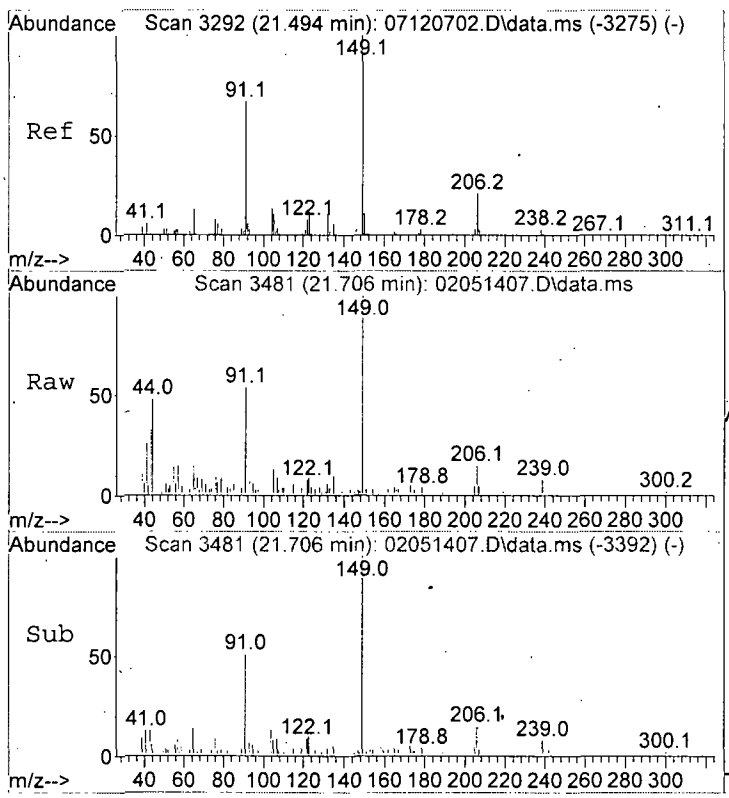
Freedom_0005790_0351



#70
Di-n-butylphthalate
Concen: 0.34 ug/mL
RT: 18.042 min Scan# 2796
Delta R.T. -0.016 min
Lab File: 02051407.D
Acq: 6 Feb 2014 12:53 pm

Tgt Ion:149 Resp: 139423

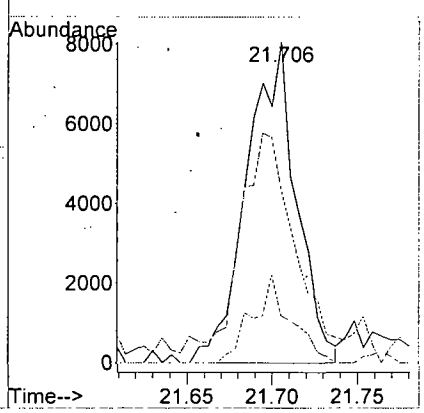




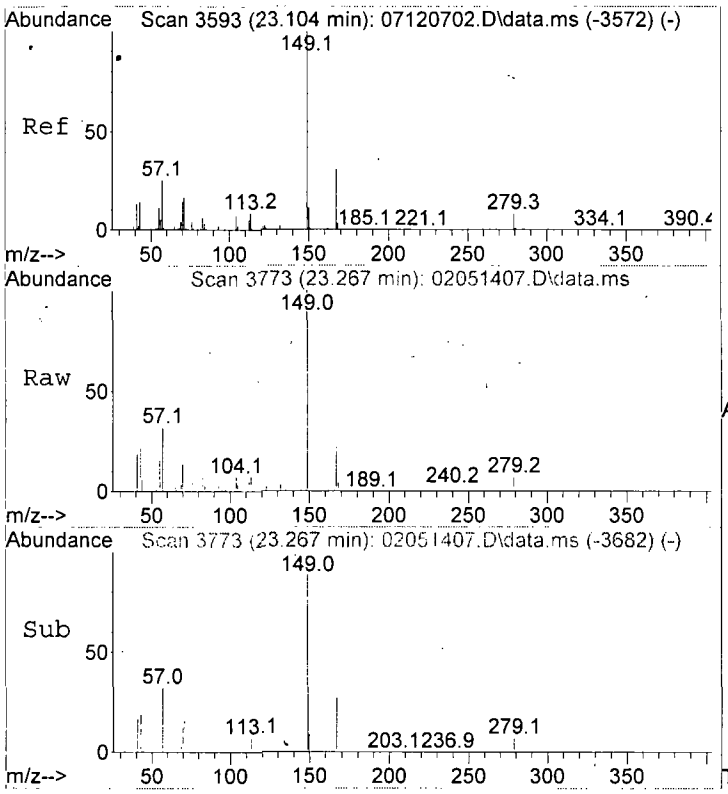
#76
Benzyl butyl phthalate
Concen: 0.10 ug/mL
RT: 21.706 min Scan# 3481
Delta R.T. -0.021 min
Lab File: 02051407.D
Acq: 6 Feb 2014 12:53 pm

Tgt Ion:149 Resp: 16324

Ion	Ratio	Lower	Upper
149	100		
91	74.5	46.8	70.2#
206	21.0	22.7	34.1#



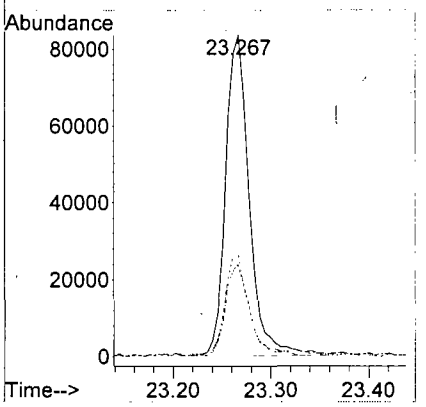
Freedom_0005790_0352



#80
bis(2-Ethylhexyl)phthalate
Concen: 0.60 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02051407.D
Acq: 6 Feb 2014 12:53 pm

Tgt Ion:149 Resp: 141512

Ion	Ratio	Lower	Upper
149	100		
167	29.3	28.2	42.2
57	31.9	14.7	22.1#



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051408.D
Acq On : 6 Feb 2014 1:30 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-04
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 10 14:09:04 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.285	150	1674290	20.00	ug/mL	-0.01
20) Naphthalene-D8	9.746	136	4351226	20.00	ug/mL	-0.01
36) Acenaphthene-d10	13.420	164	2652840	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.501	188	4735366	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.802	240	3997309	20.00	ug/mL	-0.02
81) Perylene-D12	25.594	264	2618085	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.290	112	2433528	43.79	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 87.58%			
6) Phenol-D5	6.826	99	3267873	44.34	ug/mL	-0.03
Spiked Amount 50.000	Range 10 - 110		Recovery = 88.68%			
21) Nitrobenzene-D5	8.393	82	1542337	19.93	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 79.72%			
40) 2-Fluorobiphenyl	12.083	172	3485578	20.52	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 82.08%			
62) 2,4,6-Tribromophenol	15.105	330	832001	41.22	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 82.44%			
75) Terphenyl-d14	20.069	244	4067489	23.13	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 92.52%			
Target Compounds						Qvalue
16) Acetophenone	8.125	105	11795	0.12	ug/mL	97
55) Diethylphthalate	14.586	149	13328	0.07	ug/mL#	83
70) Di-n-butylphthalate	18.047	149	139800	0.45	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	19799	0.11	ug/mL#	82

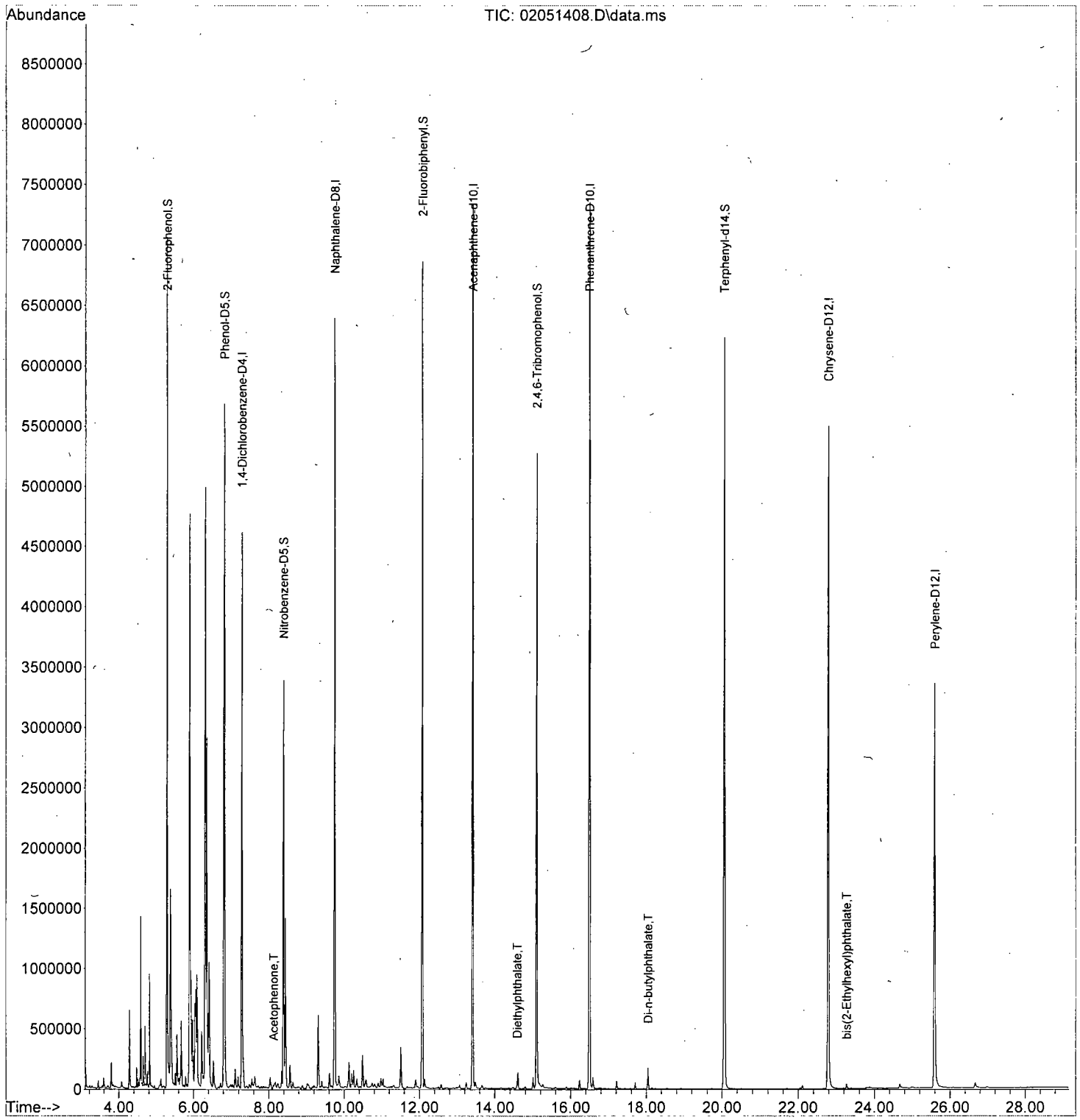
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0354

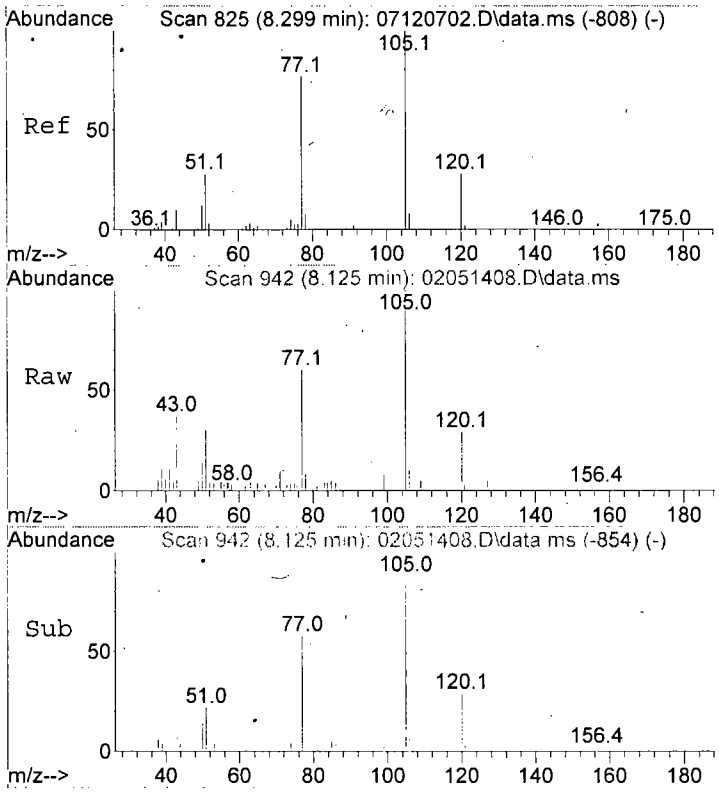
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051408.D
Acq On : 6 Feb 2014 1:30 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-04
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 10 14:09:04 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



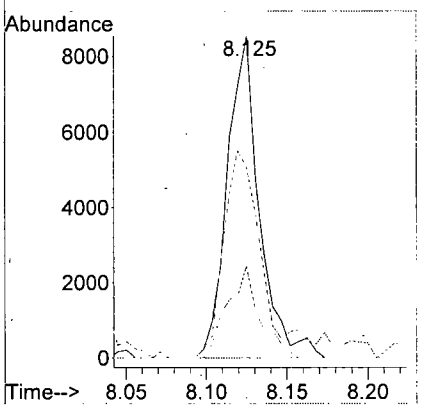
Freedom_0005790_0355

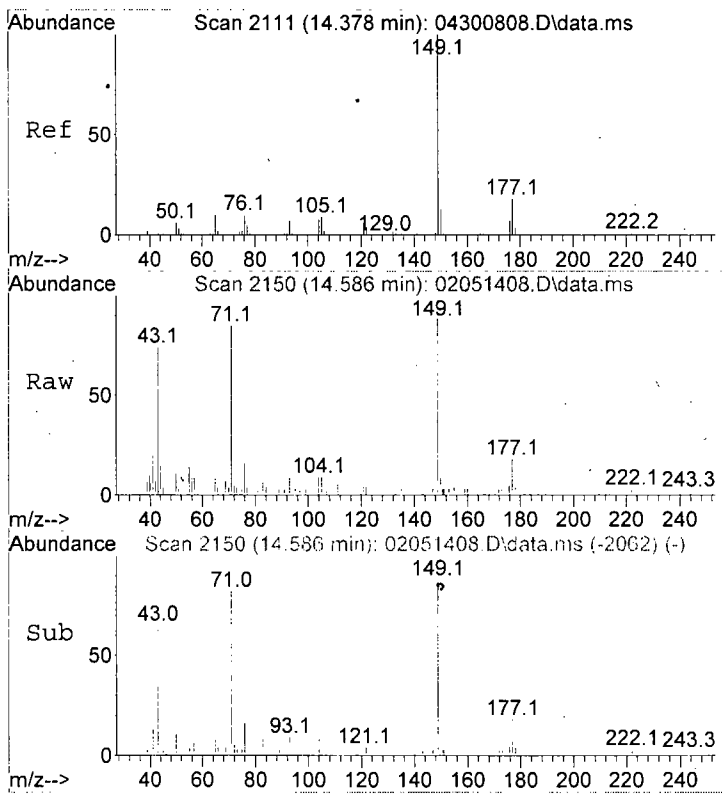


#16
Acetophenone
Concen: 0.12 ug/mL
RT: 8.125 min Scan# 942
Delta R.T. -0.027 min
Lab File: 02051408.D
Acq: 6 Feb 2014 1:30 pm

Tgt Ion:105 Resp: 11795

Ion	Ratio	Lower	Upper
105	100		
77	70.5	57.8	86.6
120	28.3	24.6	37.0

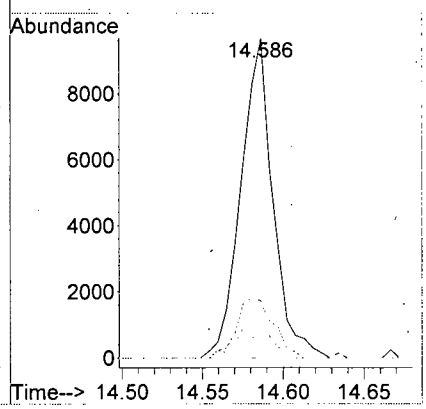




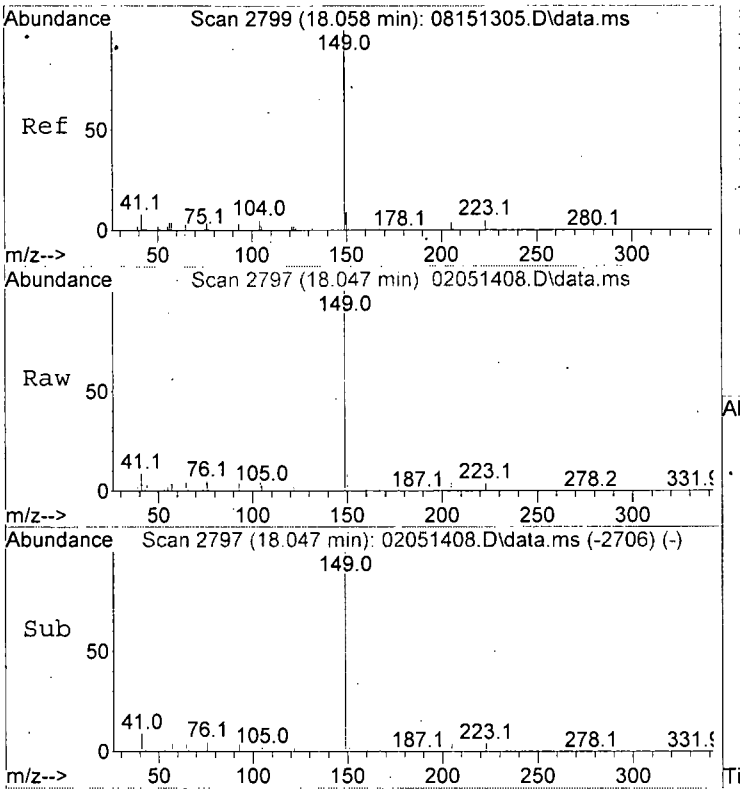
#55
Diethylphthalate
Concen: 0.07 ug/mL
RT: 14.586 min Scan# 2150
Delta R.T. -0.027 min
Lab File: 02051408.D
Acq: 6 Feb 2014 1:30 pm

Tgt Ion:149 Resp: 13328

Ion	Ratio	Lower	Upper
149	100		
177	21.6	20.0	30.0
150	11.6	20.0	30.0#

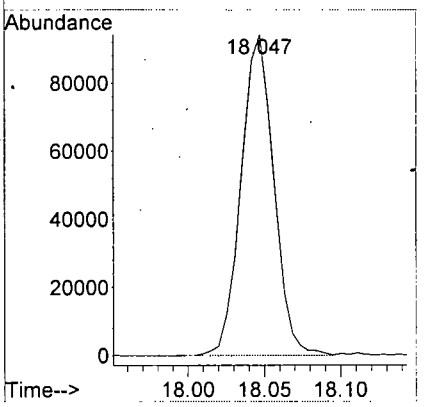


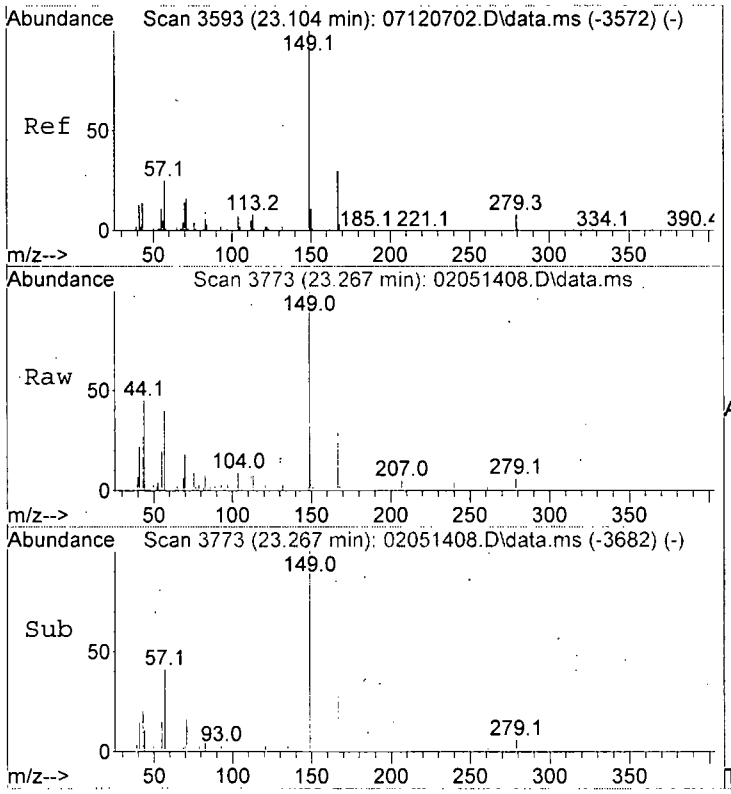
Freedom_0005790_0356



#70
Di-n-butylphthalate
Concen: 0.45 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02051408.D
Acq: 6 Feb 2014 1:30 pm

Tgt Ion:149 Resp: 139800

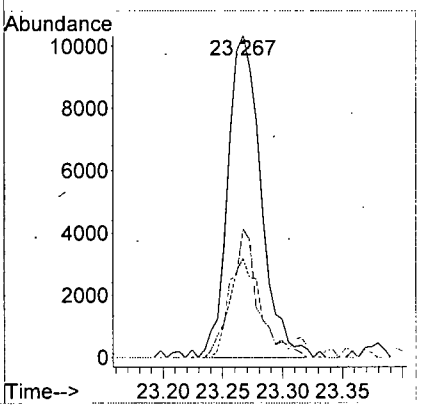




#80
bis(2-Ethylhexyl)phthalate
Concen: 0.11 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02051408.D
Acq: 6 Feb 2014 1:30 pm

Tgt Ion:149 Resp: 19799

Ion	Ratio	Lower	Upper
149	100		
167	29.4	28.2	42.2
57	32.9	14.7	22.1#



Freedom_0005790_0357

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111405.D
Acq On : 11 Feb 2014 4:04 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-06
Misc : 1/1000 dilution
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 12 10:17:41 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-D4	7.285	150	1767659	20.00 ug/mL	-0.01
20) Naphthalene-D8	9.746	136	4701246	20.00 ug/mL	-0.01
36) Acenaphthene-d10	13.420	164	2851820	20.00 ug/mL	0.00
58) Phenanthrene-D10	16.501	188	5047838	20.00 ug/mL	# 0.00
73) Chrysene-D12	22.797	240	3891645	20.00 ug/mL	-0.02
81) Perylene-D12	25.589	264	2146063	20.00 ug/mL	-0.01
System Monitoring Compounds					
3) 2-Fluorophenol	5.285	112	2478	0.04 ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 0.08%#		
6) Phenol-D5	6.809	99	3118	0.04 ug/mL	-0.04
Spiked Amount 50.000	Range 10 - 110		Recovery = 0.08%#		
21) Nitrobenzene-D5	8.366	82	901990	10.79 ug/mL	-0.05
Spiked Amount 25.000	Range 35 - 114		Recovery = 43.16%		
40) 2-Fluorobiphenyl	12.073	172	5249	0.03 ug/mL	-0.02
Spiked Amount 25.000	Range 43 - 116		Recovery = 0.12%#		
62) 2,4,6-Tribromophenol	15.111	330	122	0.01 ug/mL	-0.01
Spiked Amount 50.000	Range 10 - 123		Recovery = 0.02%#		
75) Terphenyl-d14	20.053	244	3417	0.02 ug/mL	-0.02
Spiked Amount 25.000	Range 33 - 141		Recovery = 0.08%#		

Target Compounds Qvalue

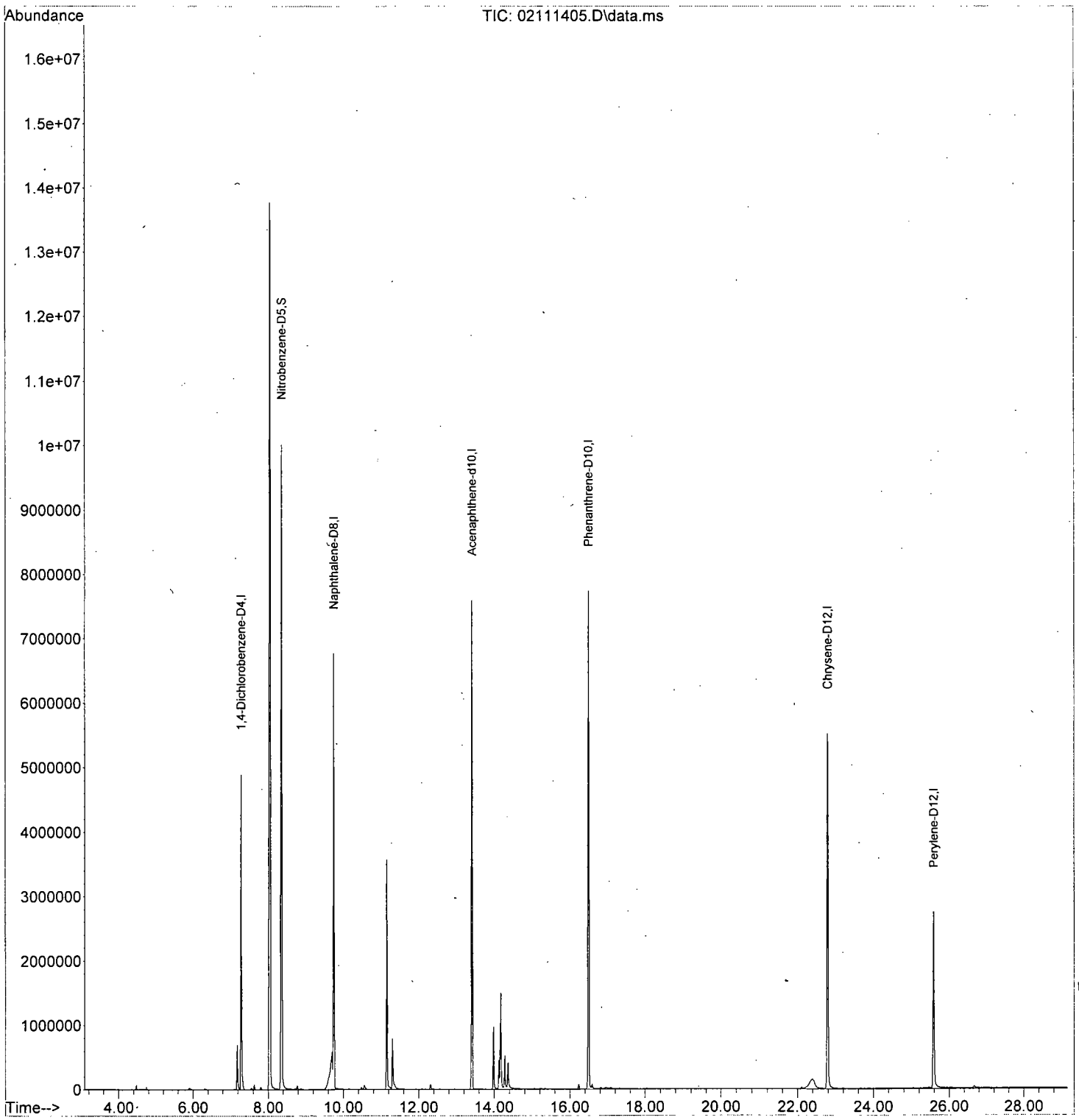
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0358

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111405.D
Acq On : 11 Feb 2014 4:04 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-06
Misc : 1/1000 dilution
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 12 10:17:41 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111406.D
Acq On : 11 Feb 2014 4:41 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-07
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 12 10:22:31 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.286	150	1857160	20.00	ug/mL	-0.01
20) Naphthalene-D8	9.746	136	4876586	20.00	ug/mL	-0.01
36) Acenaphthene-d10	13.420	164	2966641	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.501	188	5229973	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.802	240	4193298	20.00	ug/mL	-0.02
81) Perylene-D12	25.589	264	2373393	20.00	ug/mL	-0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	2315083	37.56	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 75.12%			
6) Phenol-D5	6.826	99	3163410	38.69	ug/mL	-0.03
Spiked Amount 50.000	Range 10 - 110		Recovery = 77.38%			
21) Nitrobenzene-D5	8.393	82	1502288	17.32	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 69.28%			
40) 2-Fluorobiphenyl	12.078	172	3455275	18.19	ug/mL	-0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 72.76%			
62) 2,4,6-Tribromophenol	15.105	330	859169	38.54	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 77.08%			
75) Terphenyl-d14	20.064	244	3593870	19.48	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 77.92%			
Target Compounds						Qvalue
18) 4-Methylphenol	8.200	107	5291	0.07	ug/mL	95
70) Di-n-butylphthalate	18.042	149	84176	0.24	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	14293	0.08	ug/mL#	88

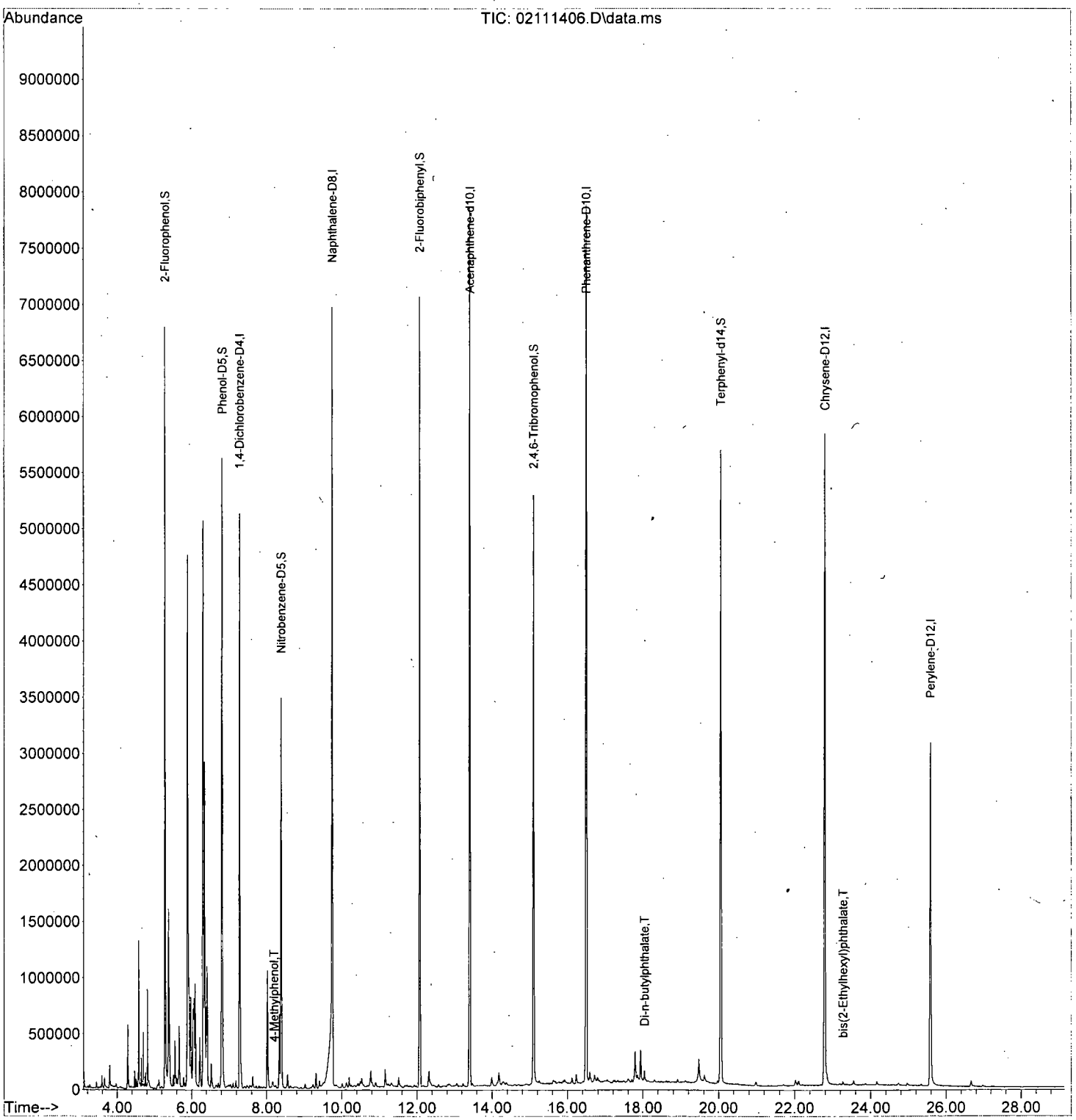
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0360

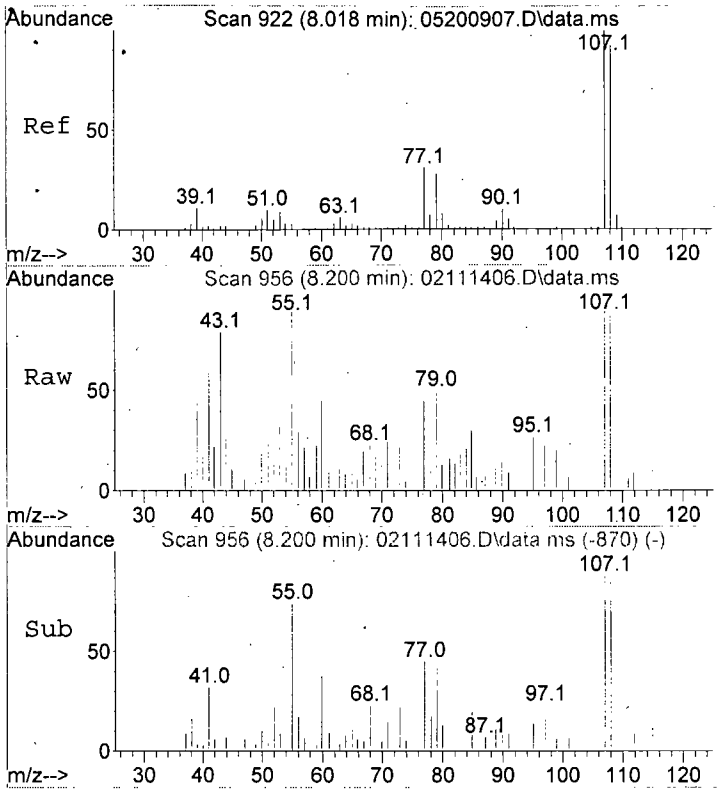
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111406.D
Acq On : 11 Feb 2014 4:41 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-07
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 12 10:22:31 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



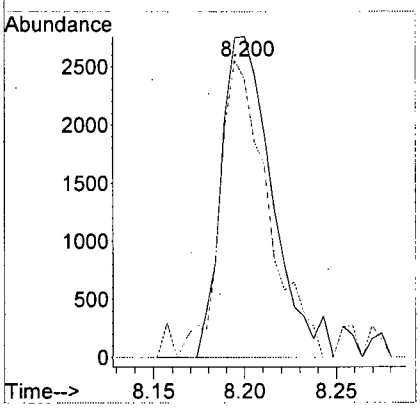
Freedom_0005790_0361

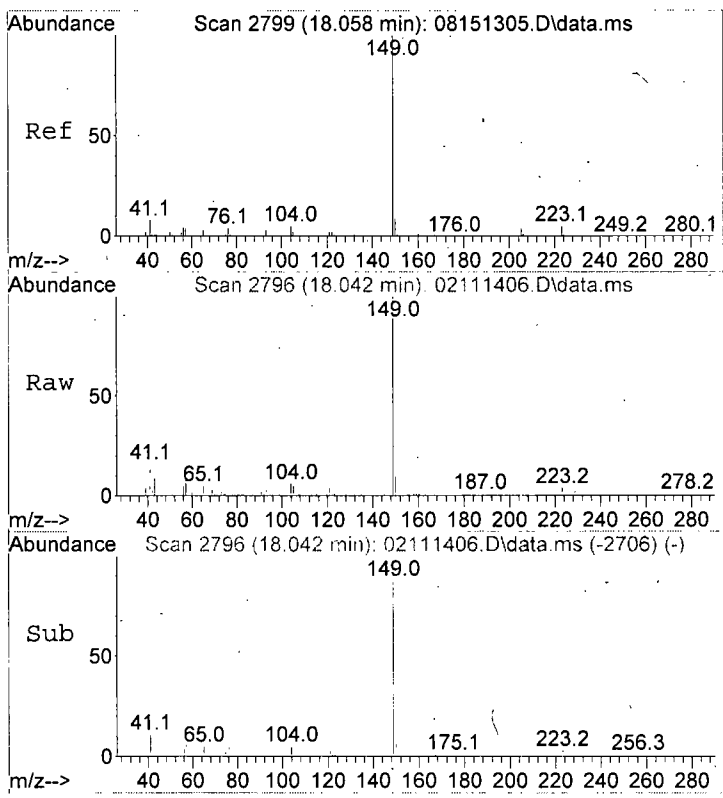


#18
4-Methylphenol
Concen: 0.07 ug/mL
RT: 8.200 min Scan# 956
Delta R.T. -0.037 min
Lab File: 02111406.D
Acq: 11 Feb 2014 4:41 pm

Tgt Ion:107 Resp: 5291

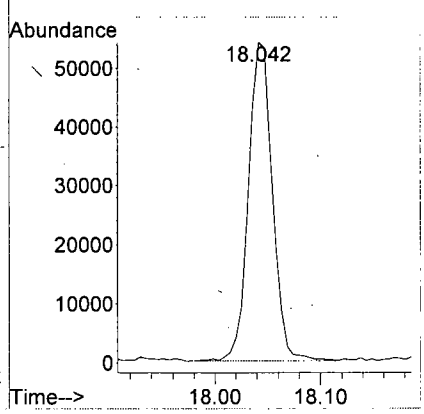
Ion	Ratio	Lower	Upper
107	100		
108	88.9	67.4	101.2



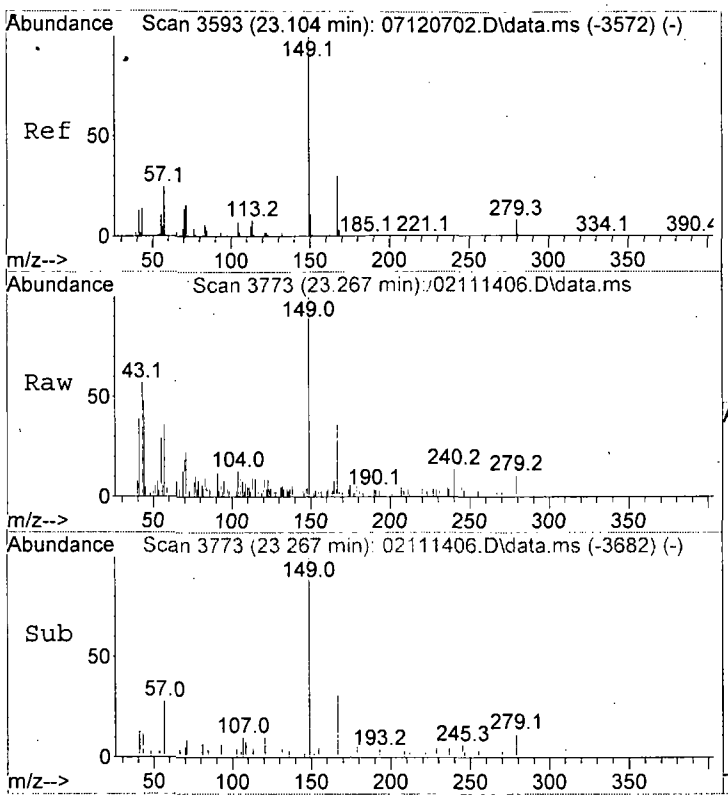


#70
Di-n-butylphthalate
Concen: 0.24 ug/mL
RT: 18.042 min Scan# 2796
Delta R.T. -0.016 min
Lab File: 02111406.D
Acq: 11 Feb 2014 4:41 pm

Tgt Ion:149 Resp: 84176



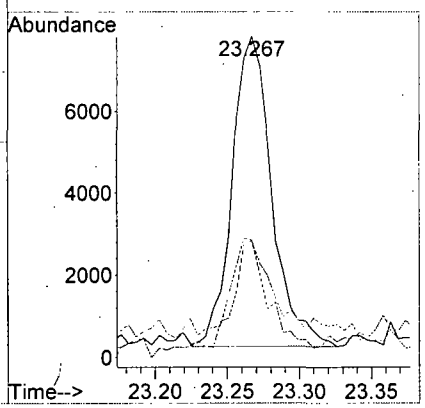
Freedom_0005790_0362



#80
bis(2-Ethylhexyl)phthalate
Concen: 0.08 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02111406.D
Acq: 11 Feb 2014 4:41 pm

Tgt Ion:149 Resp: 14293

Ion	Ratio	Lower	Upper
149	100		
167	31.0	28.2	42.2
57	27.8	14.7	22.1#



Freedom_0005790_0363

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241405.D
Acq On : 24 Feb 2014 5:00 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-09
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 25 11:35:43 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.291	150	2648090	20.00	ug/mL	0.00
20) Naphthalene-D8	9.751	136	6975076	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.426	164	4234193	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.512	188	7550452	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.807	240	5818119	20.00	ug/mL	-0.01
81) Perylene-D12	25.594	264	3179659	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.290	112	2442871	27.79	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 55.58%			
6) Phenol-D5	6.831	99	3401285	29.18	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 58.36%			
21) Nitrobenzene-D5	8.393	82	1594399	12.85	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 51.40%			
40) 2-Fluorobiphenyl	12.078	172	3778679	13.94	ug/mL	-0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 55.76%			
62) 2,4,6-Tribromophenol	15.111	330	1006862	31.29	ug/mL	-0.01
Spiked Amount 50.000	Range 10 - 123		Recovery = 62.58%			
75) Terphenyl-d14	20.063	244	2468503	9.64	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 38.56%			
Target Compounds						Qvalue
70) Di-n-butylphthalate	18.047	149	120440	0.24	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	138773	0.55	ug/mL#	84
82) Di-n-Octylphthalate	24.481	149	81499	0.34	ug/mL	99

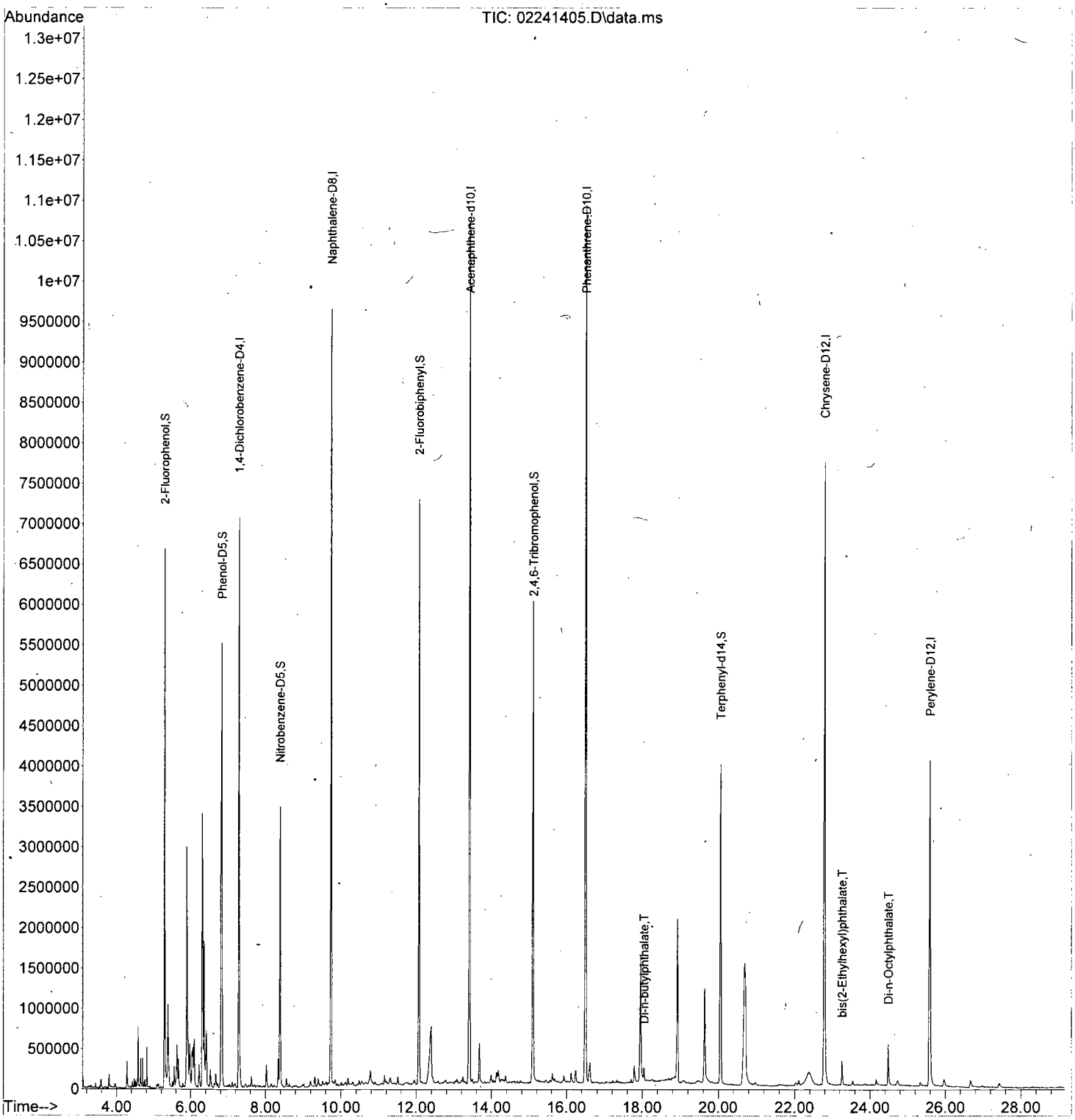
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0364

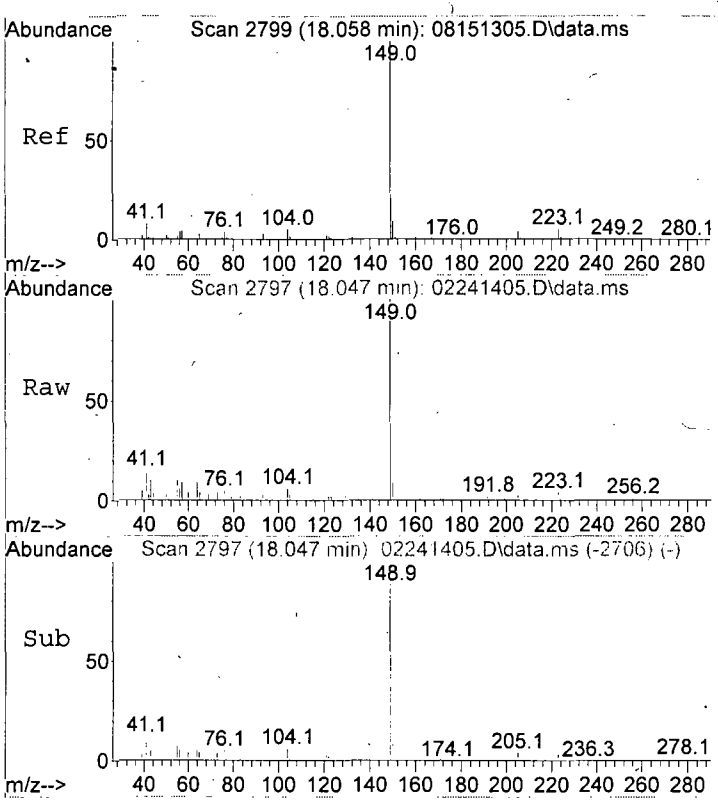
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241405.D
Acq On : 24 Feb 2014 5:00 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-09
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 25 11:35:43 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

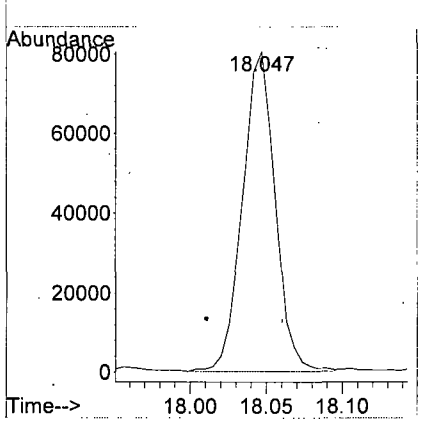


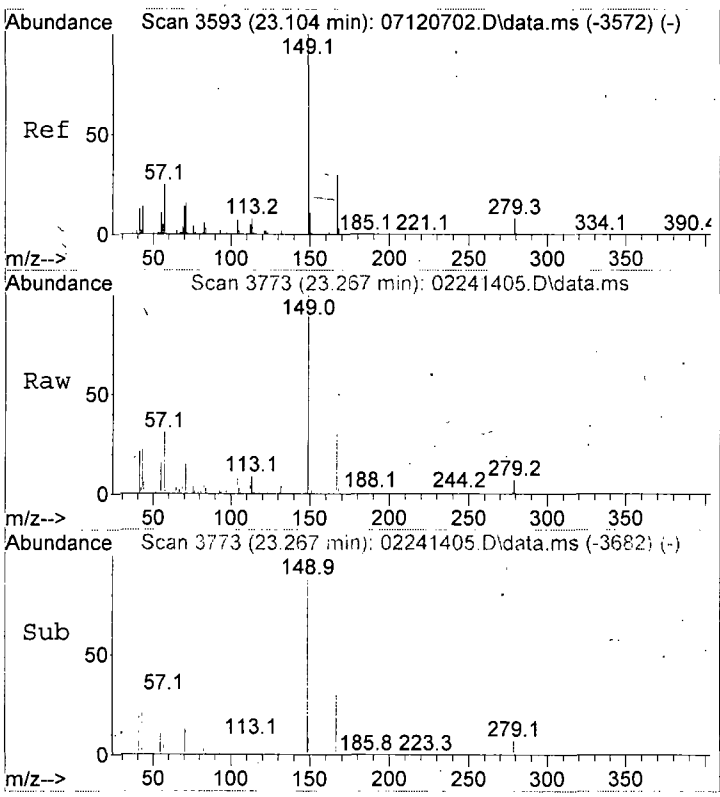
Freedom_0005790_0365



#70
Di-n-butylphthalate
Concen: 0.24 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02241405.D
Acq: 24 Feb 2014 5:00 pm

Tgt Ion:149 Resp: 120440

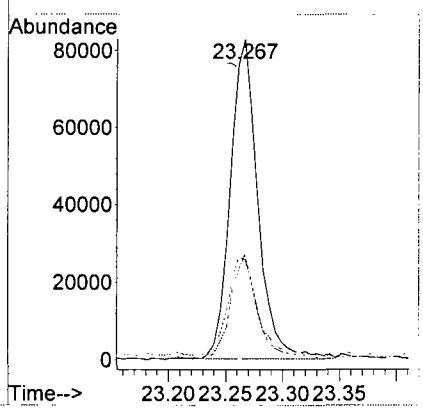




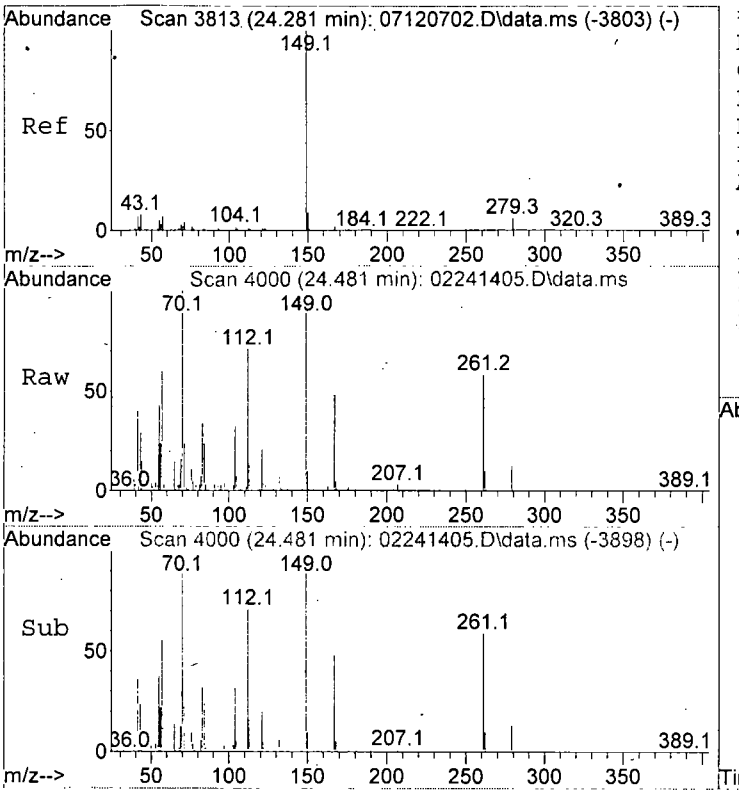
#80
bis(2-Ethylhexyl)phthalate
Concen: 0.55 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02241405.D
Acq: 24 Feb 2014 5:00 pm

Tgt Ion:149 Resp: 138773

Ion	Ratio	Lower	Upper
149	100		
167	31.0	28.2	42.2
57	32.8	14.7	22.1#



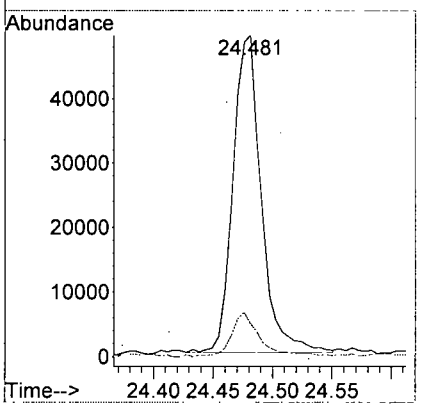
Freedom_0005790_0366



#82
Di-n-Octylphthalate
Concen: 0.34 ug/mL
RT: 24.481 min Scan# 4000
Delta R.T. 0.048 min
Lab File: 02241405.D
Acq: 24 Feb 2014 5:00 pm

Tgt Ion:149 Resp: 81499

Ion	Ratio	Lower	Upper
149	100		
150	14.4	12.0	18.0



Freedom_0005790_0367

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241408.D
Acq On : 24 Feb 2014 6:53 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-12
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 25 13:51:53 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-D4	7.296	150	2968601	20.00 ug/mL	0.00
20) Naphthalene-D8	9.757	136	8048036	20.00 ug/mL	0.00
36) Acenaphthene-d10	13.431	164	4974822	20.00 ug/mL	0.00
58) Phenanthrene-D10	16.517	188	8978130	20.00 ug/mL	# 0.01
73) Chrysene-D12	22.818	240	6936479	20.00 ug/mL	0.00
81) Perylene-D12	25.599	264	3712870	20.00 ug/mL	0.00
System Monitoring Compounds					
3) 2-Fluorophenol	5.322	112	2531016	25.69 ug/mL	0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 51.38%		
6) Phenol-D5	6.852	99	3647015	27.91 ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 55.82%		
21) Nitrobenzene-D5	8.403	82	1647576	11.51 ug/mL	-0.01
Spiked Amount 25.000	Range 35 - 114		Recovery = 46.04%		
40) 2-Fluorobiphenyl	12.083	172	4011481	12.59 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 50.36%		
62) 2,4,6-Tribromophenol	15.116	330	1037148	27.10 ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 54.20%		
75) Terphenyl-d14	20.074	244	4152092	13.60 ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 54.40%		
Target Compounds					Qvalue
18) 4-Methylphenol	8.221	107	97447	0.78 ug/mL	97
29) Naphthalene	9.789	128	1962522	4.72 ug/mL	97
34) 2-Methylnaphthalene	11.217	142	904324	3.06 ug/mL#	93
42) Biphenyl	12.238	154	49673	0.14 ug/mL	99
48) Acenaphthene	13.485	153	17599	0.06 ug/mL	95
54) Fluorene	14.544	166	37203	0.11 ug/mL#	81
67) Phenanthrene	16.549	178	34487	0.07 ug/mL#	95
70) Di-n-butylphthalate	18.052	149	197085	0.33 ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	36695	0.12 ug/mL#	84

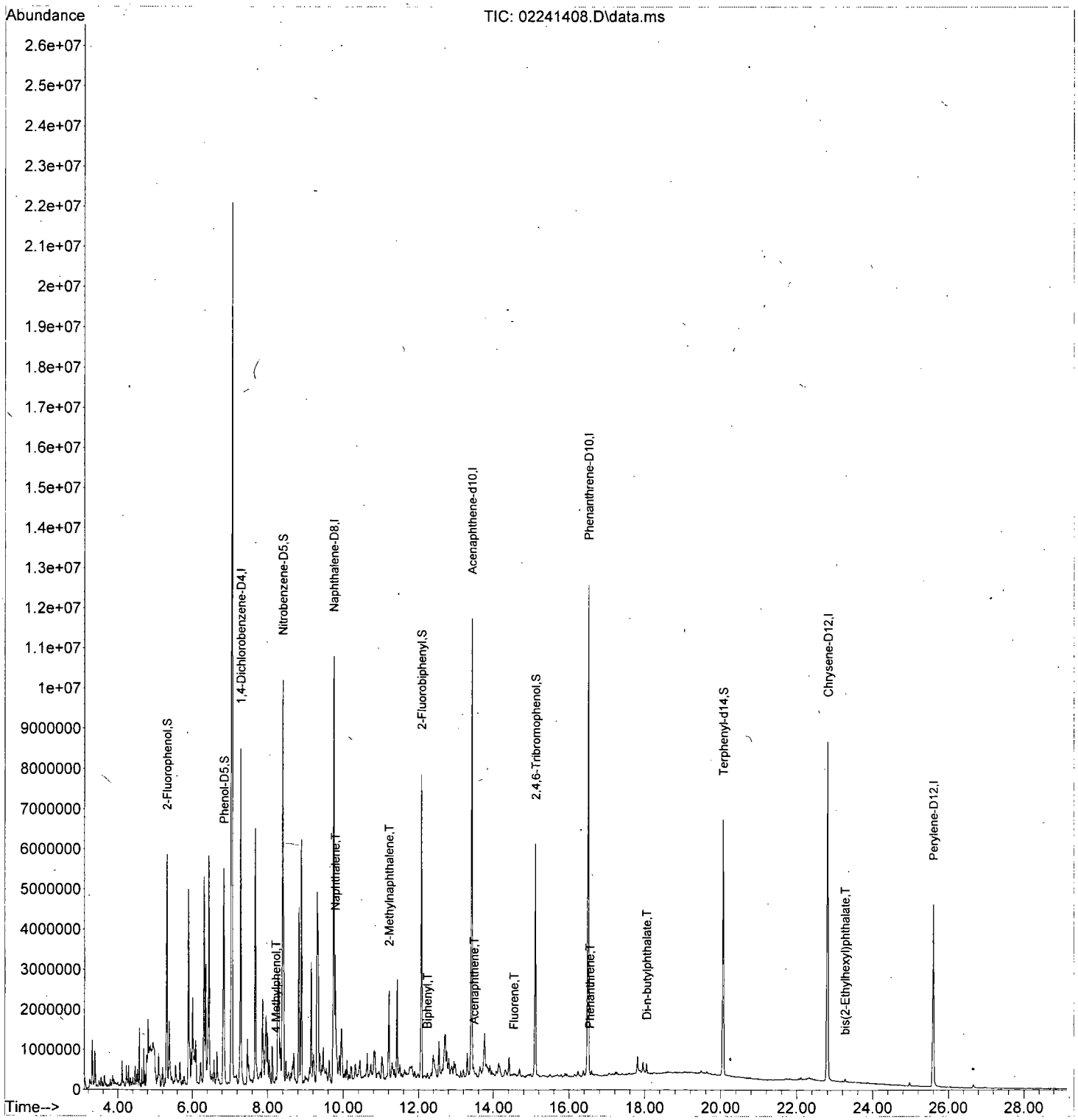
(#) = qualifier out of range (m) = manual integration (+) = signals summed

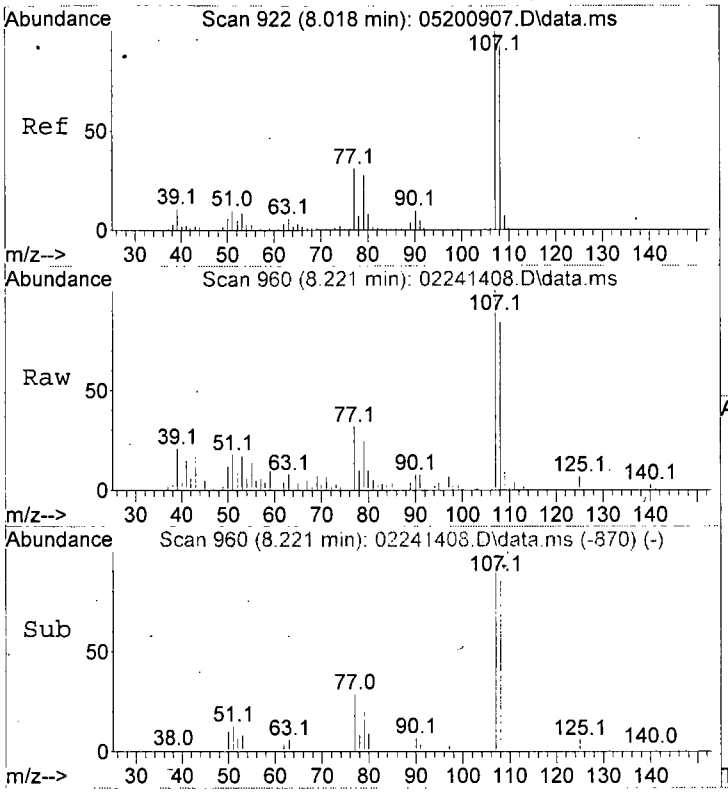
Freedom_0005790_0368

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241408.D
Acq On : 24 Feb 2014 6:53 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-12
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 25 13:51:53 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

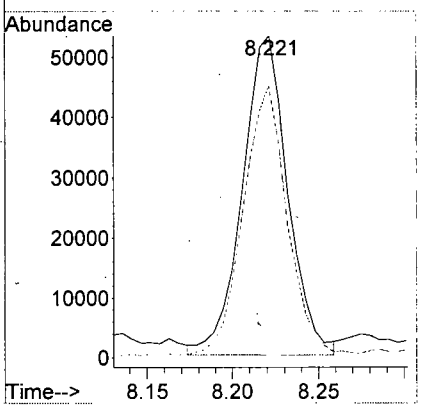


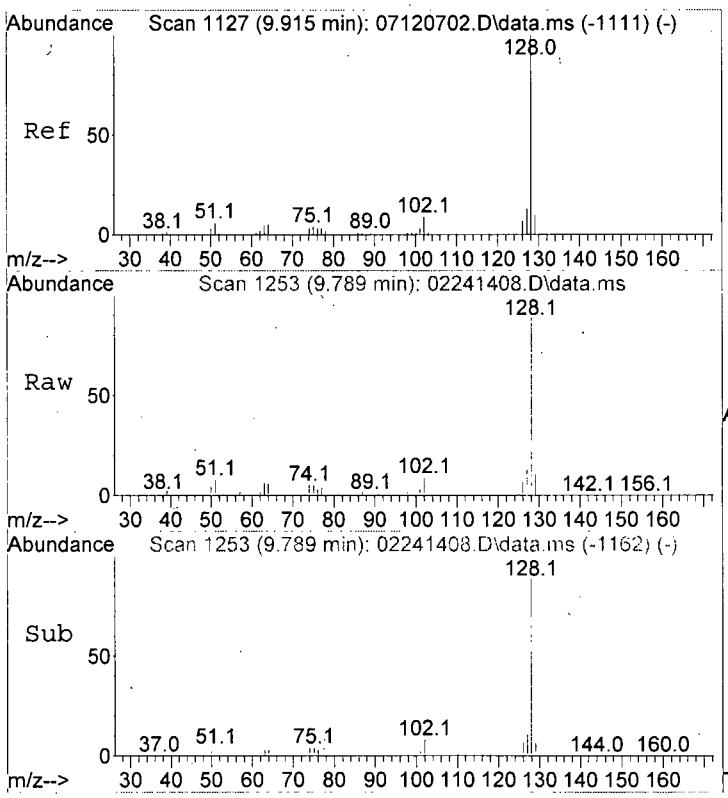


#18
4-Methylphenol
Concen: 0.78 ug/mL
RT: 8.221 min Scan# 960
Delta R.T. -0.016 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:107 Resp: 97447

Ion	Ratio	Lower	Upper
107	100		
108	81.9	67.4	101.2

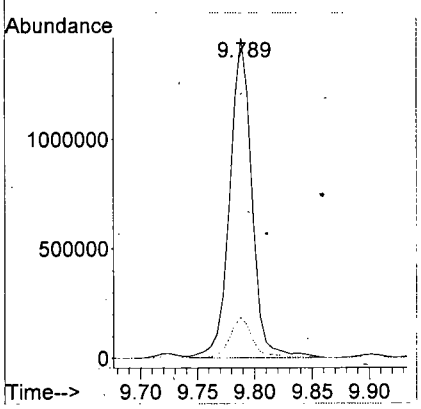




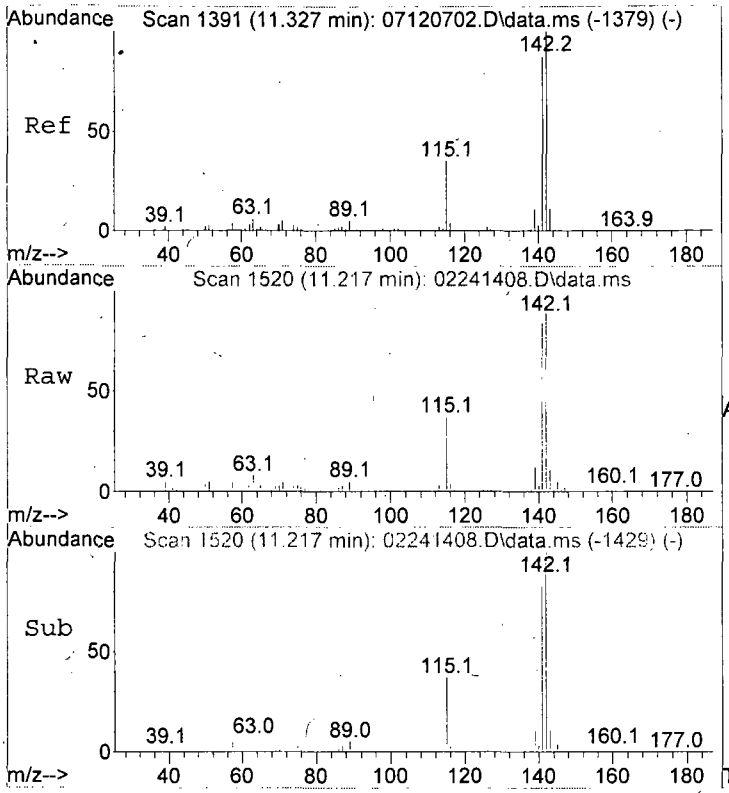
#29
Naphthalene
Concen: 4.72 ug/mL
RT: 9.789 min Scan# 1253
Delta R.T. -0.011 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:128 Resp: 1962522

Ion	Ratio	Lower	Upper
128	100		
127	14.1	10.2	15.4



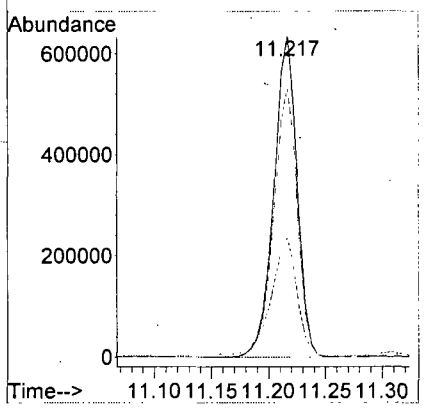
Freedom_0005790_0370

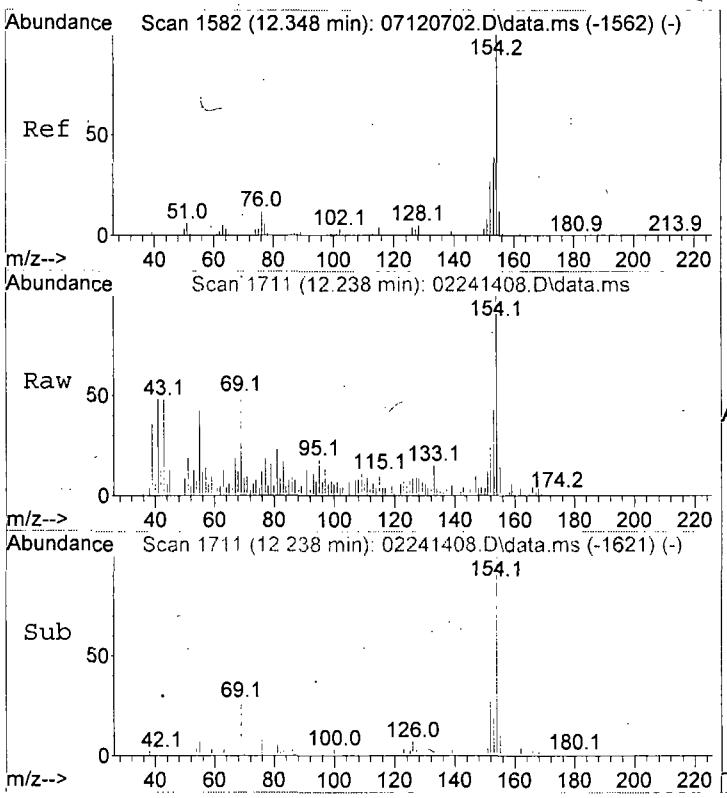


#34
2-Methylnaphthalene
Concen: 3.06 ug/mL
RT: 11.217 min Scan# 1520
Delta R.T. -0.011 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:142 Resp: 904324

Ion	Ratio	Lower	Upper
142	100		
141	84.8	68.6	102.8
115	41.7	23.5	35.3#

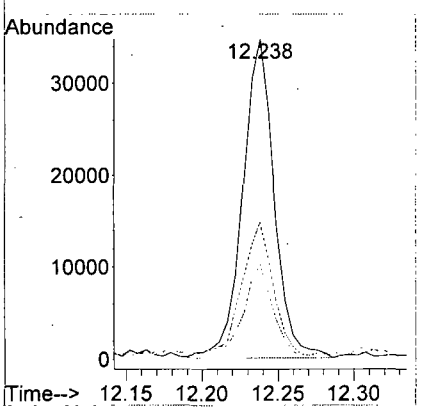




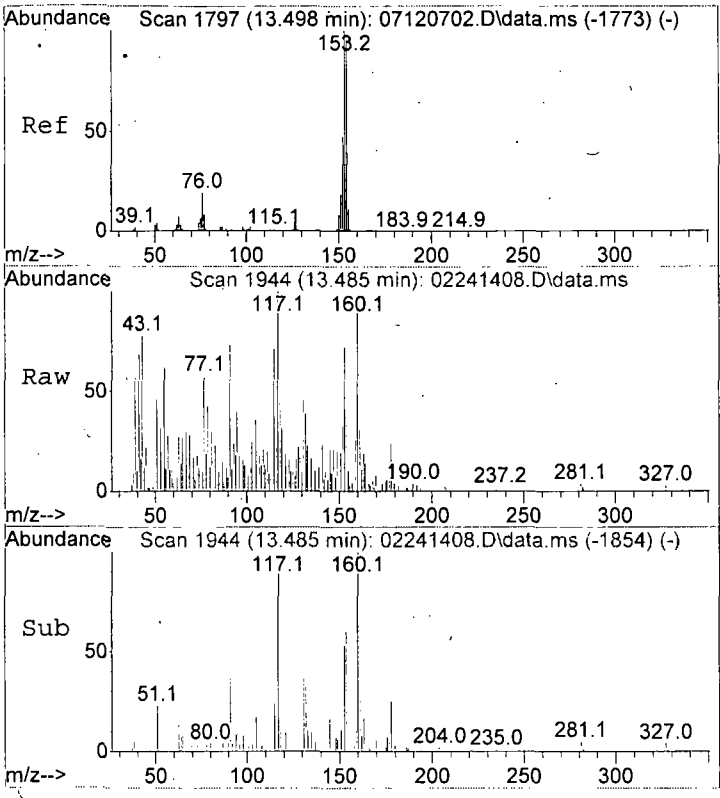
#42
Biphenyl
Concen: 0.14 ug/mL
RT: 12.238 min Scan# 1711
Delta R.T. -0.016 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:154 Resp: 49673

Ion	Ratio	Lower	Upper
154	100		
153	40.8	31.8	47.8
152	26.5	21.8	32.6



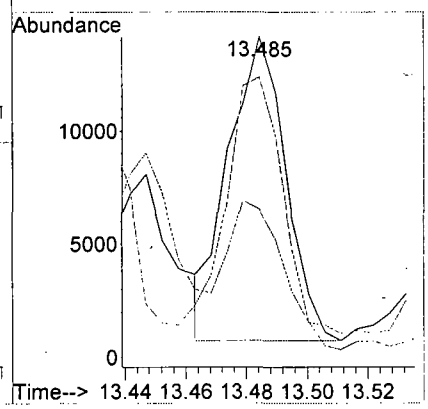
Freedom_0005790_0371

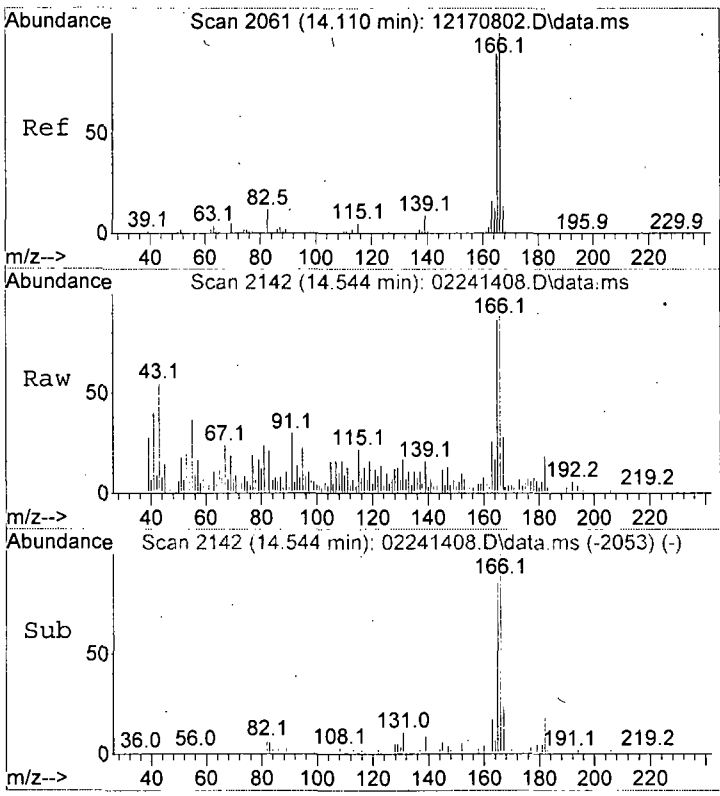


#48
Acenaphthene
Concen: 0.06 ug/mL
RT: 13.485 min Scan# 1944
Delta R.T. -0.016 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:153 Resp: 17599

Ion	Ratio	Lower	Upper
153	100		
154	92.5	75.1	112.7
152	39.6	37.9	56.9

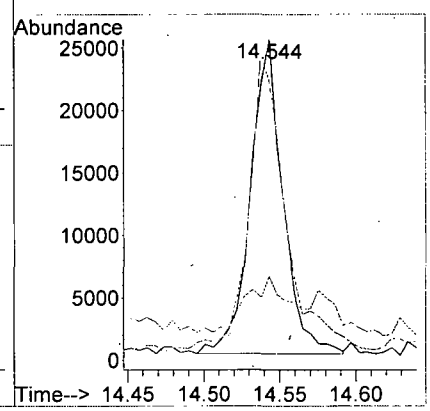




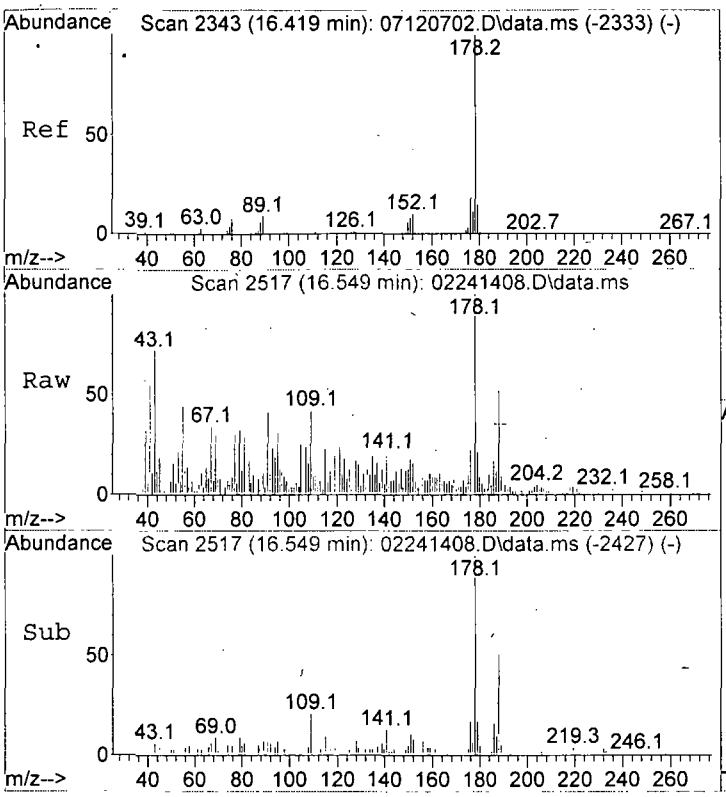
#54
Fluorene
Concen: 0.11 ug/mL
RT: 14.544 min Scan# 2142
Delta R.T. -0.022 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:166 Resp: 37203

Ion	Ratio	Lower	Upper
166	100		
165	110.8	73.7	110.5#
163	21.6	12.2	18.2#



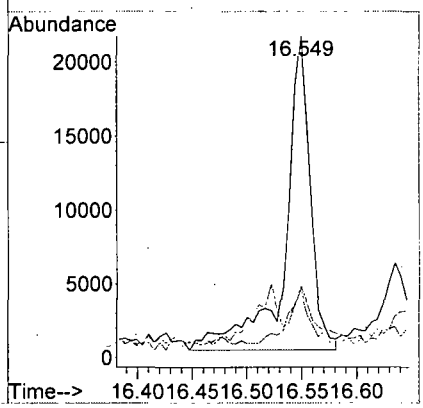
Freedom_0005790_0372

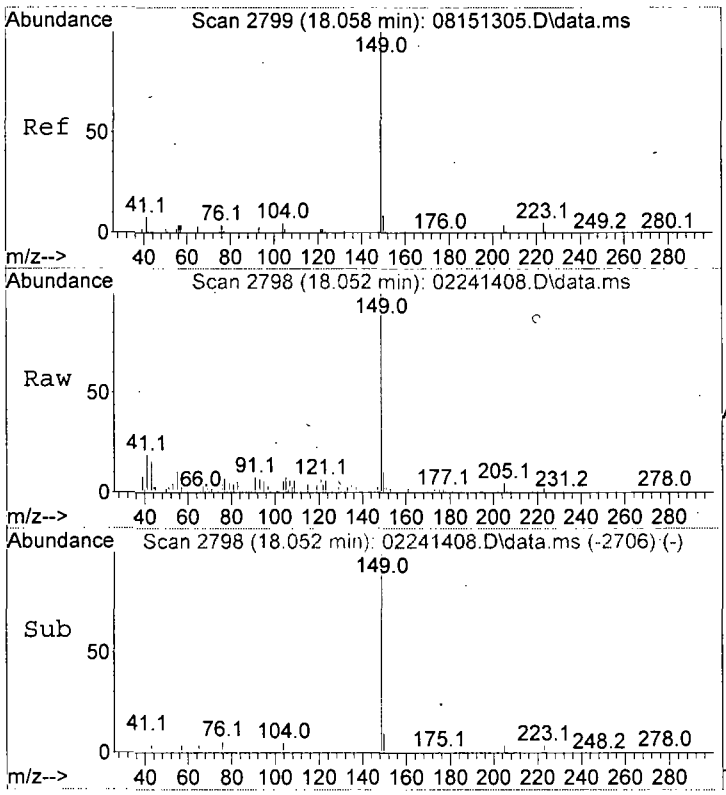


#67
Phenanthrene
Concen: 0.07 ug/mL
RT: 16.549 min Scan# 2517
Delta R.T. -0.016 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:178 Resp: 34487

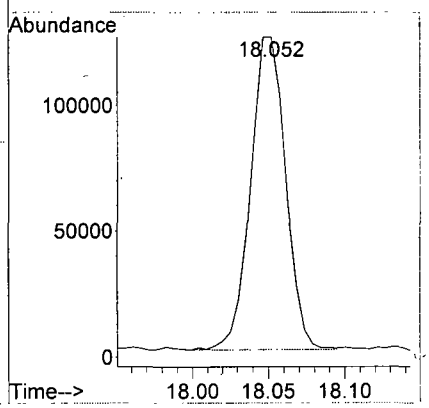
Ion	Ratio	Lower	Upper
178	100		
176	19.4	15.2	22.8
179	10.9	12.2	18.2#



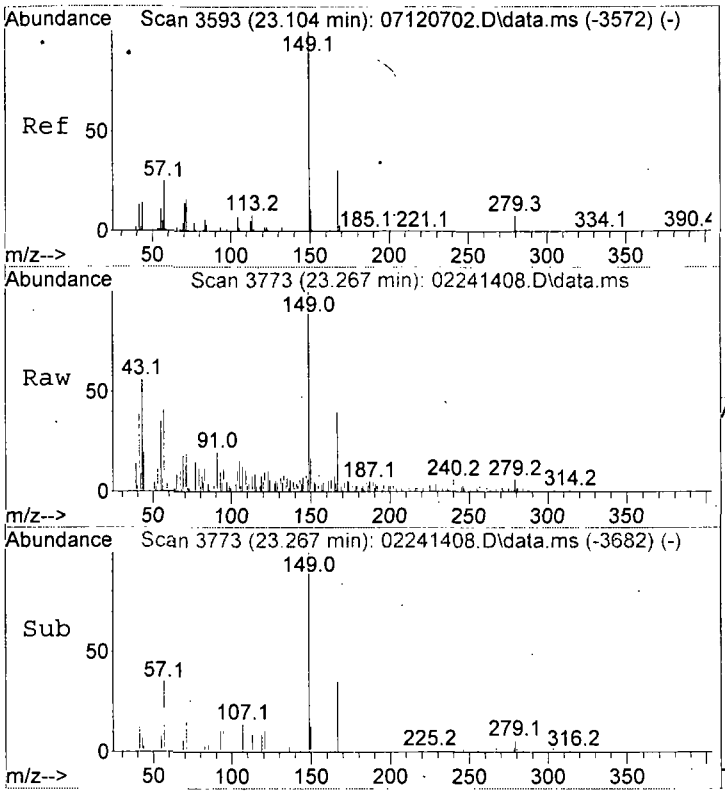


#70
Di-n-butylphthalate
Concen: 0.33 ug/mL
RT: 18.052 min Scan# 2798
Delta R.T. -0.006 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:149 Resp: 197085



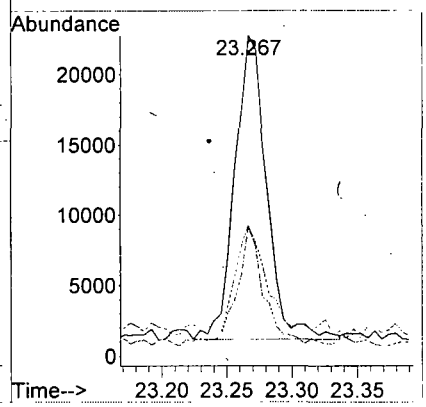
Freedom_0005790_0373



#80
bis(2-Ethylhexyl)phthalate
Concen: 0.12 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02241408.D
Acq: 24 Feb 2014 6:53 pm

Tgt Ion:149 Resp: 36695

Ion	Ratio	Lower	Upper
149	100		
167	34.1	28.2	42.2
57	38.1	14.7	22.1#



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241411.D
Acq On : 24 Feb 2014 8:47 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-13
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 15:16:08 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.291	150	2225104	20.00	ug/mL	0.00
20) Naphthalene-D8	9.751	136	6021215	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.431	164	3650783	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.523	188	6692403	20.00	ug/mL	# 0.02
73) Chrysene-D12	22.813	240	5171859	20.00	ug/mL	0.00
81) Perylene-D12	25.599	264	2845401	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	1781650	24.12	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 48.24%			
6) Phenol-D5	6.831	99	2554618	26.08	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 52.16%			
21) Nitrobenzene-D5	8.398	82	1194257	11.15	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 44.60%			
40) 2-Fluorobiphenyl	12.078	172	2849733	12.19	ug/mL	-0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 48.76%			
62) 2,4,6-Tribromophenol	15.116	330	766050	26.86	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 53.72%			
75) Terphenyl-d14	20.074	244	3098364	13.62	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 54.48%			
Target Compounds						Qvalue
48) Acenaphthene	13.479	153	56324	0.26	ug/mL	97
54) Fluorene	14.544	166	72256	0.28	ug/mL	92
67) Phenanthrene	16.555	178	22822	0.06	ug/mL#	82
70) Di-n-butylphthalate	18.058	149	153829	0.35	ug/mL	100

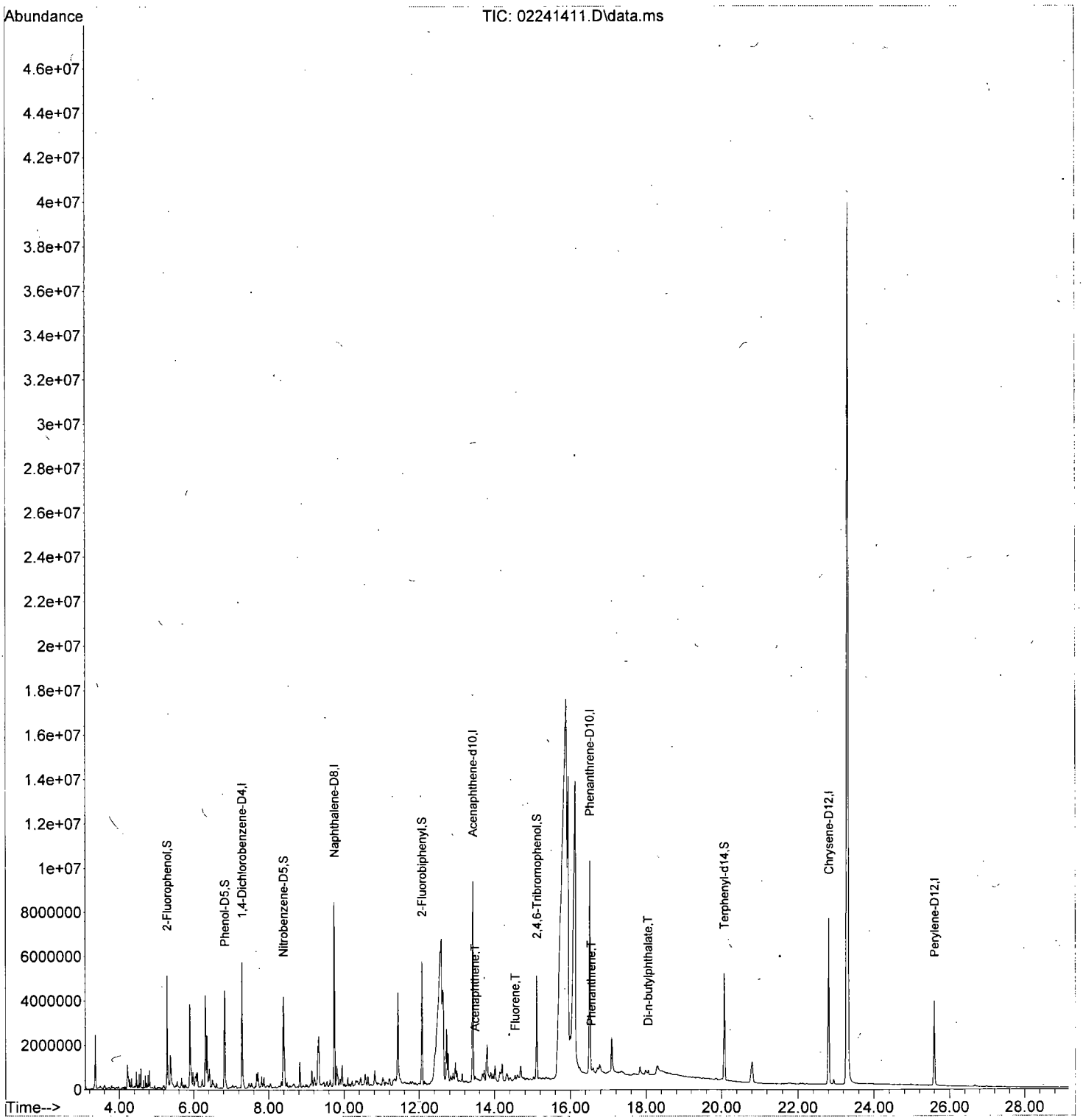
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0375

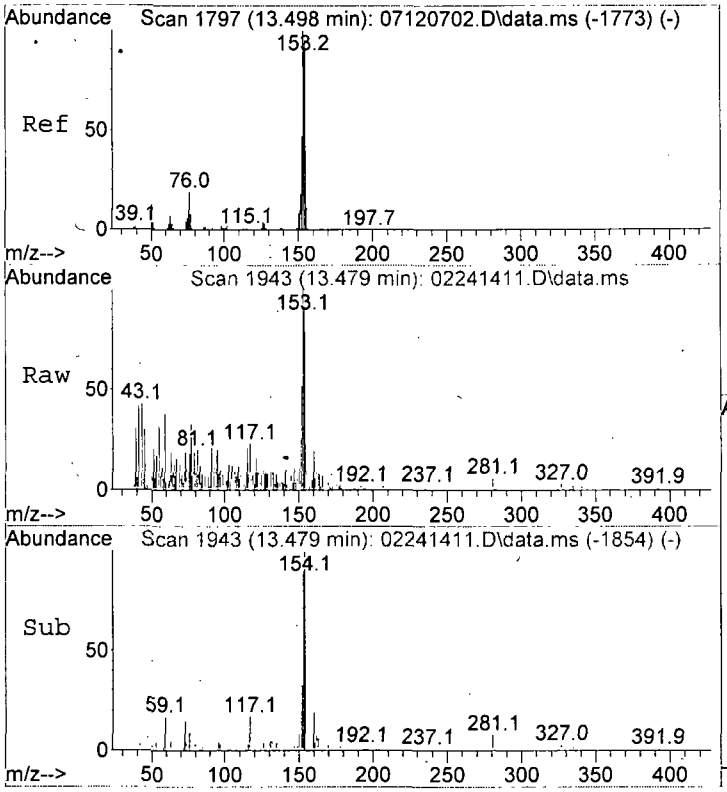
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241411.D
Acq On : 24 Feb 2014 8:47 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-13
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 15:16:08 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



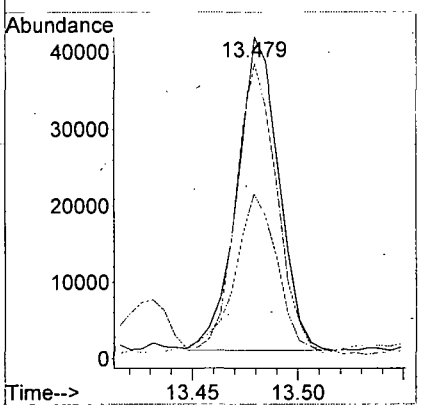
Freedom_0005790_0376

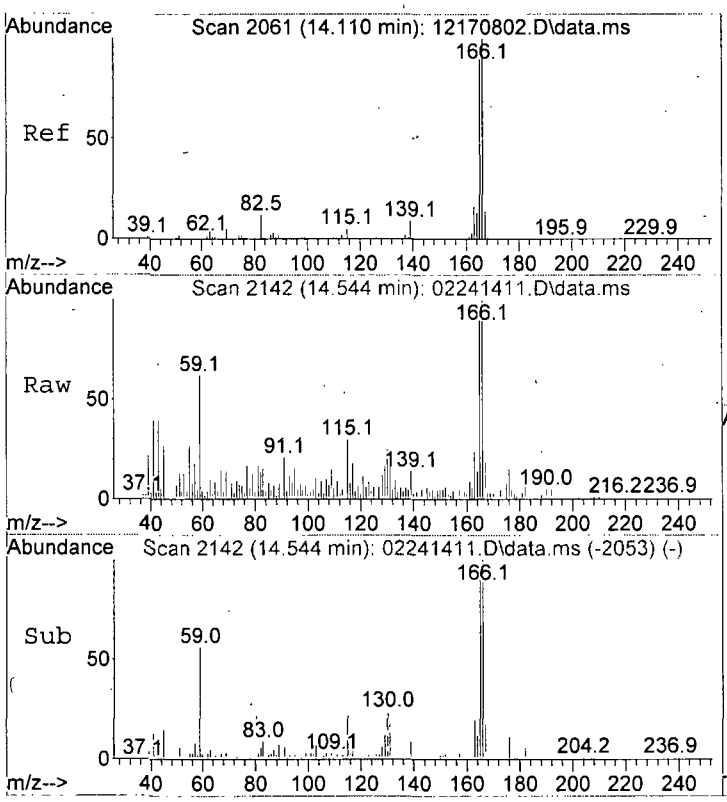


#48
Acenaphthene
Concen: 0.26 ug/mL
RT: 13.479 min Scan# 1943
Delta R.T. -0.021 min
Lab File: 02241411.D
Acq: 24 Feb 2014 8:47 pm

Tgt Ion:153 Resp: 56324

Ion	Ratio	Lower	Upper
153	100		
154	92.5	75.1	112.7
152	52.2	37.9	56.9

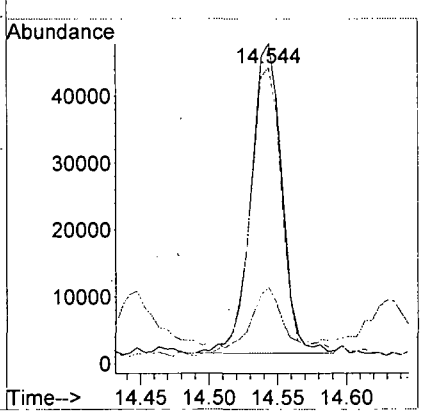




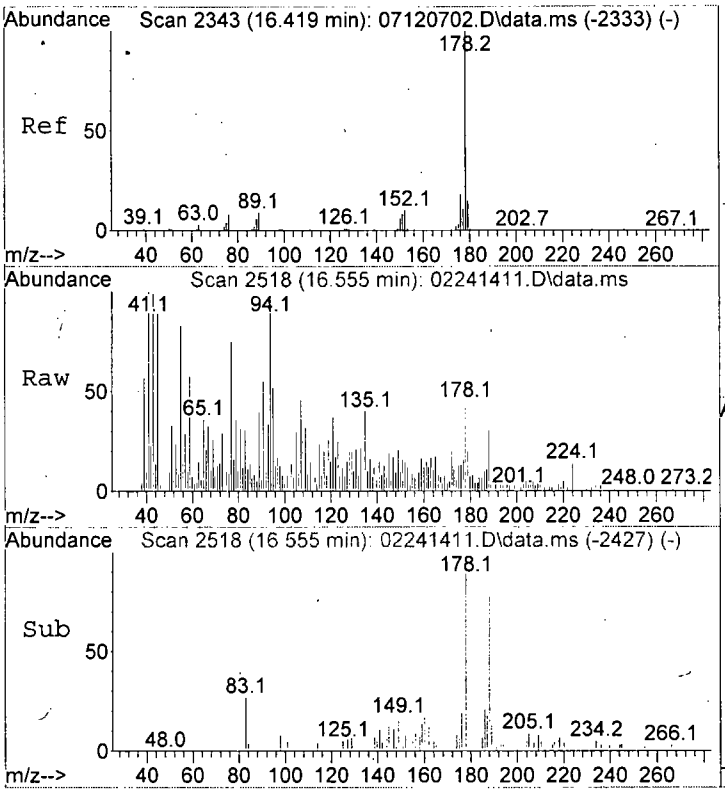
#54
Fluorene
Concen: 0.28 ug/mL
RT: 14.544 min Scan# 2142
Delta R.T. -0.021 min
Lab File: 02241411.D
Acq: 24 Feb 2014 8:47 pm

Tgt Ion:166 Resp: 72256

Ion	Ratio	Lower	Upper
166	100		
165	99.8	73.7	110.5
163	18.1	12.2	18.2



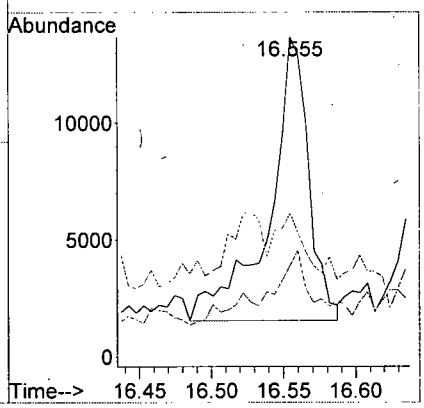
Freedom_0005790_0377

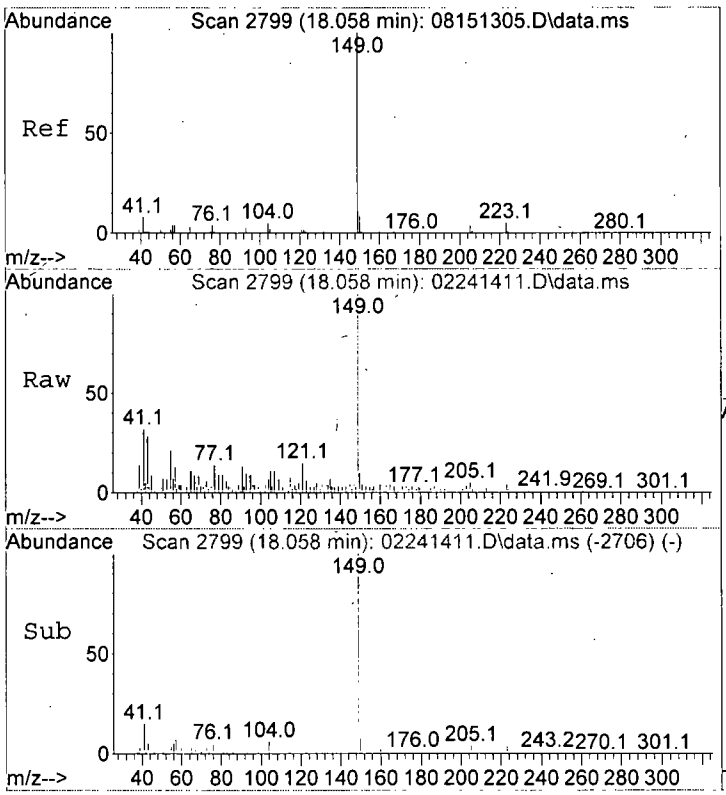


#67
Phenanthrene
Concen: 0.06 ug/mL
RT: 16.555 min Scan# 2518
Delta R.T. -0.011 min
Lab File: 02241411.D
Acq: 24 Feb 2014 8:47 pm

Tgt Ion:178 Resp: 22822

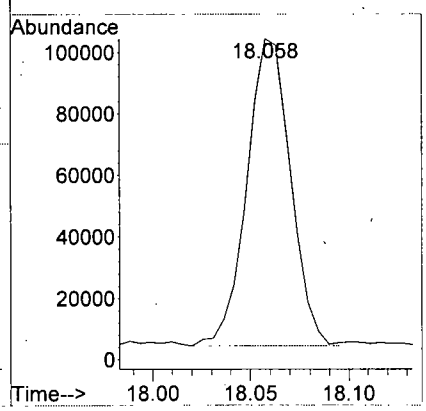
Ion	Ratio	Lower	Upper
178	100		
176	17.2	15.2	22.8
179	0.0	12.2	18.2#





#70
Di-n-butylphthalate
Concen: 0.35 ug/mL
RT: 18.058 min Scan# 2799
Delta R.T. -0.000 min
Lab File: 02241411.D
Acq: 24 Feb 2014 8:47 pm

Tgt Ion:149 Resp: 153829



Freedom_0005790_0378

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241412.D
Acq On : 24 Feb 2014 9:25 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-14
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 25 15:20:18 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.296	150	4081094	20.00	ug/mL	0.00
20) Naphthalene-D8	9.757	136	11065472	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.442	164	6724276	20.00	ug/mL	0.02
58) Phenanthrene-D10	16.528	188	12079444	20.00	ug/mL	# 0.02
73) Chrysene-D12	22.823	240	9053761	20.00	ug/mL	0.00
81) Perylene-D12	25.605	264	4486496	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.296	112	3294084	24.32	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 48.64%			
6) Phenol-D5	6.852	99	4661754	25.95	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 51.90%			
21) Nitrobenzene-D5	8.403	82	2163421	10.99	ug/mL	-0.01
Spiked Amount 25.000	Range 35 - 114		Recovery = 43.96%			
40) 2-Fluorobiphenyl	12.089	172	5299481	12.31	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 49.24%			
62) 2,4,6-Tribromophenol	15.127	330	1404687	27.28	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 54.56%			
75) Terphenyl-d14	20.085	244	6015002	15.10	ug/mL	0.02
Spiked Amount 25.000	Range 33 - 141		Recovery = 60.40%			
Target Compounds						Qvalue
70) Di-n-butylphthalate	18.052	149	334774	0.42	ug/mL	100

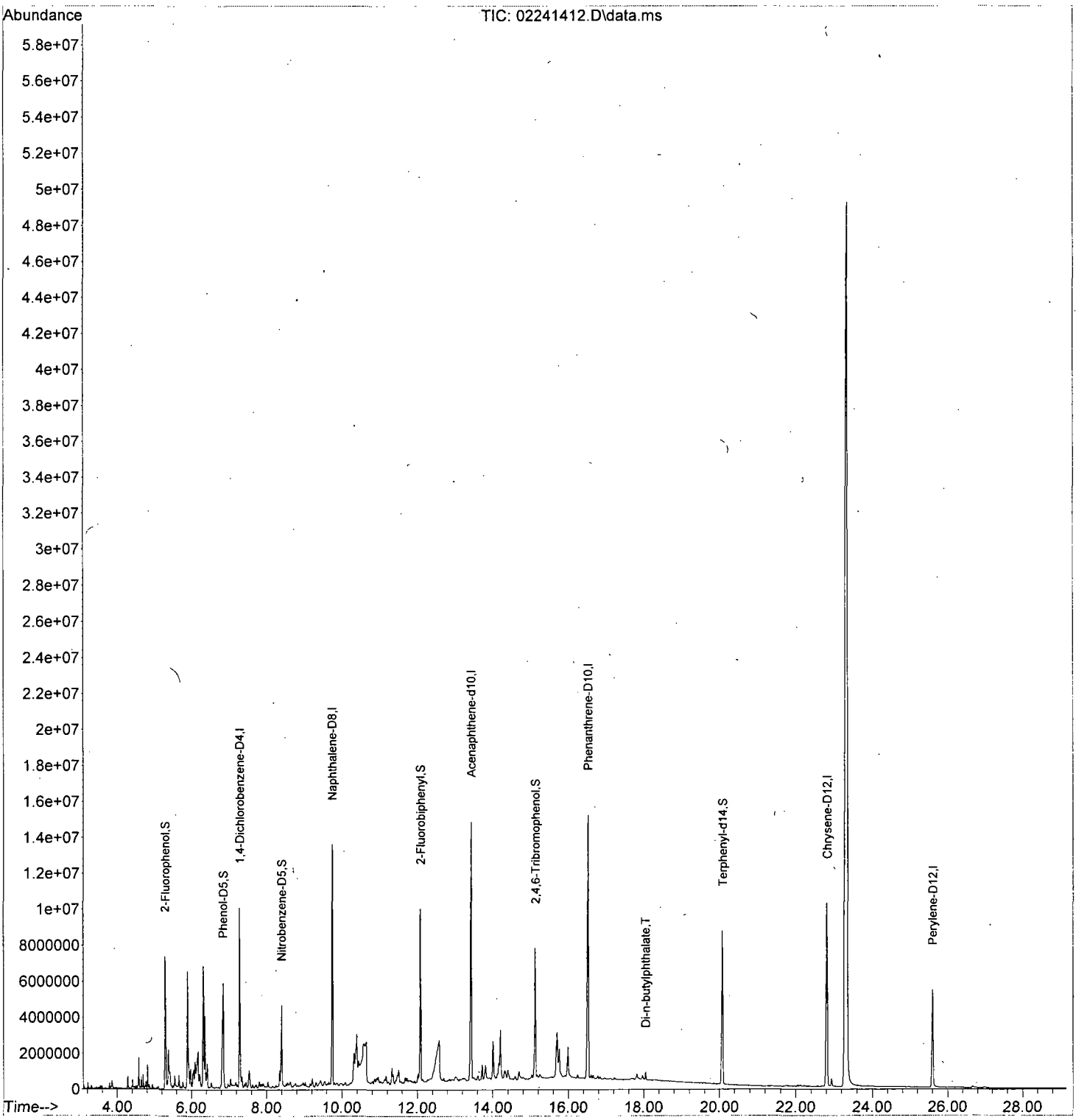
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0379

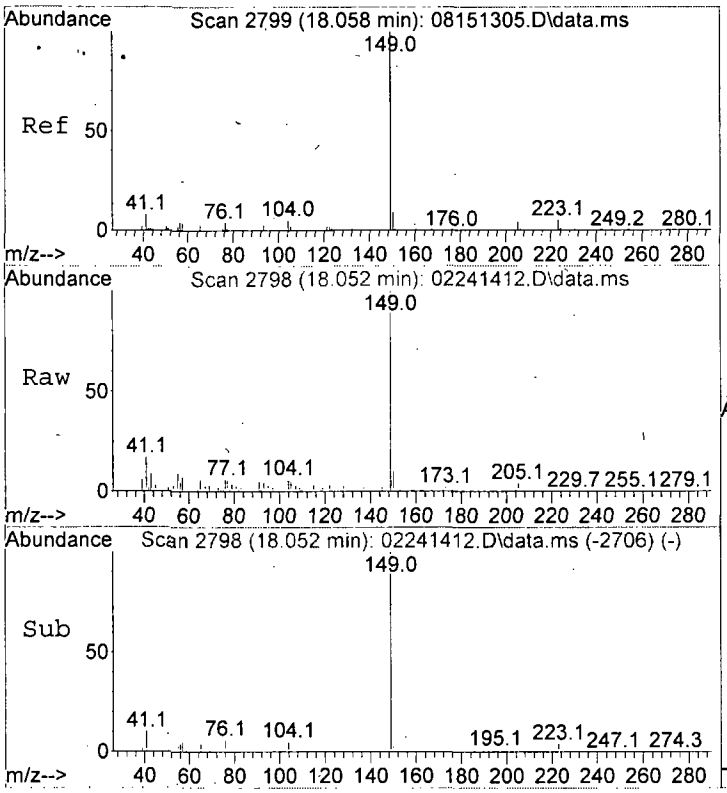
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241412.D
Acq On : 24 Feb 2014 9:25 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-14
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 25 15:20:18 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

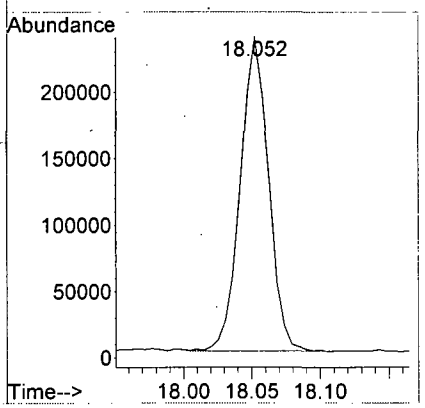


Freedom_0005790_0380



#70
Di-n-butylphthalate
Concen: 0.42 ug/mL
RT: 18.052 min Scan# 2798
Delta R.T. -0.005 min
Lab File: 02241412.D
Acq: 24 Feb 2014 9:25 pm

Tgt Ion:149 Resp: 334774



Freedom_0005790_0381

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241414.D
Acq On : 24 Feb 2014 10:41 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-15
Misc : 1/10 dilution 10ul sam + 90ul mecl2
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 25 15:32:43 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.312	150	9295576	20.00	ug/mL	0.02
20) Naphthalene-D8	9.773	136	18438923	20.00	ug/mL	0.02
36) Acenaphthene-d10	13.458	164	9704207	20.00	ug/mL	0.03
58) Phenanthrene-D10	16.549	188	16731908	20.00	ug/mL	0.04
73) Chrysene-D12	22.839	240	12435259	20.00	ug/mL	0.02
81) Perylene-D12	25.621	264	6996497	20.00	ug/mL	0.02
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	1109448	3.60	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery	=	7.20%#	
6) Phenol-D5	6.852	99	1417300	3.46	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery	=	6.92%#	
21) Nitrobenzene-D5	8.398	82	606609	1.85	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery	=	7.40%#	
40) 2-Fluorobiphenyl	12.083	172	1035487	1.67	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery	=	6.68%#	
62) 2,4,6-Tribromophenol	15.127	330	258762	3.63	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery	=	7.26%#	
75) Terphenyl-d14	20.069	244	884512	1.62	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery	=	6.48%#	
Target Compounds						Qvalue
70) Di-n-butylphthalate	18.063	149	92241	0.08	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.294	149	9814822	18.17	ug/mL#	86

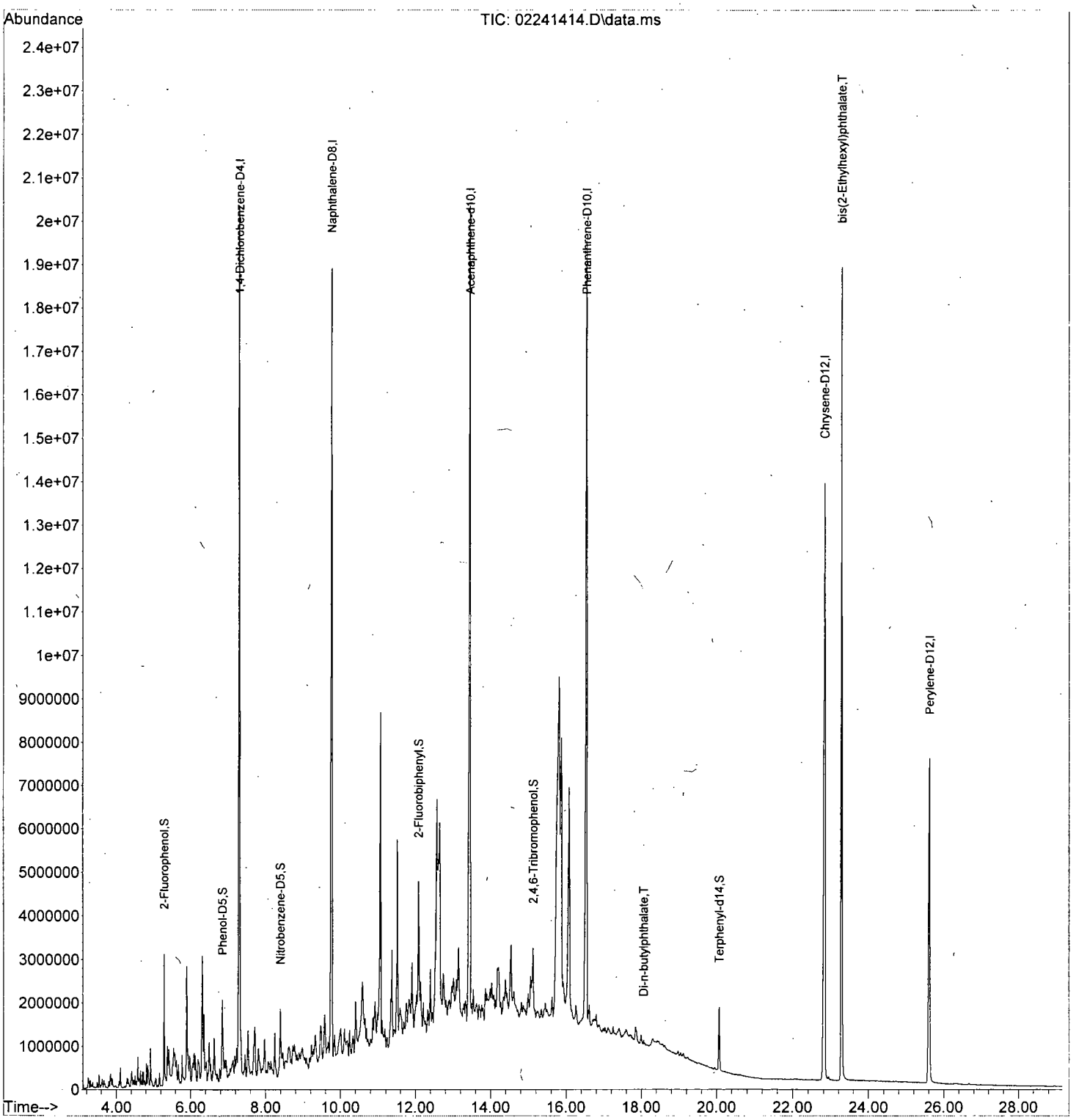
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0382

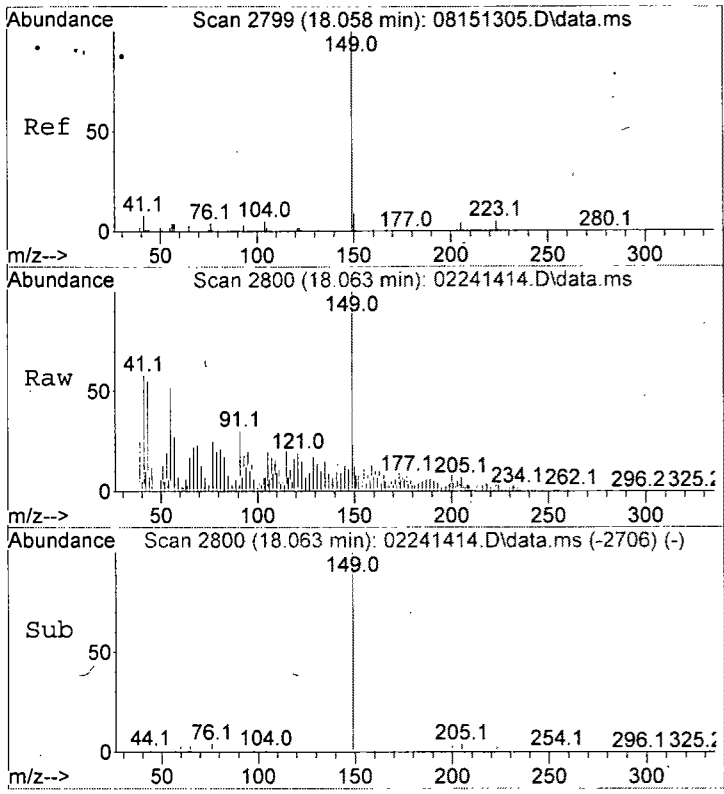
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241414.D
Acq On : 24 Feb 2014 10:41 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-15
Misc : 1/10 dilution 10ul sam + 90ul mecl2
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 25 15:32:43 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

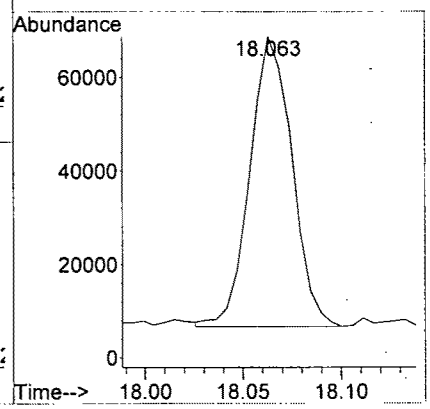


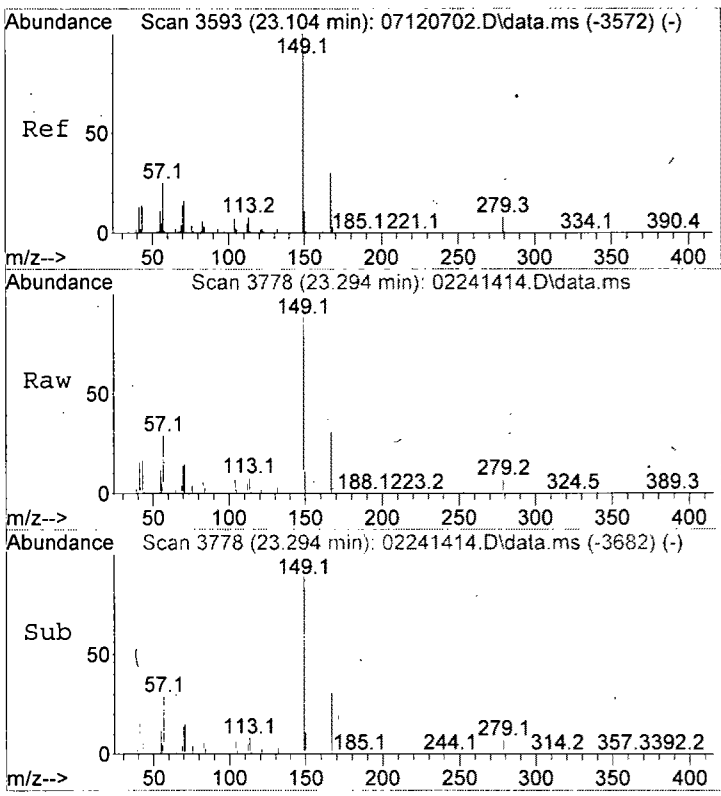
Freedom_0005790_0383



#70
Di-n-butylphthalate
Concen: 0.08 ug/mL
RT: 18.063 min Scan# 2800
Delta R.T. 0.005 min
Lab File: 02241414.D
Acq: 24 Feb 2014 10:41 pm

Tgt Ion:149 Resp: 92241

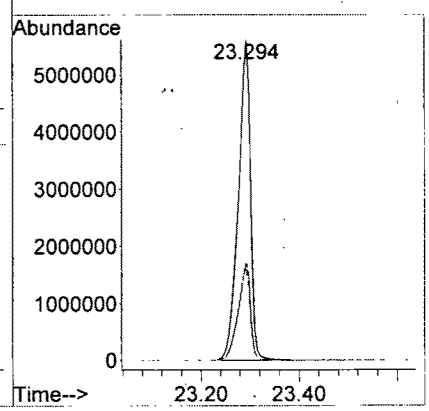




#80
bis(2-Ethylhexyl)phthalate
Concen: 18.17 ug/mL
RT: 23.294 min Scan# 3778
Delta R.T. 0.016 min
Lab File: 02241414.D
Acq: 24 Feb 2014 10:41 pm

Tgt Ion:149 Resp: 9814822

Ion	Ratio	Lower	Upper
149	100		
167	30.7	28.2	42.2
57	29.7	14.7	22.1#



Freedom_0005790_0384

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241413.D
Acq On : 24 Feb 2014 10:03 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-16
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 15:25:27 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.296	150	5314974	20.00	ug/mL	0.00
20) Naphthalene-D8	9.762	136	14615313	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.442	164	9067370	20.00	ug/mL	0.02
58) Phenanthrene-D10	16.528	188	16752869	20.00	ug/mL	# 0.02
73) Chrysene-D12	22.834	240	13410472	20.00	ug/mL	0.02
81) Perylene-D12	25.615	264	7400983	20.00	ug/mL	0.02
System Monitoring Compounds						
3) 2-Fluorophenol	5.301	112	4634866	26.27	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 52.54%			
6) Phenol-D5	6.852	99	6468400	27.65	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 55.30%			
21) Nitrobenzene-D5	8.403	82	3024055	11.63	ug/mL	-0.01
Spiked Amount 25.000	Range 35 - 114		Recovery = 46.52%			
40) 2-Fluorobiphenyl	12.088	172	7150835	12.32	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 49.28%			
62) 2,4,6-Tribromophenol	15.121	330	1873023	26.23	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 52.46%			
75) Terphenyl-d14	20.085	244	8557384	14.50	ug/mL	0.02
Spiked Amount 25.000	Range 33 - 141		Recovery = 58.00%			
Target Compounds						Qvalue
16) Acetophenone	8.120	105	25856	0.08	ug/mL	98
55) Diethylphthalate	14.592	149	46281	0.07	ug/mL#	83
70) Di-n-butylphthalate	18.047	149	508553	0.46	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	242306	0.42	ug/mL#	86

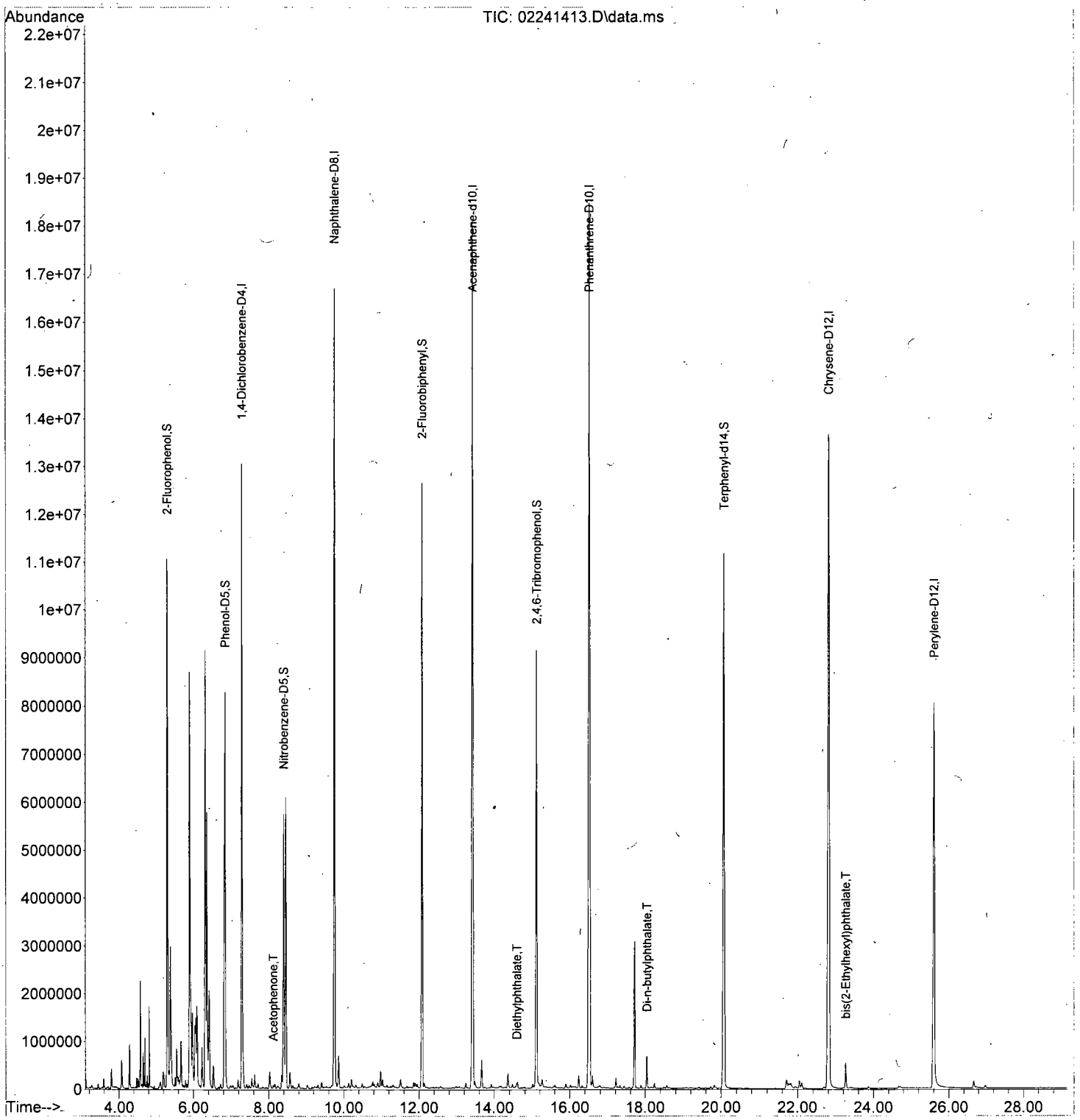
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0385

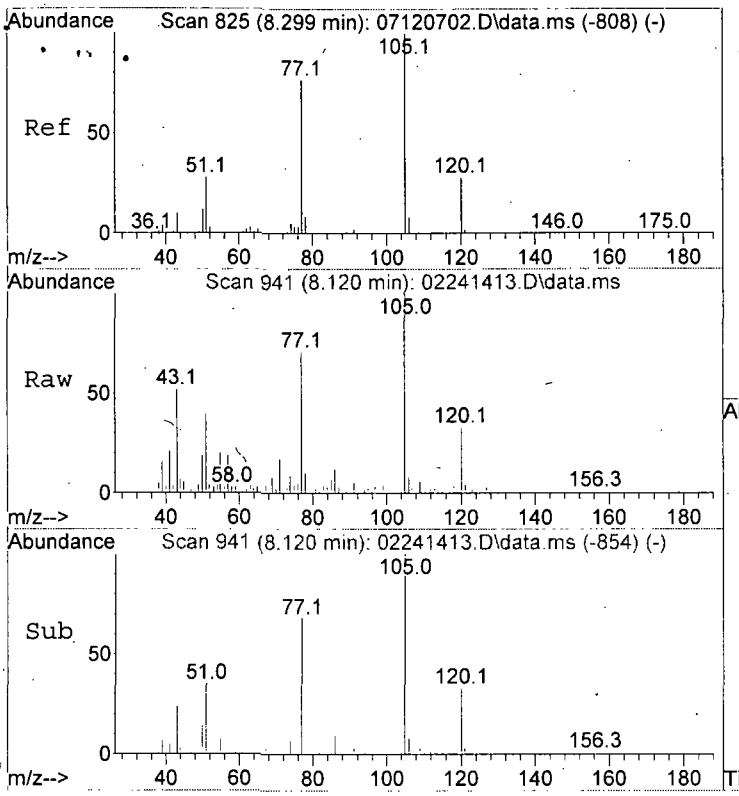
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241413.D
Acq On : 24 Feb 2014 10:03 pm
Operator : KLP OX-HP5975MSD
Sample : 1401014-16
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 15:25:27 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



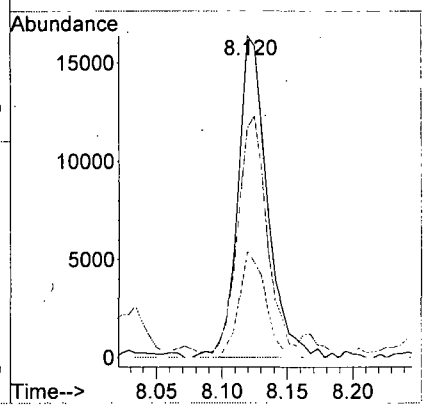
Freedom_0005790_0386

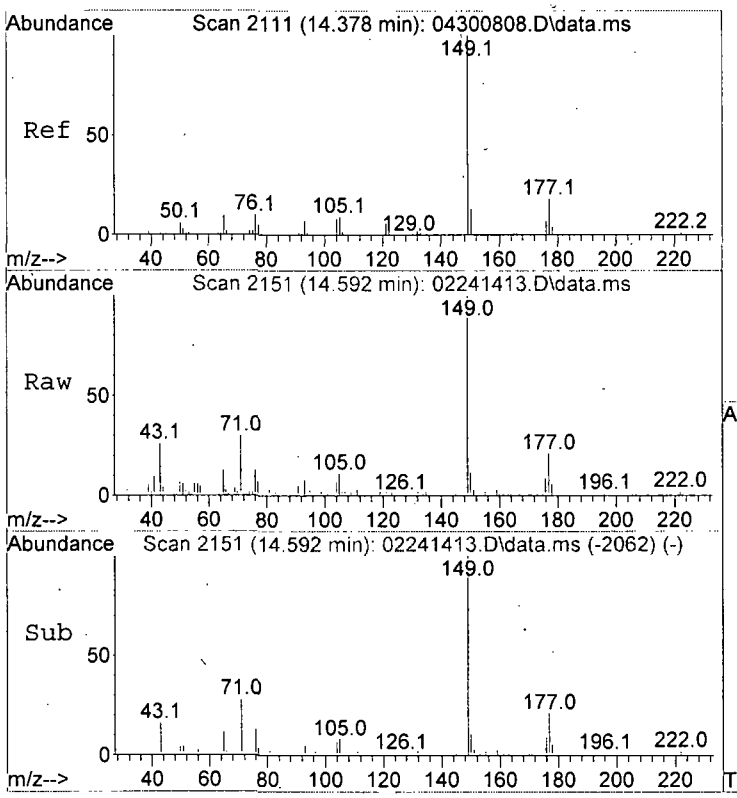


#16
Acetophenone
Concen: 0.08 ug/mL
RT: 8.120 min Scan# 941
Delta R.T. -0.032 min
Lab File: 02241413.D
Acq: 24 Feb 2014 10:03 pm

Tgt Ion:105 Resp: 25856

Ion	Ratio	Lower	Upper
105	100		
77	70.8	57.8	86.6
120	29.7	24.6	37.0

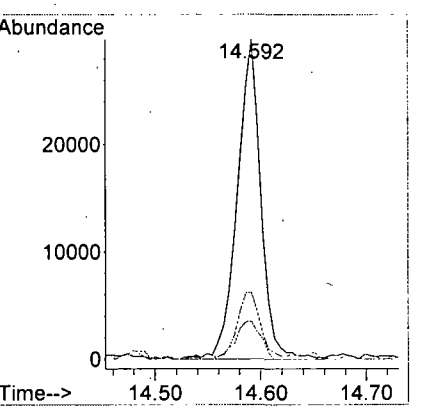




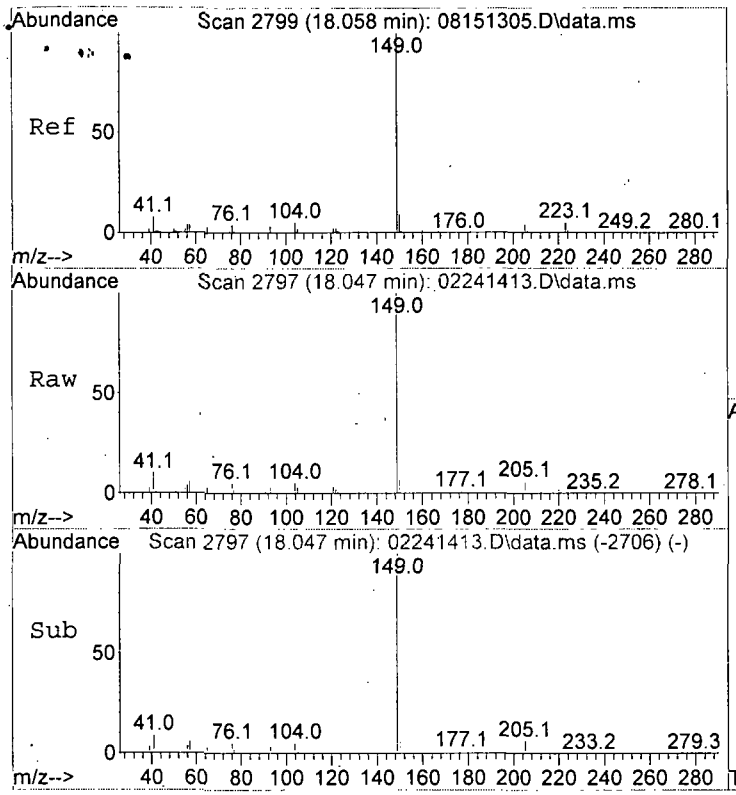
#55
Diethylphthalate
Concen: 0.07 ug/mL
RT: 14.592 min Scan# 2151
Delta R.T. -0.022 min
Lab File: 02241413.D
Acq: 24 Feb 2014 10:03 pm

Tgt Ion:149 Resp: 46281

Ion	Ratio	Lower	Upper
149	100		
177	21.1	20.0	30.0
150	12.3	20.0	30.0#

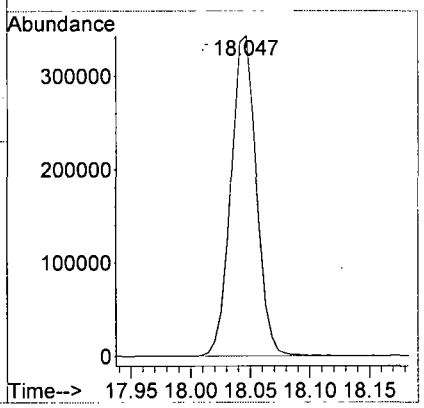


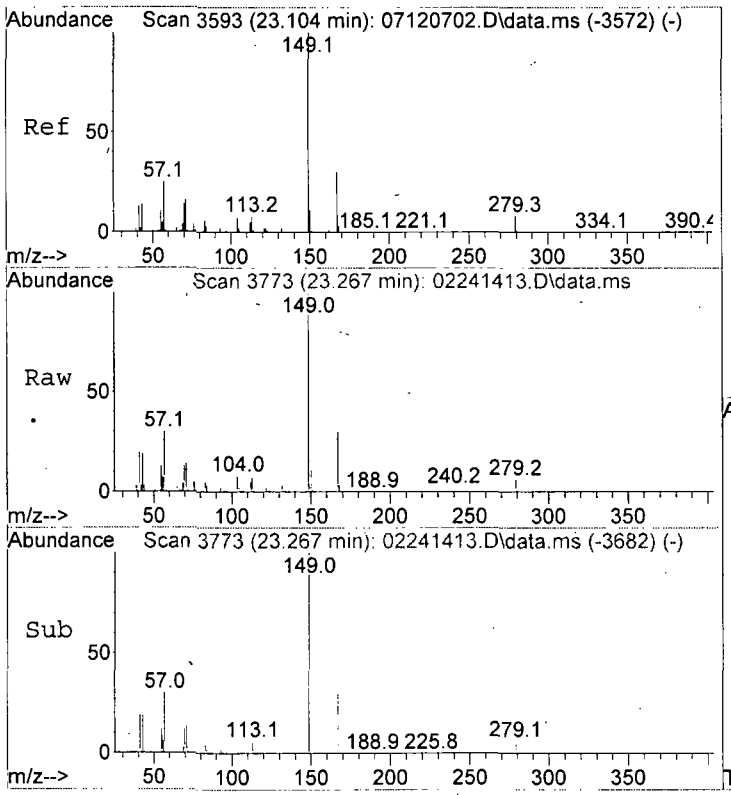
Freedom_0005790_0387



#70
Di-n-butylphthalate
Concen: 0.46 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02241413.D
Acq: 24 Feb 2014 10:03 pm

Tgt Ion:149 Resp: 508553

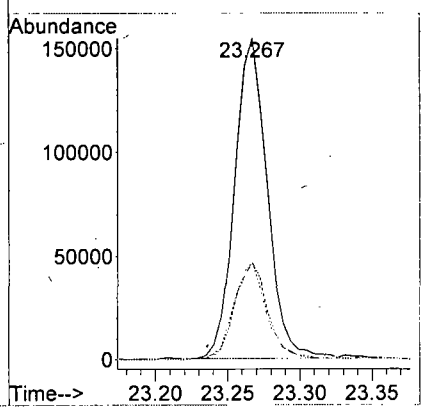




#80
bis(2-Ethylhexyl)phthalate
Concen: 0.42 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02241413.D
Acq: 24 Feb 2014 10:03 pm

Tgt Ion:149 Resp: 242306

Ion	Ratio	Lower	Upper
149	100		
167	31.0	28.2	42.2
57	30.0	14.7	22.1#



Freedom_0005790_0388

Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

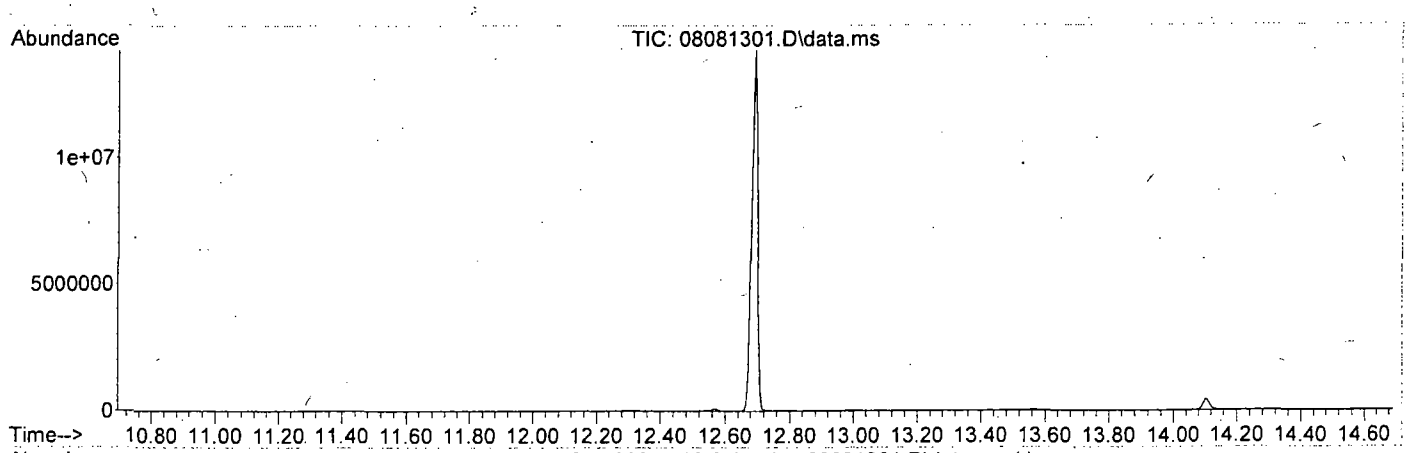
DAS R34317

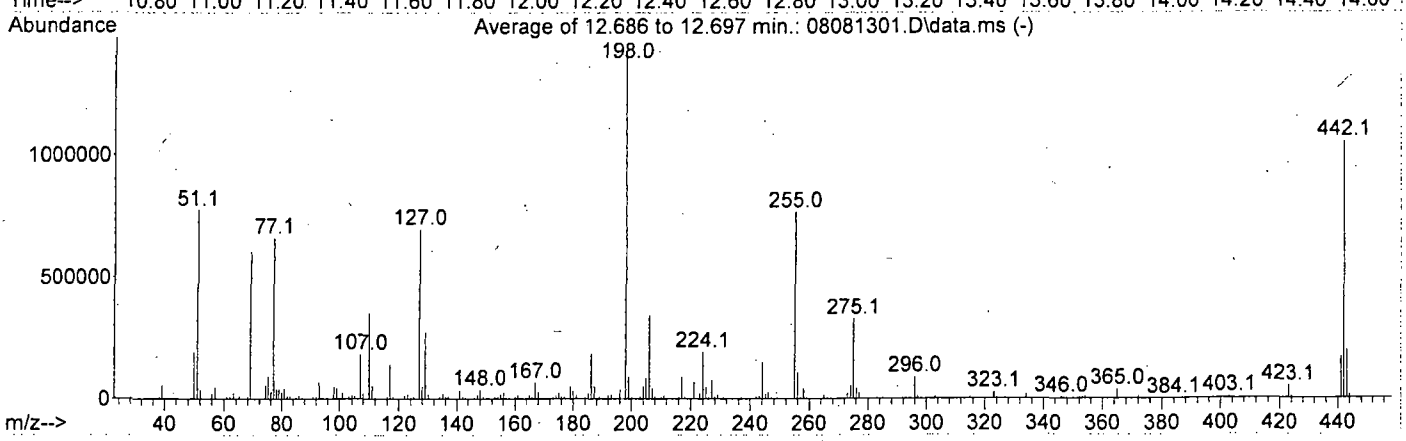
Quality Control Data

Data Path : D:\DATA\080813\
Data File : 08081301.D
Acq On : 8 Aug 2013 3:26 pm
Operator : KLP OX-HP5975MSD
Sample : DFTPP
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\R3QA201.M
Title : svoa
Last Update : Tue Nov 17 17:57:14 2009





AutoFind: Scans 299, 300, 301; Background Corrected with Scan 290

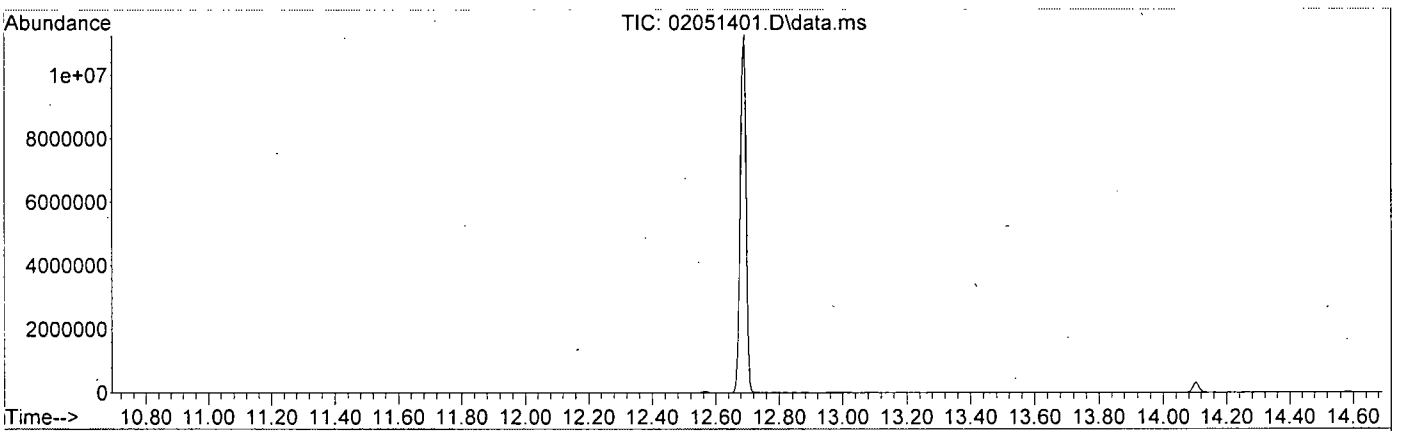
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	55.1	775616	PASS
68	69	0.00	2	1.5	9172	PASS
69	198	0.00	100	43.1	606472	PASS
70	69	0.00	2	0.5	2790	PASS
127	198	40	60	49.6	698816	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1408512	PASS
199	198	5	9	6.5	90920	PASS
275	198	10	30	23.3	328875	PASS
365	198	1	100	2.7	37957	PASS
441	443	0.01	100	84.5	170517	PASS
442	198	40	100	74.8	1053504	PASS
443	442	17	23	19.1	201707	PASS

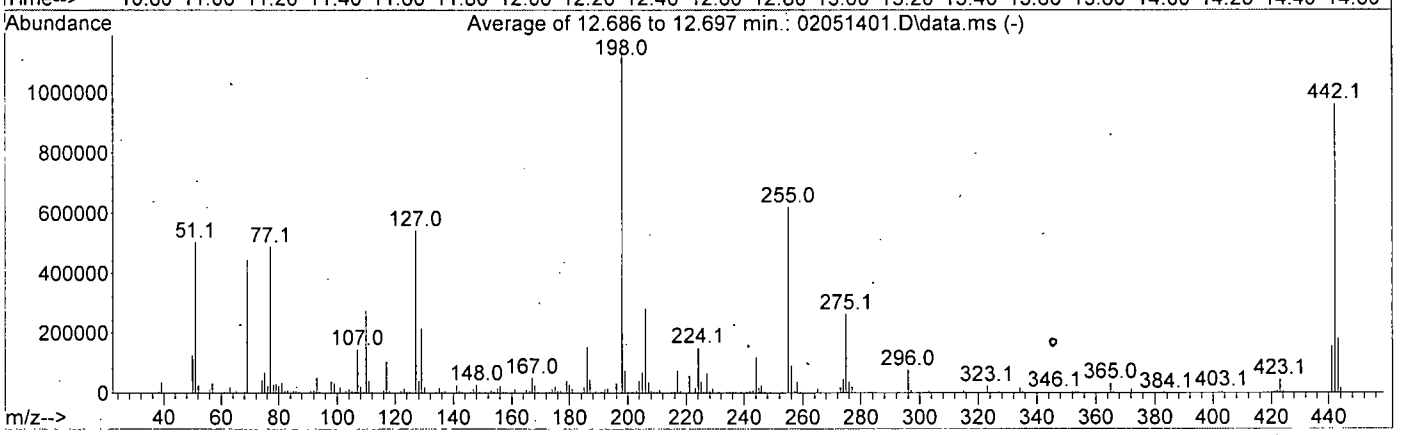
Freedom_0005790_0390

Data Path : D:\DATA\020514\
Data File : 02051401.D
Acq On : 6 Feb 2014 9:28 am
Operator : KLP OX-HP5975MSD
Sample : DFTPP
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: rteint.p

Method : D:\DATA\Calibrations\MCHM012214.M
Title : Calibration
Last Update : Fri Jan 24 08:06:20 2014





AutoFind: Scans 299, 300, 301; Background Corrected with Scan 289

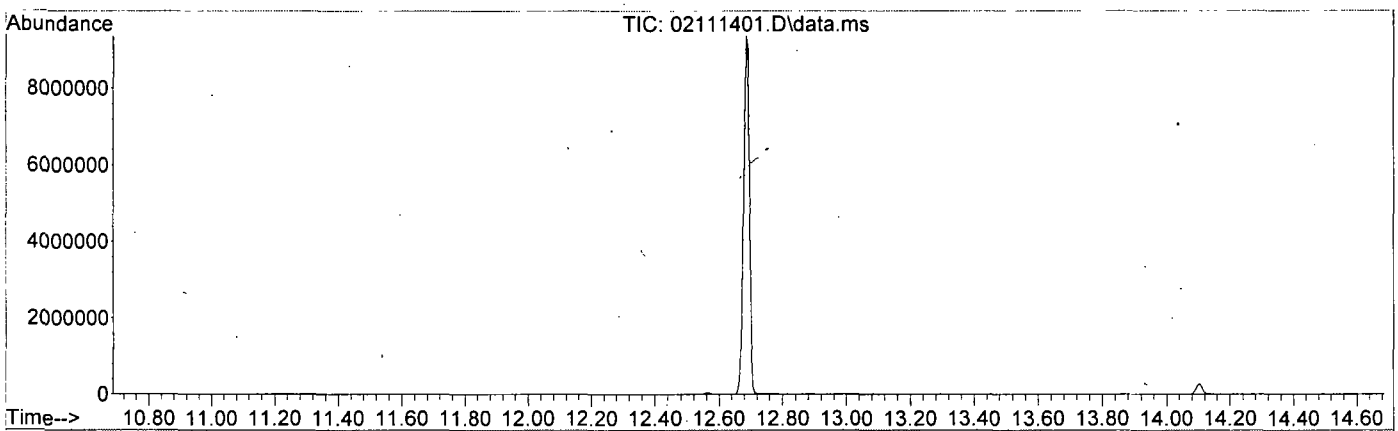
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	44.4	503445	PASS
68	69	0.00	2	1.7	7513	PASS
69	198	0.00	100	39.2	445227	PASS
70	69	0.00	2	0.5	2066	PASS
127	198	40	60	47.8	542464	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1134891	PASS
199	198	5	9	6.6	74576	PASS
275	198	10	30	23.2	263723	PASS
365	198	1	100	2.9	33013	PASS
441	443	0.01	100	85.4	156120	PASS
442	198	40	100	84.9	963157	PASS
443	442	17	23	19.0	182891	PASS

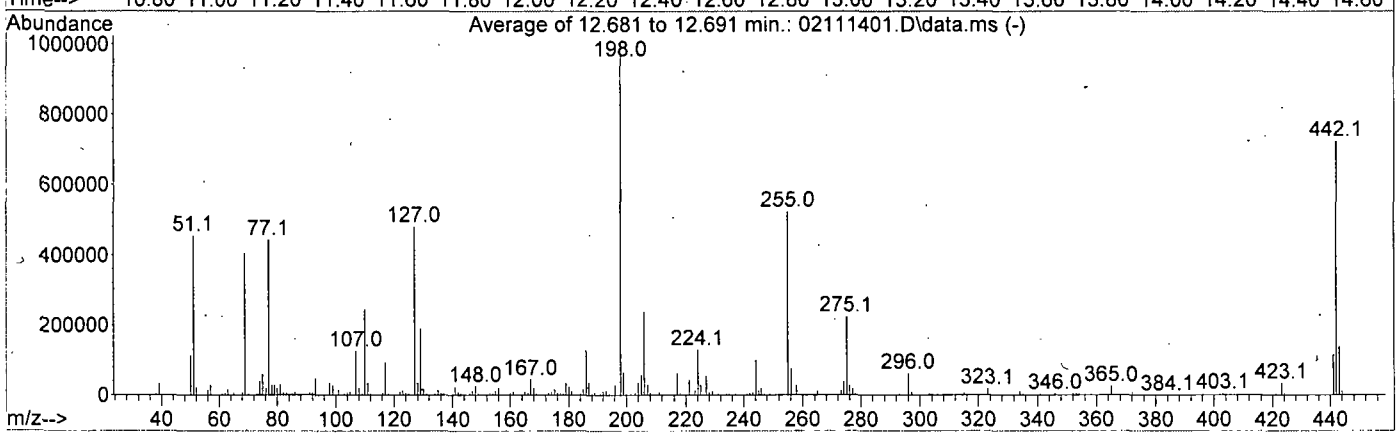
Freedom_0005790_0391

Data Path : D:\DATA\020514\
Data File : 02111401.D
Acq On : 11 Feb 2014 1:54 pm
Operator : KLP OX-HP5975MSD
Sample : DFTPP
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\080913.M
Title : svoa
Last Update : Mon Aug 19 15:22:47 2013





AutoFind: Scans 298, 299, 300; Background Corrected with Scan 290

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.7	454635	PASS
68	69	0.00	2	1.8	7478	PASS
69	198	0.00	100	41.7	406251	PASS
70	69	0.00	2	0.4	1779	PASS
127	198	40	60	49.4	480661	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	973269	PASS
199	198	5	9	6.7	64885	PASS
275	198	10	30	23.1	224811	PASS
365	198	1	100	2.7	25864	PASS
441	443	0.01	100	82.7	115875	PASS
442	198	40	100	74.5	724885	PASS
443	442	17	23	19.3	140107	PASS

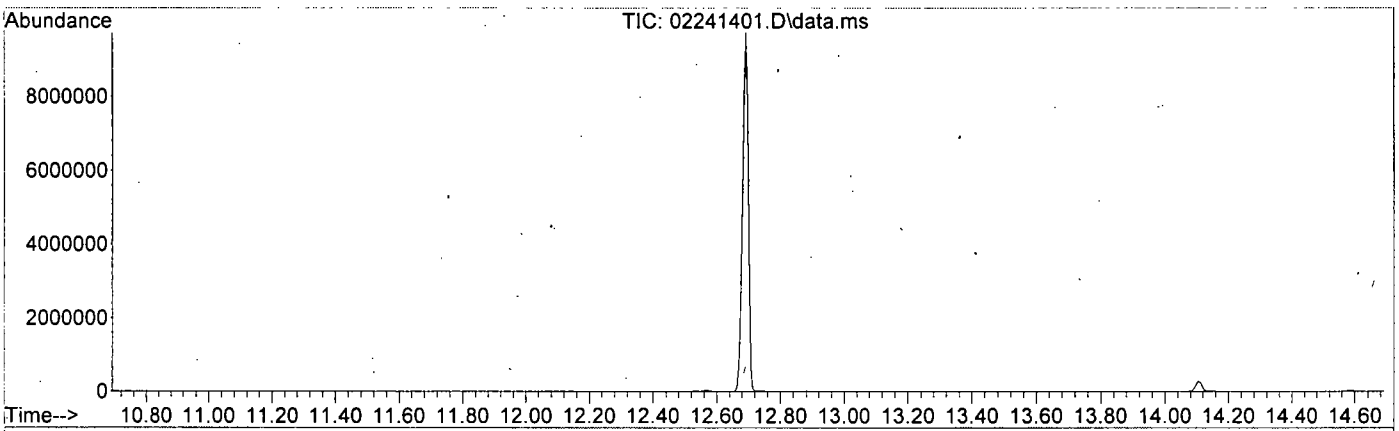
Freedom_0005790_0392

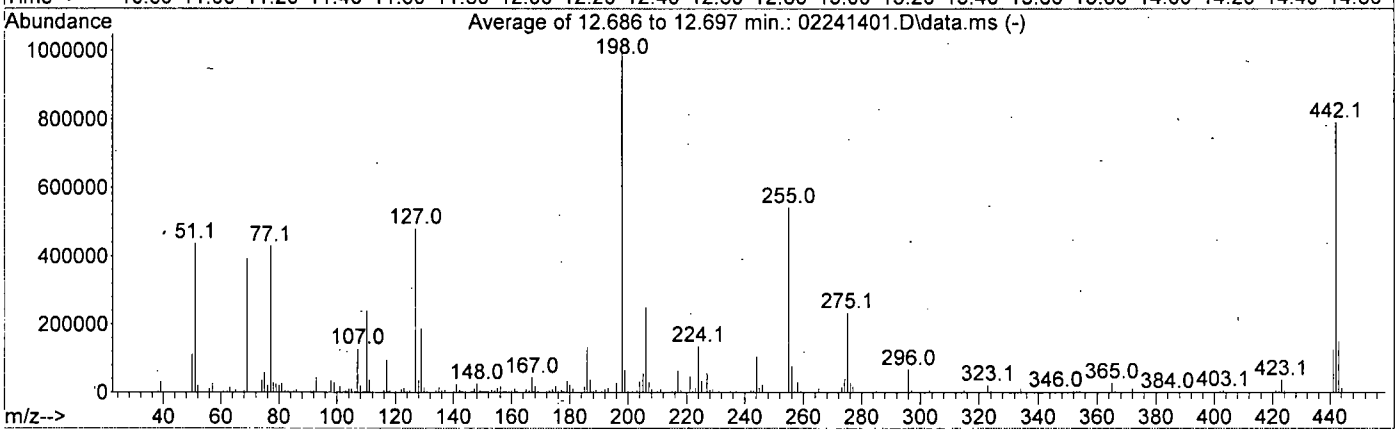
DFTPP

Data Path : D:\DATA\022414\
Data File : 02241401.D
Acq On : 24 Feb 2014 2:49 pm
Operator : KLP OX-HP5975MSD
Sample : DFTPP
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: rteint.p

Method : D:\DATA\Calibrations\MCHM012814.M
Title : Calibration
Last Update : Thu Jan 30 08:37:38 2014





AutoFind: Scans 299, 300, 301; Background Corrected with Scan 290

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.8	437837	PASS
68	69	0.00	2	1.8	7127	PASS
69	198	0.00	100	39.3	392448	PASS
70	69	0.00	2	0.5	1962	PASS
127	198	40	60	48.1	480875	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	999125	PASS
199	198	5	9	6.6	66325	PASS
275	198	10	30	23.5	234475	PASS
365	198	1	100	2.9	28824	PASS
441	443	0.01	100	82.9	126763	PASS
442	198	40	100	79.3	791936	PASS
443	442	17	23	19.3	152885	PASS

GC/MS QA-QC Check Report

'une File : D:\DATA\080813\08081301.D
'une Time : 8 Aug 2013 3:26 pm

)aily Calibration File : D:\DATA\081513\08151302.D

						2920010	6964480	4507020
						7934820	8198960	7147920
'ile	Sample	Surrogate Recovery %				Internal Standard Responses		
)8081302.D								
	80 A959	70	69	89	90	1727767	4747778	2992369
		63	92			5174745	5407799	3990758
)8081303.D								
	60 A960	85	83	99	100	2927841	6221267	3843069
		100	102			6734163	6941577	5481296
)8081304.D								
	40 A961	91	91	100	100	2240201	5139871	3239037
		101	97			5606113	6108032	4843450
)8081305.D								
	20 A962	101	102	100	99	2596932	6719687	4385787
		100	97			8087738	8507260	8384582
)8081306.D								
	10 A963	105	106	100	100	1895645	5012004	3180270
		98	99			5695474	5676922	4978122
)8081307.D								
	5 A964	107	108	100	99	2216626	6070989	3865844
		99	100			6933845	6879734	6465616
8081308.D								
	SSV 40 A96	107	108	98	99	1750108	4912202	3095154
		100	96			5577433	5866818	5052152

o Quant Results for D:\DATA\080813\08081309.D

fails) - fails 12hr time check * - fails criteria

Created: Wed Feb 19 07:55:27 2014 OX-HP5975

GC/MS QA-QC Check Report

Tune File : D:\DATA\020514\02111401.D
Tune Time : 11 Feb 2014 1:54 pm

Daily Calibration File : D:\DATA\081513\08151302.D

						2920010	6964480	4507020
						7934820	8198960	7147920

File	Sample	Surrogate Recovery %				Internal Standard Responses		
02111402.D								
	40 A961	93	89	99	104	2180922	4763535	2861860
		110	111			4750774	4095380*	2374915*
02111403.D								
	BB40502-BL	85	87	78	79	1643807	4330714	2658572
		77	94			4805800	3722482*	2103911*
02111404.D								
	BB40502-BS	76	80	75	79	1738025	4666703	2805742
		81	82			5164343	4520927	2593630*
02111405.D								
	1401014-06	0*	0*	43	0*	1767659	4701246	2851820
		0*	0*			5047838	3891645*	2146063*
02111406.D								
	1401014-07	75	77	69	73	1857160	4876586	2966641
		77	78			5229973	4193298	2373393*

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 13:38:09 2014 OX-HP5975

GC/MS QA-QC Check Report

Tune File : D:\DATA\022414\02241401.D
Tune Time : 24 Feb 2014 2:49 pm

Daily Calibration File : D:\DATA\081513\08151302.D

						2920010	6964480	4507020
						7934820	8198960	7147920

File	Sample	Surrogate Recovery %				Internal Standard Responses		
02241402.D								
	40 A961	92	87	97	104	2095102	4545799	2733473
		110	115			4564068	3762295*	2177549*
02241403.D								
	BB41002-BL	62	63	57	59	2230842	5902269	3607559
		58	74			6459835	4820477	2585741* L
02241404.D								
	BB41002-BS	61	64	60	63	2456309	6652884	4017953
		63	67			7420828	6241992	3369767* L
02241405.D								
	1401014-09	56	58	51	56	2648090	6975076	4234193
		63	39			7550452	5818119	3179659* L
02241406.D								
	BB41801-BL	50	52	46	49	2626399	7054425	4374291
		49	60			7940532	6280862	3635414
02241407.D								
	BB41801-BS	54	56	52	55	2625065	7215870	4403152
		55	58			8177363	6906887	3927190
02241408.D								
	1401014-12	51	56	46	50	2968601	8048036	4974822
		54	54			8978130	6936479	3712870
02241409.D								
	BB41801-MS	48	54	47	50	4015354	11206191	6913357
		51	51			13060380	10669601	6376906
02241410.D								
	BB41801-MS	57	60	52	54	2362440	6496401	4030741
		55	52			7552957	6370694	4048787
02241411.D								
	1401014-13	48	52	45	49	2225104	6021215	3650783
		54	54			6692403	5171859	2845401*
02241412.D								
	1401014-14	49	52	44	49	4081094	11065472	6724276
		55	60			12079444	9053761	4486496
02241413.D								
	1401014-16	53	55	47	49	5314974	14615313*	9067370*
		52	58			16752869*	13410472	7400983
02241414.D								
	1401014-15	7*	7*	7*	7*	9295576*	18438923*	9704207*
		7*	6*			16731908*	12435259	6996497

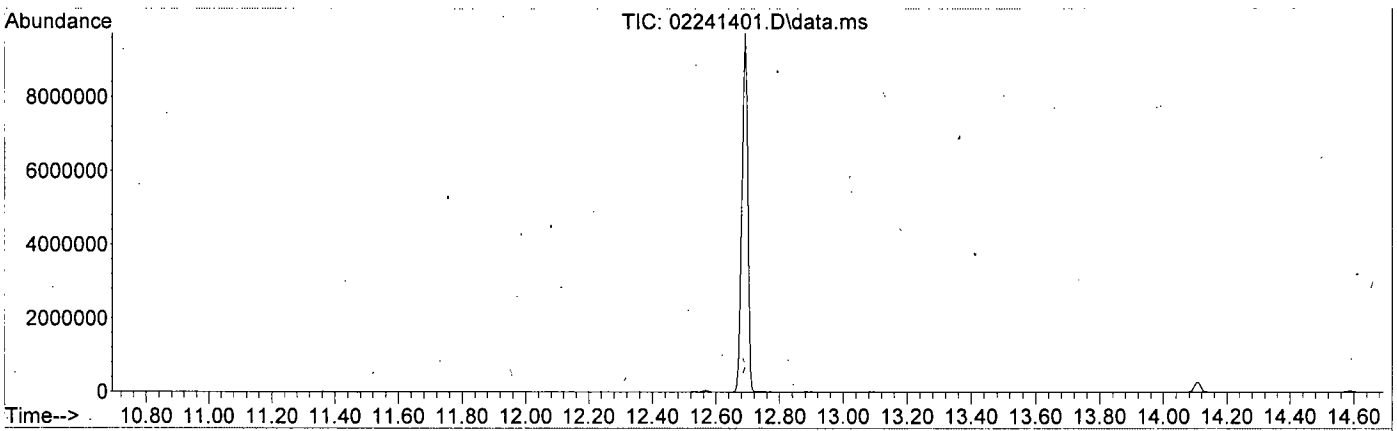
(fails) - fails 12hr time check * - fails criteria

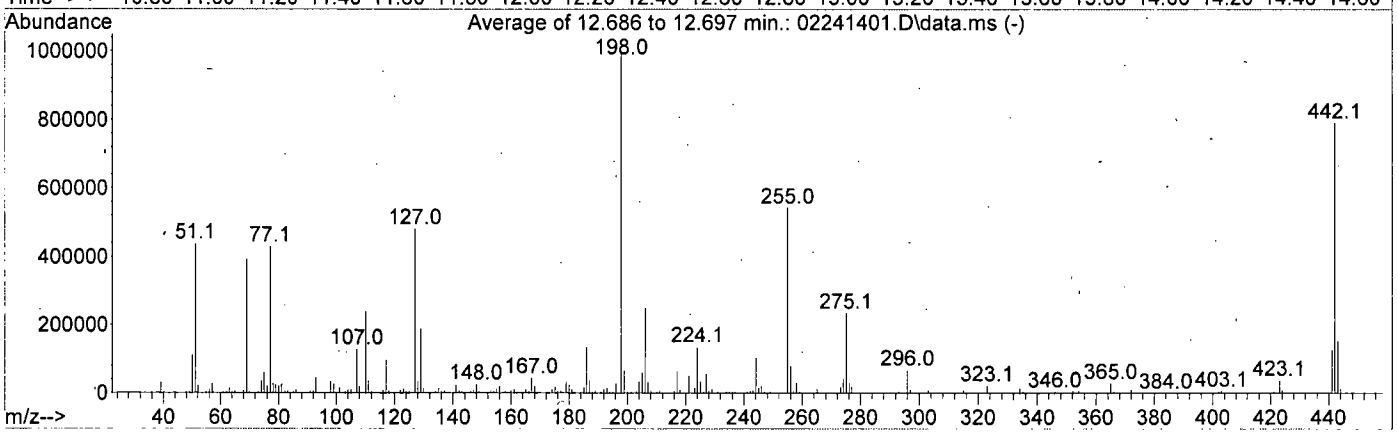
DFTPP

Data Path : D:\DATA\022414\
Data File : 02241401.D
Acq On : 24 Feb 2014 2:49 pm
Operator : KLP OX-HP5975MSD
Sample : DFTPP
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: rteint.p

Method : D:\DATA\Calibrations\MCHM012814.M
Title : Calibration
Last Update : Thu Jan 30 08:37:38 2014





AutoFind: Scans 299, 300, 301; Background Corrected with Scan 290

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.8	437837	PASS
68	69	0.00	2	1.8	7127	PASS
69	198	0.00	100	39.3	392448	PASS
70	69	0.00	2	0.5	1962	PASS
127	198	40	60	48.1	480875	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	999125	PASS
199	198	5	9	6.6	66325	PASS
275	198	10	30	23.5	234475	PASS
365	198	1	100	2.9	28824	PASS
441	443	0.01	100	82.9	126763	PASS
442	198	40	100	79.3	791936	PASS
443	442	17	23	19.3	152885	PASS

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051403.D
Acq On : 6 Feb 2014 10:23 am
Operator : KLP OX-HP5975MSD
Sample : BB40301-BLK1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 06 11:24:12 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.296	150	4193909	20.00	ug/mL	0.00
20) Naphthalene-D8	9.757	136	11169519	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.436	164	6880227	20.00	ug/mL	0.01
58) Phenanthrene-D10	16.517	188	12413255	20.00	ug/mL	# 0.01
73) Chrysene-D12	22.823	240	10946955	20.00	ug/mL	0.00
81) Perylene-D12	25.610	264	8971800	20.00	ug/mL	0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.301	112	5998342	43.09	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 86.18%			
6) Phenol-D5	6.847	99	8191294	44.37	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 88.74%			
21) Nitrobenzene-D5	8.409	82	3996643	20.11	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 80.44%			
40) 2-Fluorobiphenyl	12.094	172	8826241	20.03	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 80.12%			
62) 2,4,6-Tribromophenol	15.121	330	2247874	42.49	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 84.98%			
75) Terphenyl-d14	20.090	244	10526820	21.86	ug/mL	0.02
Spiked Amount 25.000	Range 33 - 141		Recovery = 87.44%			
Target Compounds						Qvalue
45) Dimethylphthalate	13.436	163	1046462	2.36	ug/mL#	1
70) Di-n-butylphthalate	18.047	149	573991	0.70	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	87735	0.18	ug/mL#	85

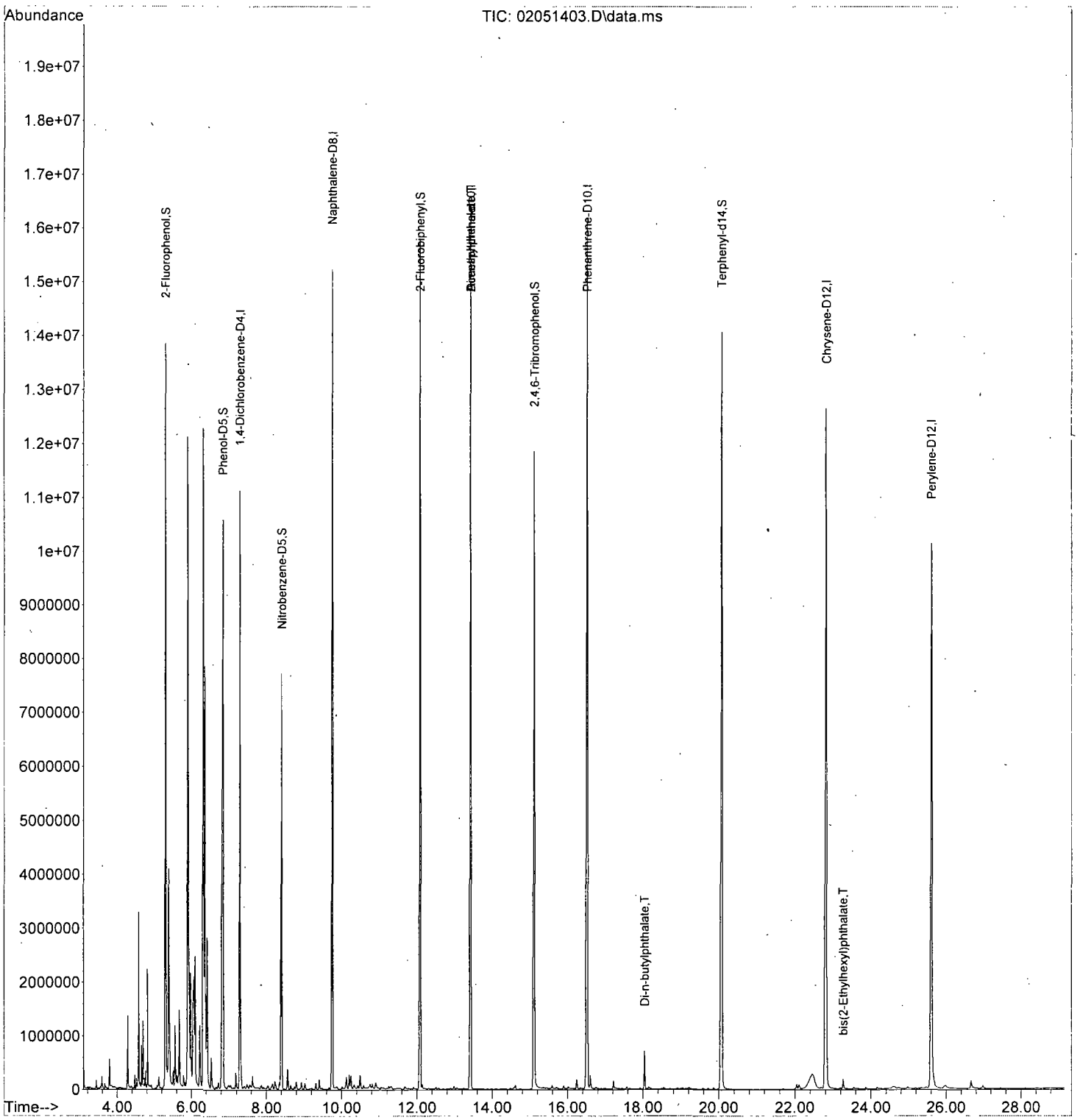
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0398

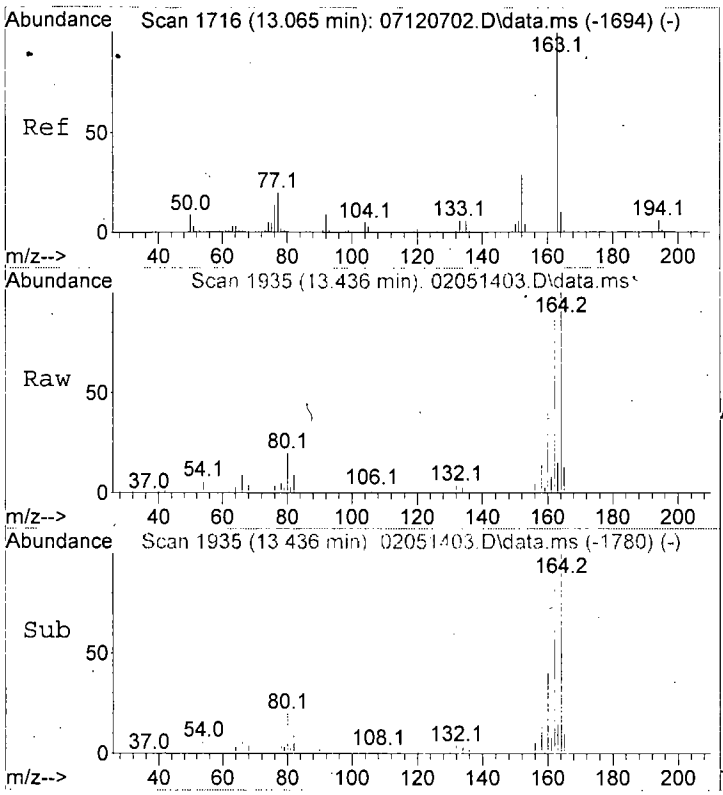
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051403.D
Acq On : 6 Feb 2014 10:23 am
Operator : KLP OX-HP5975MSD
Sample : BB40301-BLK1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 06 11:24:12 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



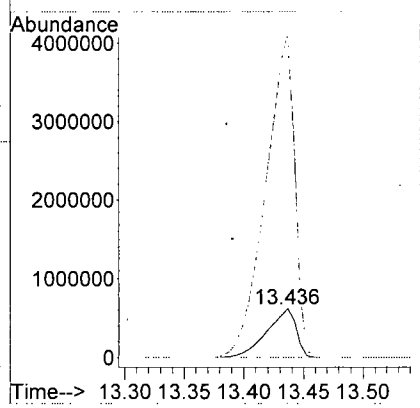
Freedom_0005790_0399

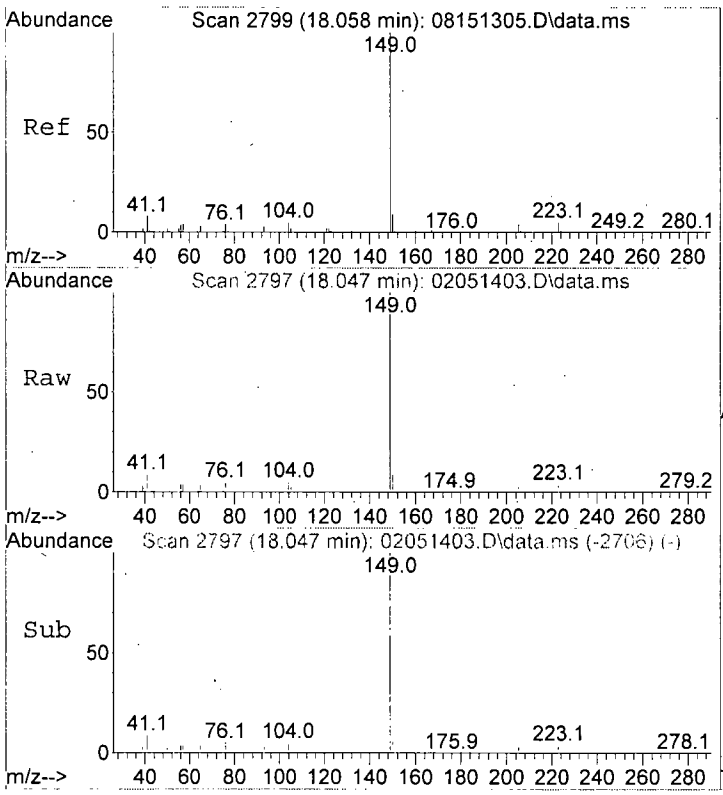


#45
Dimethylphthalate
Concen: 2.36 ug/mL
RT: 13.436 min Scan# 1935
Delta R.T. 0.332 min
Lab File: 02051403.D
Acq: 6 Feb 2014 10:23 am

Tgt Ion:163 Resp: 1046462

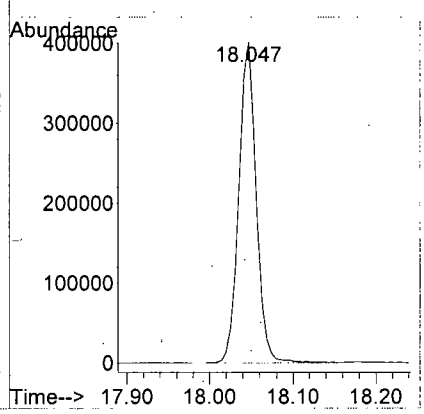
Ion	Ratio	Lower	Upper
163	100		
194	0.0	19.2	28.8#
164	657.5	20.0	30.0#



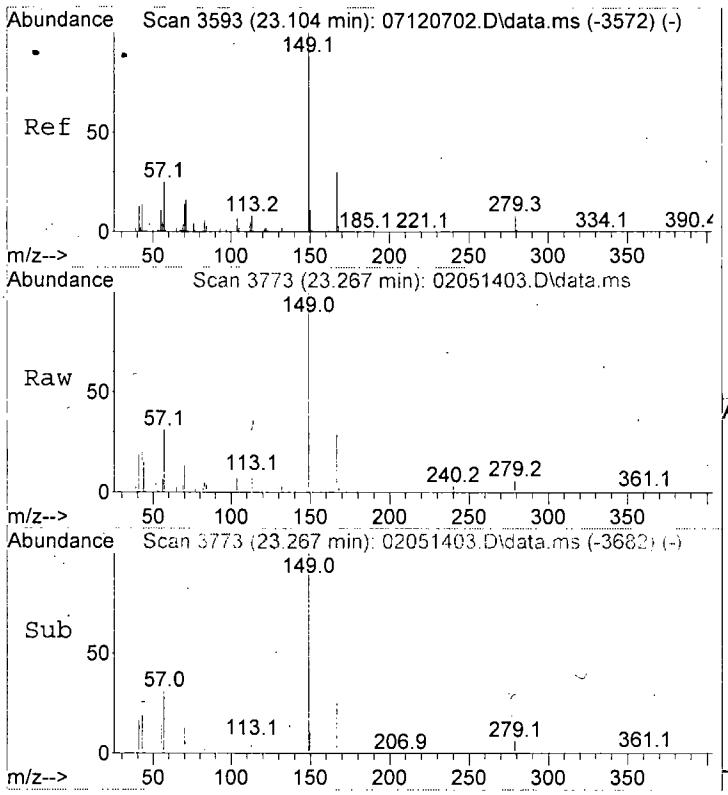


#70
Di-n-butylphthalate
Concen: 0.70 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02051403.D
Acq: 6 Feb 2014 10:23 am

Tgt Ion:149 Resp: 573991



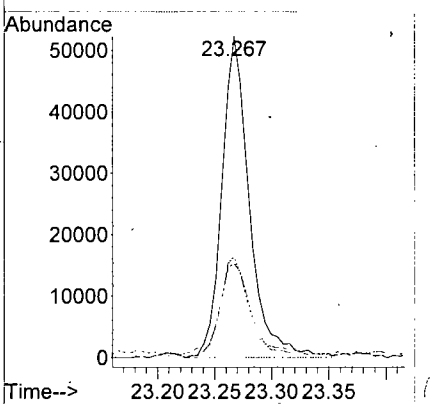
Freedom_0005790_0400



#80
bis(2-Ethylhexyl)phthalate
Concen: 0.18 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02051403.D
Acq: 6 Feb 2014 10:23 am

Tgt Ion:149 Resp: 87735

Ion	Ratio	Lower	Upper
149	100		
167	31.2	28.2	42.2
57	32.2	14.7	22.1#



Freedom_0005790_0401

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051404.D
Acq On : 6 Feb 2014 11:01 am
Operator : KLP OX-HP5975MSD
Sample : BB40301-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 06 12:01:09 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.285	150	1648345	20.00	ug/mL	-0.01
20) Naphthalene-D8	9.751	136	4376021	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.431	164	2655685	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.512	188	4790916	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.818	240	4318906	20.00	ug/mL	0.00
81) Perylene-D12	25.599	264	2545521	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.290	112	2251133	41.14	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 82.28%			
6) Phenol-D5	6.836	99	3117266	42.96	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 85.92%			
21) Nitrobenzene-D5	8.409	82	1616060	20.76	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 83.04%			
40) 2-Fluorobiphenyl	12.088	172	3684161	21.66	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 86.64%			
62) 2,4,6-Tribromophenol	15.116	330	902246	44.19	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 88.38%			
75) Terphenyl-d14	20.069	244	5742000	30.22	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 120.88%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.771	74	1370263	22.02	ug/mL#	1
4) Benzaldehyde	6.553	106	829436	28.92	ug/mL	90
5) Aniline	6.970	93	2194723	46.17	ug/mL#	44
7) Phenol	6.863	94	2657556	30.39	ug/mL#	71
8) 2-Chlorophenol	6.975	128	2249782	33.73	ug/mL#	68
9) Bis(2-chloroethyl) ether	6.970	93	2194723	31.17	ug/mL#	59
14) 2-Methylphenol	7.933	108	2064483	34.09	ug/mL	97
15) bis(2-Chloroisopropyl)...	7.970	45	3461148	26.81	ug/mL	95
16) Acetophenone	8.147	105	3172581	33.28	ug/mL	92
17) Hexachloroethane	8.216	117	921395	31.06	ug/mL#	78
18) 4-Methylphenol	8.237	107	2311468	33.12	ug/mL	89
19) N-Nitroso-di-n-propyla...	8.254	70	1745541	35.10	ug/mL#	59
22) Nitrobenzene	8.446	77	2522226	30.74	ug/mL#	77
23) Isophorone	8.927	82	4626334	31.87	ug/mL#	77
24) 2-Nitrophenol	9.067	139	1339298	30.14	ug/mL#	67
25) 2,4-Dimethylphenol	9.248	107	2004825	28.58	ug/mL	95
26) bis(2-Chloroethoxy)met...	9.446	93	2781243	31.15	ug/mL#	83
27) 2,4-Dichlorophenol	9.543	162	2027345	32.70	ug/mL#	84
28) 1,2,4-Trichlorobenzene	9.687	180	22244	0.32	ug/mL	98
29) Naphthalene	9.794	128	7477261	33.05	ug/mL	100
30) 4-Chloroaniline	10.003	127	1010382	24.52	ug/mL#	91
31) Hexachlorobutadiene	10.216	225	1214506	31.13	ug/mL	99
32) Caprolactam	10.751	113	620820	28.57	ug/mL#	23
33) 4-Chloro-3-methylphenol	11.110	107	2232387	33.51	ug/mL#	88
34) 2-Methylnaphthalene	11.227	142	5286915	32.94	ug/mL	96
35) 1,2,4,5-Tetrachloroben...	11.666	216	2235304	32.11	ug/ml	97
37) Hexachlorocyclopentadiene	11.719	237	701115	17.49	ug/mL	99
38) 2,4,6-Trichlorophenol	11.917	196	1541018	33.56	ug/mL#	87
39) 2,4,5-Trichlorophenol	11.992	196	1596769	34.22	ug/mL#	88

Freedom_0005790_0402

Data Path : D:\DATA\020514\
Data File : 02051404.D
Acq On : 6 Feb 2014 11:01 am
Operator : KLP OX-HP5975MSD
Sample : BB40301-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 06 12:01:09 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41)	2-Chloronaphthalene	12.228	162	4903949	34.00	ug/mL#	74
42)	Biphenyl	12.254	154	6534862	33.81	ug/mL	99
43)	2-Nitroaniline	12.581	138	1702706	34.32	ug/mL#	63
44)	Acenaphthylene	13.094	152	8377402	36.59	ug/mL	99
45)	Dimethylphthalate	13.105	163	6086422	35.58	ug/mL#	67
46)	2,6-Dinitrotoluene	13.217	165	1402970	34.06	ug/mL#	55
47)	3-Nitroaniline	12.581	138	1702706	34.32	ug/mL#	58
48)	Acenaphthene	13.501	153	5370956	33.86	ug/mL	99
49)	2,4-Dinitrophenol	13.666	184	363829	16.80	ug/mL#	48
50)	Dibenzofuran	13.838	168	7328796	33.30	ug/mL	92
51)	4-Nitrophenol	13.902	139	898532	32.54	ug/mL#	32
52)	2,4-Dinitrotoluene	14.014	165	1884600	33.09	ug/mL#	62
53)	2,3,4,6-tetrachlorophenol	14.228	232	1380308	33.23	ug/mL#	85
54)	Fluorene	14.565	166	6342335	33.91	ug/mL	100
55)	Diethylphthalate	14.618	149	6331599	34.88	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.634	204	2879825	34.52	ug/mL#	83
57)	4-Nitroaniline	14.763	138	481588m	28.63	ug/mL	
59)	4,6-Dinitro-2-methylph...	14.854	198	1001837	30.62	ug/mL#	74
60)	n-Nitrosodiphenylamine	14.918	169	4791785	43.44	ug/mL	98
61)	Azobenzene	14.854	77	255196	30.28	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.645	248	1631792	32.34	ug/mL#	81
64)	Hexachlorobenzene	15.891	284	1699622	32.42	ug/mL	100
65)	Atrazine	16.202	200	1655188	76.72	ug/mL#	72
66)	Pentachlorophenol	16.298	266	1141346	30.63	ug/mL	96
67)	Phenanthrene	16.565	178	9092744	33.13	ug/mL	100
68)	Anthracene	16.662	178	8978801	33.47	ug/mL	99
69)	Carbazole	17.052	167	5270634	71.94	ug/mL	100
70)	Di-n-butylphthalate	18.063	149	11242881	35.43	ug/mL	100
72)	Fluoranthene	19.085	202	10017290	31.69	ug/mL	99
74)	Pyrene	19.550	202	10347799	36.28	ug/mL	100
76)	Benzyl butyl phthalate	21.727	149	6232776	46.16	ug/mL#	85
77)	Benz[a]anthracene	22.780	228	8332490	31.55	ug/mL	99
78)	Chrysene	22.882	228	7674492	30.91	ug/mL	99
79)	3,3'-Dichlorobenzidine	22.845	252	1003400	25.66	ug/mL#	53
80)	bis(2-Ethylhexyl)phtha...	23.278	149	5345785	28.50	ug/mL#	84
82)	Di-n-Octylphthalate	24.439	149	7268276	37.73	ug/mL#	87
83)	Benzo[b]fluoranthene	24.898	252	5909517	34.28	ug/mL	99
84)	Benzo[k]fluoranthene	24.947	252	5781744	38.46	ug/mL	99
85)	Benzo[a]pyrene	25.492	252	4929205	37.98	ug/mL	99
86)	Indeno[1,2,3-cd]pyrene	27.856	276	2496956	28.22	ug/mL	100
87)	Dibenz[a,h]anthracene	27.920	278	2596679	28.05	ug/mL	98
88)	Benzo[ghi]perylene	28.455	276	2505994	27.27	ug/mL	99

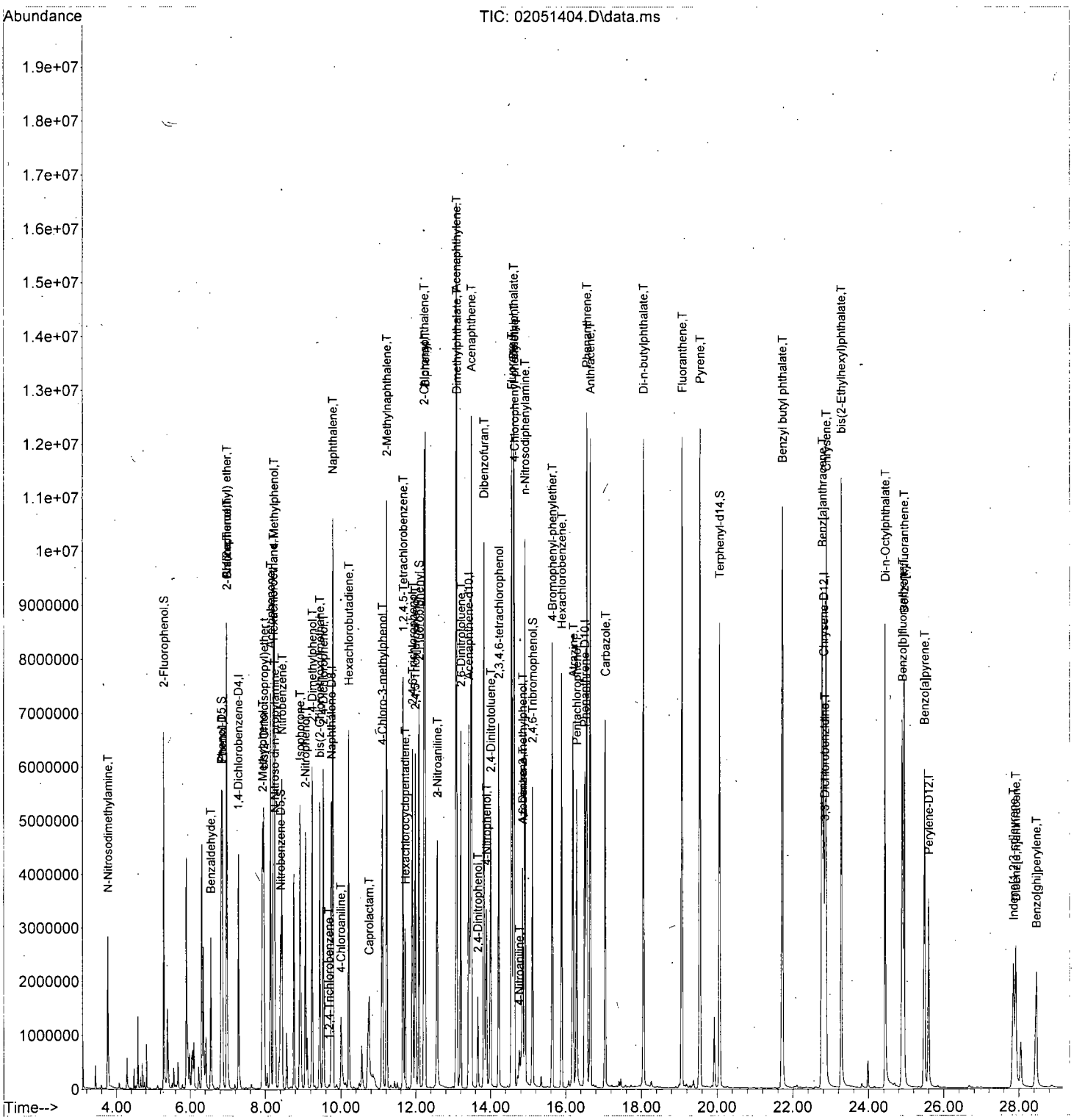
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0403

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02051404.D
Acq On : 6 Feb 2014 11:01 am
Operator : KLP OX-HP5975MSD
Sample : BB40301-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 06 12:01:09 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

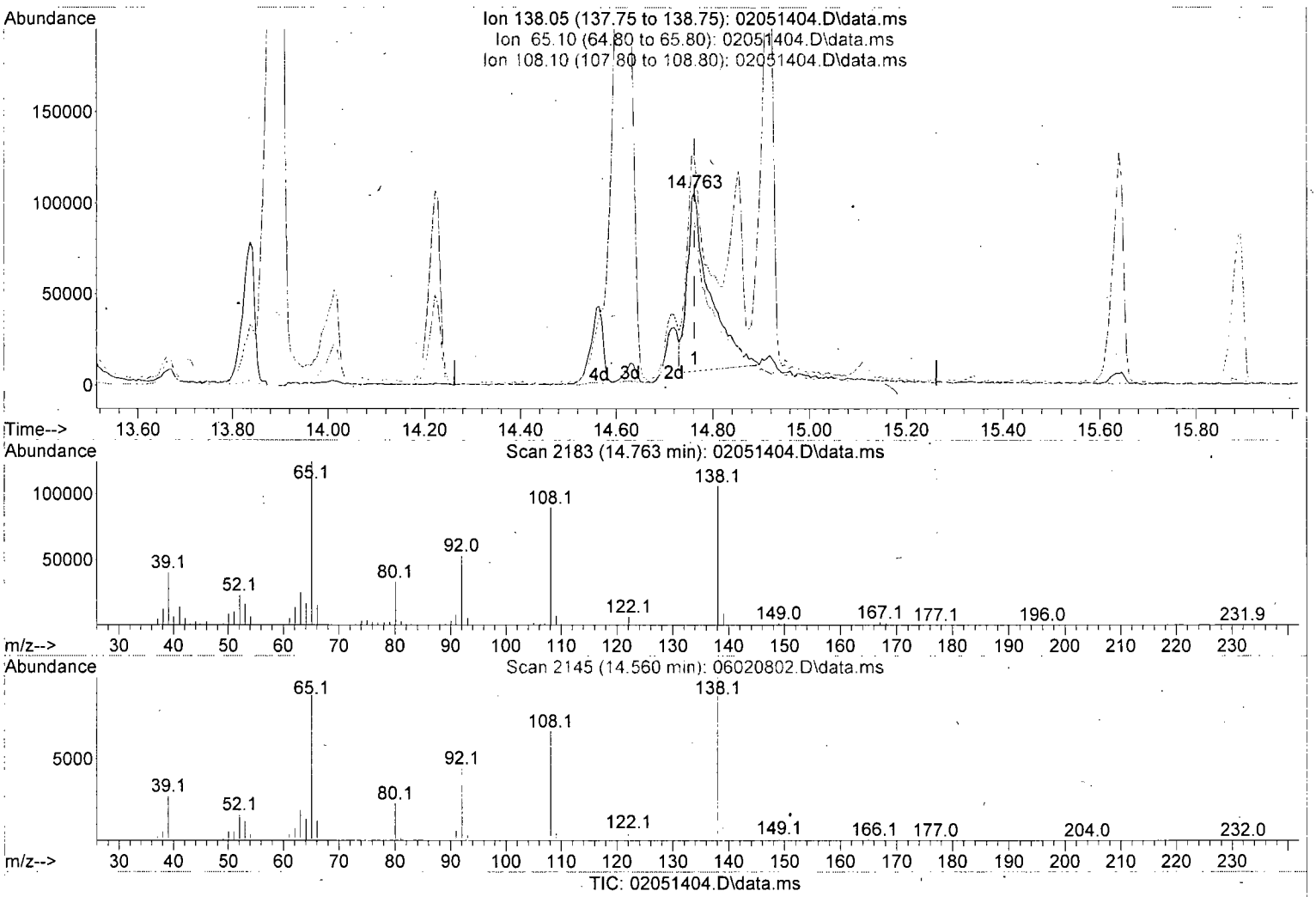


Freedom_0005790_0404

Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02051404.D
Acq On : 6 Feb 2014 11:01 am
Operator : KLP OX-HP5975MSD
Sample : BB40301-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 06 11:58:10 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.763min (-0.000) 18.89 ug/mL

response 317845

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	116.36#
108.10	51.50	99.16#
0.00	0.00	0.00

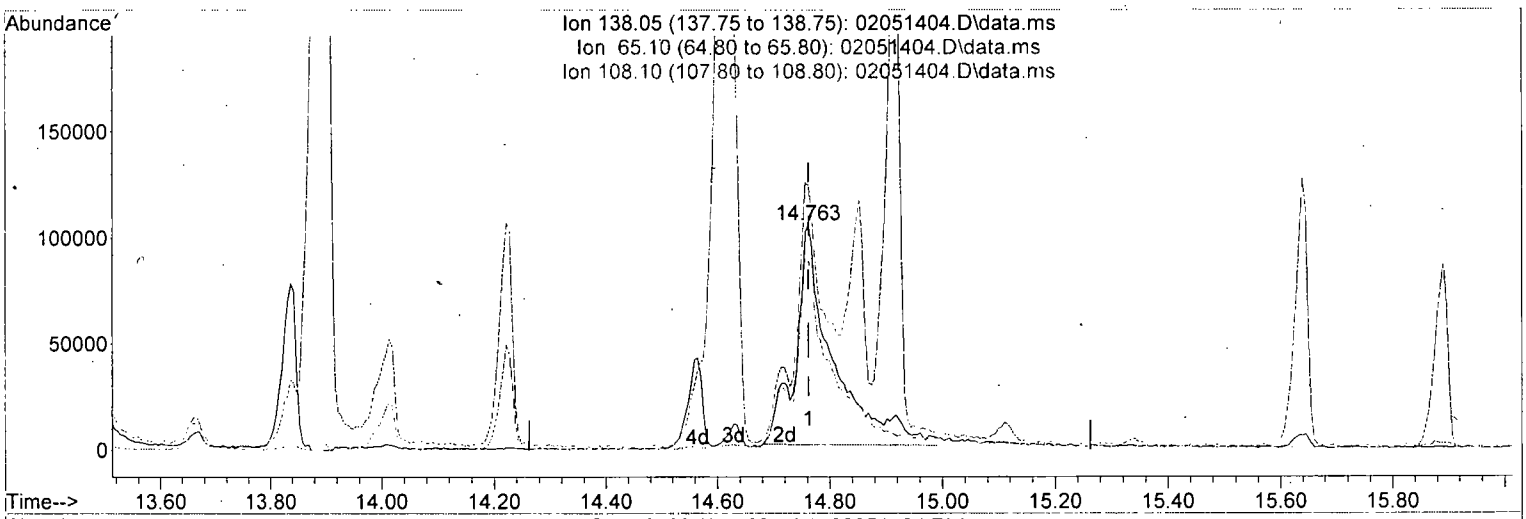
Before Incorrect Rise In Baseline 2/6/14 KC

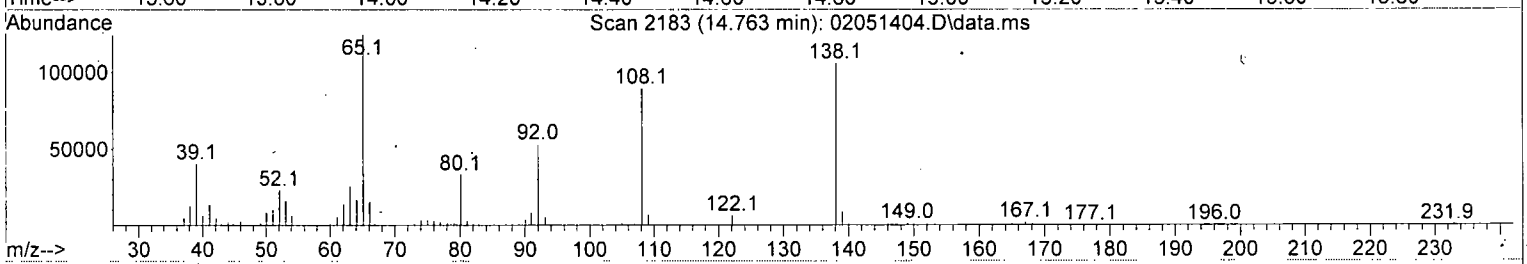
Freedom_0005790_0405

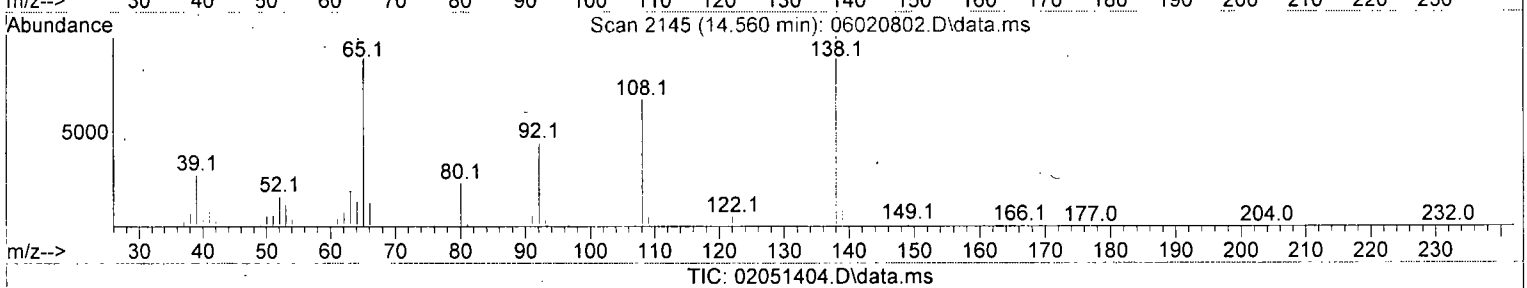
Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02051404.D
Acq On : 6 Feb 2014 11:01 am
Operator : KLP OX-HP5975MSD
Sample : BB40301-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 06 11:58:10 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02051404.D\data.ms

(57) 4-Nitroaniline (T)

14.763min (-0.000) 28.63 ug/mL m

response 481588

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	76.80
108.10	51.50	65.45#
0.00	0.00	0.00

KLP 2/6/14 ERD 2/26/14

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111403.D
Acq On : 11 Feb 2014 2:49 pm
Operator : KLP OX-HP5975MSD
Sample : BB40502-BLK1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 09:54:07 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.286	150	1643807	20.00	ug/mL	-0.01
20) Naphthalene-D8	9.746	136	4330714	20.00	ug/mL	-0.01
36) Acenaphthene-d10	13.421	164	2658572	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.501	188	4805800	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.797	240	3722482	20.00	ug/mL	-0.02
81) Perylene-D12	25.589	264	2103911	20.00	ug/mL	-0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	2321847	42.55	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 85.10%			
6) Phenol-D5	6.826	99	3141728	43.42	ug/mL	-0.03
Spiked Amount 50.000	Range 10 - 110		Recovery = 86.84%			
21) Nitrobenzene-D5	8.393	82	1502250	19.50	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 78.00%			
40) 2-Fluorobiphenyl	12.078	172	3354584	19.70	ug/mL	-0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 78.80%			
62) 2,4,6-Tribromophenol	15.105	330	793317	38.73	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 77.46%			
75) Terphenyl-d14	20.069	244	3829327	23.38	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 93.52%			
Target Compounds						Qvalue
70) Di-n-butylphthalate	18.047	149	109886	0.35	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	9539	0.06	ug/mL#	86

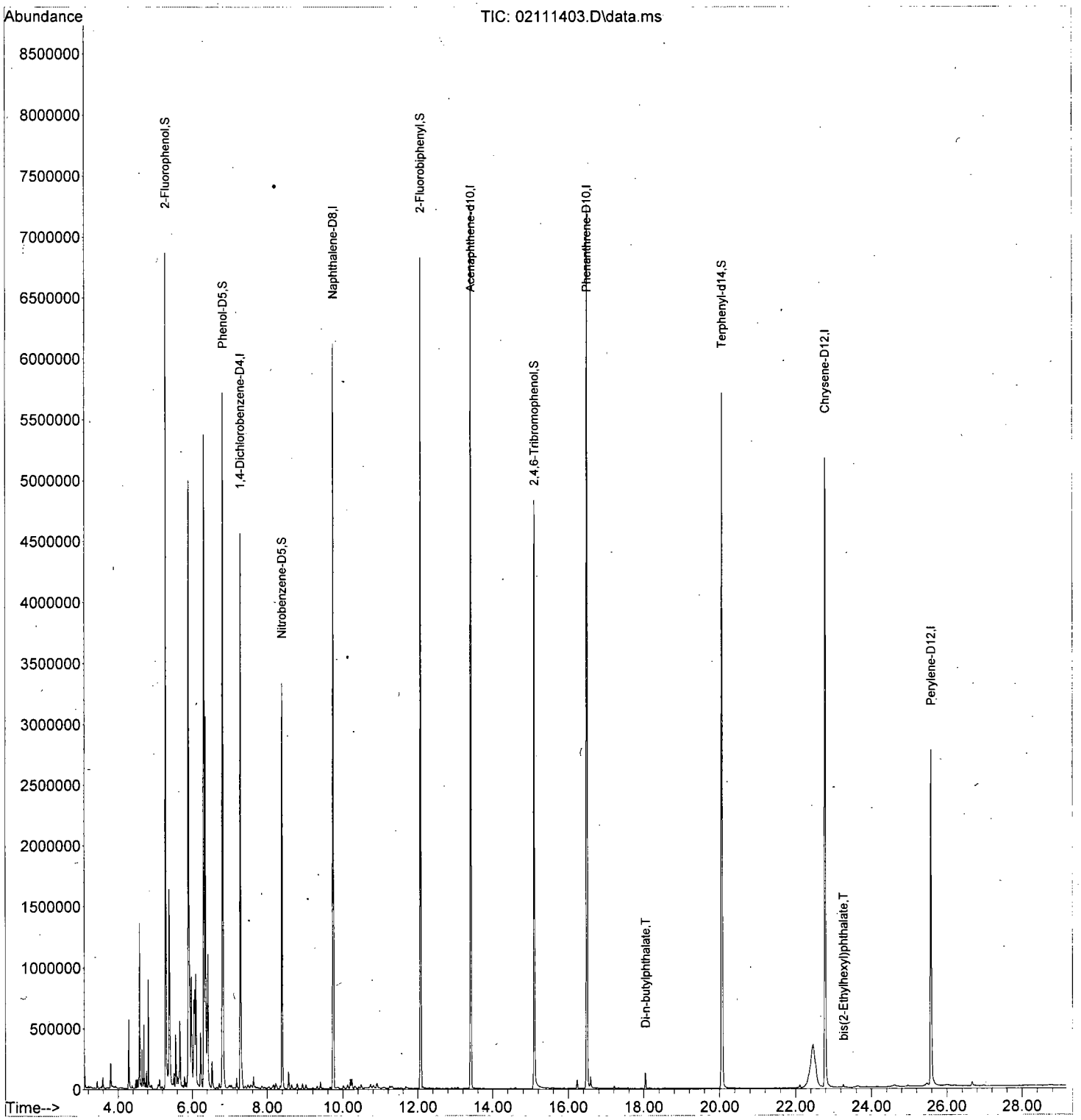
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0407

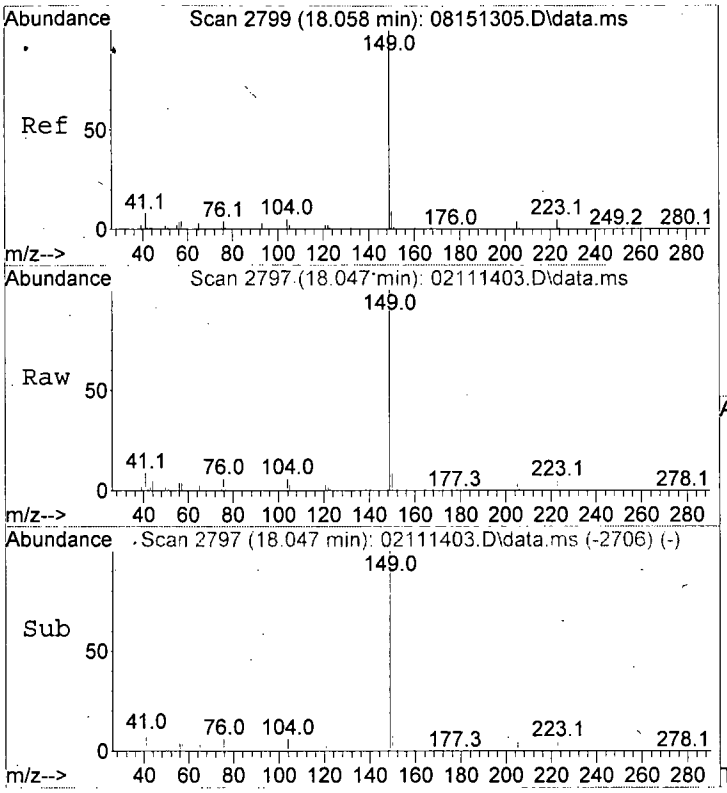
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111403.D
Acq On : 11 Feb 2014 2:49 pm
Operator : KLP OX-HP5975MSD
Sample : BB40502-BLK1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 12 09:54:07 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

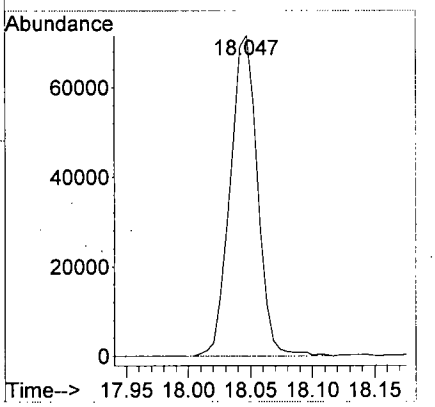


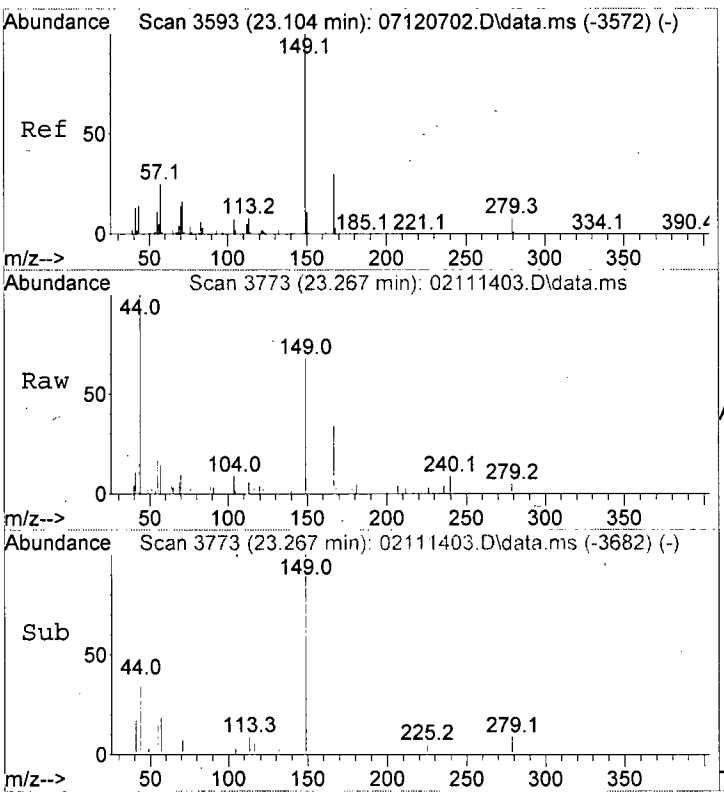
Freedom_0005790_0408



#70
Di-n-butylphthalate
Concen: 0.35 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02111403.D
Acq: 11 Feb 2014 2:49 pm

Tgt Ion:149 Resp: 109886

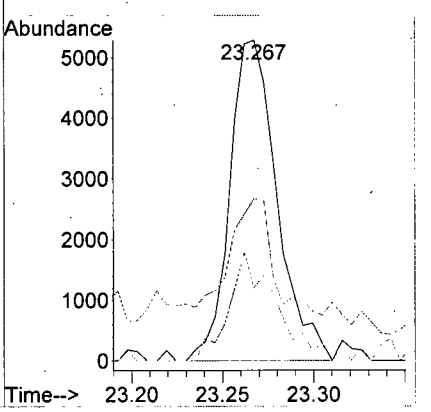




#80
bis(2-Ethylhexyl)phthalate
Concen: 0.06 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02111403.D
Acq: 11 Feb 2014 2:49 pm

Tgt Ion:149 Resp: 9539

Ion	Ratio	Lower	Upper
149	100		
167	34.0	28.2	42.2
57	34.5	14.7	22.1#



Freedom_0005790_0409

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111404.D
Acq On : 11 Feb 2014 3:26 pm
Operator : KLP OX-HP5975MSD
Sample : BB40502-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 10:13:48 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.291	150	1738025	20.00	ug/mL	0.00
20) Naphthalene-D8	9.757	136	4666703	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.431	164	2805742	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.512	188	5164343	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.818	240	4520927	20.00	ug/mL	0.00
81) Perylene-D12	25.599	264	2593630	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	2179522	37.78	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 75.56%			
6) Phenol-D5	6.836	99	3062027	40.02	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 80.04%			
21) Nitrobenzene-D5	8.409	82	1565547	18.86	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 75.44%			
40) 2-Fluorobiphenyl	12.089	172	3557195	19.80	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 79.20%			
62) 2,4,6-Tribromophenol	15.116	330	892504	40.55	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 81.10%			
75) Terphenyl-d14	20.069	244	4067583	20.45	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 81.80%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.772	74	1364400	20.80	ug/mL#	1
4) Benzaldehyde	6.553	106	940188	31.09	ug/mL	91
7) Phenol	6.863	94	2610052	28.30	ug/mL#	72
8) 2-Chlorophenol	6.975	128	2210344	31.43	ug/mL#	68
9) Bis(2-chloroethyl) ether	6.970	93	2133875	28.74	ug/mL#	59
14) 2-Methylphenol	7.938	108	1993791	31.23	ug/mL#	90
15) bis(2-Chloroisopropyl)...	7.965	45	3279810	24.10	ug/mL	95
16) Acetophenone	8.147	105	3115324	30.99	ug/mL	92
17) Hexachloroethane	8.216	117	785310	25.11	ug/mL#	78
18) 4-Methylphenol	8.238	107	2252281	30.61	ug/mL	90
19) N-Nitroso-di-n-propyla...	8.254	70	1670045	31.85	ug/mL#	59
22) Nitrobenzene	8.446	77	2454981	28.06	ug/mL#	77
23) Isophorone	8.928	82	4481870	28.95	ug/mL#	77
24) 2-Nitrophenol	9.067	139	1311945	27.69	ug/mL#	68
25) 2,4-Dimethylphenol	9.249	107	1632014	21.82	ug/mL	95
26) bis(2-Chloroethoxy)met...	9.446	93	2718931	28.55	ug/mL#	84
27) 2,4-Dichlorophenol	9.543	162	1967347	29.76	ug/mL#	85
28) 1,2,4-Trichlorobenzene	9.687	180	21425	0.29	ug/mL	98
29) Naphthalene	9.794	128	6835845	28.33	ug/mL	100
30) 4-Chloroaniline	10.003	127	992155	22.58	ug/mL#	90
31) Hexachlorobutadiene	10.217	225	1083272	26.04	ug/mL	99
32) Caprolactam	10.751	113	606951	26.19	ug/mL#	35
33) 4-Chloro-3-methylphenol	11.110	107	2145838	30.21	ug/mL#	88
34) 2-Methylnaphthalene	11.228	142	5052013	29.52	ug/mL	96
35) 1,2,4,5-Tetrachloroben...	11.666	216	2158649	29.07	ug/ml	98
37) Hexachlorocyclopentadiene	11.714	237	173648	4.10	ug/mL	99
38) 2,4,6-Trichlorophenol	11.917	196	1499645	30.91	ug/mL#	87
39) 2,4,5-Trichlorophenol	11.992	196	1564392	31.73	ug/mL#	90
41) 2-Chloronaphthalene	12.228	162	4731071	31.05	ug/mL#	73

Freedom_0005790_0410

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111404.D
Acq On : 11 Feb 2014 3:26 pm
Operator : KLP OX-HP5975MSD
Sample : BB40502-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 10:13:48 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	Biphenyl	12.254	154	6372905	31.21 ug/mL	99
43)	2-Nitroaniline	12.575	138	1674132	31.94 ug/mL#	66
44)	Acenaphthylene	13.094	152	7920123	32.75 ug/mL	97
45)	Dimethylphthalate	13.105	163	5934755	32.84 ug/mL#	67
46)	2,6-Dinitrotoluene	13.217	165	1373351	31.56 ug/mL#	57
47)	3-Nitroaniline	12.575	138	1674132	31.94 ug/mL#	59
48)	Acenaphthene	13.501	153	5228083	31.20 ug/mL	99
49)	2,4-Dinitrophenol	13.666	184	375705	16.42 ug/mL#	50
50)	Dibenzofuran	13.838	168	7145665	30.74 ug/mL	93
51)	4-Nitrophenol	13.902	139	886931	30.41 ug/mL#	46
52)	2,4-Dinitrotoluene	14.020	165	1874376	31.15 ug/mL#	64
53)	2,3,4,6-tetrachlorophenol	14.223	232	1363900	31.08 ug/mL#	85
54)	Fluorene	14.565	166	6153428	31.14 ug/mL	100
55)	Diethylphthalate	14.613	149	6183281	32.24 ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.635	204	2822455	32.02 ug/mL#	84
57)	4-Nitroaniline	14.763	138	552182m	31.07 ug/mL	
59)	4,6-Dinitro-2-methylph...	14.854	198	1017372	28.85 ug/mL#	76
60)	n-Nitrosodiphenylamine	14.918	169	4515299	37.98 ug/mL	97
61)	Azobenzene	14.854	77	250974	27.63 ug/mL#	1
63)	4-Bromophenyl-phenylether	15.640	248	1618605	29.76 ug/mL#	82
64)	Hexachlorobenzene	15.892	284	1670634	29.56 ug/mL	99
65)	Atrazine	16.202	200	1564911	67.29 ug/mL#	72
66)	Pentachlorophenol	16.298	266	1152289	28.69 ug/mL	96
67)	Phenanthrene	16.571	178	8915248	30.13 ug/mL	99
68)	Anthracene	16.662	178	8876389	30.70 ug/mL	99
69)	Carbazole	17.047	167	3953645	50.06 ug/mL	99
70)	Di-n-butylphthalate	18.063	149	10971651	32.08 ug/mL	100
72)	Fluoranthene	19.085	202	9841584	28.88 ug/mL	99
74)	Pyrene	19.550	202	10179571	34.09 ug/mL	99
76)	Benzyl butyl phthalate	21.727	149	4396656	31.11 ug/mL#	86
77)	Benz[a]anthracene	22.775	228	7981407	28.87 ug/mL	99
78)	Chrysene	22.882	228	7378078	28.39 ug/mL	99
79)	3,3'-Dichlorobenzidine	22.845	252	945503	23.10 ug/mL#	53
80)	bis(2-Ethylhexyl)phtha...	23.278	149	5179299	26.38 ug/mL#	85
82)	Di-n-Octylphthalate	24.433	149	7080993	36.07 ug/mL#	87
83)	Benzo[b]fluoranthene	24.893	252	5504340	31.34 ug/mL	99
84)	Benzo[k]fluoranthene	24.947	252	5421077	35.39 ug/mL	99
85)	Benzo[a]pyrene	25.492	252	4527186	34.23 ug/mL	99
86)	Indeno[1,2,3-cd]pyrene	27.856	276	2298099	25.49 ug/mL	99
87)	Dibenz[a,h]anthracene	27.915	278	2451341	25.99 ug/mL	97
88)	Benzo[ghi]perylene	28.455	276	2289236	24.45 ug/mL	99

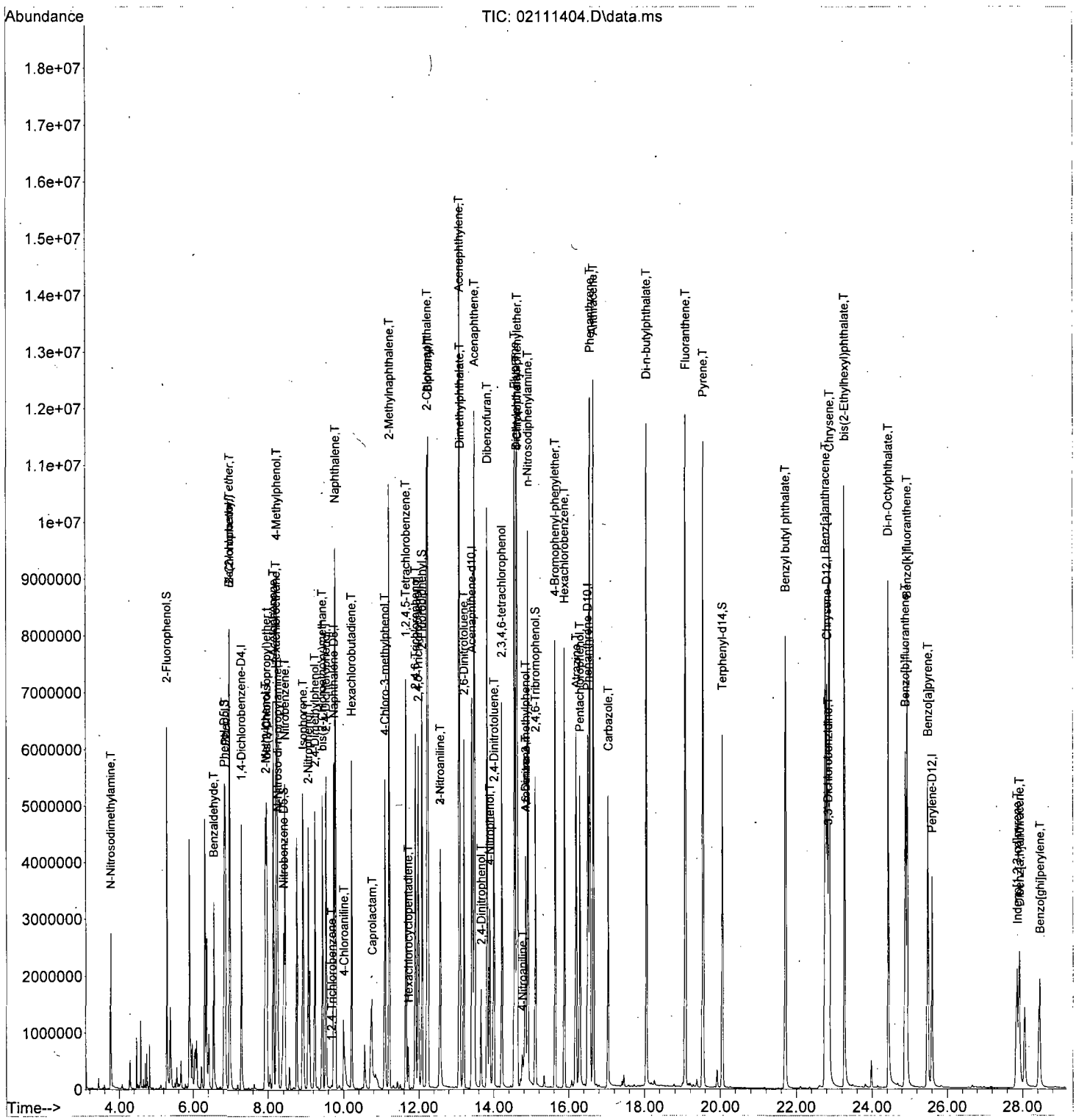
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0411

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\020514\
Data File : 02111404.D
Acq On : 11 Feb 2014 3:26 pm
Operator : KLP OX-HP5975MSD
Sample : BB40502-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

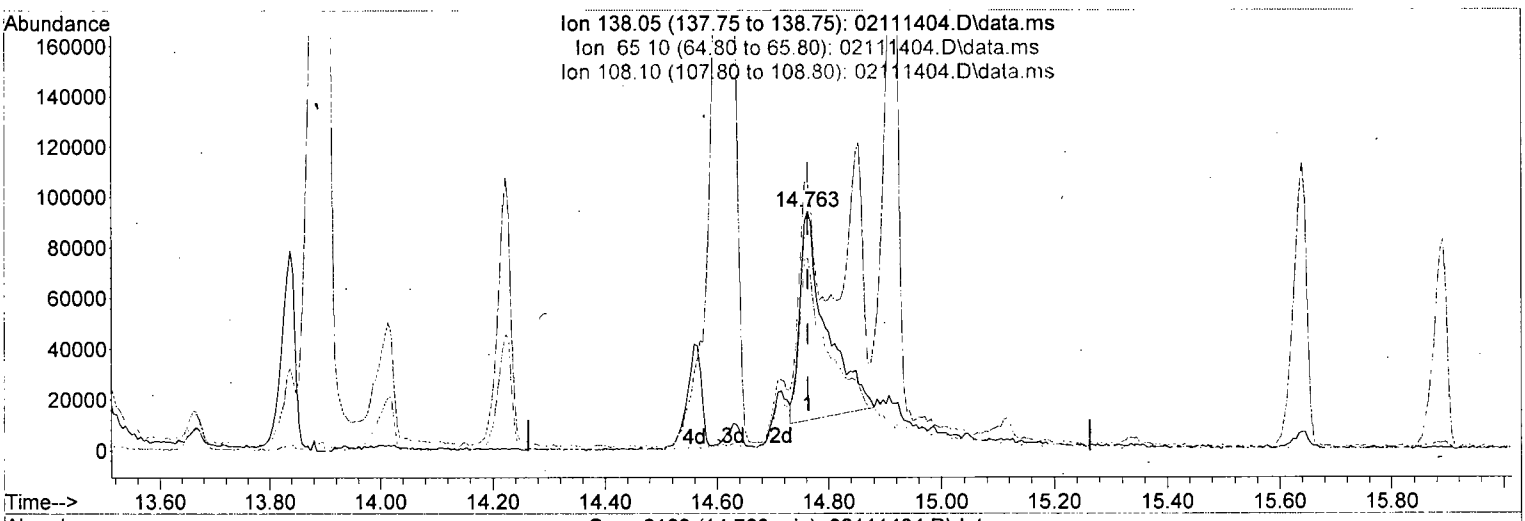
Quant Time: Feb 12 10:13:48 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

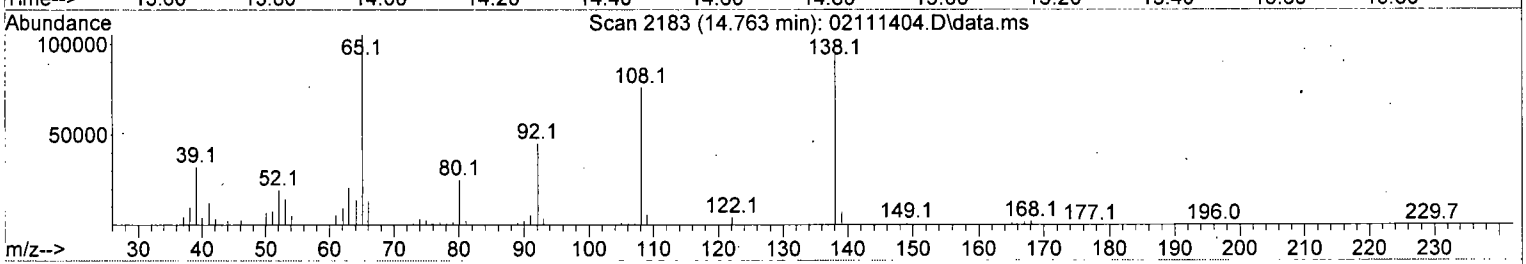


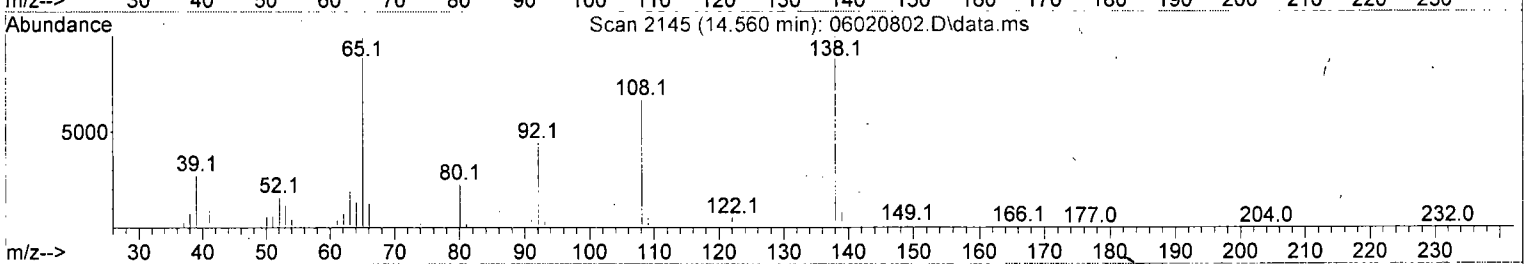
Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02111404.D
Acq On : 11 Feb 2014 3:26 pm
Operator : KLP OX-HP5975MSD
Sample : BB40502-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 10:11:30 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02111404.D\data.ms

(57) 4-Nitroaniline (T)

14.763min (-0.000) 15.26 ug/mL

response 271282

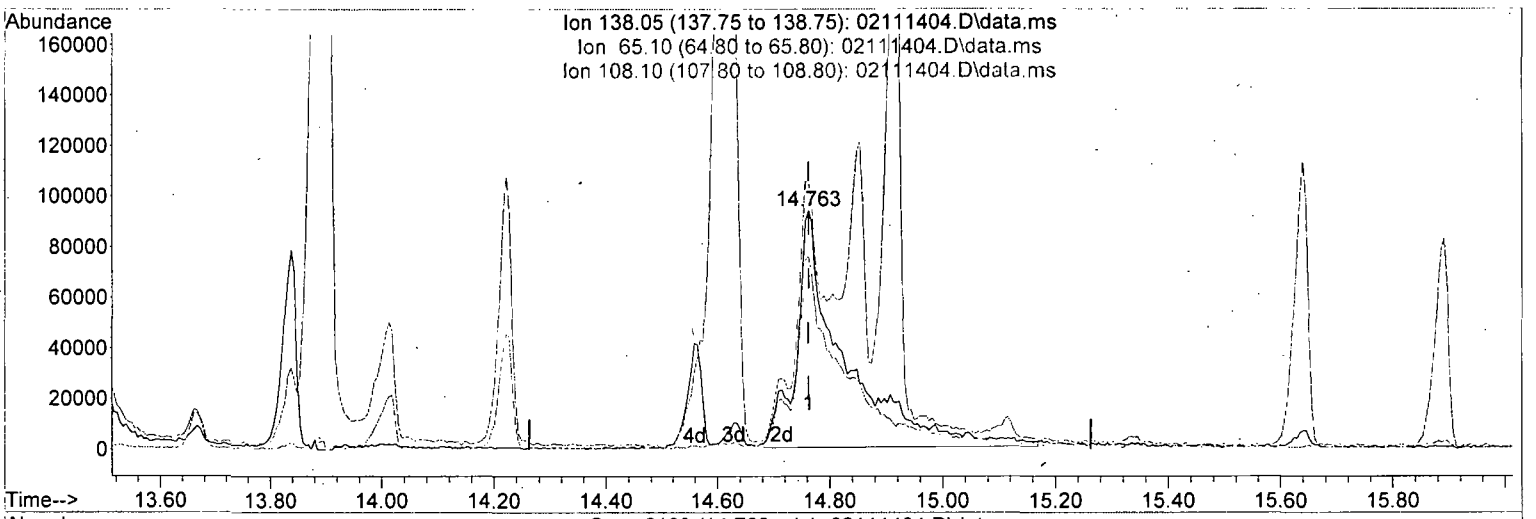
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	67.01
108.10	51.50	105.39#
0.00	0.00	0.00

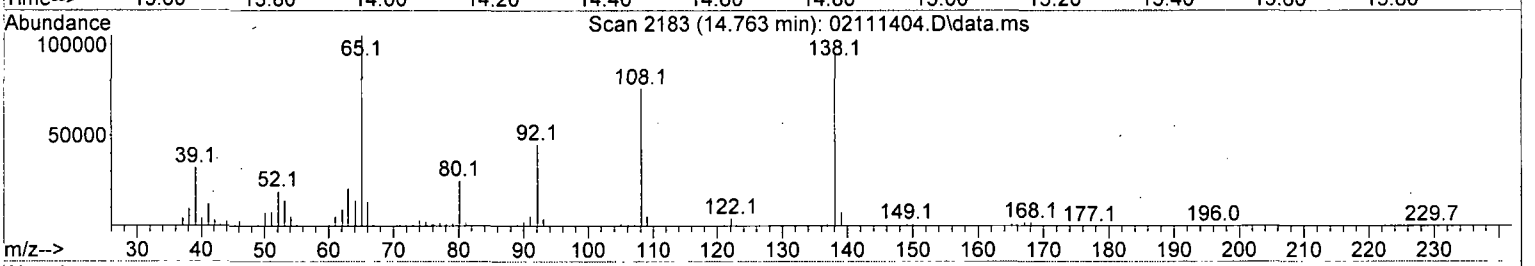
Before Integration KP 2/12/14

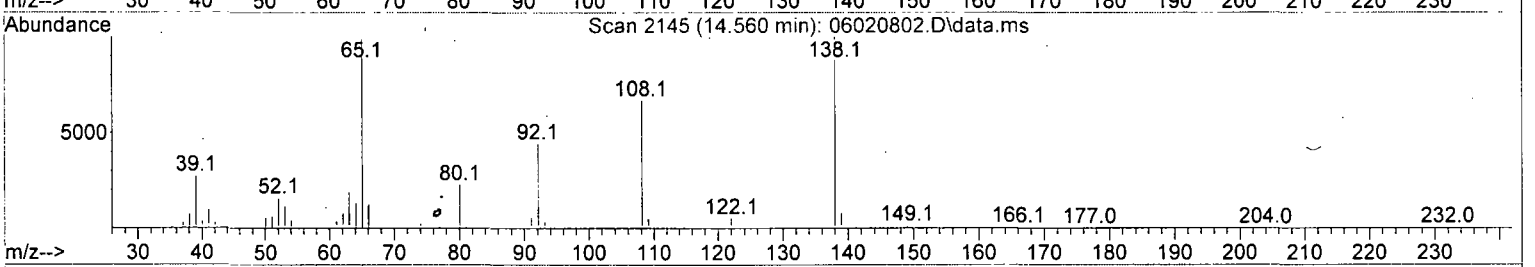
Quantitation Report (Qedit)

Data Path : D:\DATA\020514\
Data File : 02111404.D
Acq On : 11 Feb 2014 3:26 pm
Operator : KLP OX-HP5975MSD
Sample : BB40502-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 12 10:11:30 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02111404.D\data.ms

(57) 4-Nitroaniline (T)

14.763min (-0.000) 31.07 ug/mL m

response 552182

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	32.92#
108.10	51.50	51.77
0.00	0.00	0.00

Acc
LC
2/12/14
EDY
2/27/14

Freedom_0005790_0414

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241403.D
Acq On : 24 Feb 2014 3:45 pm
Operator : KLP OX-HP5975MSD
Sample : BB41002-BLK1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 11:14:58 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.291	150	2230842	20.00	ug/mL	0.00
20) Naphthalene-D8	9.751	136	5902269	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.426	164	3607559	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.507	188	6459835	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.807	240	4820477	20.00	ug/mL	-0.01
81) Perylene-D12	25.594	264	2585741	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	2310965	31.21	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 62.42%			
6) Phenol-D5	6.831	99	3110272	31.67	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 63.34%			
21) Nitrobenzene-D5	8.398	82	1483296	14.13	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 56.52%			
40) 2-Fluorobiphenyl	12.083	172	3405337	14.74	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 58.96%			
62) 2,4,6-Tribromophenol	15.105	330	791785	28.76	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 57.52%			
75) Terphenyl-d14	20.074	244	3912784	18.45	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 73.80%			
Target Compounds						Qvalue
70) Di-n-butylphthalate	18.047	149	390078	0.91	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	33527	0.16	ug/mL#	83

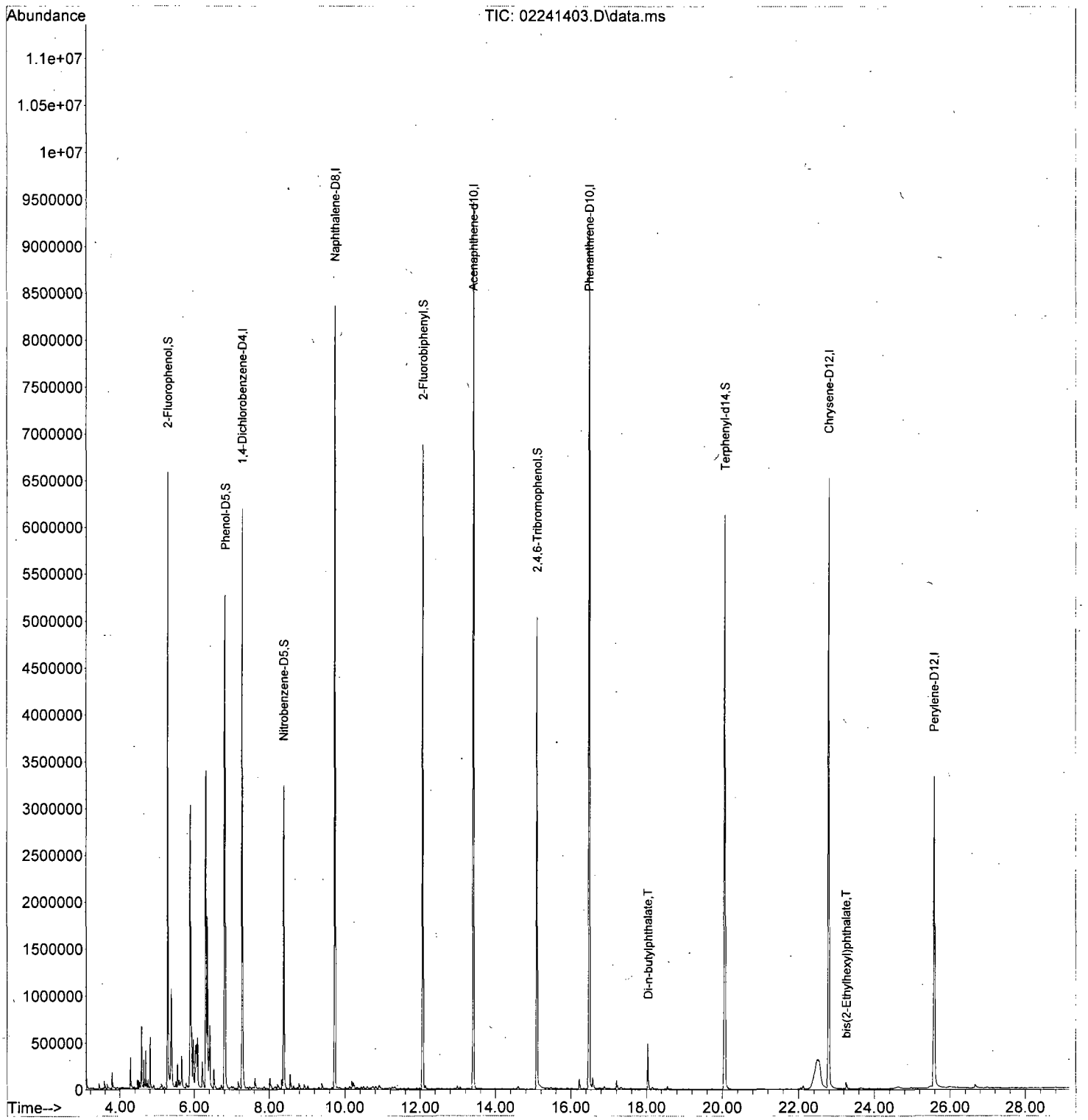
(#) = qualifier out of range (m) = manual integration (+) = signals summed

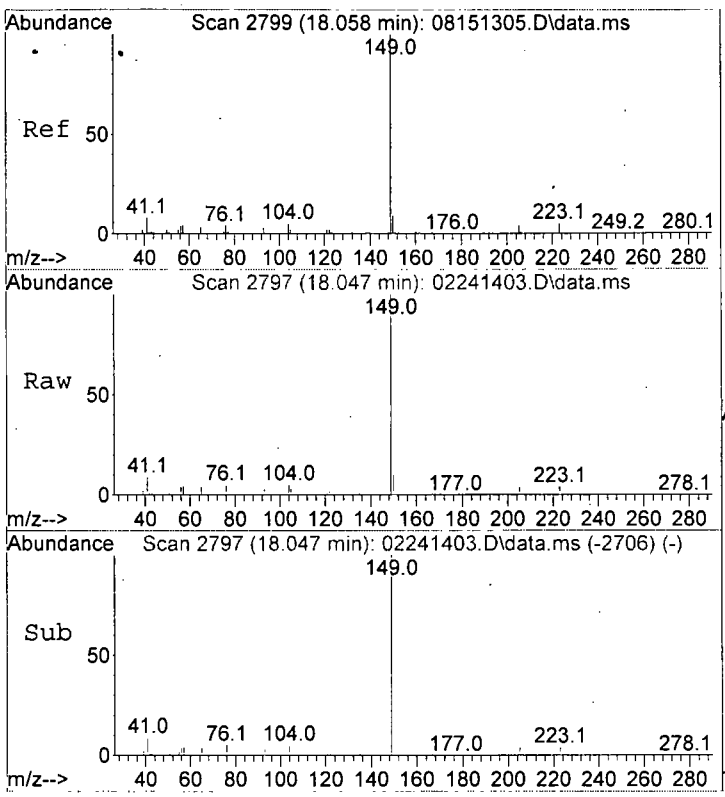
Freedom_0005790_0415

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241403.D
Acq On : 24 Feb 2014 3:45 pm
Operator : KLP OX-HP5975MSD
Sample : BB41002-BLK1
Misc :
ALS Vial : 2 Sample Multiplier: 1

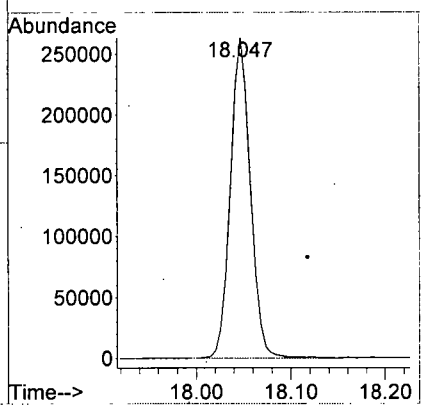
Quant Time: Feb 25 11:14:58 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

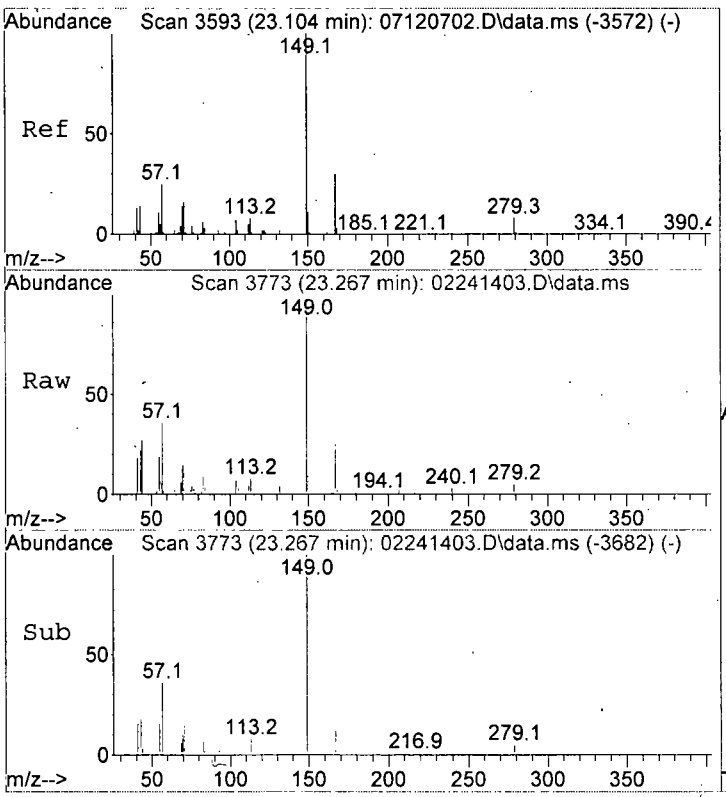




#70
Di-n-butylphthalate
Concen: 0.91 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02241403.D
Acq: 24 Feb 2014 3:45 pm

Tgt Ion:149 Resp: 390078

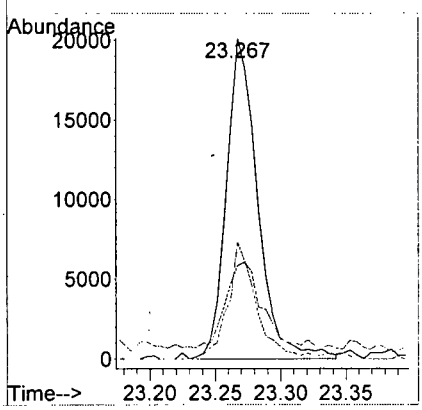




#80
bis(2-Ethylhexyl)phthalate
Concen: 0.16 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02241403.D
Acq: 24 Feb 2014 3:45 pm

Tgt Ion:149 Resp: 33527

Ion	Ratio	Lower	Upper
149	100		
167	30.2	28.2	42.2
57	32.9	14.7	22.1#



Freedom_0005790_0417

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241404.D
Acq On : 24 Feb 2014 4:22 pm
Operator : KLP OX-HP5975MSD
Sample : BB41002-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:20:30 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.296	150	2456309	20.00	ug/mL	0.00
20) Naphthalene-D8	9.762	136	6652884	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.436	164	4017953	20.00	ug/mL	0.01
58) Phenanthrene-D10	16.523	188	7420828	20.00	ug/mL	# 0.02
73) Chrysene-D12	22.834	240	6241992	20.00	ug/mL	0.02
81) Perylene-D12	25.610	264	3369767	20.00	ug/mL	0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.296	112	2501784	30.68	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 61.36%			
6) Phenol-D5	6.847	99	3464155	32.04	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 64.08%			
21) Nitrobenzene-D5	8.414	82	1768309	14.94	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 59.76%			
40) 2-Fluorobiphenyl	12.099	172	4047572	15.73	ug/mL	0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 62.92%			
62) 2,4,6-Tribromophenol	15.127	330	999188	31.59	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 63.18%			
75) Terphenyl-d14	20.079	244	4591269	16.72	ug/mL	0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 66.88%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.777	74	1571817	16.95	ug/mL#	1
4) Benzaldehyde	6.558	106	1283062	30.02	ug/mL	91
7) Phenol	6.874	94	2950554	22.64	ug/mL#	72
8) 2-Chlorophenol	6.986	128	2523277	25.39	ug/mL#	68
9) Bis(2-chloroethyl) ether	6.975	93	2430724	23.16	ug/mL#	61
14) 2-Methylphenol	7.943	108	2286119	25.33	ug/mL#	90
15) bis(2-Chloroisopropyl)...	7.975	45	3684528	19.15	ug/mL	95
16) Acetophenone	8.152	105	3499490	24.63	ug/mL	92
17) Hexachloroethane	8.221	117	1095131	24.78	ug/mL#	78
18) 4-Methylphenol	8.243	107	2570670	24.72	ug/mL	89
19) N-Nitroso-di-n-propyla...	8.264	70	1877065	25.33	ug/mL#	59
22) Nitrobenzene	8.457	77	2778533	22.27	ug/mL#	78
23) Isophorone	8.938	82	4985672	22.59	ug/mL#	77
24) 2-Nitrophenol	9.077	139	1490281	22.06	ug/mL#	69
25) 2,4-Dimethylphenol	9.259	107	2127306	19.95	ug/mL	95
26) bis(2-Chloroethoxy)met...	9.457	93	3029458	22.32	ug/mL#	84
27) 2,4-Dichlorophenol	9.553	162	2232313	23.69	ug/mL#	84
28) 1,2,4-Trichlorobenzene	9.692	180	26996	0.25	ug/mL	97
29) Naphthalene	9.805	128	8386267	24.38	ug/mL	100
30) 4-Chloroaniline	10.013	127	1202266	19.19	ug/mL#	92
31) Hexachlorobutadiene	10.222	225	1426551	24.05	ug/mL	99
32) Caprolactam	10.778	113	702285	21.26	ug/mL#	37
33) 4-Chloro-3-methylphenol	11.120	107	2418902	23.89	ug/mL	88
34) 2-Methylnaphthalene	11.233	142	5908769	24.22	ug/mL	96
35) 1,2,4,5-Tetrachloroben...	11.671	216	2528855	23.89	ug/ml	98
37) Hexachlorocyclopentadiene	11.725	237	407038	6.71	ug/mL	99
38) 2,4,6-Trichlorophenol	11.923	196	1676296	24.13	ug/mL#	87
39) 2,4,5-Trichlorophenol	12.003	196	1750742	24.80	ug/mL#	89
41) 2-Chloronaphthalene	12.233	162	5447666	24.97	ug/mL#	74

Freedom_0005790_0418

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241404.D
Acq On : 24 Feb 2014 4:22 pm
Operator : KLP OX-HP5975MSD
Sample : BB41002-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:20:30 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42)	Biphenyl	12.260	154	7223661	24.70	ug/mL	99
43)	2-Nitroaniline	12.586	138	1891747	25.20	ug/mL#	66
44)	Acenaphthylene	13.105	152	9006684	26.00	ug/mL	98
45)	Dimethylphthalate	13.115	163	6591932	25.47	ug/mL#	67
46)	2,6-Dinitrotoluene	13.228	165	1547771	24.84	ug/mL#	58
47)	3-Nitroaniline	12.586	138	1891747	25.20	ug/mL#	59
48)	Acenaphthene	13.511	153	5866113	24.45	ug/mL	99
49)	2,4-Dinitrophenol	13.677	184	466648	14.24	ug/mL#	46
50)	Dibenzofuran	13.848	168	8013882	24.07	ug/mL	93
51)	4-Nitrophenol	13.912	139	990472	23.71	ug/mL#	47
52)	2,4-Dinitrotoluene	14.025	165	2074222	24.07	ug/mL#	63
53)	2,3,4,6-tetrachlorophenol	14.233	232	1505968	23.96	ug/mL#	85
54)	Fluorene	14.576	166	6906991	24.41	ug/mL	100
55)	Diethylphthalate	14.624	149	6886609	25.07	ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.640	204	3117062	24.70	ug/mL#	84
57)	4-Nitroaniline	14.779	138	793239m	31.16	ug/mL	
59)	4,6-Dinitro-2-methylph...	14.870	198	1042652	20.58	ug/mL#	76
60)	n-Nitrosodiphenylamine	14.929	169	5143531	30.10	ug/mL	97
61)	Azobenzene	14.864	77	262712	20.12	ug/mL#	1
63)	4-Bromophenyl-phenylether	15.651	248	1796301	22.98	ug/mL#	81
64)	Hexachlorobenzene	15.902	284	1864285	22.96	ug/mL	100
65)	Atrazine	16.212	200	1852715	55.44	ug/mL#	71
66)	Pentachlorophenol	16.309	266	1240362	21.49	ug/mL	96
67)	Phenanthrene	16.581	178	10020763	23.57	ug/mL	99
68)	Anthracene	16.672	178	9881330	23.78	ug/mL	99
69)	Carbazole	17.057	167	6681303	58.88	ug/mL	100
70)	Di-n-butylphthalate	18.068	149	12376273	25.18	ug/mL	100
72)	Fluoranthene	19.095	202	11117362	22.70	ug/mL	99
74)	Pyrene	19.561	202	11483800	27.86	ug/mL	99
76)	Benzyl butyl phthalate	21.737	149	4814633	24.67	ug/mL#	86
77)	Benz[a]anthracene	22.786	228	8542281	22.38	ug/mL	98
78)	Chrysene	22.893	228	7885723	21.98	ug/mL	99
79)	3,3'-Dichlorobenzidine	22.855	252	1192267	21.09	ug/mL#	49
80)	bis(2-Ethylhexyl)phtha...	23.283	149	5566052	20.53	ug/mL#	85
82)	Di-n-Octylphthalate	24.444	149	7358857	28.85	ug/mL#	87
83)	Benzo[b]fluoranthene	24.904	252	5762810	25.25	ug/mL	99
84)	Benzo[k]fluoranthene	24.957	252	5633350	28.31	ug/mL	99
85)	Benzo[a]pyrene	25.498	252	4344411	25.28	ug/mL	99
86)	Indeno[1,2,3-cd]pyrene	27.867	276	2325045	19.85	ug/mL	99
87)	Dibenz[a,h]anthracene	27.931	278	2441836	19.93	ug/mL	98
88)	Benzo[ghi]perylene	28.466	276	2335581	19.20	ug/mL	98

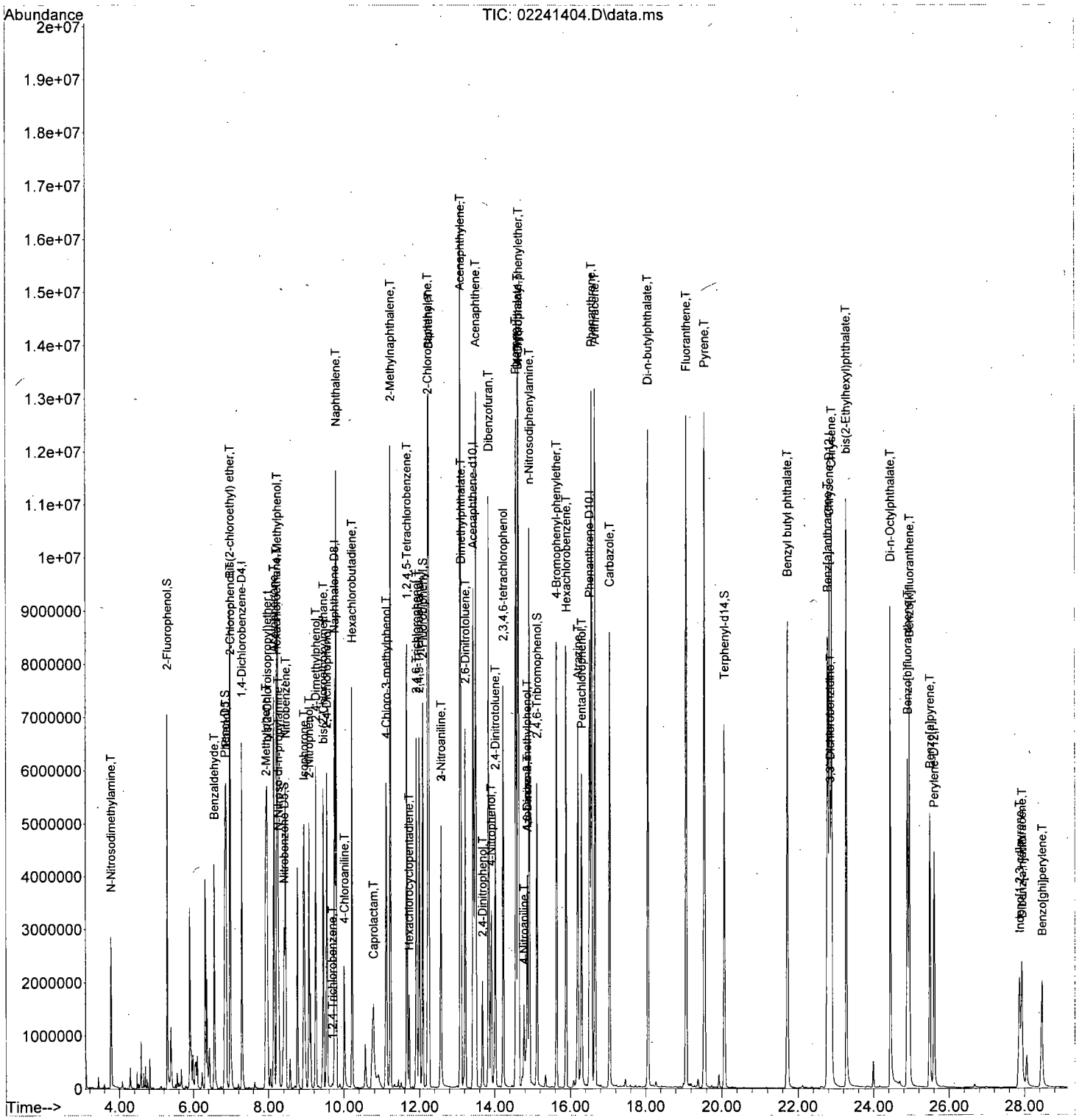
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0419

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241404.D
Acq On : 24 Feb 2014 4:22 pm
Operator : KLP OX-HP5975MSD
Sample : BB41002-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:20:30 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

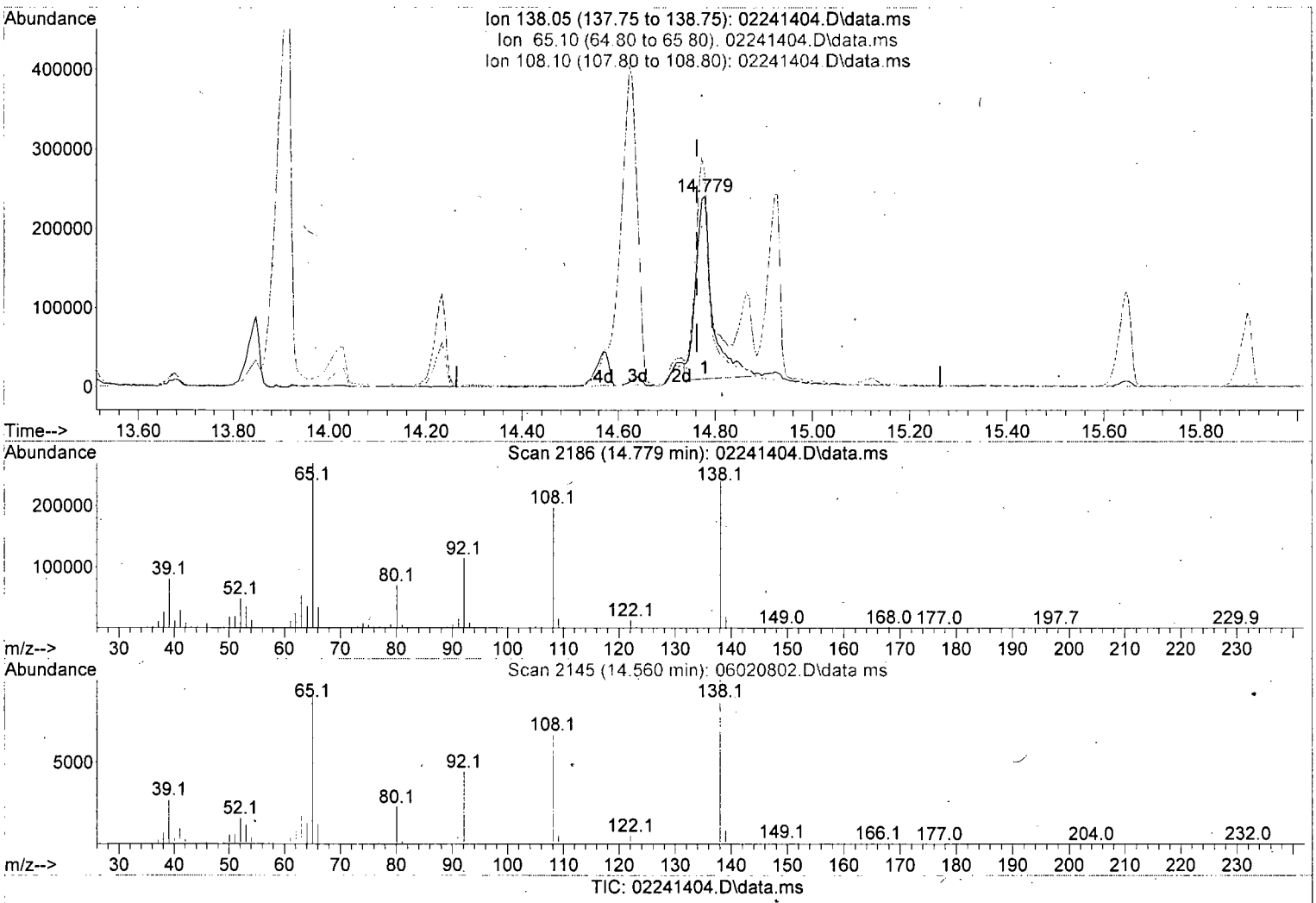


Freedom_0005790_0420

Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241404.D
Acq On : 24 Feb 2014 4:22 pm
Operator : KLP OX-HP5975MSD
Sample : BB41002-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:17:06 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.779min (+0.016) 21.85 ug/mL

response 556160

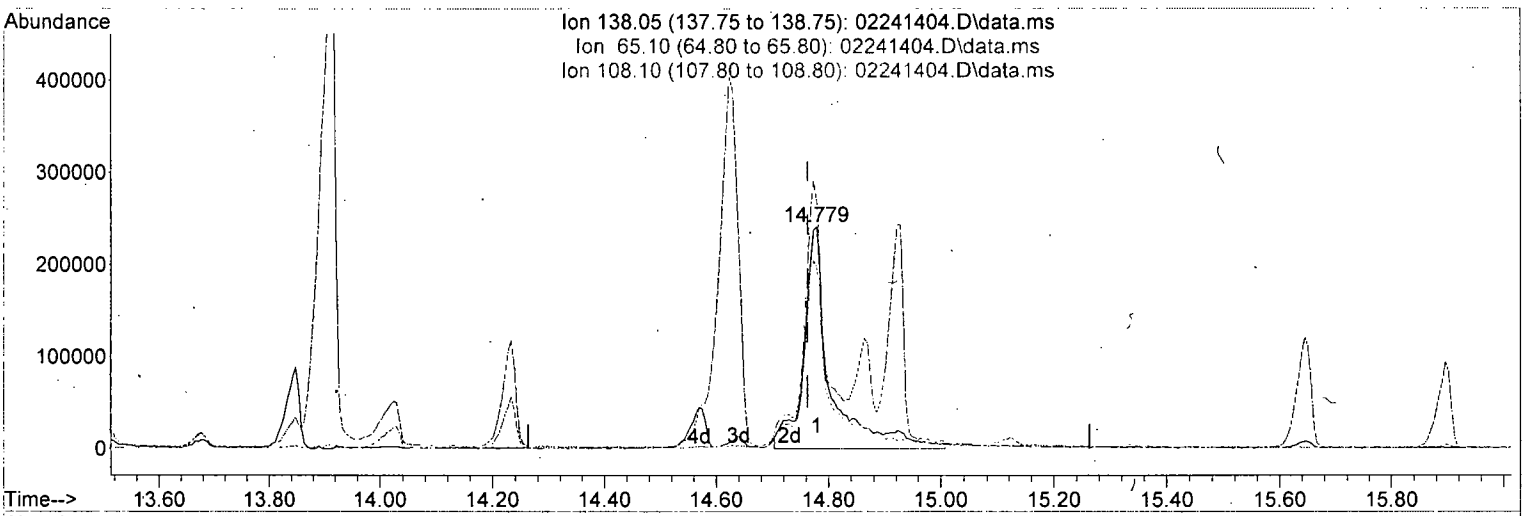
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	119.03#
108.10	51.50	92.09#
0.00	0.00	0.00

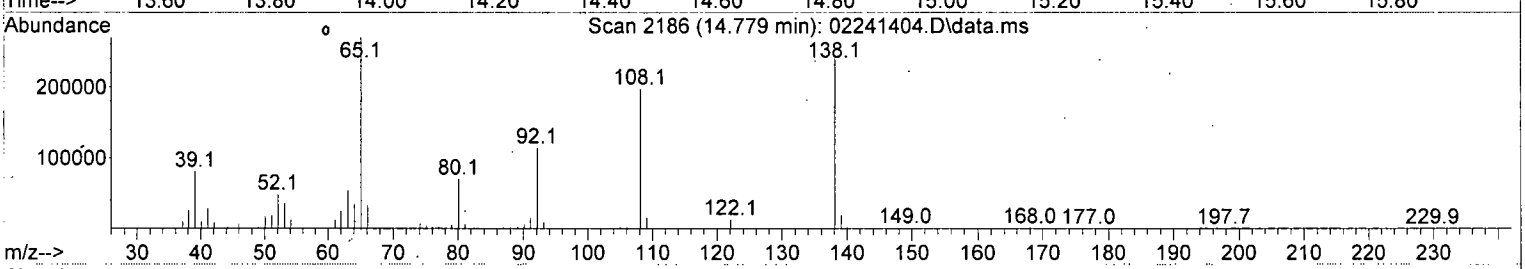
Before BASELINE ICB 2/25/14

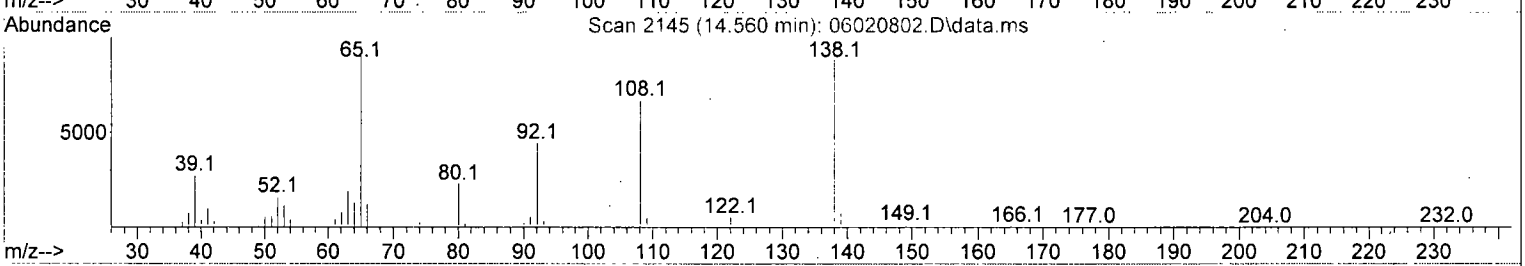
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241404.D
Acq On : 24 Feb 2014 4:22 pm
Operator : KLP OX-HP5975MSD
Sample : BB41002-BS1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 11:17:06 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241404.D\data.ms

(57) 4-Nitroaniline (T)

14.779min (+0.016) 31.16 ug/mL m

response 793239

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	83.45
108.10	51.50	64.56#
0.00	0.00	0.00

Accept
LCB
2/25/14
EDD
2/27/14

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241406.D
Acq On : 24 Feb 2014 5:37 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 25 13:20:13 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.291	150	2626399	20.00	ug/mL	0.00
20) Naphthalene-D8	9.751	136	7054425	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.431	164	4374291	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.512	188	7940532	20.00	ug/mL	# 0.00
73) Chrysene-D12	22.813	240	6280862	20.00	ug/mL	0.00
81) Perylene-D12	25.599	264	3635414	20.00	ug/mL	0.00
System Monitoring Compounds						
3) 2-Fluorophenol	5.291	112	2188367	25.10	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 50.20%			
6) Phenol-D5	6.831	99	3028747	26.20	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 110		Recovery = 52.40%			
21) Nitrobenzene-D5	8.398	82	1453288	11.58	ug/mL	-0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 46.32%			
40) 2-Fluorobiphenyl	12.083	172	3420314	12.21	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 48.84%			
62) 2,4,6-Tribromophenol	15.105	330	836767	24.73	ug/mL	-0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 49.46%			
75) Terphenyl-d14	20.074	244	4164678	15.07	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 60.28%			
Target Compounds						Qvalue
70) Di-n-butylphthalate	18.047	149	335090	0.64	ug/mL	100
80) bis(2-Ethylhexyl)phtha...	23.267	149	84971	0.31	ug/mL#	85

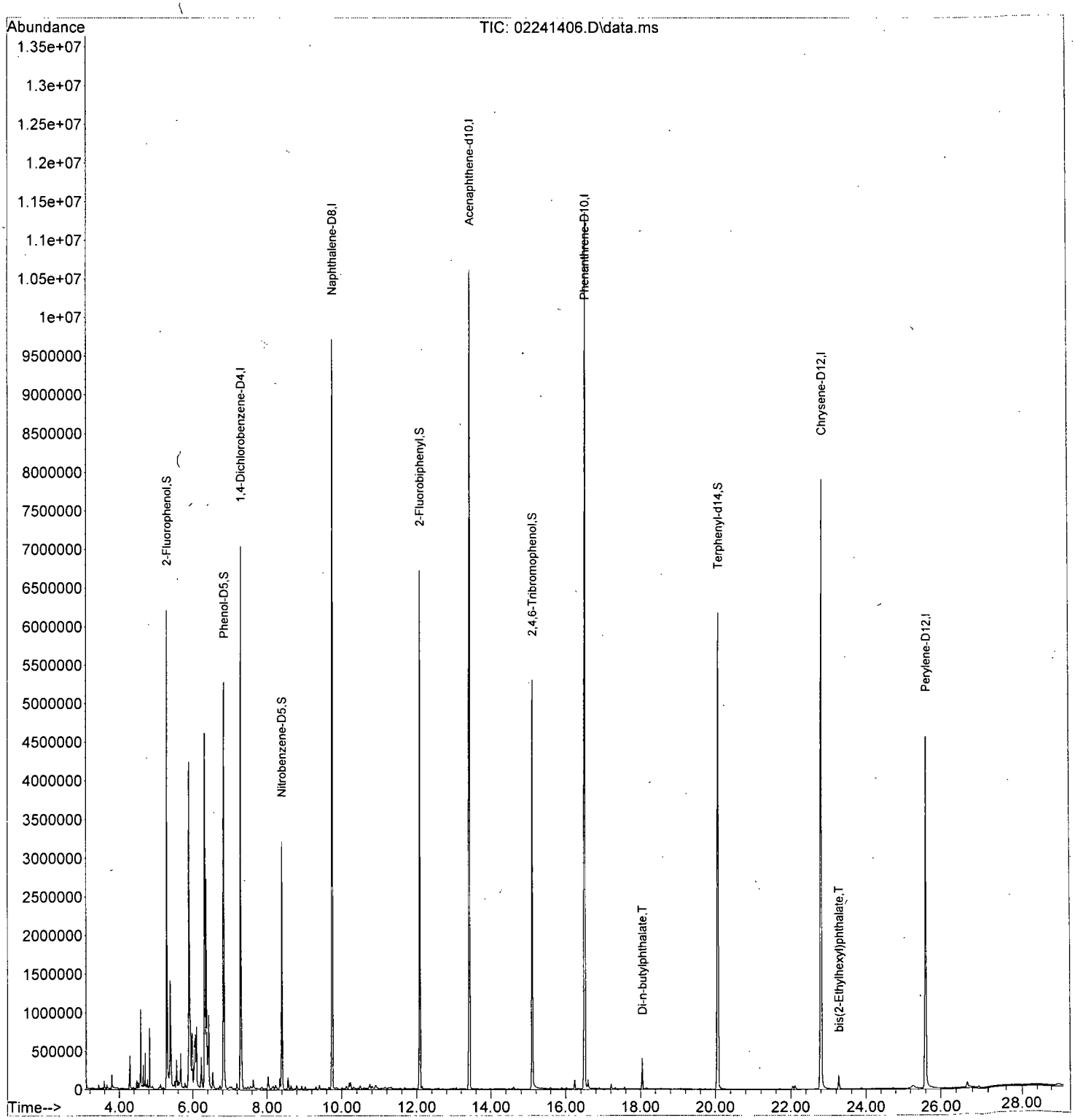
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0423

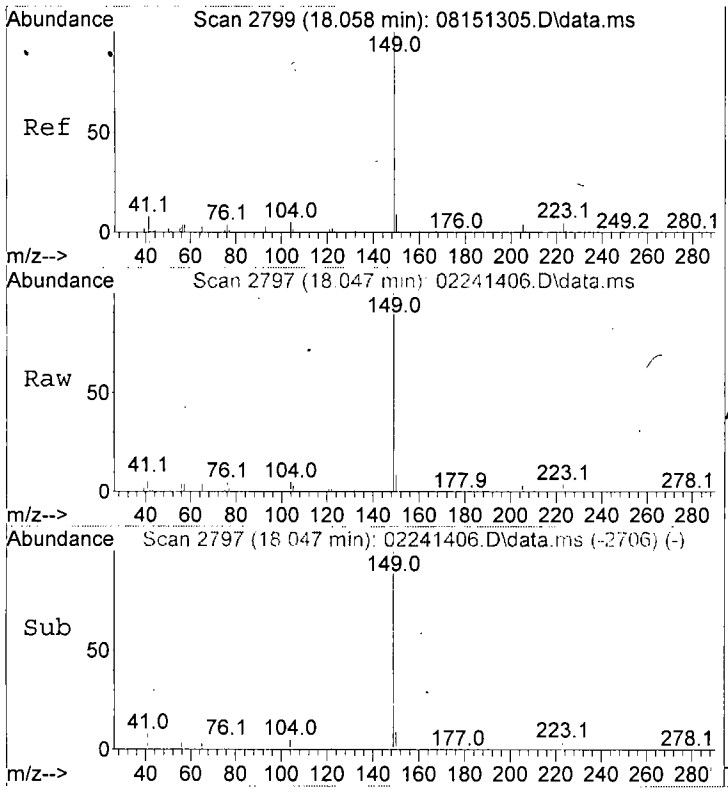
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241406.D
Acq On : 24 Feb 2014 5:37 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 25 13:20:13 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

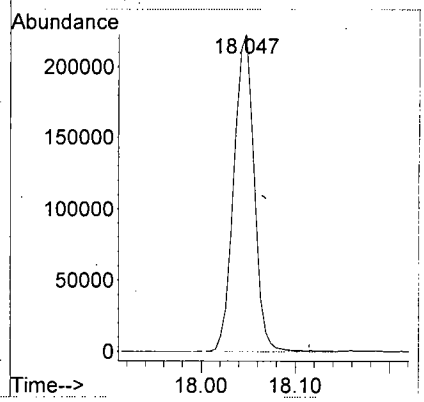


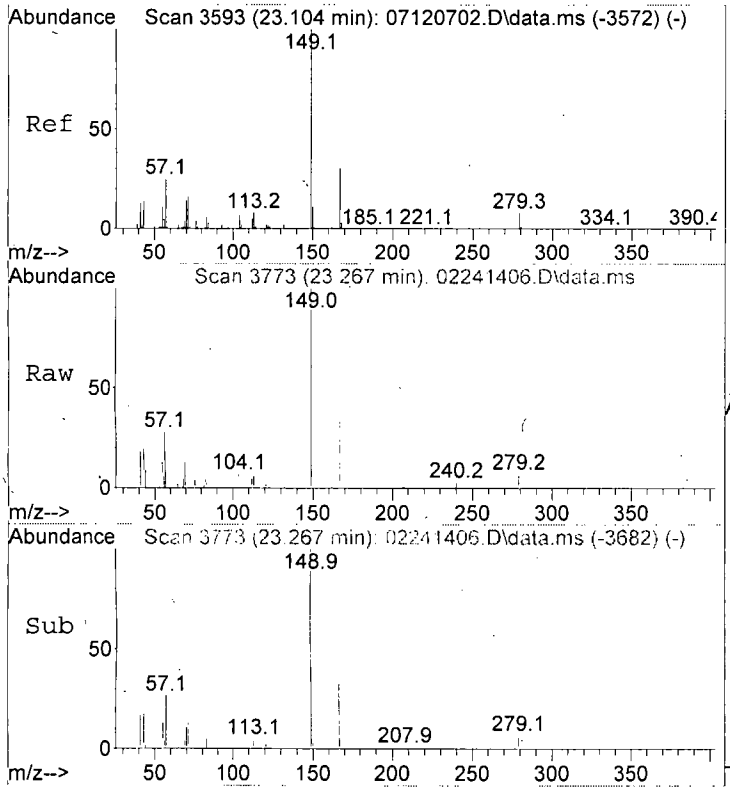
Freedom_0005790_0424



#70
Di-n-butylphthalate
Concen: 0.64 ug/mL
RT: 18.047 min Scan# 2797
Delta R.T. -0.011 min
Lab File: 02241406.D
Acq: 24 Feb 2014 5:37 pm

Tgt Ion:149 Resp: 335090

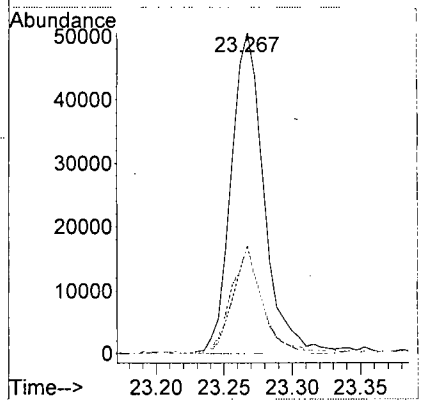




#80
bis(2-Ethylhexyl)phthalate
Concen: 0.31 ug/mL
RT: 23.267 min Scan# 3773
Delta R.T. -0.011 min
Lab File: 02241406.D
Acq: 24 Feb 2014 5:37 pm

Tgt Ion:149 Resp: 84971

Ion	Ratio	Lower	Upper
149	100		
167	30.6	28.2	42.2
57	31.8	14.7	22.1#



Freedom_0005790_0425

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241407.D
Acq On : 24 Feb 2014 6:15 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 25 13:25:06 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.296	150	2625065	20.00	ug/mL	0.00
20) Naphthalene-D8	9.762	136	7215870	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.436	164	4403152	20.00	ug/mL	0.01
58) Phenanthrene-D10	16.523	188	8177363	20.00	ug/mL	# 0.02
73) Chrysene-D12	22.829	240	6906887	20.00	ug/mL	0.01
81) Perylene-D12	25.610	264	3927190	20.00	ug/mL	0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.296	112	2363679	27.13	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 54.26%			
6) Phenol-D5	6.841	99	3246053	28.09	ug/mL	-0.01
Spiked Amount 50.000	Range 10 - 110		Recovery = 56.18%			
21) Nitrobenzene-D5	8.414	82	1666662	12.98	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 51.92%			
40) 2-Fluorobiphenyl	12.094	172	3874612	13.74	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 54.96%			
62) 2,4,6-Tribromophenol	15.121	330	953089	27.35	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 54.70%			
75) Terphenyl-d14	20.074	244	4416337	14.53	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 58.12%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.771	74	1418348	14.32	ug/mL#	1
4) Benzaldehyde	6.553	106	923528	20.22	ug/mL	91
7) Phenol	6.868	94	2734518	19.63	ug/mL#	72
8) 2-Chlorophenol	6.981	128	2314847	21.79	ug/mL#	69
9) Bis(2-chloroethyl) ether	6.975	93	2202794	19.64	ug/mL#	60
14) 2-Methylphenol	7.943	108	2123002	22.01	ug/mL#	90
15) bis(2-Chloroisopropyl)...	7.970	45	3352553	16.31	ug/mL	95
16) Acetophenone	8.152	105	3254303	21.44	ug/mL	92
17) Hexachloroethane	8.221	117	969792	20.53	ug/mL#	78
18) 4-Methylphenol	8.243	107	2405425	21.64	ug/mL	90
19) N-Nitroso-di-n-propyla...	8.259	70	1765867	22.30	ug/mL#	60
22) Nitrobenzene	8.451	77	2550035	18.85	ug/mL#	77
23) Isophorone	8.933	82	4686767	19.58	ug/mL#	77
24) 2-Nitrophenol	9.072	139	1389237	18.96	ug/mL#	68
25) 2,4-Dimethylphenol	9.254	107	1865223	16.13	ug/mL	96
26) bis(2-Chloroethoxy)met...	9.457	93	2854078	19.38	ug/mL#	84
27) 2,4-Dichlorophenol	9.553	162	2128972	20.83	ug/mL#	85
28) 1,2,4-Trichlorobenzene	9.687	180	24520	0.21	ug/mL	99
29) Naphthalene	9.799	128	7723438	20.70	ug/mL	100
30) 4-Chloroaniline	10.008	127	989117	14.56	ug/mL#	92
31) Hexachlorobutadiene	10.216	225	1273642	19.80	ug/mL	99
32) Caprolactam	10.773	113	691133	19.29	ug/mL#	40
33) 4-Chloro-3-methylphenol	11.115	107	2274448	20.71	ug/mL	89
34) 2-Methylnaphthalene	11.233	142	5556262	21.00	ug/mL	96
35) 1,2,4,5-Tetrachloroben...	11.666	216	2357932	20.54	ug/ml	98
37) Hexachlorocyclopentadiene	11.719	237	187948	2.83	ug/mL	99
38) 2,4,6-Trichlorophenol	11.923	196	1598491	20.99	ug/mL#	87
39) 2,4,5-Trichlorophenol	11.998	196	1661979	21.48	ug/mL#	90
41) 2-Chloronaphthalene	12.233	162	5140040	21.50	ug/mL#	74

Freedom_0005790_0426

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241407.D
Acq On : 24 Feb 2014 6:15 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 25 13:25:06 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	Biphenyl	12.254	154	6836319	21.33 ug/mL	99
43)	2-Nitroaniline	12.586	138	1790853	21.77 ug/mL#	66
44)	Acenaphthylene	13.099	152	8559924	22.55 ug/mL	99
45)	Dimethylphthalate	13.110	163	6215005	21.91 ug/mL#	67
46)	2,6-Dinitrotoluene	13.222	165	1468263	21.50 ug/mL#	59
47)	3-Nitroaniline	12.586	138	1790853	21.77 ug/mL#	59
48)	Acenaphthene	13.506	153	5564160	21.16 ug/mL	99
49)	2,4-Dinitrophenol	13.672	184	411698	11.47 ug/mL#	49
50)	Dibenzofuran	13.843	168	7661260	21.00 ug/mL	93
51)	4-Nitrophenol	13.912	139	939721	20.53 ug/mL#	45
52)	2,4-Dinitrotoluene	14.025	165	1973636	20.90 ug/mL#	64
53)	2,3,4,6-tetrachlorophenol	14.228	232	1423726	20.67 ug/mL#	84
54)	Fluorene	14.570	166	6601439	21.29 ug/mL	100
55)	Diethylphthalate	14.618	149	6459503	21.46 ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.640	204	2972099	21.49 ug/mL#	85
57)	4-Nitroaniline	14.768	138	690361m	24.75 ug/mL	
59)	4,6-Dinitro-2-methylph...	14.864	198	1028850	18.43 ug/mL#	76
60)	n-Nitrosodiphenylamine	14.923	169	4903064	26.04 ug/mL	97
61)	Azobenzene	14.859	77	249969	17.38 ug/mL#	1
63)	4-Bromophenyl-phenylether	15.645	248	1709466	19.85 ug/mL#	82
64)	Hexachlorobenzene	15.897	284	1791009	20.01 ug/mL	100
65)	Atrazine	16.212	200	1746609	47.43 ug/mL#	71
66)	Pentachlorophenol	16.309	266	1176310	18.49 ug/mL	96
67)	Phenanthrene	16.576	178	9474825	20.22 ug/mL	99
68)	Anthracene	16.667	178	9451307	20.64 ug/mL	99
69)	Carbazole	17.057	167	6224048	49.77 ug/mL	99
70)	Di-n-butylphthalate	18.068	149	11772097	21.74 ug/mL	100
72)	Fluoranthene	19.090	202	10396389	19.27 ug/mL	99
74)	Pyrene	19.555	202	10805312	23.69 ug/mL	100
76)	Benzyl butyl phthalate	21.732	149	4600300	21.30 ug/mL#	86
77)	Benz[a]anthracene	22.780	228	8218794	19.46 ug/mL	99
78)	Chrysene	22.893	228	7653199	19.28 ug/mL	99
79)	3,3'-Dichlorobenzidine	22.850	252	1080700	17.28 ug/mL#	50
80)	bis(2-Ethylhexyl)phtha...	23.283	149	5343237	17.81 ug/mL#	85
82)	Di-n-Octylphthalate	24.439	149	7290243	24.53 ug/mL#	87
83)	Benzo[b]fluoranthene	24.898	252	5665823	21.30 ug/mL	99
84)	Benzo[k]fluoranthene	24.952	252	5671242	24.45 ug/mL	99
85)	Benzo[a]pyrene	25.492	252	4282511	21.39 ug/mL	99
86)	Indeno[1,2,3-cd]pyrene	27.862	276	2420148	17.73 ug/mL	99
87)	Dibenz[a,h]anthracene	27.926	278	2592052	18.15 ug/mL	98
88)	Benzo[ghi]perylene	28.461	276	2407579	16.98 ug/mL	99

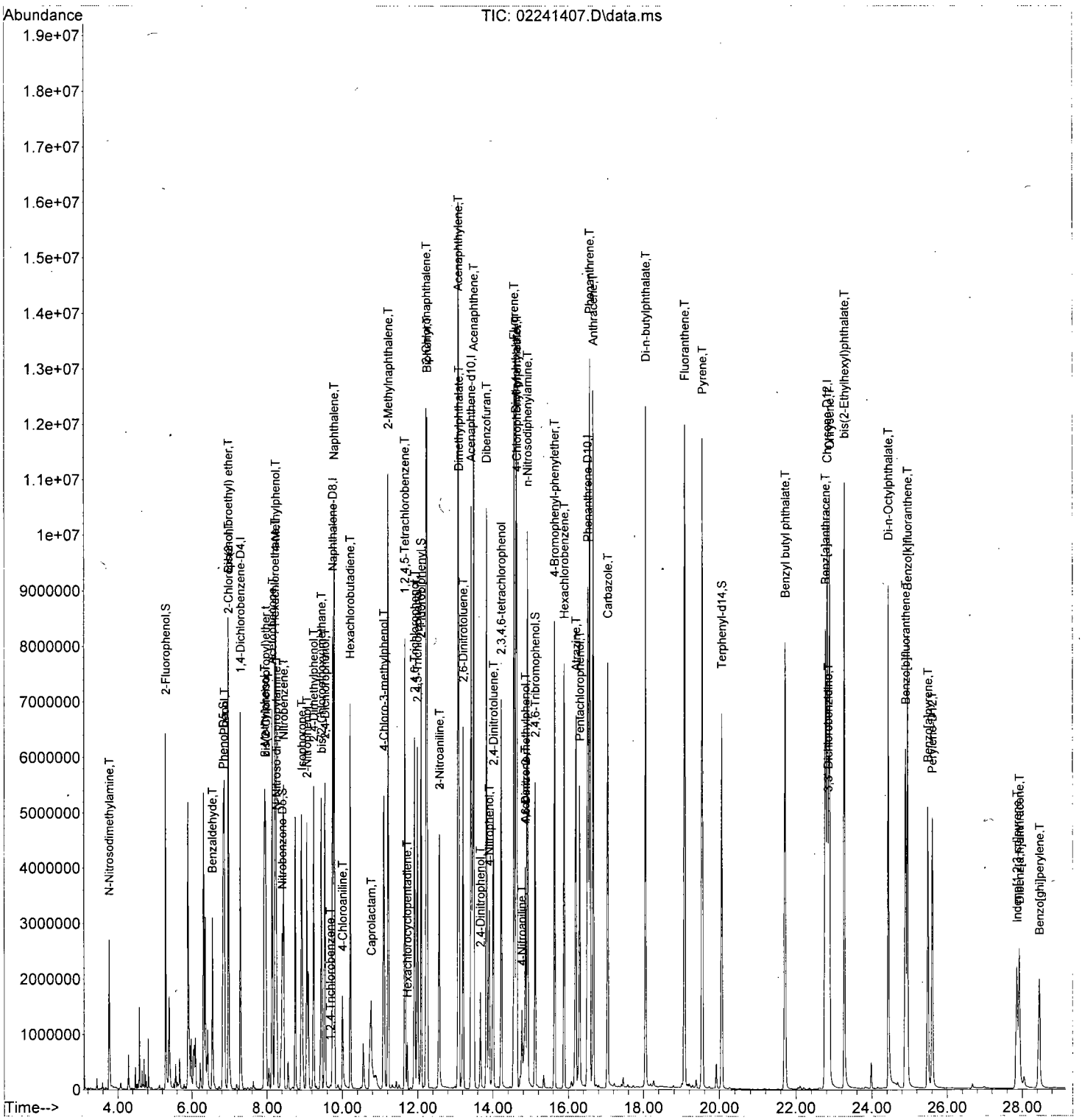
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0427

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241407.D
Acq On : 24 Feb 2014 6:15 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 25 13:25:06 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

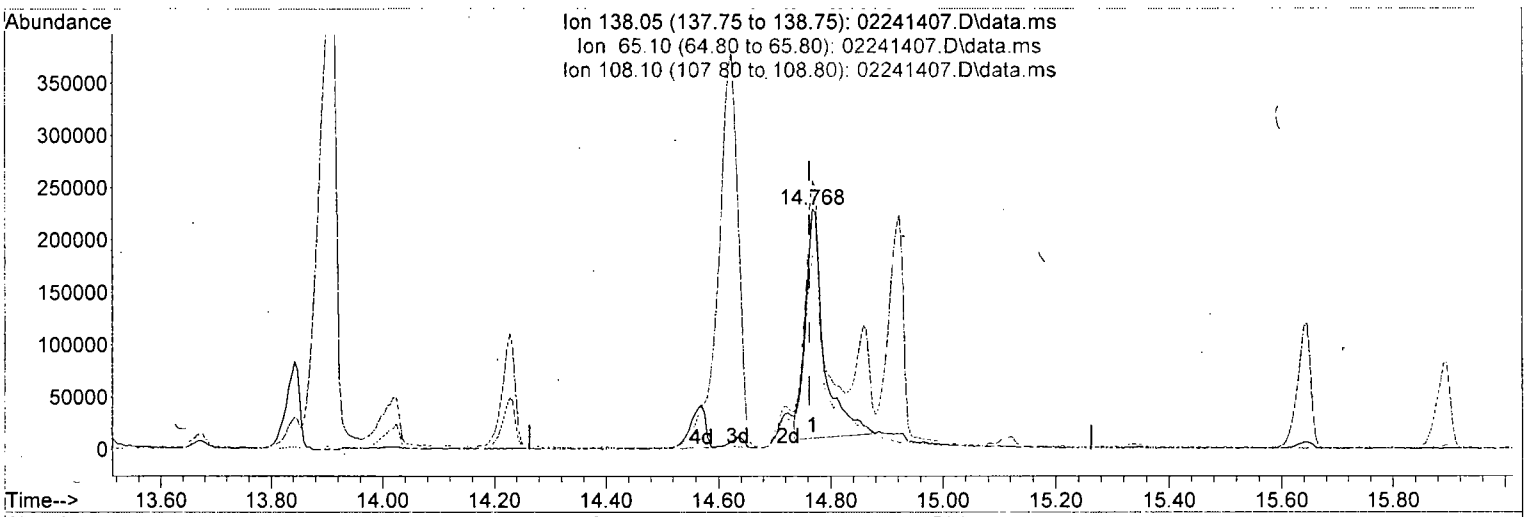


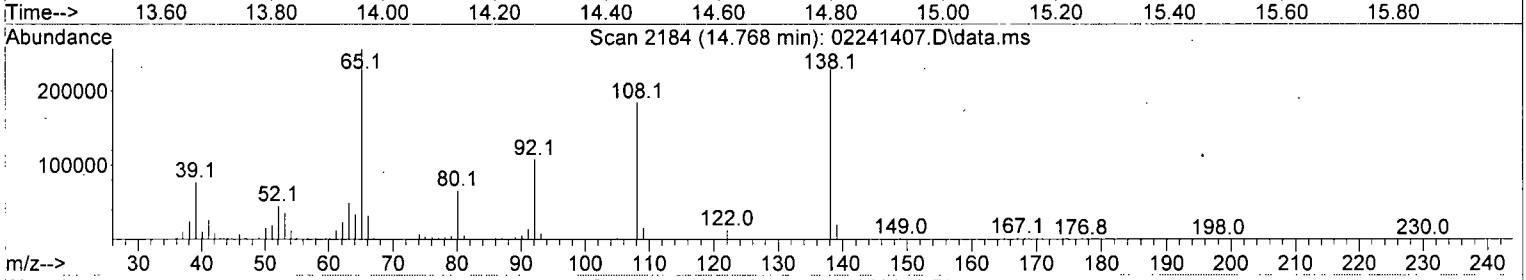
Freedom_0005790_0428

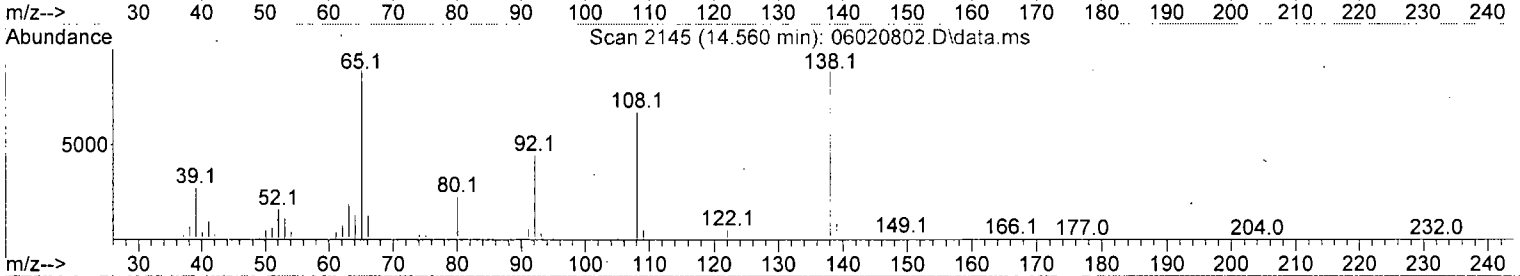
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241407.D
Acq On : 24 Feb 2014 6:15 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 25 13:21:34 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241407.D\data.ms

(57) 4-Nitroaniline (T)

14.768min (+0.005) 18.02 ug/mL

response 502673

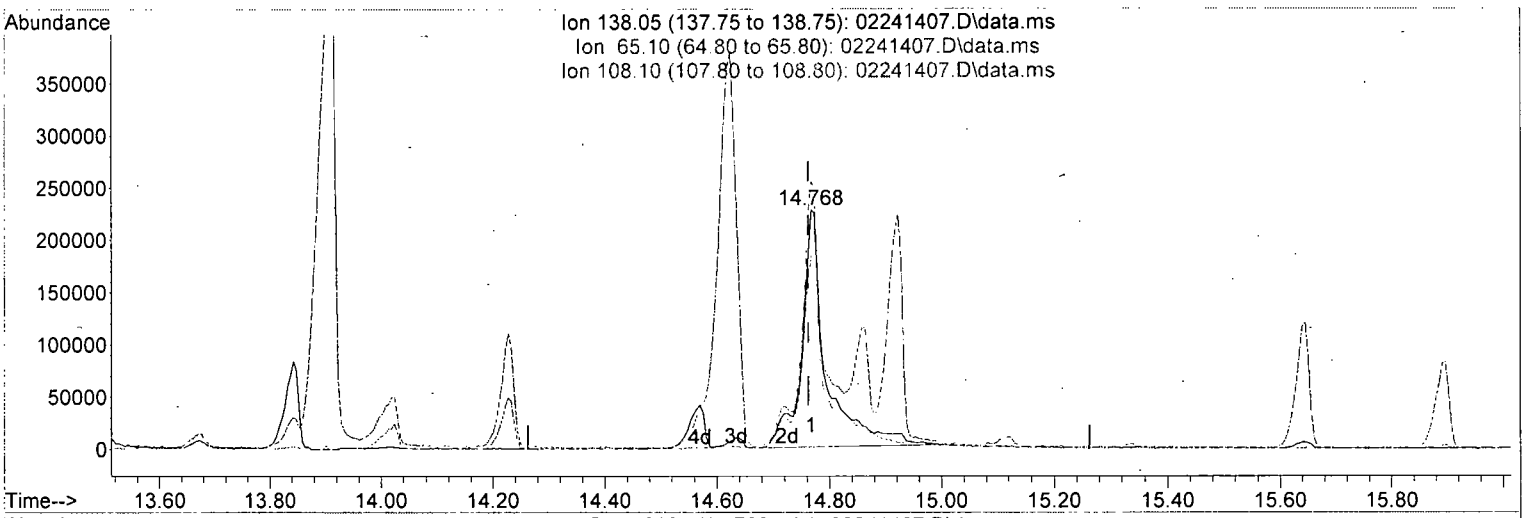
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	122.09#
108.10	51.50	102.23#
0.00	0.00	0.00

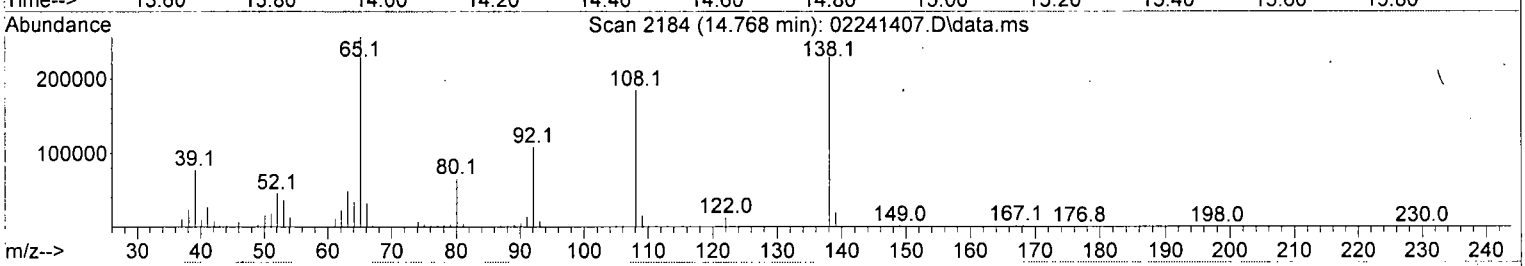
Below Baseline Correction
LC 2/25/14

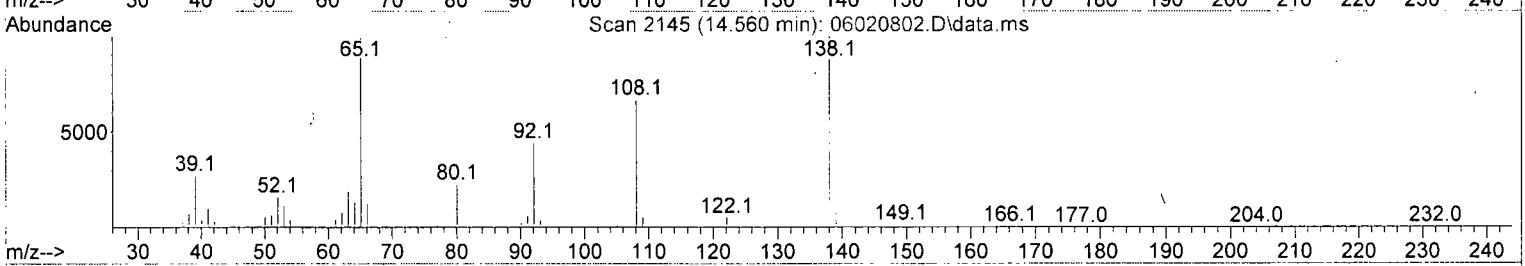
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241407.D
Acq On : 24 Feb 2014 6:15 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-BS1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 25 13:21:34 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241407.D\data.ms

(57) 4-Nitroaniline (T)

14.768min (+0.005) 24.75 ug/mL m

response 690361

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	88.90#
108.10	51.50	74.43#
0.00	0.00	0.00

Acc KLP 2/25/14

EDY 2/27/14

Freedom_0005790_0430

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:34:41 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.302	150	4015354	20.00	ug/mL	0.00
20) Naphthalene-D8	9.773	136	11206191	20.00	ug/mL	0.02
36) Acenaphthene-d10	13.452	164	6913357	20.00	ug/mL	0.03
58) Phenanthrene-D10	16.539	188	13060380	20.00	ug/mL #	0.03
73) Chrysene-D12	22.850	240	10669601	20.00	ug/mL	0.03
81) Perylene-D12	25.631	264	6376906	20.00	ug/mL	0.03
System Monitoring Compounds						
3) 2-Fluorophenol	5.323	112	3228727	24.23	ug/mL	0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 48.46%			
6) Phenol-D5	6.879	99	4798984	27.15	ug/mL	0.03
Spiked Amount 50.000	Range 10 - 110		Recovery = 54.30%			
21) Nitrobenzene-D5	8.435	82	2337225	11.72	ug/mL	0.02
Spiked Amount 25.000	Range 35 - 114		Recovery = 46.88%			
40) 2-Fluorobiphenyl	12.105	172	5524518	12.48	ug/mL	0.02
Spiked Amount 25.000	Range 43 - 116		Recovery = 49.92%			
62) 2,4,6-Tribromophenol	15.143	330	1424536	25.59	ug/mL	0.02
Spiked Amount 50.000	Range 10 - 123		Recovery = 51.18%			
75) Terphenyl-d14	20.085	244	6021238	12.83	ug/mL	0.02
Spiked Amount 25.000	Range 33 - 141		Recovery = 51.32%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.777	74	2013374	13.28	ug/mL#	1
4) Benzaldehyde	6.558	106	795139	11.38	ug/mL#	88
7) Phenol	6.900	94	4062365	19.07	ug/mL#	73
8) 2-Chlorophenol	7.007	128	3380077	20.80	ug/mL#	69
9) Bis(2-chloroethyl) ether	6.997	93	3133225	18.26	ug/mL#	60
14) 2-Methylphenol	7.975	108	3149583	21.35	ug/mL#	88
15) bis(2-Chloroisopropyl)...	7.981	45	4635869	14.74	ug/mL	95
16) Acetophenone	8.168	105	5374781	23.15	ug/mL#	93
17) Hexachloroethane	8.227	117	1358106	18.80	ug/mL#	79
18) 4-Methylphenol	8.275	107	3726015	21.92	ug/mL	90
19) N-Nitroso-di-n-propyla...	8.291	70	2466904	20.37	ug/mL#	60
22) Nitrobenzene	8.468	77	4067615	19.36	ug/mL#	73
23) Isophorone	8.965	82	6512758	17.52	ug/mL#	78
24) 2-Nitrophenol	9.088	139	1961516	17.24	ug/mL#	71
25) 2,4-Dimethylphenol	9.286	107	3703349	20.62	ug/mL	96
26) bis(2-Chloroethoxy)met...	9.468	93	4077313	17.83	ug/mL#	84
27) 2,4-Dichlorophenol	9.580	162	3120697	19.66	ug/mL#	86
28) 1,2,4-Trichlorobenzene	9.703	180	33183	0.19	ug/mL	94
29) Naphthalene	9.815	128	13768632	23.77	ug/mL	100
30) 4-Chloroaniline	10.040	127	995514	9.44	ug/mL#	90
31) Hexachlorobutadiene	10.222	225	1787194	17.89	ug/mL	99
32) Caprolactam	10.917	113	520173	9.35	ug/mL#	58
33) 4-Chloro-3-methylphenol	11.153	107	3300574	19.35	ug/mL	89
34) 2-Methylnaphthalene	11.243	142	9170568	22.31	ug/mL	96
35) 1,2,4,5-Tetrachloroben...	11.671	216	3345098	18.76	ug/ml	97
37) Hexachlorocyclopentadiene	11.720	237	227076	2.18	ug/mL	98
38) 2,4,6-Trichlorophenol	11.939	196	2410446	20.16	ug/mL#	88
39) 2,4,5-Trichlorophenol	12.030	196	2382455	19.61	ug/mL#	90
41) 2-Chloronaphthalene	12.244	162	7358841	19.60	ug/mL#	74

Freedom_0005790_0431

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:34:41 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42)	Biphenyl	12.265	154	9854856	19.59	ug/mL	99
43)	2-Nitroaniline	12.607	138	2562880	19.84	ug/mL#	69
44)	Acenaphthylene	13.110	152	12595110	21.13	ug/mL	98
45)	Dimethylphthalate	13.132	163	8766063	19.69	ug/mL#	67
46)	2,6-Dinitrotoluene	13.244	165	1904987	17.77	ug/mL#	60
47)	3-Nitroaniline	12.607	138	2562880	19.84	ug/mL#	60
48)	Acenaphthene	13.522	153	8067922	19.54	ug/mL	99
49)	2,4-Dinitrophenol	13.698	184	408920	7.25	ug/mL#	44
50)	Dibenzofuran	13.854	168	11173112	19.50	ug/mL	94
51)	4-Nitrophenol	13.966	139	1466078m	20.40	ug/mL	
52)	2,4-Dinitrotoluene	14.041	165	2809337	18.95	ug/mL#	68
53)	2,3,4,6-tetrachlorophenol	14.255	232	2130146	19.70	ug/mL#	84
54)	Fluorene	14.581	166	9601038	19.72	ug/mL	100
55)	Diethylphthalate	14.635	149	9079747	19.21	ug/mL#	86
56)	4-Chlorophenyl-phenyle...	14.645	204	4262760	19.63	ug/mL#	86
57)	4-Nitroaniline	14.725	138	49361	1.13	ug/mL#	55
59)	4,6-Dinitro-2-methylph...	14.891	198	1424005m	15.97	ug/mL	
60)	n-Nitrosodiphenylamine	14.939	169	7391370	24.58	ug/mL	97
63)	4-Bromophenyl-phenylether	15.656	248	2437428	17.72	ug/mL#	83
64)	Hexachlorobenzene	15.908	284	2476879	17.33	ug/mL	100
65)	Atrazine	16.255	200	2244829	38.17	ug/mL#	72
66)	Pentachlorophenol	16.335	266	1910620m	18.81	ug/mL	
67)	Phenanthrene	16.592	178	13874720	18.54	ug/mL	99
68)	Anthracene	16.683	178	13596377	18.59	ug/mL	99
69)	Carbazole	17.079	167	11363234	56.90	ug/mL	99
70)	Di-n-butylphthalate	18.079	149	16047020	18.55	ug/mL	100
72)	Fluoranthene	19.101	202	14671261	17.02	ug/mL	99
74)	Pyrene	19.577	202	15051607	21.36	ug/mL	99
76)	Benzyl butyl phthalate	21.743	149	6036894	18.10	ug/mL#	86
77)	Benz[a]anthracene	22.802	228	11120013	17.04	ug/mL	98
78)	Chrysene	22.909	228	10344088	16.87	ug/mL	98
79)	3,3'-Dichlorobenzidine	22.877	252	49684	0.51	ug/mL#	60
80)	bis(2-Ethylhexyl)phtha...	23.289	149	7582480	16.36	ug/mL#	86
82)	Di-n-Octylphthalate	24.444	149	10570268	21.90	ug/mL#	87
83)	Benzo[b]fluoranthene	24.915	252	8403978	19.46	ug/mL	99
84)	Benzo[k]fluoranthene	24.968	252	7377124	19.59	ug/mL	99
85)	Benzo[a]pyrene	25.508	252	6378109	19.62	ug/mL	99
86)	Indeno[1,2,3-cd]pyrene	27.878	276	4086012	18.43	ug/mL	100
87)	Dibenz[a,h]anthracene	27.942	278	4224608	18.22	ug/mL	98
88)	Benzo[ghi]perylene	28.482	276	4000313	17.38	ug/mL	99

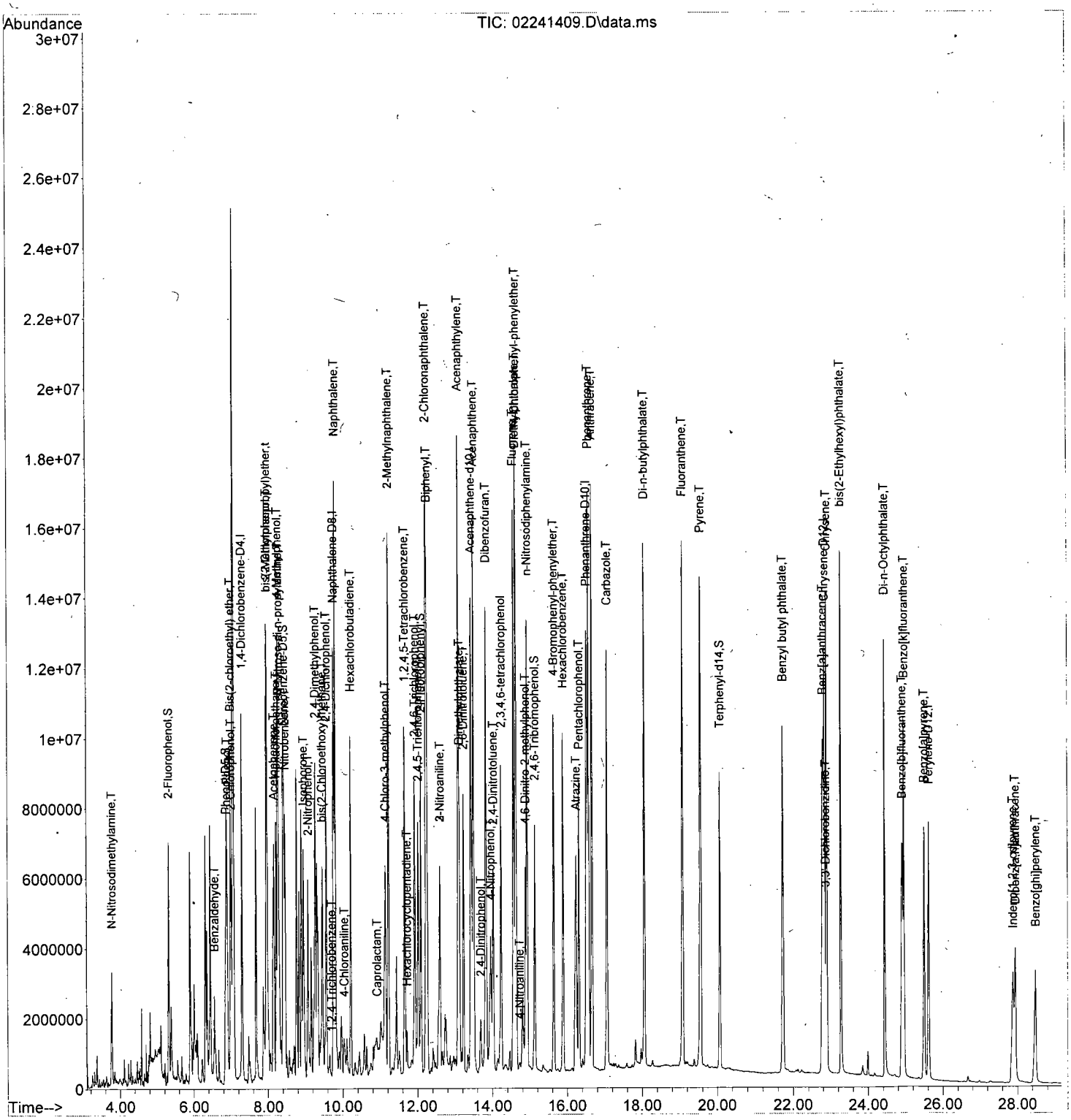
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0432

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:34:41 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

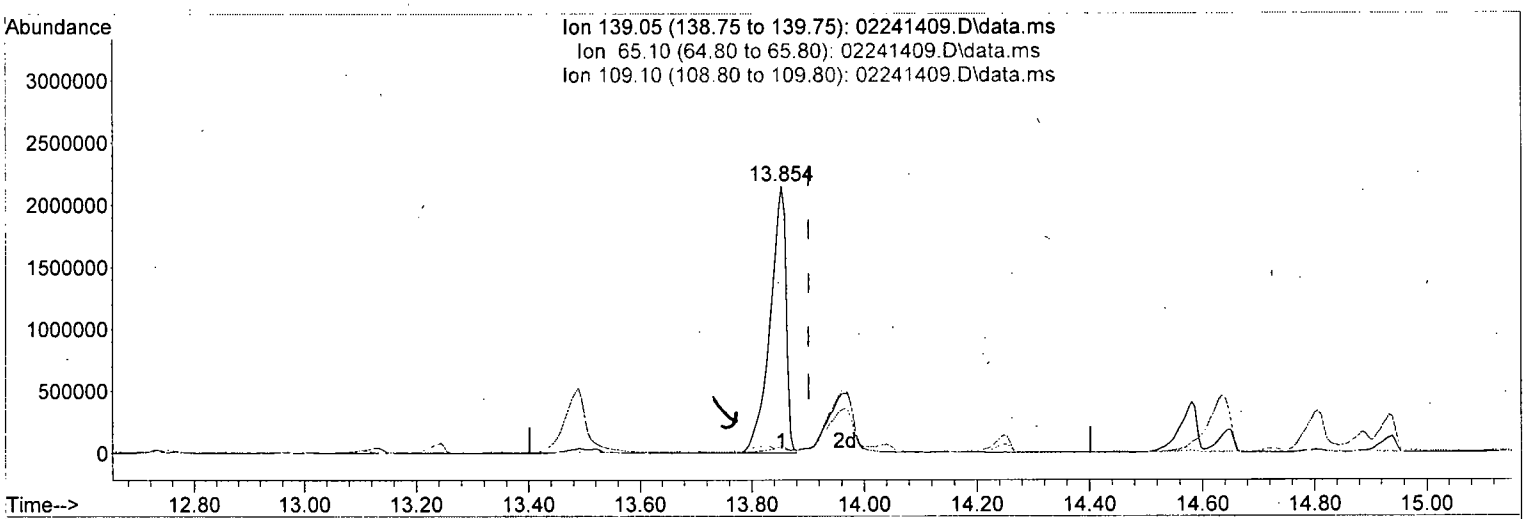


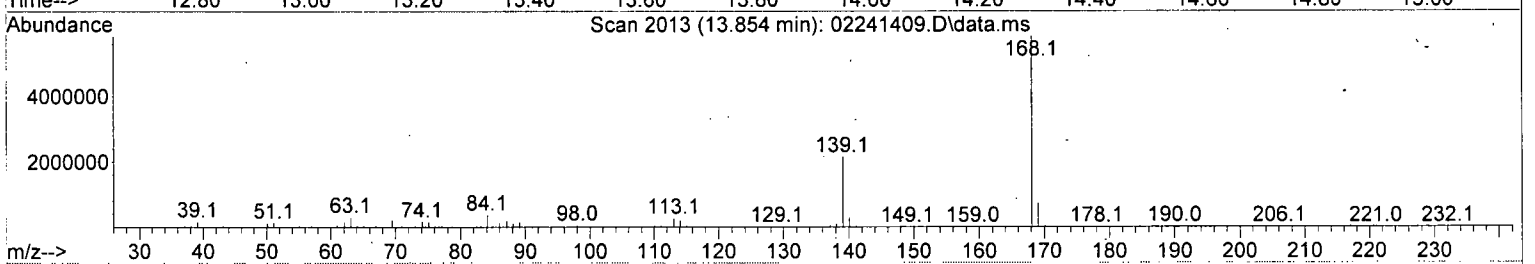
Freedom_0005790_0433

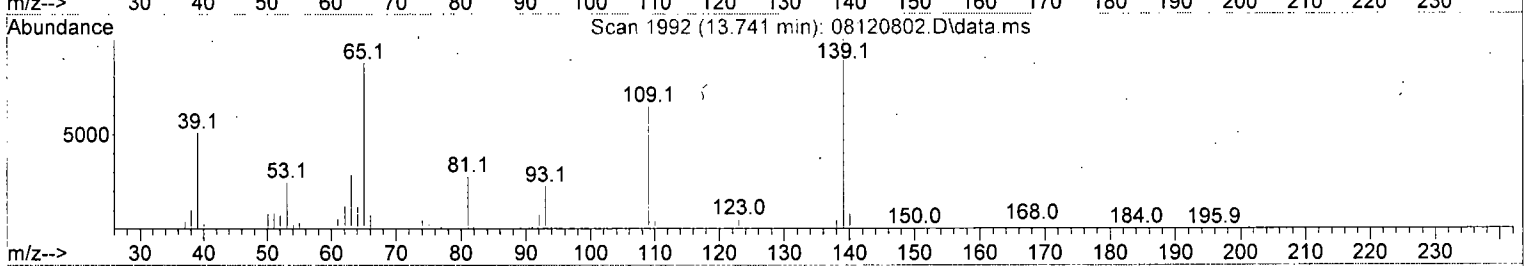
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:14:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241409.D\data.ms

(51) 4-Nitrophenol (T)

13.854min (-0.048) 59.40 ug/mL

response 4269146

Ion	Exp%	Act%
139.05	100	100
65.10	61.50	1.90#
109.10	47.20	4.52#
0.00	0.00	0.00

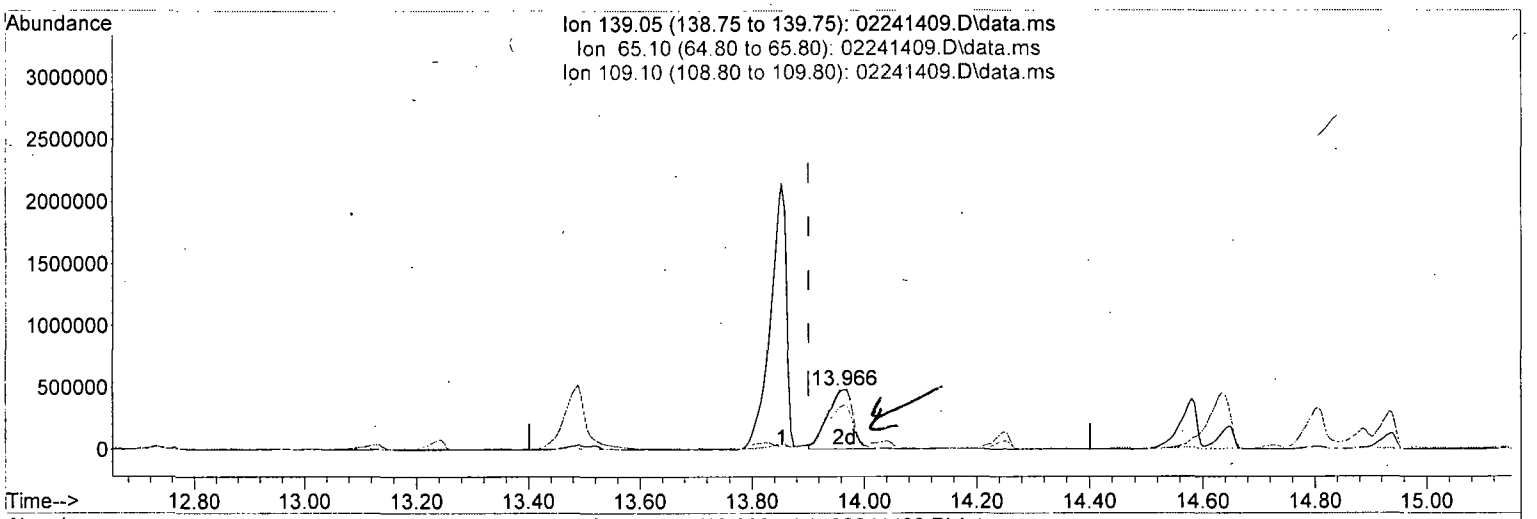
Before Wrong Peak Integrated
LC 2/25/14

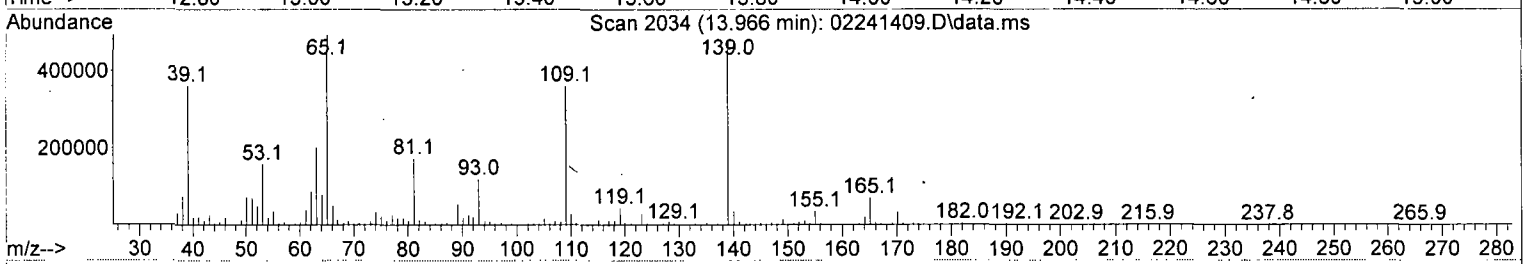
Freedom_0005790_0434

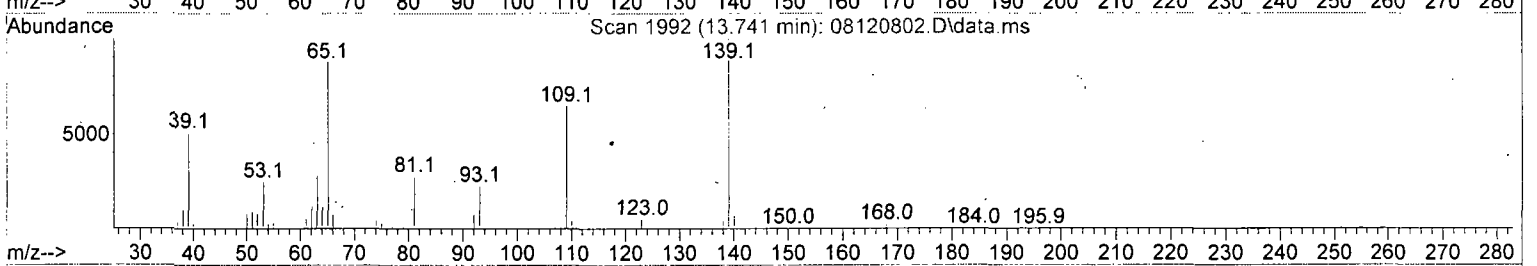
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:14:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241409.D\data.ms

(51) 4-Nitrophenol (T)

13.966min (+0.064) 20.40 ug/mL m

response 1466078

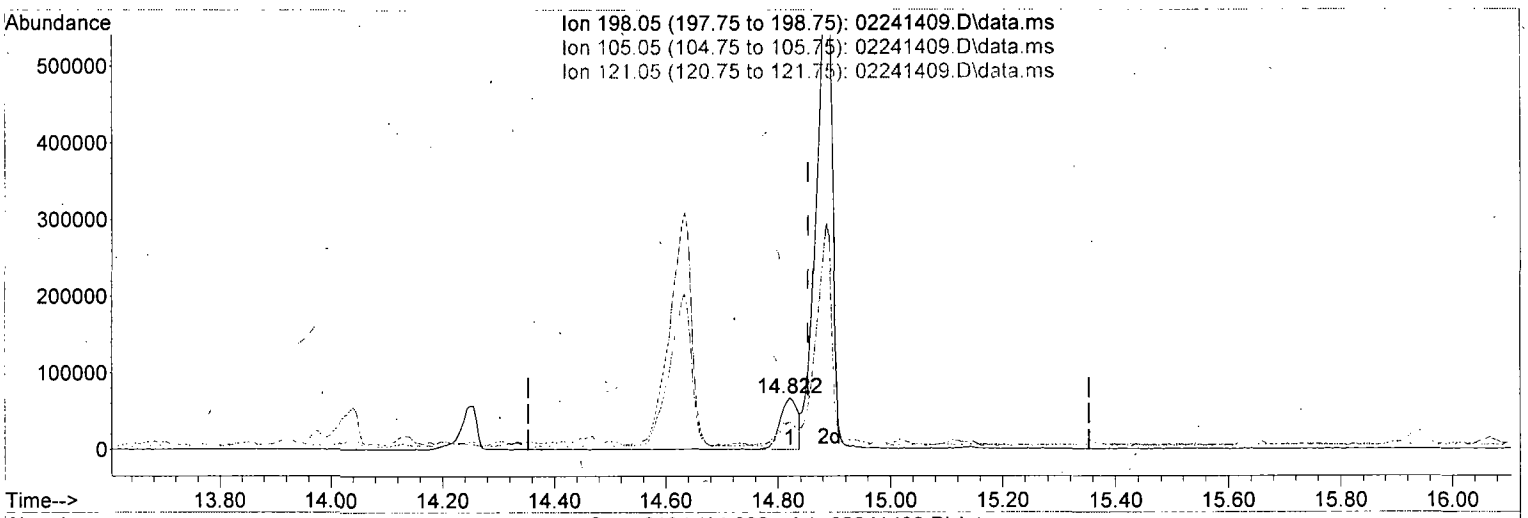
Ion	Exp%	Act%
139.05	100	100
65.10	61.50	5.54#
109.10	47.20	13.15#
0.00	0.00	0.00

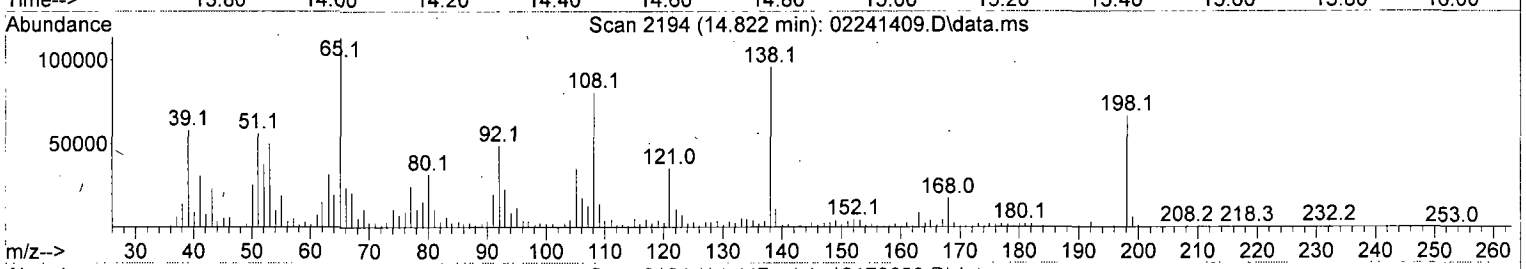
Actor
KP
2/25/14
EDY
2/27/14

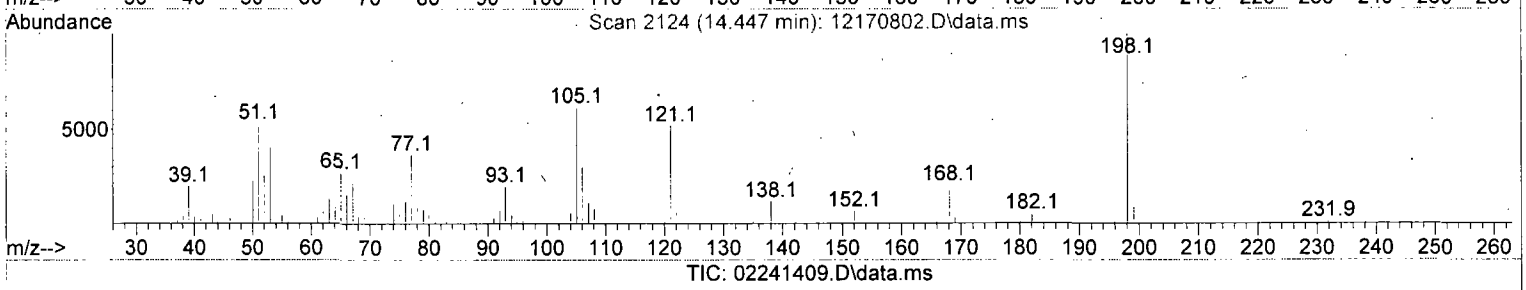
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:14:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241409.D\data.ms

(59) 4,6-Dinitro-2-methylphenol (T)

14.822min (-0.032) 1.59 ug/mL

response 141603

Ion	Exp%	Act%
198.05	100	100
105.05	30.60	50.87#
121.05	28.60	47.78#
0.00	0.00	0.00

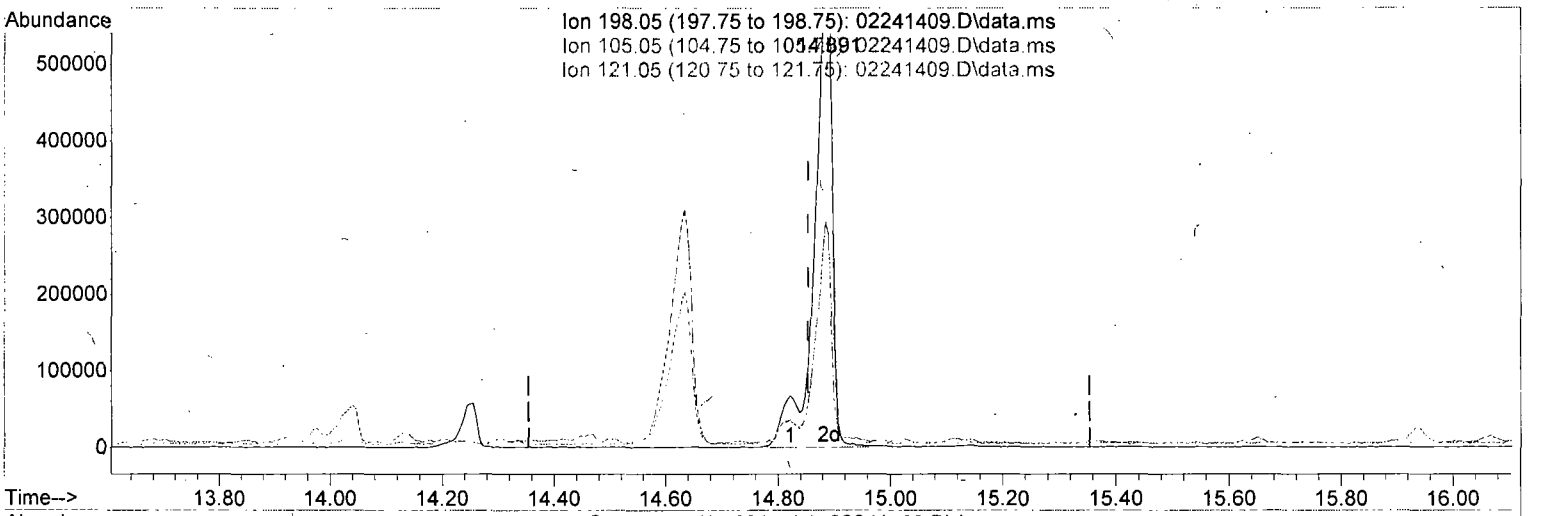
Below Incomplete Integration KP 2/25/14

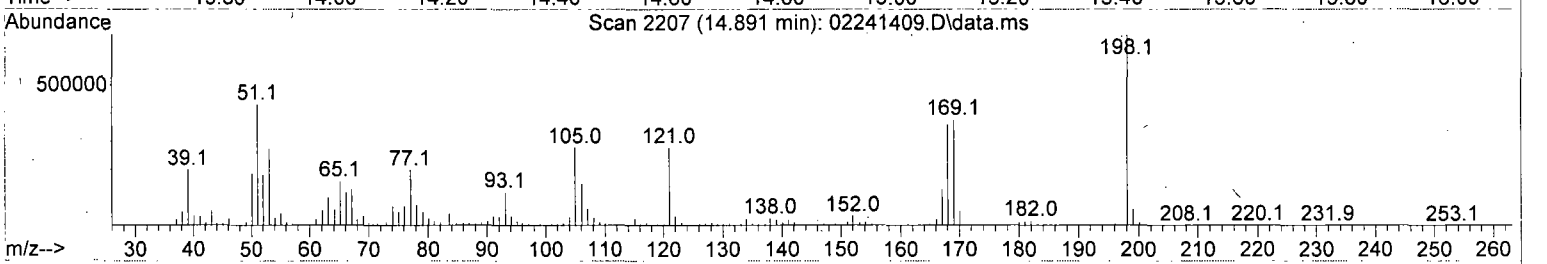
Freedom_0005790_0436

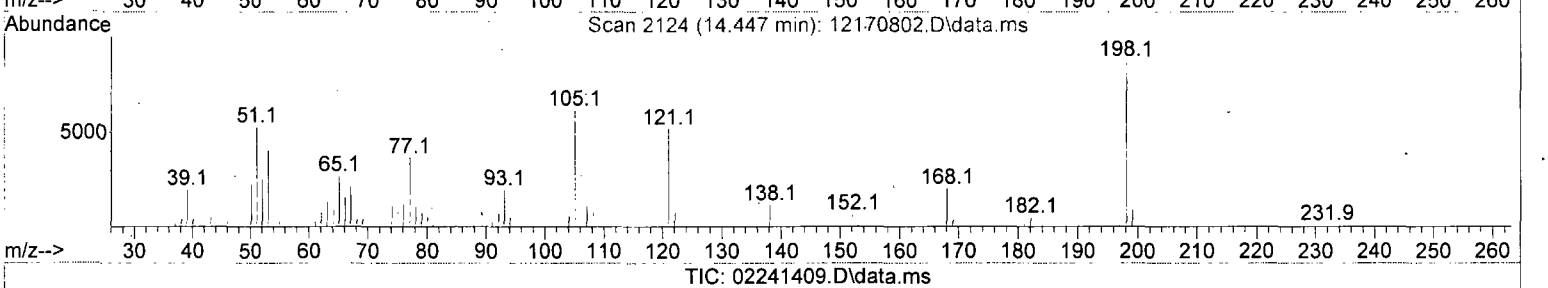
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:14:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241409.D\data.ms

(59) 4,6-Dinitro-2-methylphenol (T)

14.891min (+0.037) 15.97 ug/mL m

response 1424005

Ion	Exp%	Act%
198.05	100	100
105.05	30.60	5.06#
121.05	28.60	4.75#
0.00	0.00	0.00

After SCP 2/25/14

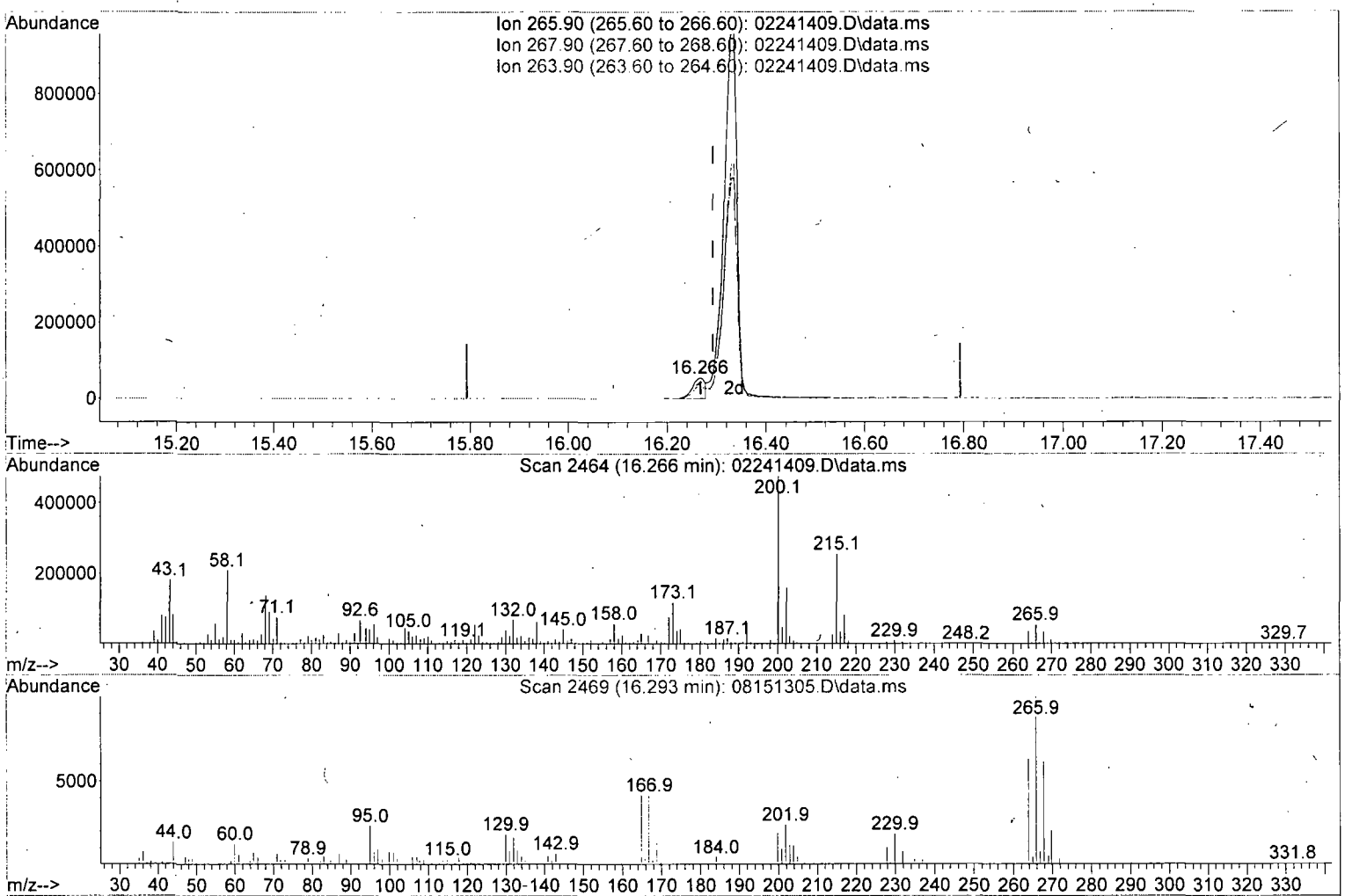
EDY 2/27/14

Freedom_0005790_0437

Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:14:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



(66) Pentachlorophenol (T)

16.266min (-0.027) 0.94 ug/mL

response 95744

Ion	Exp%	Act%
265.90	100	100
267.90	65.80	67.25
263.90	63.00	71.88
0.00	0.00	0.00

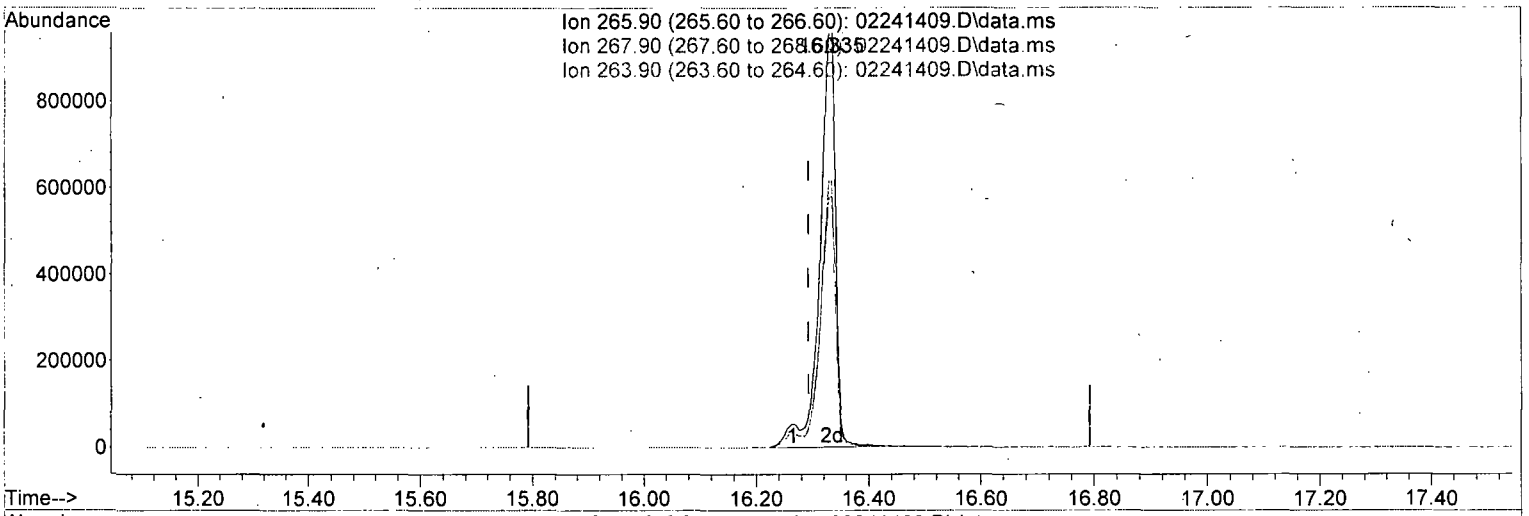
Before Incorrect Integration KP 2/25/14

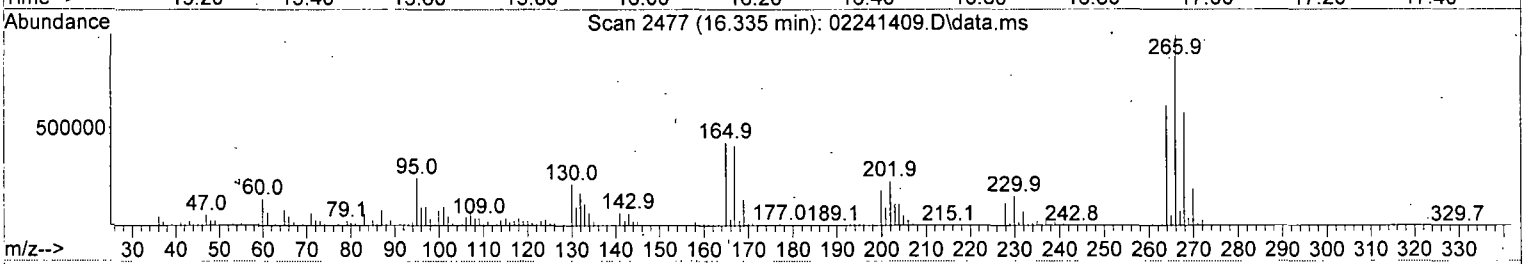
Freedom_0005790_0438

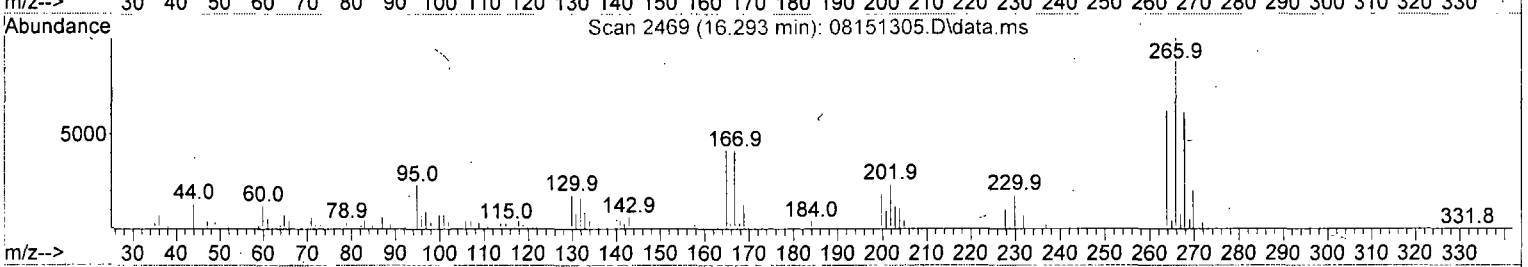
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241409.D
Acq On : 24 Feb 2014 7:31 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 14:14:39 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241409.D\data.ms

(66) Pentachlorophenol (T)

16.335min (+0.043) 18.81 ug/mL m

response 1910620

Ion	Exp%	Act%
265.90	100	100
267.90	65.80	3.37#
263.90	63.00	3.60#
0.00	0.00	0.00

After ccp 2/25/14

EDY 2/27/14

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241410.D
Acq On : 24 Feb 2014 8:09 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 15:03:52 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-D4	7.296	150	2362440	20.00	ug/mL	0.00
20) Naphthalene-D8	9.757	136	6496401	20.00	ug/mL	0.00
36) Acenaphthene-d10	13.431	164	4030741	20.00	ug/mL	0.00
58) Phenanthrene-D10	16.517	188	7552957	20.00	ug/mL	# 0.01
73) Chrysene-D12	22.823	240	6370694	20.00	ug/mL	0.00
81) Perylene-D12	25.610	264	4048787	20.00	ug/mL	0.01
System Monitoring Compounds						
3) 2-Fluorophenol	5.312	112	2231129	28.45	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 56.90%			
6) Phenol-D5	6.852	99	3101487	29.82	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 110		Recovery = 59.64%			
21) Nitrobenzene-D5	8.414	82	1504692	13.02	ug/mL	0.00
Spiked Amount 25.000	Range 35 - 114		Recovery = 52.08%			
40) 2-Fluorobiphenyl	12.089	172	3452583	13.38	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 53.52%			
62) 2,4,6-Tribromophenol	15.121	330	890014	27.65	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 55.30%			
75) Terphenyl-d14	20.074	244	3630076	12.95	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 51.80%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.761	74	644246	7.23	ug/mL#	1
4) Benzaldehyde	6.553	106	301070	7.32	ug/mL	85
7) Phenol	6.874	94	1314361	10.49	ug/mL#	60
8) 2-Chlorophenol	6.991	128	1120675	11.72	ug/mL#	70
9) Bis(2-chloroethyl) ether	6.975	93	1042302	10.33	ug/mL#	61
14) 2-Methylphenol	7.943	108	1011190	11.65	ug/mL#	89
15) bis(2-Chloroisopropyl)...	7.965	45	1575049	8.51	ug/mL	91
16) Acetophenone	8.136	105	2011772	14.72	ug/mL#	85
17) Hexachloroethane	8.216	117	464683	10.93	ug/mL#	78
18) 4-Methylphenol	8.238	107	1250230	12.50	ug/mL	91
19) N-Nitroso-di-n-propyla...	8.243	70	801145	11.24	ug/mL#	60
22) Nitrobenzene	8.446	77	1145672	9.41	ug/mL#	65
23) Isophorone	8.922	82	2073012	9.62	ug/mL#	78
24) 2-Nitrophenol	9.067	139	620113	9.40	ug/mL#	71
25) 2,4-Dimethylphenol	9.254	107	1166249	11.20	ug/mL	96
26) bis(2-Chloroethoxy)met...	9.446	93	1299194	9.80	ug/mL#	83
27) 2,4-Dichlorophenol	9.548	162	962384	10.46	ug/mL#	85
28) 1,2,4-Trichlorobenzene	9.692	180	11209	0.11	ug/mL	93
29) Naphthalene	9.794	128	5248167	15.63	ug/mL	99
30) 4-Chloroaniline	10.035	127	110383	1.80	ug/mL	90
31) Hexachlorobutadiene	10.217	225	597074	10.31	ug/mL	99
32) Caprolactam	10.773	113	369903m	11.47	ug/mL	
33) 4-Chloro-3-methylphenol	11.105	107	1026762	10.38	ug/mL#	90
34) 2-Methylnaphthalene	11.228	142	3301726	13.86	ug/mL#	96
35) 1,2,4,5-Tetrachloroben...	11.661	216	1063749	10.29	ug/ml	97
37) Hexachlorocyclopentadiene	11.720	237	115879	1.90	ug/mL	99
38) 2,4,6-Trichlorophenol	11.912	196	726088	10.42	ug/mL#	86
39) 2,4,5-Trichlorophenol	11.992	196	755827	10.67	ug/mL#	90
41) 2-Chloronaphthalene	12.222	162	2295556	10.49	ug/mL#	73

Freedom_0005790_0440

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241410.D
Acq On : 24 Feb 2014 8:09 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 15:03:52 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	Biphenyl	12.249	154	3081312	10.50 ug/mL	99
43)	2-Nitroaniline	12.575	138	766684	10.18 ug/mL#	65
44)	Acenaphthylene	13.089	152	3892031	11.20 ug/mL	99
45)	Dimethylphthalate	13.100	163	2810317	10.82 ug/mL#	67
46)	2,6-Dinitrotoluene	13.207	165	636588	10.18 ug/mL#	57
47)	3-Nitroaniline	12.575	138	766684	10.18 ug/mL#	59
48)	Acenaphthene	13.495	153	2502861	10.40 ug/mL	99
49)	2,4-Dinitrophenol	13.661	184	96490	2.94 ug/mL#	30
50)	Dibenzofuran	13.832	168	3434500	10.28 ug/mL	92
51)	4-Nitrophenol	13.918	139	423604	10.11 ug/mL#	52
52)	2,4-Dinitrotoluene	14.003	165	864722	10.00 ug/mL#	65
53)	2,3,4,6-tetrachlorophenol	14.223	232	663201	10.52 ug/mL#	85
54)	Fluorene	14.560	166	2942088	10.36 ug/mL	100
55)	Diethylphthalate	14.608	149	2972058	10.79 ug/mL#	85
56)	4-Chlorophenyl-phenyle...	14.629	204	1342999	10.61 ug/mL#	83
57)	4-Nitroaniline	14.752	138	242485m	9.50 ug/mL	
59)	4,6-Dinitro-2-methylph...	14.838	198	391285	7.59 ug/mL#	72
60)	n-Nitrosodiphenylamine	14.913	169	2253230	12.96 ug/mL	99
63)	4-Bromophenyl-phenylether	15.640	248	754713	9.49 ug/mL#	80
64)	Hexachlorobenzene	15.886	284	761013	9.21 ug/mL	99
65)	Atrazine	16.212	200	759157	22.32 ug/mL#	69
66)	Pentachlorophenol	16.298	266	584925	9.96 ug/mL	96
67)	Phenanthrene	16.560	178	4199994	9.71 ug/mL	100
68)	Anthracene	16.651	178	4103415	9.70 ug/mL	100
69)	Carbazole	17.052	167	3505488	30.35 ug/mL	99
70)	Di-n-butylphthalate	18.063	149	5193991	10.38 ug/mL	100
72)	Fluoranthene	19.074	202	4430385	8.89 ug/mL	100
74)	Pyrene	19.545	202	4564172	10.85 ug/mL	100
76)	Benzyl butyl phthalate	21.722	149	1993477	10.01 ug/mL#	87
77)	Benz[a]anthracene	22.770	228	3465508	8.89 ug/mL	99
78)	Chrysene	22.872	228	3218756	8.79 ug/mL	99
79)	3,3'-Dichlorobenzidine	22.866	252	3503	0.06 ug/mL#	1
80)	bis(2-Ethylhexyl)phtha...	23.278	149	2617214	9.46 ug/mL#	85
82)	Di-n-Octylphthalate	24.428	149	3660028	11.94 ug/mL#	87
83)	Benzo[b]fluoranthene	24.888	252	2581648	9.42 ug/mL	100
84)	Benzo[k]fluoranthene	24.936	252	2626496	10.98 ug/mL	99
85)	Benzo[a]pyrene	25.482	252	2112689	10.23 ug/mL	99
86)	Indeno[1,2,3-cd]pyrene	27.846	276	1353185	9.62 ug/mL	100
87)	Dibenz[a,h]anthracene	27.915	278	1441249	9.79 ug/mL	98
88)	Benzo[ghi]perylene	28.445	276	1417866	9.70 ug/mL	99

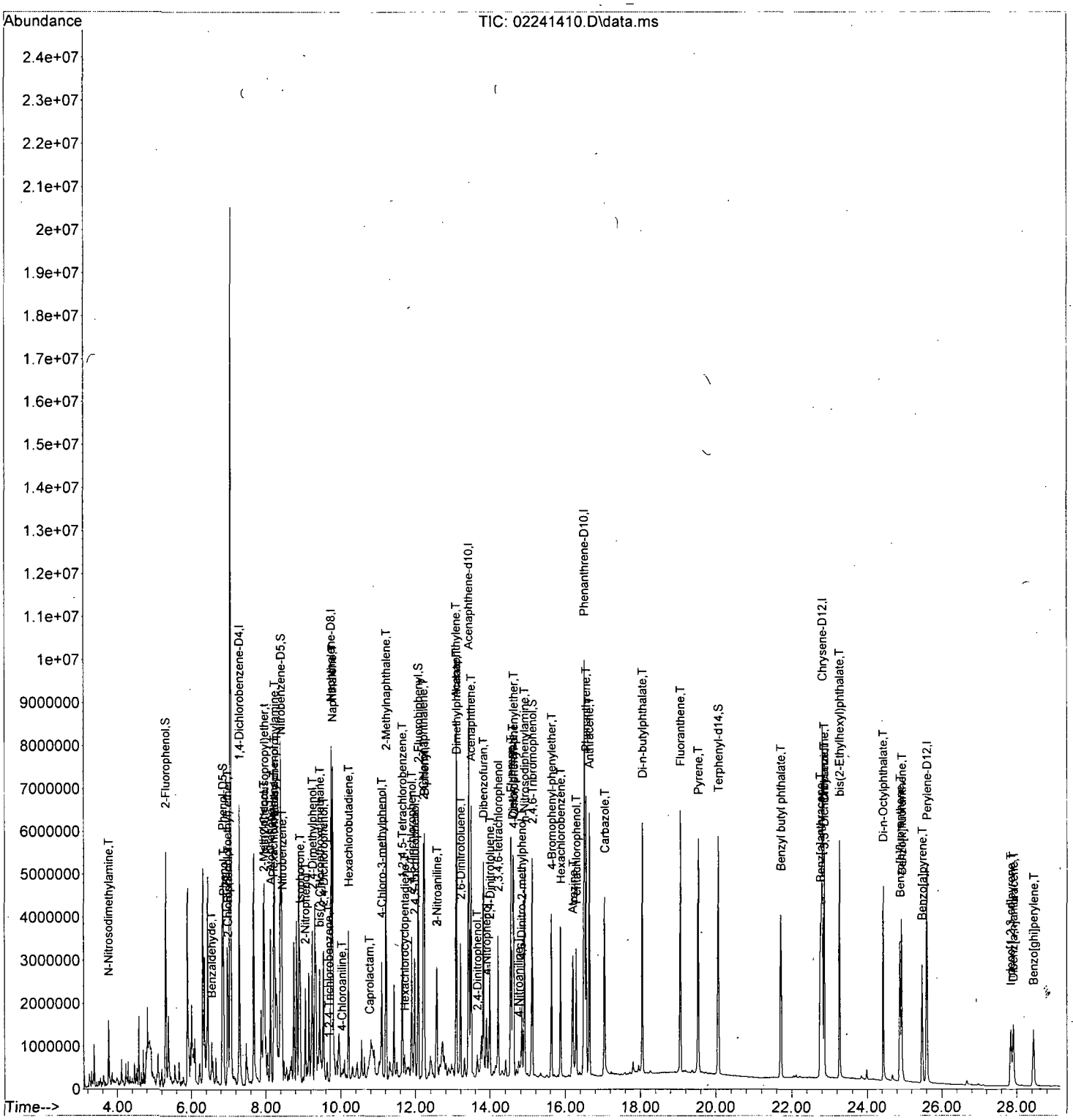
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Freedom_0005790_0441

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\022414\
Data File : 02241410.D
Acq On : 24 Feb 2014 8:09 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 15:03:52 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration

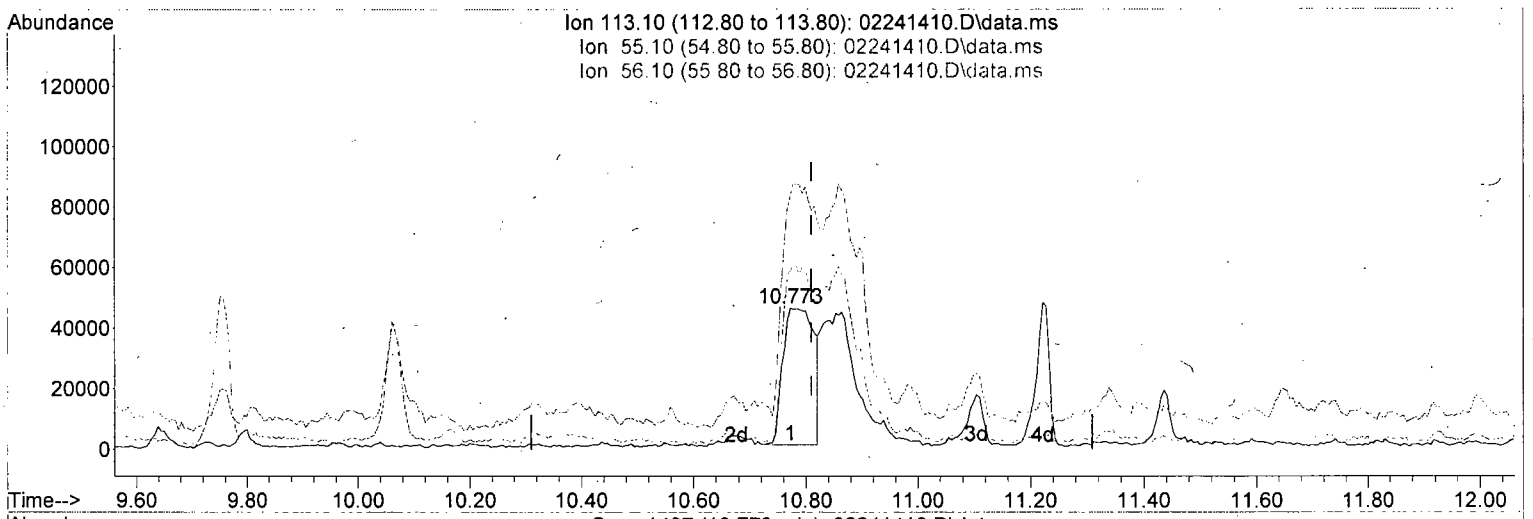


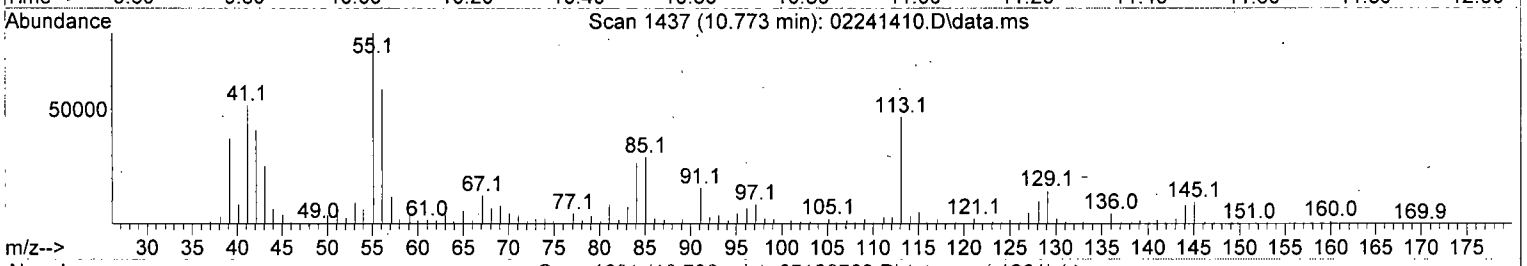
Freedom_0005790_0442

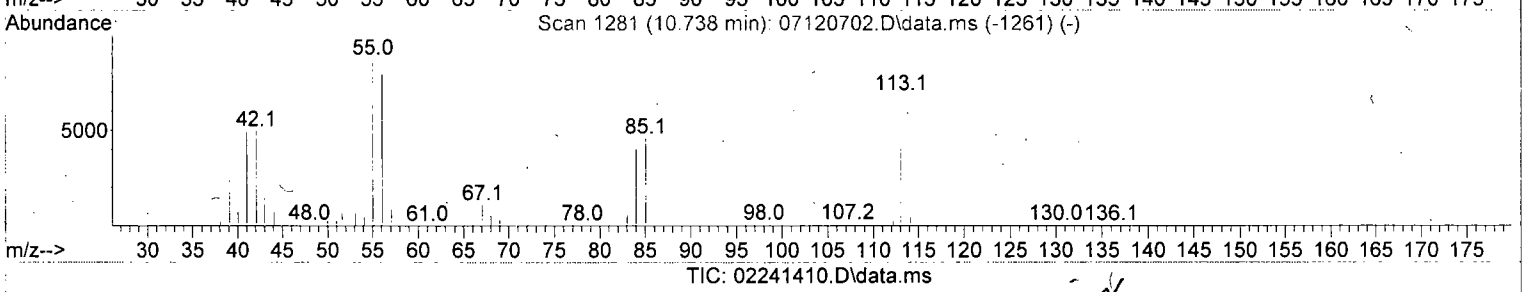
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241410.D
Acq On : 24 Feb 2014 8:09 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 14:39:45 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241410.D\data.ms

(32) Caprolactam (T)

10.773min (-0.037) 5.34 ug/mL

response 172128

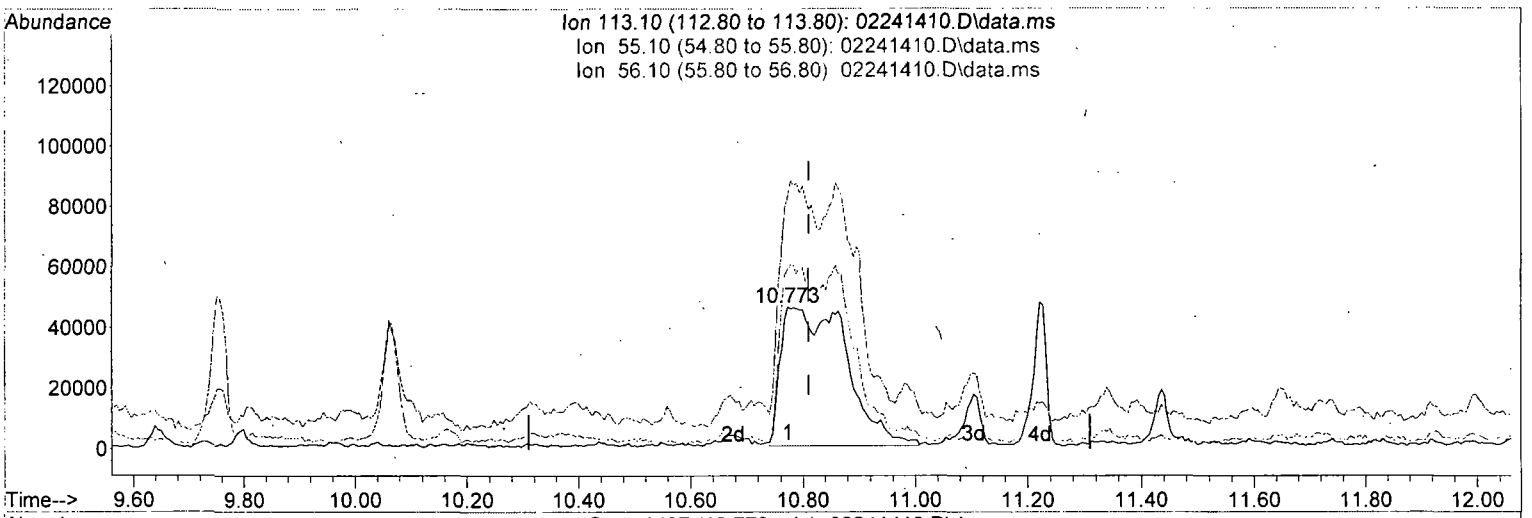
Ion	Exp%	Act%
113.10	100	100
55.10	92.10	183.68#
56.10	75.00	70.90
0.00	0.00	0.00

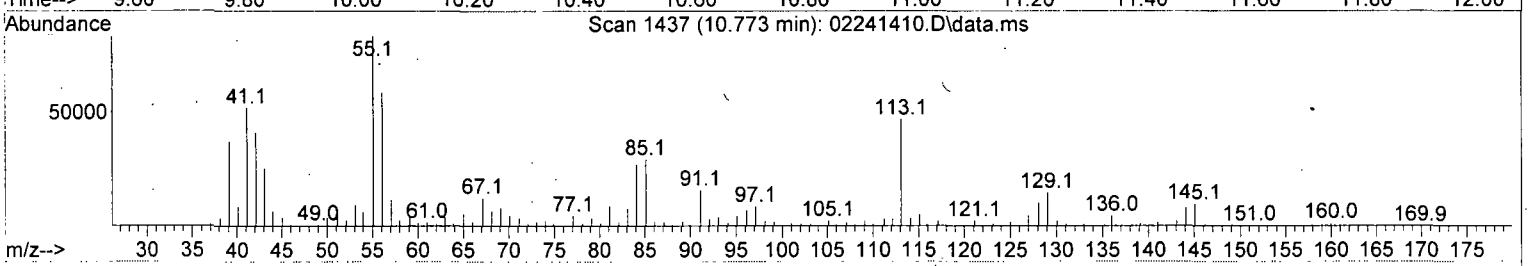
Before Incomplete Integration
ICP
2/25/14

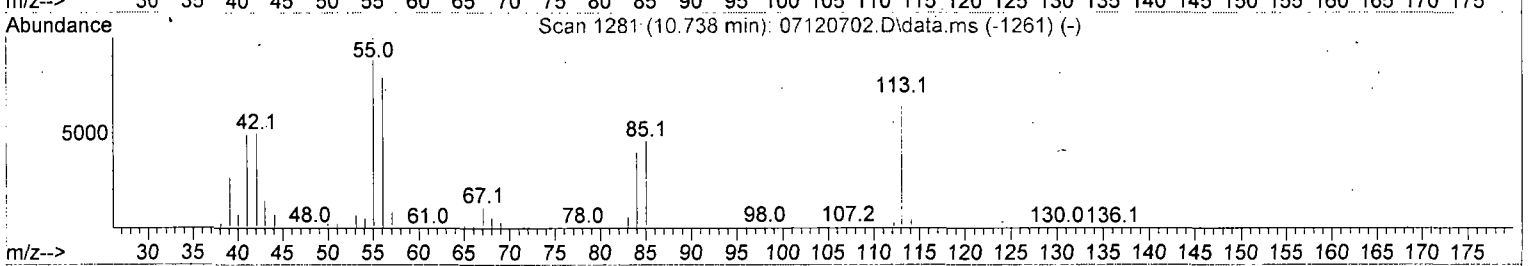
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241410.D
Acq On : 24 Feb 2014 8:09 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 14:39:45 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241410.D\data.ms

(32) Caprolactam (T)

10.773min (-0.037) 11.47 ug/mL m

response 369903

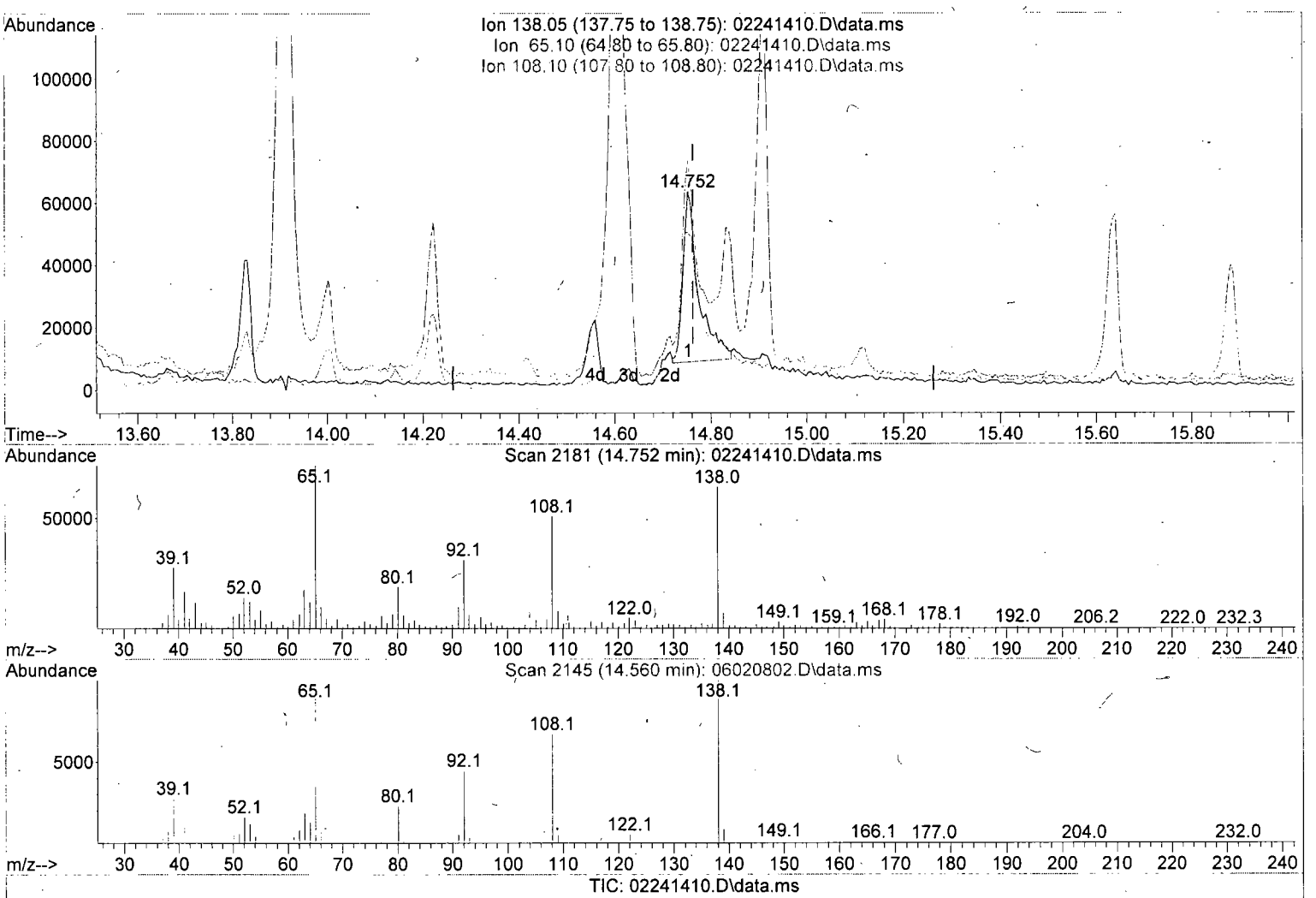
Ion	Exp%	Act%
113.10	100	100
55.10	92.10	85.47
56.10	75.00	32.99#
0.00	0.00	0.00

Affect
KP
2/25/14
ERY
2/27/14

Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241410.D
Acq On : 24 Feb 2014 8:09 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 14:39:45 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration



(57) 4-Nitroaniline (T)

14.752min (-0.011) 4.97 ug/mL

response 126798

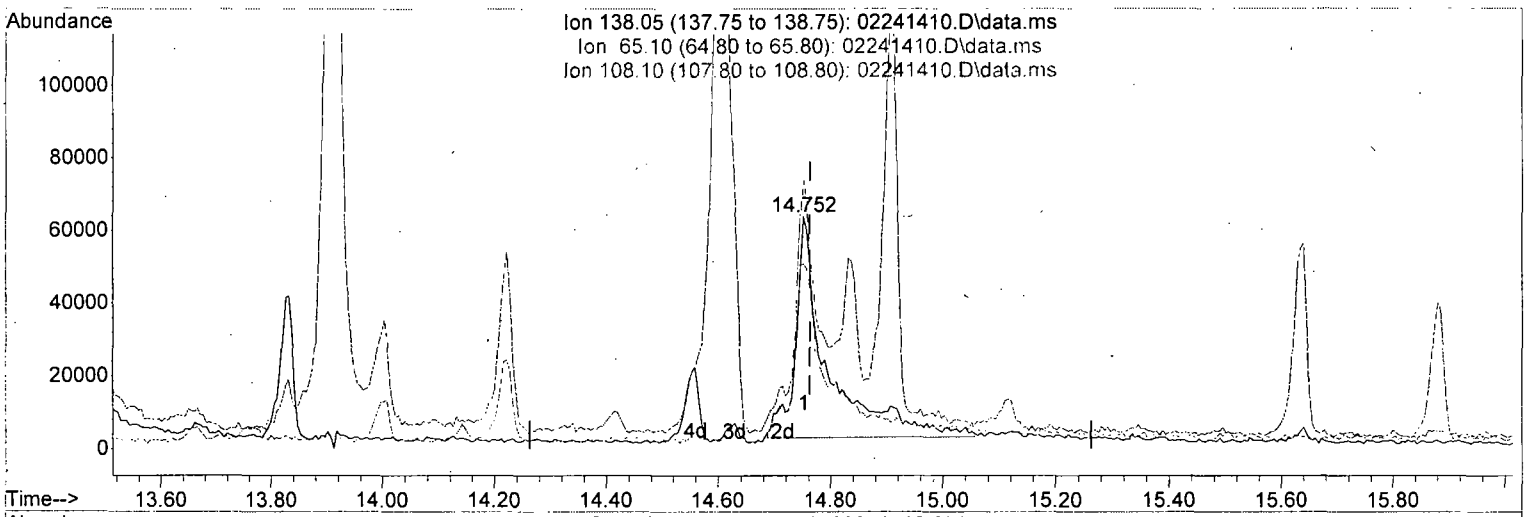
Ion	Exp%	Act%
138.05	100	100
65.10	71.50	125.62#
108.10	51.50	77.44#
0.00	0.00	0.00

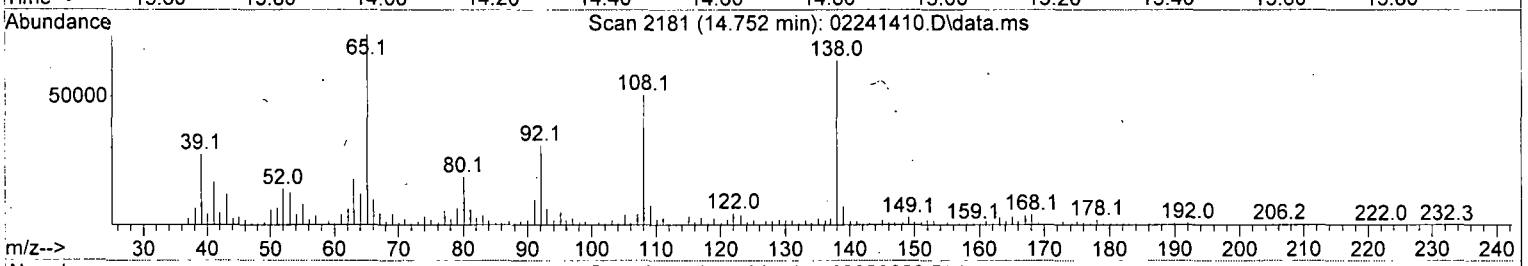
Before Baseline Correction
AP 2/25/14

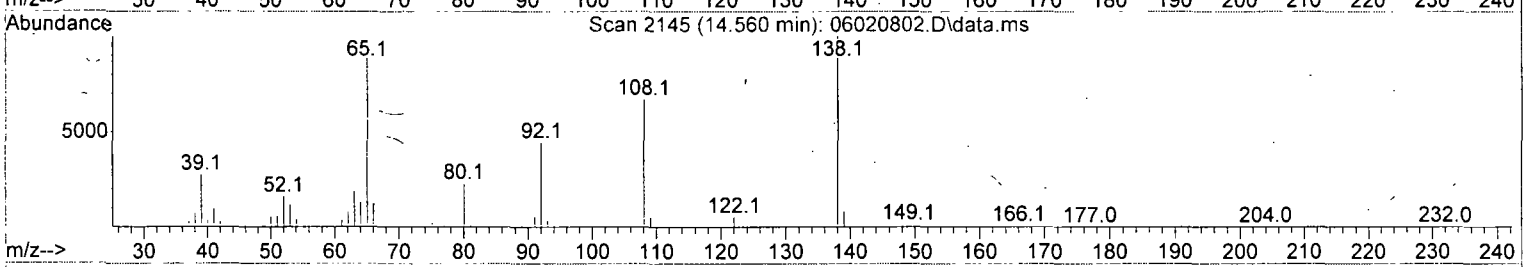
Quantitation Report (Qedit)

Data Path : D:\DATA\022414\
Data File : 02241410.D
Acq On : 24 Feb 2014 8:09 pm
Operator : KLP OX-HP5975MSD
Sample : BB41801-MSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 14:39:45 2014
Quant Method : C:\msdchem\1\METHODS\080913.M
Quant Title : svoa
QLast Update : Mon Aug 19 15:22:47 2013
Response via : Initial Calibration







TIC: 02241410.D\data.ms

(57) 4-Nitroaniline (T)

14.752min (-0.011) 9.50 ug/mL m

response 242485

Ion	Exp%	Act%
138.05	100	100
65.10	71.50	65.69
108.10	51.50	40.49#
0.00	0.00	0.00

After CP 2/25/14

RY 2/27/14

On-Demand Data Checklist
(used in addition to routine TRC)
For Internal Use Only

Parameter: MCHM+PPH
Procedure/Method/Reference: 8270D

Site Name: NV Chemical Leak WO#: 140104
Analyst: Eric Graydill

The signature below indicates the following:
• The analysis was performed as per the On-Demand requirements below.

Peer Reviewer signature [signature] Date accepted 2/27/14 Pending correction

Peer Reviewer Completes Section Below:

This is a special request which falls outside our routine protocols. Therefore, these samples were analyzed and the quality control (QC) were evaluated based on the "On Demand" criteria. These protocols include all the QC checks as per routine analyses plus special verification of the performance of the analytical method at the reported quantitation limit/s. These protocols are specified in the EPA Region III OASQA Laboratory Quality Manual, current version.

Quality Control:	**YES**	**NO**	**N/A**	**Comments**
A written procedure or reference must be available for the method being performed and referenced in the narrative. If the method to be performed is unique, the procedures must be fully documented.	✓			
Calibration of the instrumentation or analytical procedure must be according to the method or procedure.	✓			
Calibration verified by analysis of second source standard (SCV, SRM), if available. Concentration must be in the range of the calibration. Results must be within the method, procedure, client or in-house limits.	✓			
Analysis of one method blank (BLK) with each batch. Ideally, the results should be less than the expected quantitation levels set by the method, procedure, or in-house requirements.	✓			
Analysis of one matrix spike (MS) with each batch. For samples or parameters which do not lend themselves to matrix spiking, a BS or SRM sample must be analyzed. Results of spikes must be within the method, procedure, client or in-house limits.	✓			

Freedom_0005790_0447

Analysis of one duplicate analyses (DUP) or a quality control sample such as an SRM or BS with each batch. If duplicate analyses is not possible, e.g, insufficient sample quantity, a quality control sample must be analyzed in duplicate, if available. Results of duplicate analyses must be within the method, procedure, client or in-house limits. ✓ ___ ___ BS

At least one blank spike (BS) must be carried through the entire method and analyzed with each batch. The concentration of the BS should be at the quantitation level or at the level of the expected sample results, if known. Results of the BS must be within the method, procedure, client or in-house limits. ✓ ___ ___ ___

Any additional quality control items, such as surrogates, internal standards, etc., which the referenced method or procedure requires should be analyzed. Results must be within the method or, procedure limits. ✓ ___ ___ ___

The analyst must document the impact on the usability of the reported data by applying qualifier codes if applicable and including a summary in the case file. ___ ___ ___ To be done

Additional Comments:

① Initial Cal for MCHM on 2/20/14 - 4 points → QL is 5 ug/L
② Reference IS area counts are of wrong file. EDS 2/27/14
③ Cross-outs in extraction volumes should be initialed and dated. EDS 2/27/14
④ Dilution for sample -06 for MCHM is in conflict. EDS 2/27/14
⑤ Data impact (qualifier) consideration for Holding Time. EDS 2/27/14

Appendix C

Manual Integration Summary Form

Site Name: WV Chemical Leak Work Order Number: 1401014

Check all reasons that apply:

( ) Manual integration performed to properly integrate unresolved peaks.

( ) Manual integration performed to separate closely eluting peaks with the same quantitation ion.

( ) Manual integration performed to remove coeluting interferent.

( ) Manual integration performed to add a non-detected peak.

(✓) Manual integration performed to identify correct peak.

( ) Manual integration performed due to peak splitting.

( ) Manual integration performed due to failure of the instrument response to return to baseline or a rise in the baseline.

( ) Manual integration performed to employ peak skimming due to coeluting peaks.

( ) Manual integration performed due to poor chromatography (peak shape).

Additional Notes:

Analyst: Eric R Craybill / [signature] Date: 2/26/14

Peer Reviewer: Hoang Nguyen / [signature] Date: 2/27/14

Rev. 5/4/11

Ex. 5 - Deliberative

Ex. 5 - Deliberative

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Ex. 5 - Deliberative

Ex. 5 - Deliberative

DRAFT

Site Name: **West Virginia Chemical Leak** **Project #:** **DAS R34317**

QC Data
Semivolatile Organic Compounds

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BB40502 - EPA 3520C SVOC										
Blank (BB40502-BLK1)				Prepared: 02/05/14 13:07	Analyzed: 02/11/14 14:49					
Dimethyl phthalate	U	5.00	ug/L							
Di-n-butyl phthalate	U	5.00	"							
4,6-Dinitro-2-methylphenol	U	10.0	"							
2,4-Dinitrophenol	U	5.00	"							
2,4-Dinitrotoluene	U	5.00	"							
2,6-Dinitrotoluene	U	5.00	"							
Di-n-octyl phthalate	U	5.00	"							
Fluoranthene	U	5.00	"							
Fluorene	U	5.00	"							
Hexachlorobenzene	U	5.00	"							
Hexachlorobutadiene	U	5.00	"							
Hexachlorocyclopentadiene	U	5.00	"							
Hexachloroethane	U	5.00	"							
Indeno(1,2,3-cd)pyrene	U	5.00	"							
Isophorone	U	5.00	"							
2-Methylnaphthalene	U	5.00	"							
2-Methylphenol	U	5.00	"							
4-Methylphenol	U	5.00	"							
Naphthalene	U	5.00	"							
2-Nitroaniline	U	5.00	"							
3-Nitroaniline	U	5.00	"							
4-Nitroaniline	U	5.00	"							
Nitrobenzene	U	5.00	"							
2-Nitrophenol	U	5.00	"							
4-Nitrophenol	U	20.0	"							
N-Nitrosodimethylamine	U	5.00	"							
N-Nitroso-di-n-propylamine	U	5.00	"							
N-Nitrosodiphenylamine	U	5.00	"							
Pentachlorophenol	U	5.00	"							
Phenanthrene	U	5.00	"							
Phenol	U	10.0	"							
Pyrene	U	5.00	"							
1,2,4,5-Tetrachlorobenzene	U	5.00	"							
2,3,4,6-Tetrachlorophenol	U	5.00	"							
2,4,5-Trichlorophenol	U	10.0	"							
2,4,6-Trichlorophenol	U	10.0	"							
Cyclopentane, 1-ethyl-2-methyl-	2.46		"							T
Cyclopentane, 1,2,3,4,5-pentamethyl-	3.67		"							T
Sulfurous acid, cyclohexylmethyl isohexyl este	4.31		"							T
Pentane, 2,3,4-trimethyl-	6.01		"							T
Sulfurous acid, cyclohexylmethyl nonyl ester	13.5		"							T

Ex. 5 - Deliberative

Ex. 5 - Deliberative

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Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Calibration Data

Response Factor Report CWA

Method Path : D:\DATA\SVOC\calibrations\
Method File : MCHM012814.M
Title : Calibration
Last Update : Tue Feb 25 12:26:06 2014
Response Via : Initial Calibration

WO: 1401014
Site Name: WV Chem Leak

Calibration Files
0.5 =MCHMLow5_012314.D 5 =MCHM05_012314.D 10 =MCHM10_012314.D 20 =MCHM20_012314.D
50 =MCHM50_012314.D

		Compound	0.5	5	10	20	50	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	ISTD						
2)	S	2-Fluorophenol	1.122	1.116	1.112	1.121	1.199	1.134	3.22
3)	S	Phenol-d5	1.218	1.228	1.227	1.248	1.315	1.247	3.16
4)		cis-MCHM	0.553	0.601	0.585	0.624	0.613	0.595	4.67
5)		tans-MCHM	1.051	1.296	1.231	1.265	1.155	1.200	8.21
6)	I	Naphthalene-d8	ISTD						
7)	S	Nitrobenzene-d5	0.410	0.420	0.411	0.427	0.427	0.419	2.00
8)	I	Acenaphthene-d10	ISTD						
9)	S	2-Fluorobiphenyl	1.394	1.410	1.386	1.458	1.470	1.423	2.68
10)	I	Phenanthrene-d10	ISTD						
11)	S	2,4,6-Tribromoph...	0.059	0.061	0.062	0.064	0.062	0.062	2.78
12)	I	Chrysene-d12	ISTD						
13)	S	Terphenyl-d14	0.968	1.008	0.994	1.038	1.029	1.007	2.80
14)	I	Perylene-d12	ISTD						

(#) = Out of Range

Freedom_0005790_0530

Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Calibration Data

Response Factor Report CWA

Method Path : D:\DATA\SVOC\calibrations\
Method File : MCHM012814.M
Title : Calibration
Last Update : Tue Feb 25 12:26:06 2014
Response Via : Initial Calibration

WO: 1401014
Site Name: WV Chem Leak

Calibration Files
0.5 =MCHMLow5_012314.D 5 =MCHM05_012314.D 10 =MCHM10_012314.D 20 =MCHM20_012314.D
50 =MCHM50_012314.D

		Compound	0.5	5	10	20	50	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	ISTD						
2)	S	2-Fluorophenol	1.122	1.116	1.112	1.121	1.199	1.134	3.22
3)	S	Phenol-d5	1.218	1.228	1.227	1.248	1.315	1.247	3.16
4)		cis-MCHM	0.553	0.601	0.585	0.624	0.613	0.595	4.67
5)		tans-MCHM	1.051	1.296	1.231	1.265	1.155	1.200	8.21
6)	I	Naphthalene-d8	ISTD						
7)	S	Nitrobenzene-d5	0.410	0.420	0.411	0.427	0.427	0.419	2.00
8)	I	Acenaphthene-d10	ISTD						
9)	S	2-Fluorobiphenyl	1.394	1.410	1.386	1.458	1.470	1.423	2.68
10)	I	Phenanthrene-d10	ISTD						
11)	S	2,4,6-Tribromoph...	0.059	0.061	0.062	0.064	0.062	0.062	2.78
12)	I	Chrysene-d12	ISTD						
13)	S	Terphenyl-d14	0.968	1.008	0.994	1.038	1.029	1.007	2.80
14)	I	Perylene-d12	ISTD						

(#) = Out of Range

Freedom_0005790_0532

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHMLow5_012314.D
Acq On : 28 Jan 2014 1:24 pm
Operator : ERG 96-5975B
Sample : MCHMLow5_012314
Misc : Initial Calibration on 012814
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:25:11 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:36:39 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1296975	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4683152	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2574139	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	4103591	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	4063136	20.000	ug/mL	# 0.00
14) Perylene-d12	13.285	264	3631871	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3638207	49.470	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 98.94%			
3) Phenol-d5	3.880	99	3949628	48.835	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 97.66%			
7) Nitrobenzene-d5	4.728	82	2397351	24.444	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 97.76%			
9) 2-Fluorobiphenyl	6.538	172	4485233	24.481	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 97.92%			
11) 2,4,6-Tribromophenol	8.088	330	607058	48.088	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 96.18%			
13) Terphenyl-d14	10.519	244	4916048	24.021	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 96.08%			
Target Compounds						Qvalue
4) cis-MCHM	4.518	55	17923	0.464	ug/mL	96
5) tans-MCHM	4.674	55	34065m	0.438	ug/mL	

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

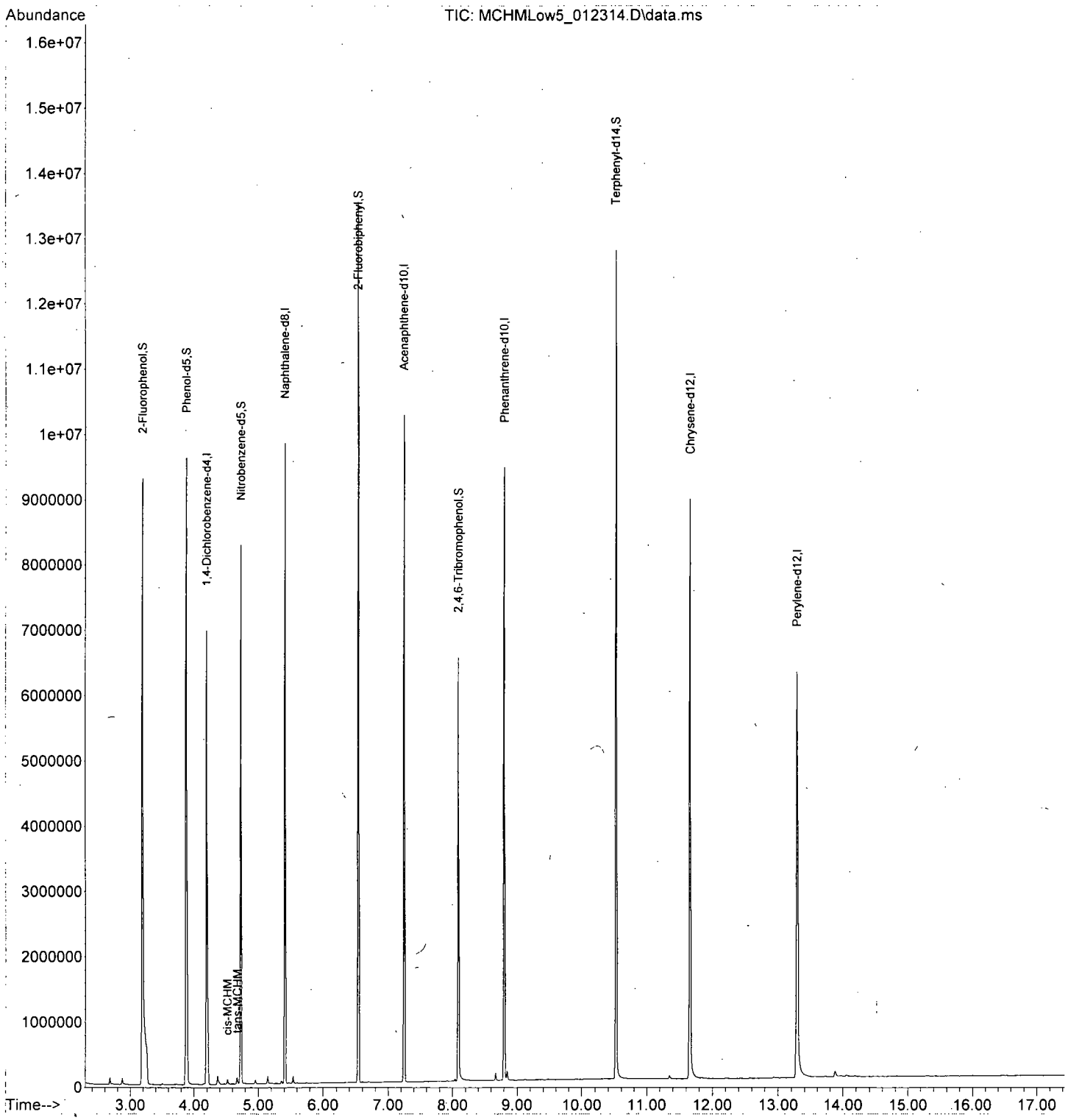
Freedom_0005790_0533

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHMLow5_012314.D
Acq On : 28 Jan 2014 1:24 pm
Operator : ERG 96-5975B
Sample : MCHMLow5_012314
Misc : Initial Calibration on 012814
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:25:11 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:36:39 2014
Response via : Initial Calibration

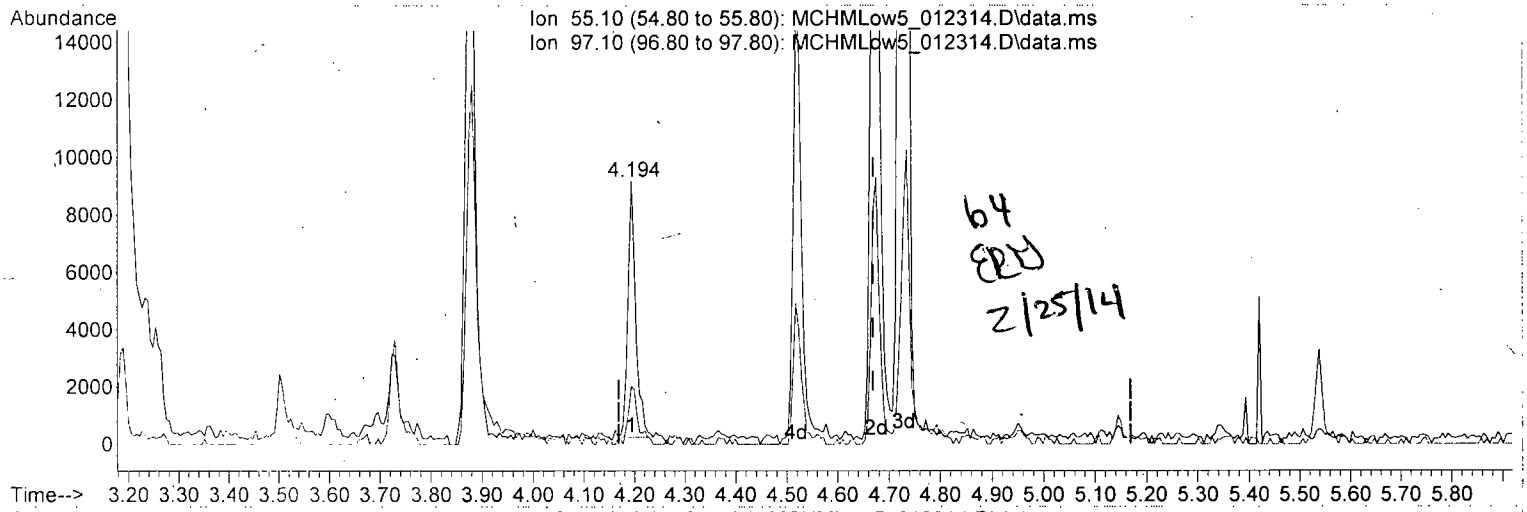


Quantitation Report (Qedit)

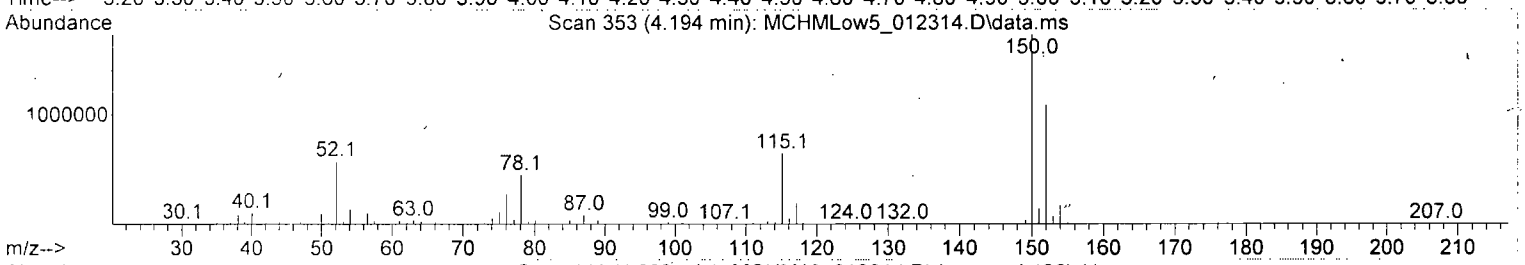
Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHMLow5_012314.D
Acq On : 28 Jan 2014 1:24 pm
Operator : ERG 96-5975B
Sample : MCHMLow5_012314
Misc : Initial Calibration on 012814
ALS Vial : 7 Sample Multiplier: 1

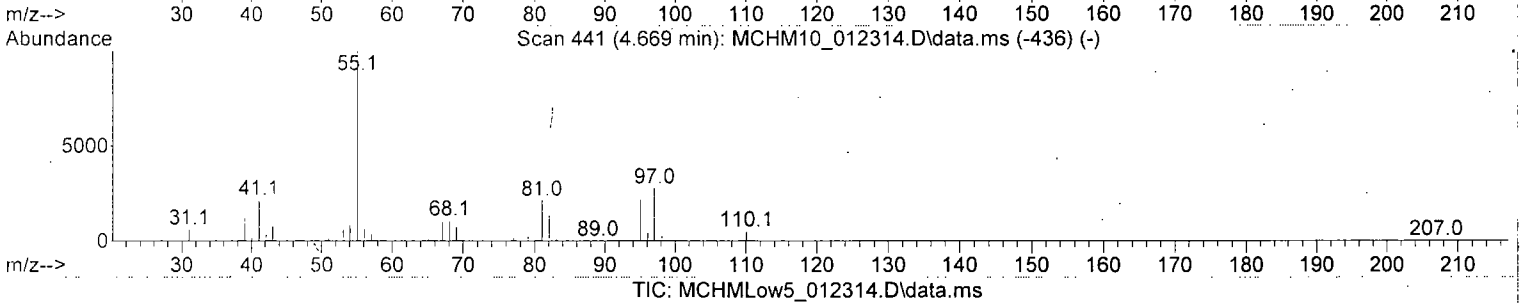
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:24:16 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:36:39 2014
Response via : Initial Calibration



64
EPD
2/25/14





(5) tans-MCHM

4.194min (-0.475) 0.12 ug/mL

response 9567

Ion	Exp%	Act%
55.10	100	100
97.10	25.00	28.77
0.00	0.00	0.00
0.00	0.00	0.00

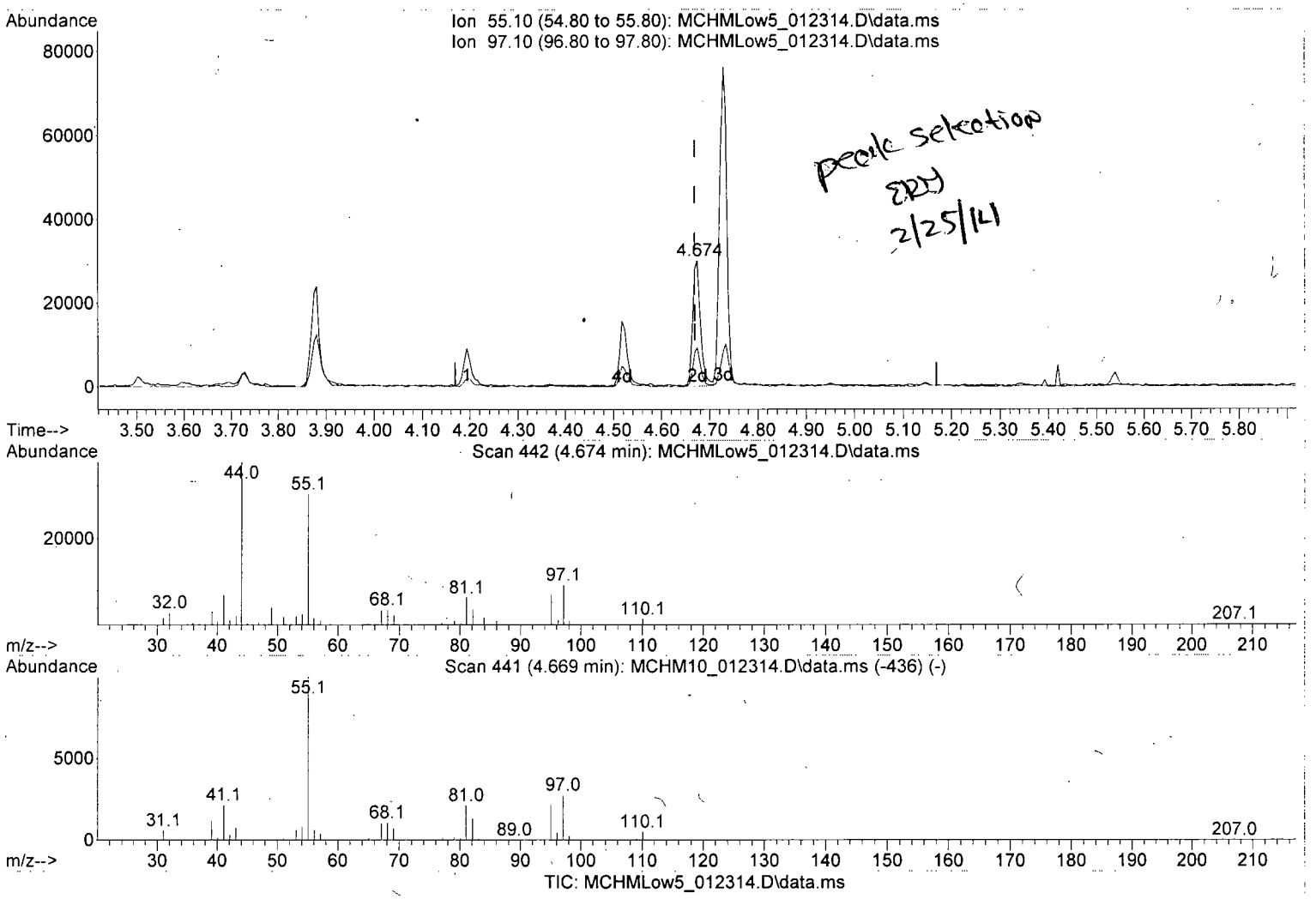
Freedom_0005790_0535

Quantitation Report (Qedit)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHMLow5_012314.D
Acq On : 28 Jan 2014 1:24 pm
Operator : ERG 96-5975B
Sample : MCHMLow5_012314
Misc : Initial Calibration on 012814
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:24:16 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:36:39 2014
Response via : Initial Calibration



(5) tans-MCHM

4.674min (+0.005) 0.44 ug/mL m

response 34065

Ion	Exp%	Act%
55.10	100	100
97.10	25.00	8.08#
0.00	0.00	0.00
0.00	0.00	0.00

Freedom_0005790_0536

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHM05_012314.D
Acq On : 28 Jan 2014 2:14 pm
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : Initial Calibration on 012814
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 08:34:00 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Fri Jan 24 08:09:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	1423046	20.000	ug/mL	0.04
6) Naphthalene-d8	5.409	136	5148367	20.000	ug/mL	0.05
8) Acenaphthene-d10	7.246	164	2846658	20.000	ug/mL	0.05
10) Phenanthrene-d10	8.807	188	4547276	20.000	ug/mL	0.06
12) Chrysene-d12	11.654	240	4413438	20.000	ug/mL	# 0.06
14) Perylene-d12	13.285	264	3754003	20.000	ug/mL	0.09
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	3969533	49.023	ug/mL	0.03
Spiked Amount 50.000	Range 21 - 110		Recovery = 98.04%			
3) Phenol-d5	3.880	99	4368129	48.543	ug/mL	0.03
Spiked Amount 50.000	Range 39 - 106		Recovery = 97.08%			
7) Nitrobenzene-d5	4.728	82	2701432	25.182	ug/mL	0.04
Spiked Amount 25.000	Range 43 - 108		Recovery = 100.72%			
9) 2-Fluorobiphenyl	6.538	172	5016239	25.187	ug/mL	0.05
Spiked Amount 25.000	Range 43 - 116		Recovery = 100.76%			
11) 2,4,6-Tribromophenol	8.088	330	688850	49.862	ug/mL	0.05
Spiked Amount 50.000	Range 10 - 123		Recovery = 99.72%			
13) Terphenyl-d14	10.519	244	5560868	22.717	ug/mL	0.07
Spiked Amount 25.000	Range 33 - 141		Recovery = 90.88%			
Target Compounds						Qvalue
4) cis-MCHM	4.518	55	213934	4.603	ug/mL	92
5) tans-MCHM	4.669	55	461154	4.715	ug/mL	93

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

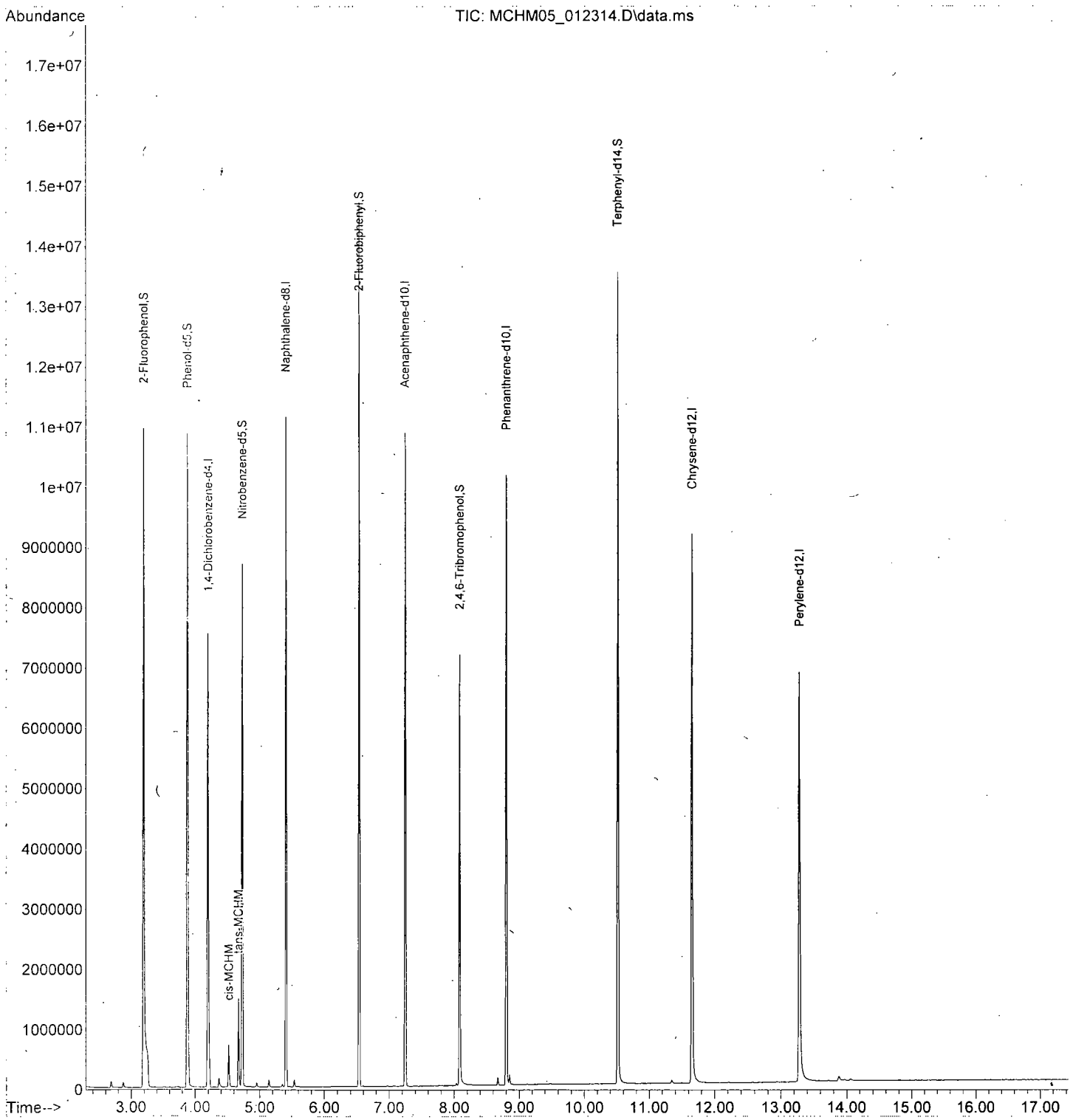
Freedom_0005790_0537

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHM05_012314.D
Acq On : 28 Jan 2014 2:14 pm
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : Initial Calibration on 012814
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Jan 30 08:34:00 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Fri Jan 24 08:09:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHM10_012314.D
Acq On : 28 Jan 2014 3:05 pm
Operator : ERG 96-5975B
Sample : MCHM10_012314
Misc : Initial Calibration on 012814
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 08:37:42 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:36:39 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	1445410	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	5243854	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2894965	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	4573365	20.000	ug/mL	0.00
12) Chrysene-d12	11.659	240	4536244	20.000	ug/mL	# 0.00
14) Perylene-d12	13.291	264	3928353	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	4019551	49.043	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 98.08%			
3) Phenol-d5	3.880	99	4434488	49.199	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 98.40%			
7) Nitrobenzene-d5	4.728	82	2693906	24.531	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 98.12%			
9) 2-Fluorobiphenyl	6.538	172	5014825	24.338	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 97.36%			
11) 2,4,6-Tribromophenol	8.088	330	706279	50.201	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 100.40%			
13) Terphenyl-d14	10.519	244	5633595	24.656	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 98.64%			
Target Compounds						Qvalue
4) cis-MCHM	4.518	55	422613	9.825	ug/mL	93
5) tans-MCHM	4.669	55	889466	10.263	ug/mL	93

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

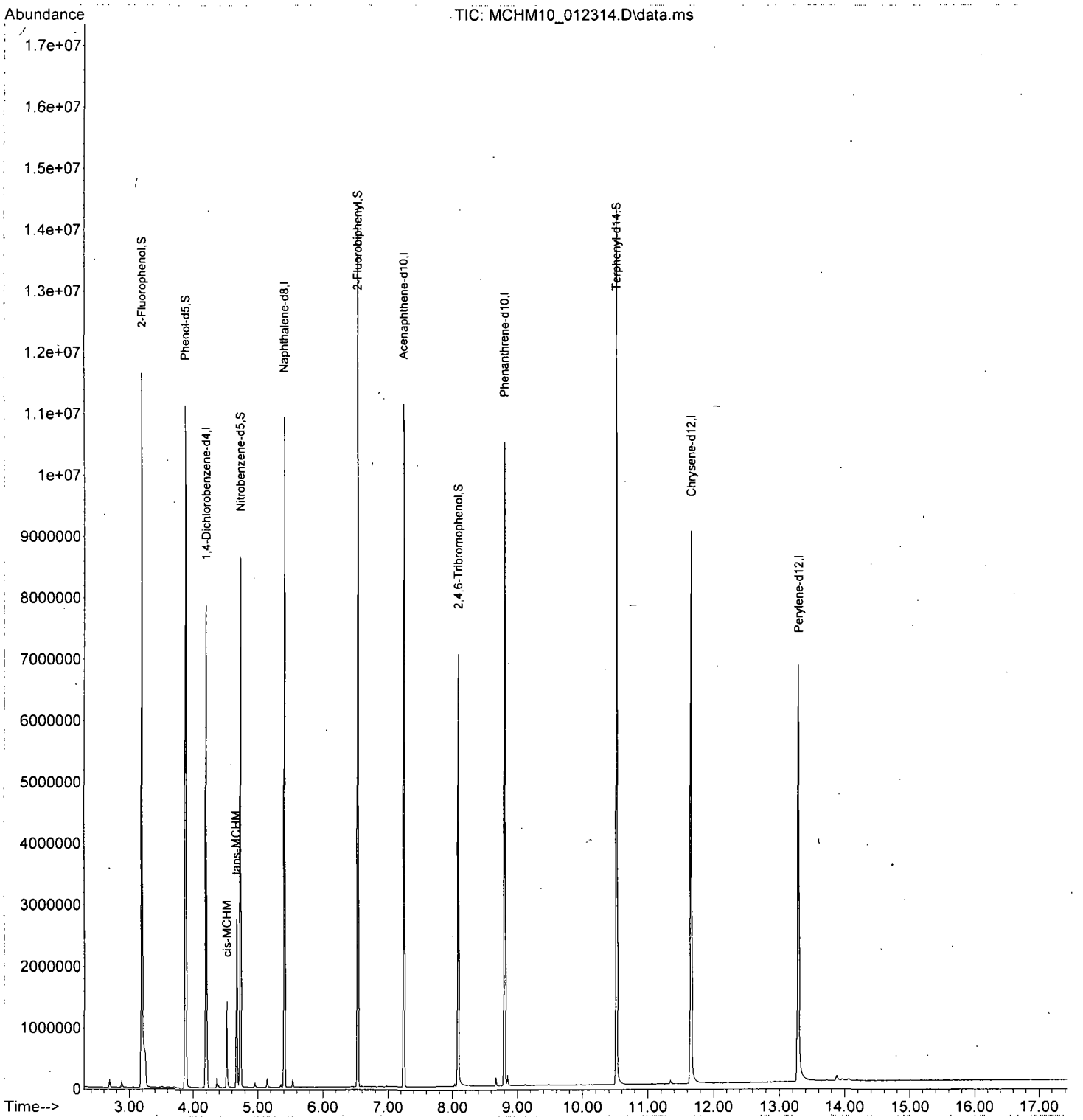
Freedom_0005790_0539

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHM10_012314.D
Acq On : 28 Jan 2014 3:05 pm
Operator : ERG 96-5975B
Sample : MCHM10_012314
Misc : Initial Calibration on 012814
ALS Vial : 9 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Jan 30 08:37:42 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:36:39 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01.JAN\012814\
Data File : MCHM20_012314.D
Acq On : 28 Jan 2014 3:55 pm
Operator : ERG 96-5975B
Sample : MCHM20_012314
Misc : Initial Calibration on 012814
ALS Vial : 10 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Jan 30 08:34:57 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:34:51 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1478460	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	5355678	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2961466	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	4716570	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	4538575	20.000	ug/mL	# 0.00
14) Perylene-d12	13.285	264	3867062	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	4143561	49.333	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 98.66%			
3) Phenol-d5	3.881	99	4612388	49.631	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 99.26%			
7) Nitrobenzene-d5	4.729	82	2857517	25.449	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 101.80%			
9) 2-Fluorobiphenyl	6.538	172	5398451	26.117	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 104.48%			
11) 2,4,6-Tribromophenol	8.089	330	749803	52.125	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 104.26%			
13) Terphenyl-d14	10.520	244	5890977	24.314	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 97.24%			
Target Compounds						Qvalue
4) cis-MCHM	4.518	55	922085	20.035	ug/mL	93
5) tans-MCHM	4.669	55	1870293	19.686	ug/mL	93

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

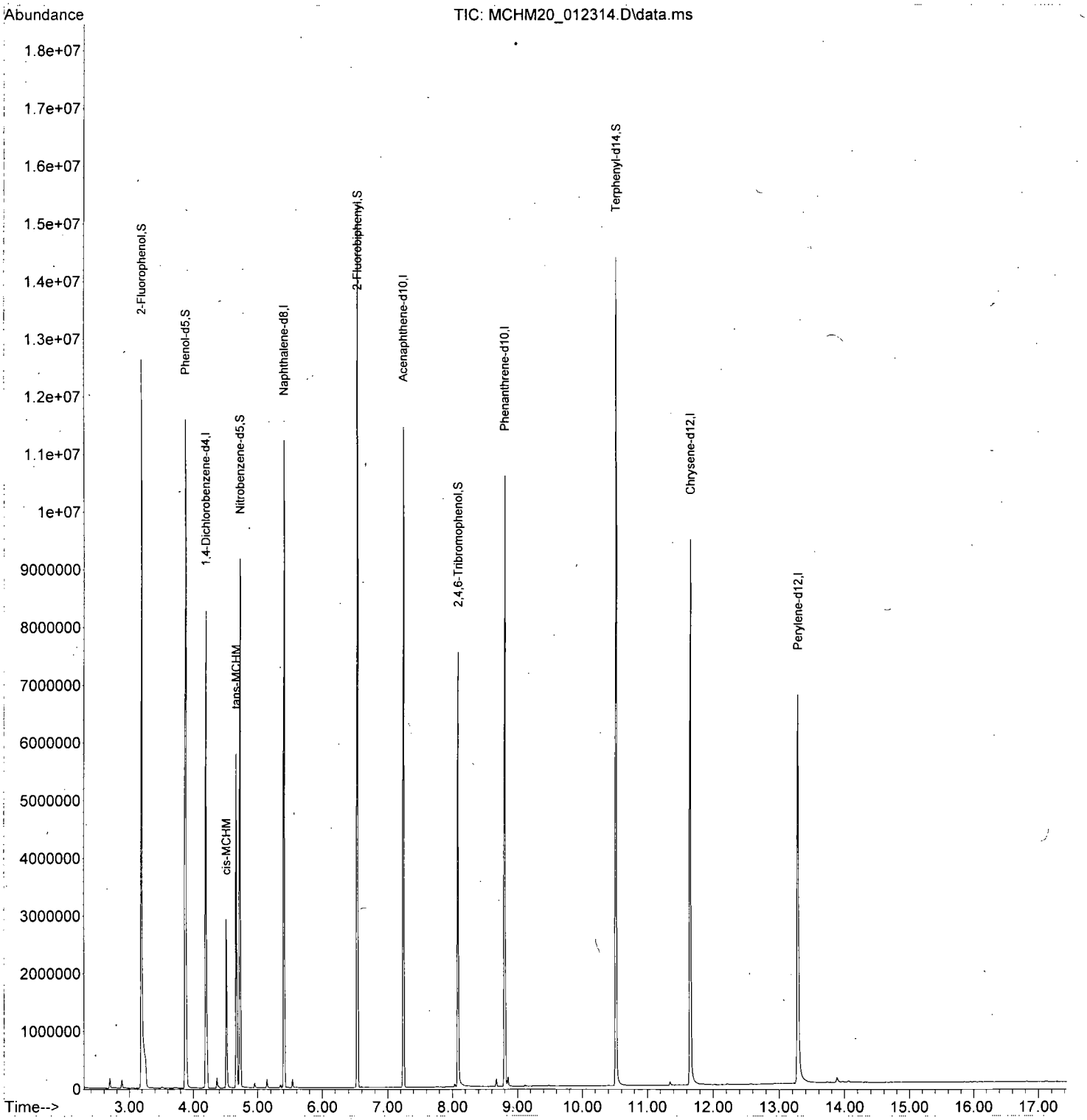
Freedom_0005790_0541

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHM20_012314.D
Acq On : 28 Jan 2014 3:55 pm
Operator : ERG 96-5975B
Sample : MCHM20_012314
Misc : Initial Calibration on 012814
ALS Vial : 10 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Jan 30 08:34:57 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:34:51 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHM50_012314.D
Acq On : 28 Jan 2014 4:46 pm
Operator : ERG 96-5975B
Sample : MCHM50_012314
Misc : Initial Calibration on 012814
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 25 12:27:21 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.194	152	1231940	20.000 ug/mL	0.00
6) Naphthalene-d8	5.409	136	4476037	20.000 ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2500883	20.000 ug/mL	0.00
10) Phenanthrene-d10	8.807	188	4016538	20.000 ug/mL	0.00
12) Chrysene-d12	11.654	240	3968307	20.000 ug/mL	# 0.00
14) Perylene-d12	13.285	264	3399172	20.000 ug/mL	0.00
System Monitoring Compounds					
2) 2-Fluorophenol	3.189	112	3693048	52.867 ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 105.74%		
3) Phenol-d5	3.880	99	4049484	52.713 ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 105.42%		
7) Nitrobenzene-d5	4.734	82	2389641	25.493 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 101.96%		
9) 2-Fluorobiphenyl	6.538	172	4594155	25.810 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 103.24%		
11) 2,4,6-Tribromophenol	8.088	330	627578	50.791 ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 101.58%		
13) Terphenyl-d14	10.519	244	5104812	25.539 ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 102.16%		
Target Compounds					Qvalue
4) cis-MCHM	4.518	55	1888983	51.526 ug/mL	94
5) tans-MCHM	4.674	55	3557034	48.142 ug/mL	93

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

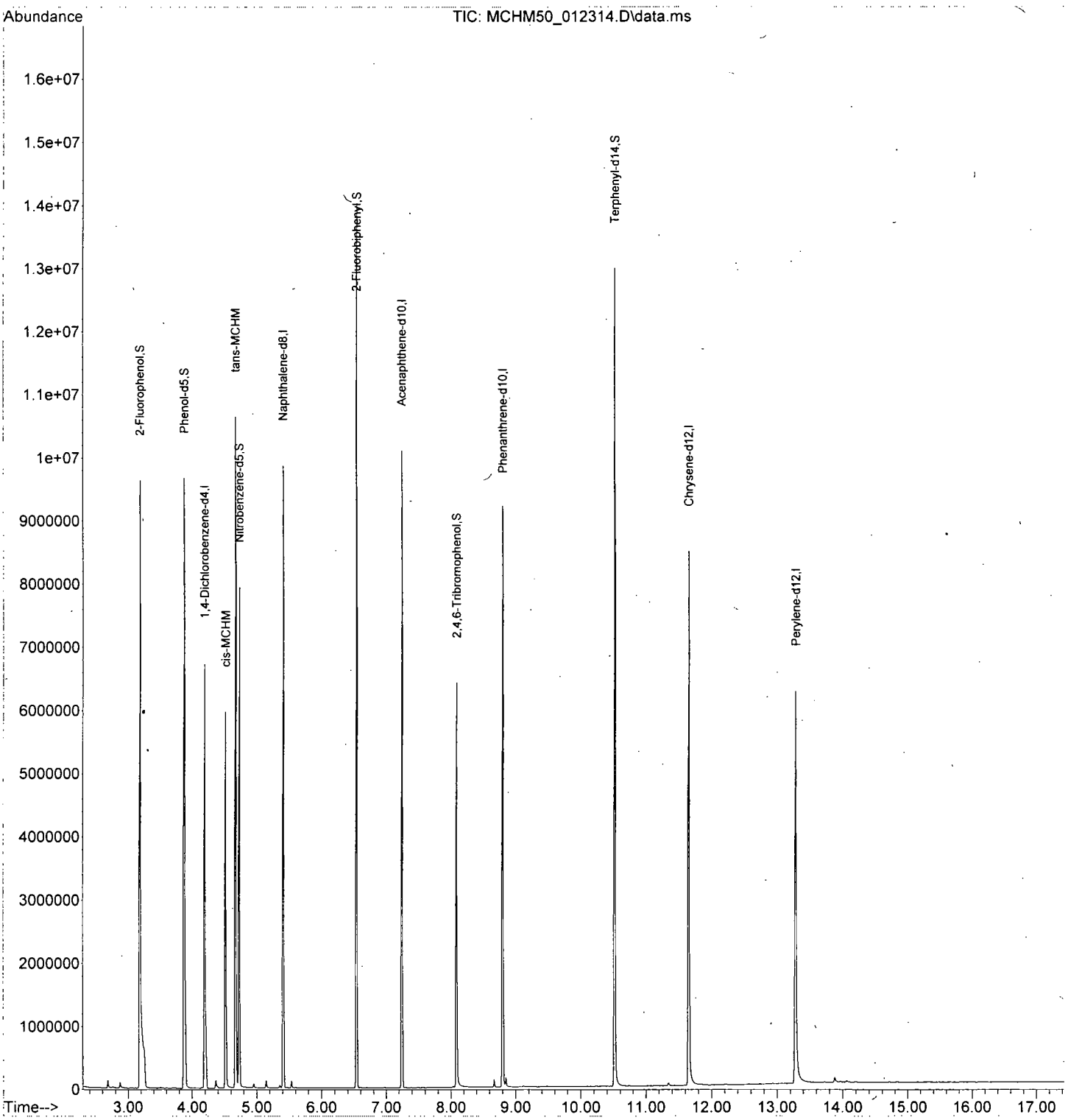
Freedom_0005790_0543

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : MCHM50_012314.D
Acq On : 28 Jan 2014 4:46 pm
Operator : ERG 96-5975B
Sample : MCHM50_012314
Misc : Initial Calibration on 012814
ALS Vial : 11 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:27:21 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : MCHM05_012314.D
Acq On : 5 Feb 2014 4:14 pm
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:36:35 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1534982	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	5530955	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3049370	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	4908639	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	4878506	20.000	ug/mL	# 0.00
14) Perylene-d12	13.285	264	3875129	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	4182633	48.055	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 96.10%			
3) Phenol-d5	3.881	99	4607877	48.140	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 96.28%			
7) Nitrobenzene-d5	4.729	82	2829824	24.431	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 97.72%			
9) 2-Fluorobiphenyl	6.538	172	5405865	24.908	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 99.64%			
11) 2,4,6-Tribromophenol	8.089	330	794638	52.624	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 105.24%			
13) Terphenyl-d14	10.520	244	6123947	24.922	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 99.68%			
Target Compounds						Qvalue
4) cis-MCHM	4.513	55	202444	4.432	ug/mL	92
5) tans-MCHM	4.669	55	456695	4.961	ug/mL	91

Ave 4.6965

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

$\frac{4.6965}{5} = 94\%$

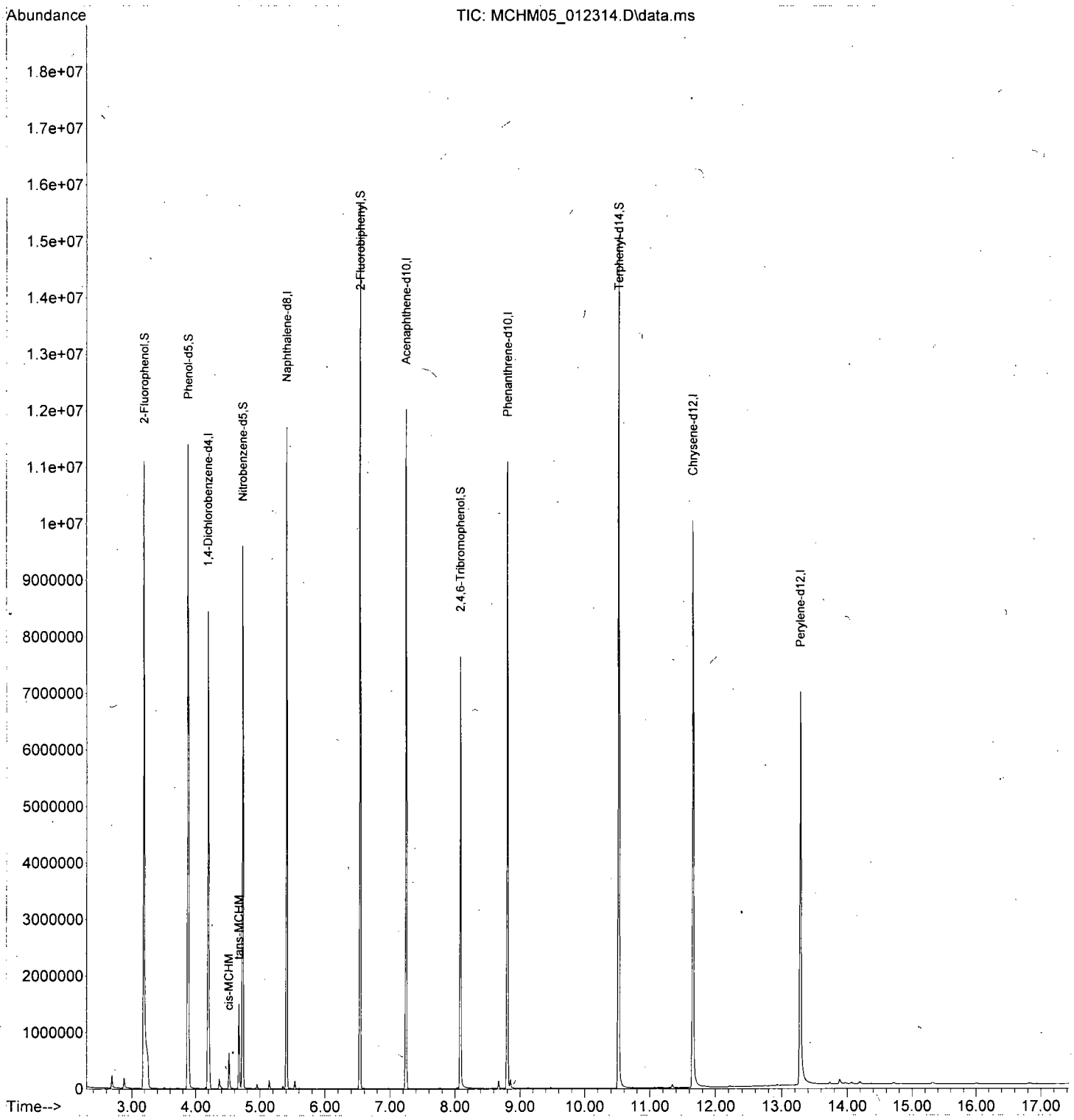
Freedom_0005790_0545

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : MCHM05_012314.D
Acq On : 5 Feb 2014 4:14 pm
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:36:35 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : MCHM05_012314.D
Acq On : 6 Feb 2014 9:52 am
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 12:37:22 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1549252	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	5647888	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3110205	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	5022019	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	5125315	20.000	ug/mL	# 0.00
14) Perylene-d12	13.280	264	4139449	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	4250175	48.381	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 96.76%			
3) Phenol-d5	3.880	99	4733156	48.993	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 97.98%			
7) Nitrobenzene-d5	4.729	82	2891902	24.450	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 97.80%			
9) 2-Fluorobiphenyl	6.538	172	5436394	24.558	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 98.24%			
11) 2,4,6-Tribromophenol	8.089	330	807293	52.255	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 104.50%			
13) Terphenyl-d14	10.520	244	6262991	24.260	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 97.04%			
Target Compounds						Qvalue
4) cis-MCHM	4.513	55	214110	4.644	ug/mL	90
5) tans-MCHM	4.669	55	464571	5.000	ug/mL#	90

Ave 4.822

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

$\frac{4.822}{5} \times 100 = 96\%$

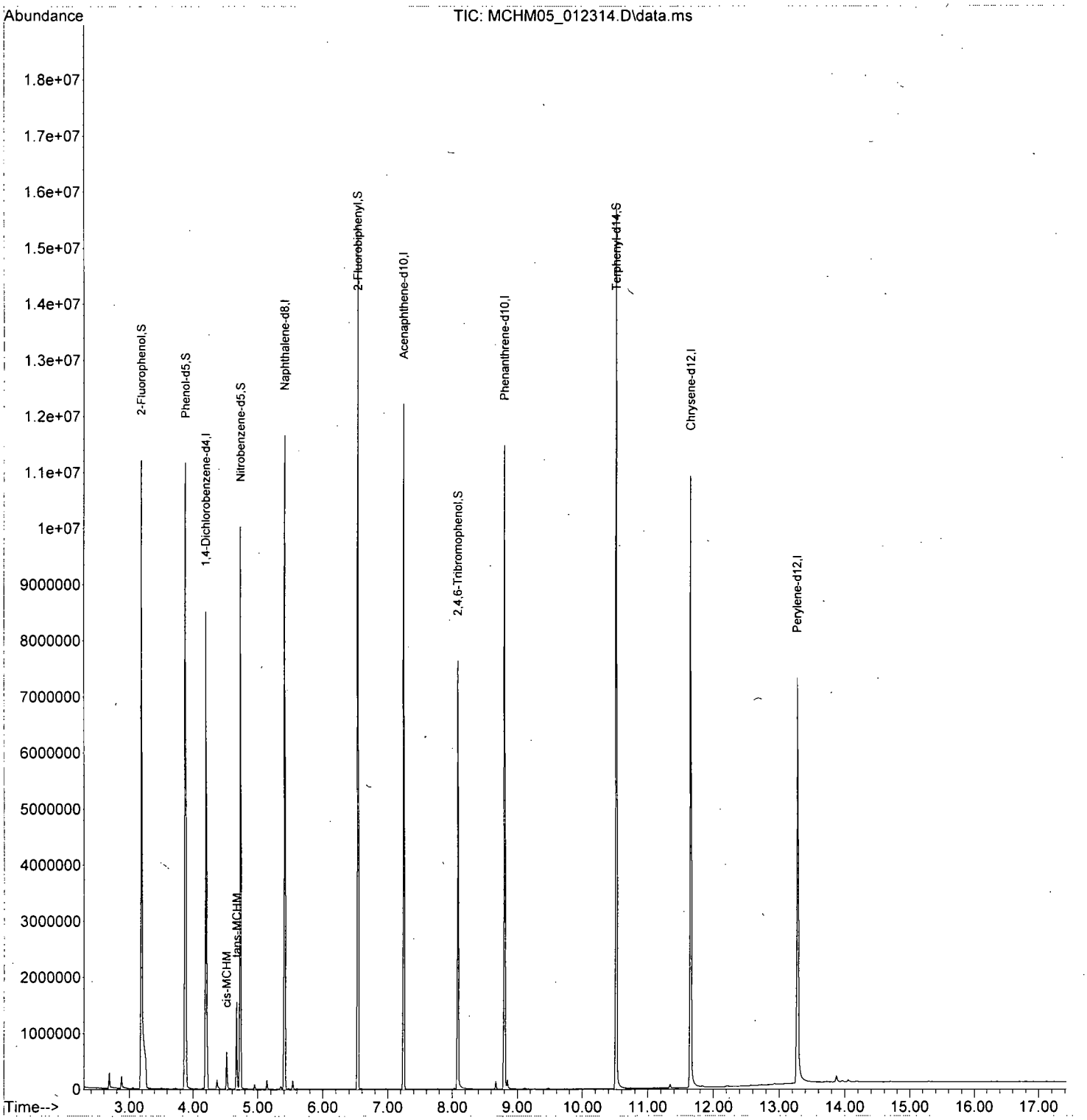
Freedom_0005790_0547

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : MCHM05_012314.D
Acq On : 6 Feb 2014 9:52 am
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:37:22 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : MCHM05_012314.D
Acq On : 7 Feb 2014 12:01 pm
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:47:17 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1530695	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	5451244	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3009802	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	4954193	20.000	ug/mL	0.00
12) Chrysene-d12	11.648	240	4947629	20.000	ug/mL	# 0.00
14) Perylene-d12	13.280	264	4067223	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	4214465	48.556	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 97.12%			
3) Phenol-d5	3.875	99	4635762	48.567	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 97.14%			
7) Nitrobenzene-d5	4.729	82	2817259	24.678	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 98.72%			
9) 2-Fluorobiphenyl	6.538	172	5317489	24.823	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 99.28%			
11) 2,4,6-Tribromophenol	8.089	330	799791	52.478	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 104.96%			
13) Terphenyl-d14	10.519	244	6167339	24.748	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 99.00%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	202693	4.450	ug/mL	91
5) tans-MCHM	4.669	55	452973	4.934	ug/mL	91

Ave 4.692

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

$\frac{4.692}{5} \times 100 = 94\%$

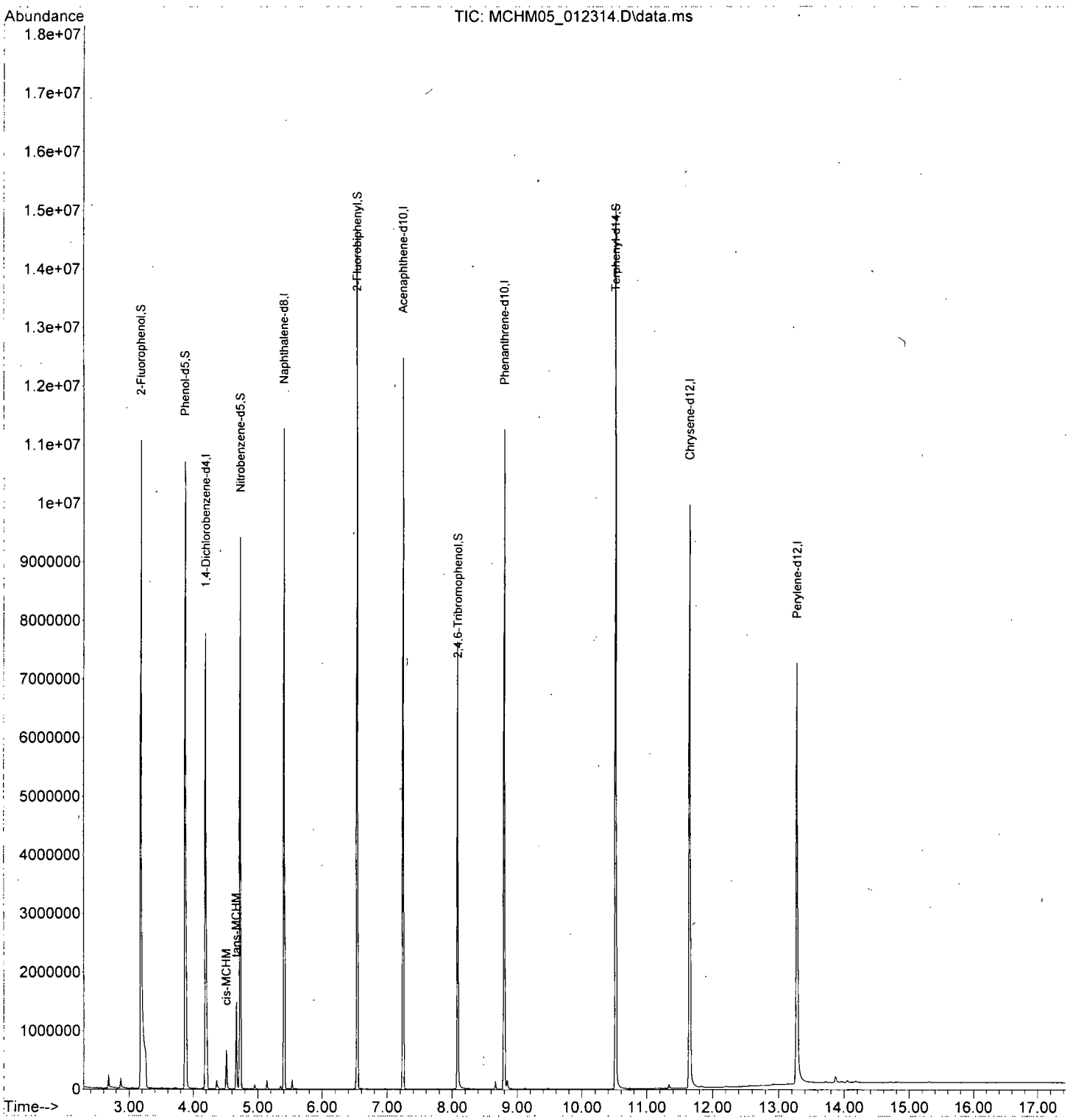
Freedom_0005790_0549

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : MCHM05_012314.D
Acq On : 7 Feb 2014 12:01 pm
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:47:17 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : MCHM05_012314.D
Acq On : 10 Feb 2014 2:36 pm
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:38:01 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1772746	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	6333301	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3501376	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	5814104	20.000	ug/mL	0.00
12) Chrysene-d12	11.648	240	5783665	20.000	ug/mL	# 0.00
14) Perylene-d12	13.274	264	4733575	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	4805337	47.804	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 95.60%			
3) Phenol-d5	3.875	99	5286012	47.817	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 95.64%			
7) Nitrobenzene-d5	4.728	82	3201133	24.135	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 96.56%			
9) 2-Fluorobiphenyl	6.533	172	6084696	24.416	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 97.68%			
11) 2,4,6-Tribromophenol	8.083	330	942772	52.710	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 105.42%			
13) Terphenyl-d14	10.519	244	7107602	24.398	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 97.60%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	234134	4.438	ug/mL	90
5) tans-MCHM	4.664	55	505905	4.758	ug/mL#	89

Ave 4.598

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

$$\frac{4.598}{5} \times 100 = 92\%$$

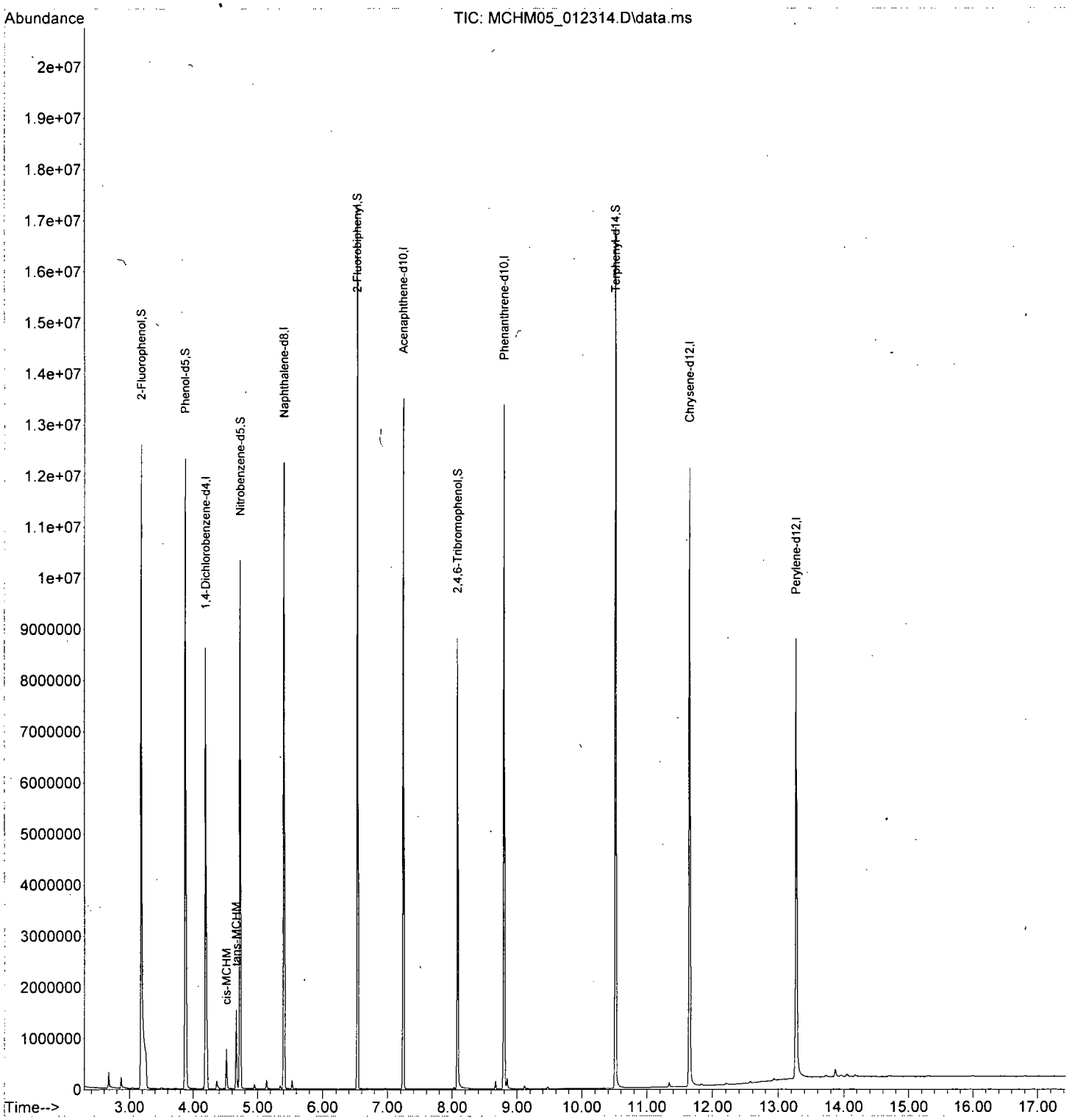
Freedom_0005790_0551

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : MCHM05_012314.D
Acq On : 10 Feb 2014 2:36 pm
Operator : ERG 96-5975B
Sample : MCHM05_012314
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:38:01 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Response Factor Report CWA

Method Path : D:\DATA\SVOC\calibrations\
Method File : MCHM022014B.M
Title : Calibration
Last Update : Fri Feb 21 11:54:06 2014
Response Via : Initial Calibration

WO: 1401014
Site Name: WV Chem Leak

Calibration Files
5 =MCHM05_021814.D 10 =MCHM10_021814.D 20 =MCHM20_021814.D 50 =MCHM50_021814.D

		Compound	5	10	20	50	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	ISTD					
2)	S	2-Fluorophenol	0.965	0.899	0.942	0.892	0.924	3.79
3)	S	Phenol-d5	1.066	0.985	1.014	0.997	1.015	3.49
4)		cis-MCHM	0.564	0.557	0.548	0.589	0.565	3.08
5)		tans-MCHM	1.109	1.176	1.143	1.053	1.120	4.68
6)	I	Naphthalene-d8	ISTD					
7)	S	Nitrobenzene-d5	0.275	0.268	0.271	0.280	0.273	1.91
8)	I	Acenaphthene-d10	ISTD					
9)	S	2-Fluorobiphenyl	0.914	0.913	0.923	0.915	0.916	0.47
10)	I	Phenanthrene-d10	ISTD					
11)	S	2,4,6-Tribromoph...	0.049	0.045	0.046	0.045	0.046	4.79
12)	I	Chrysene-d12	ISTD					
13)	S	Terphenyl-d14	0.583	0.574	0.590	0.666	0.603	7.02
14)	I	Perylene-d12	ISTD					

(#) = Out of Range

Freedom_0005790_0553

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHMLow5_021814.D
Acq On : 20 Feb 2014 1:18 pm
Operator : ERG 96-5975B
Sample : MCHMLow5_021814
Misc : Initial Calibration on 022014
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:58:18 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1008424	20.000	ug/mL	0.00
6) Naphthalene-d8	5.404	136	3610009	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.240	164	1921944	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.796	188	3024884	20.000	ug/mL	-0.01
12) Chrysene-d12	11.648	240	2831378	20.000	ug/mL	0.00
14) Perylene-d12	13.274	264	2150054	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2280237	48.922	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 97.84%			
3) Phenol-d5	3.875	99	2476447	48.368	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 96.74%			
7) Nitrobenzene-d5	4.723	82	1179366	23.908	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 95.64%			
9) 2-Fluorobiphenyl	6.533	172	2194158	24.916	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 99.68%			
11) 2,4,6-Tribromophenol	8.083	330	331354	47.447	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 94.90%			
13) Terphenyl-d14	10.509	244	2110389	24.712	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 98.84%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	36534	1.283	ug/mL	98
5) tans-MCHM	4.664	55	35757	0.633	ug/mL	98

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

Dropped due to background
ERD 2/25/14

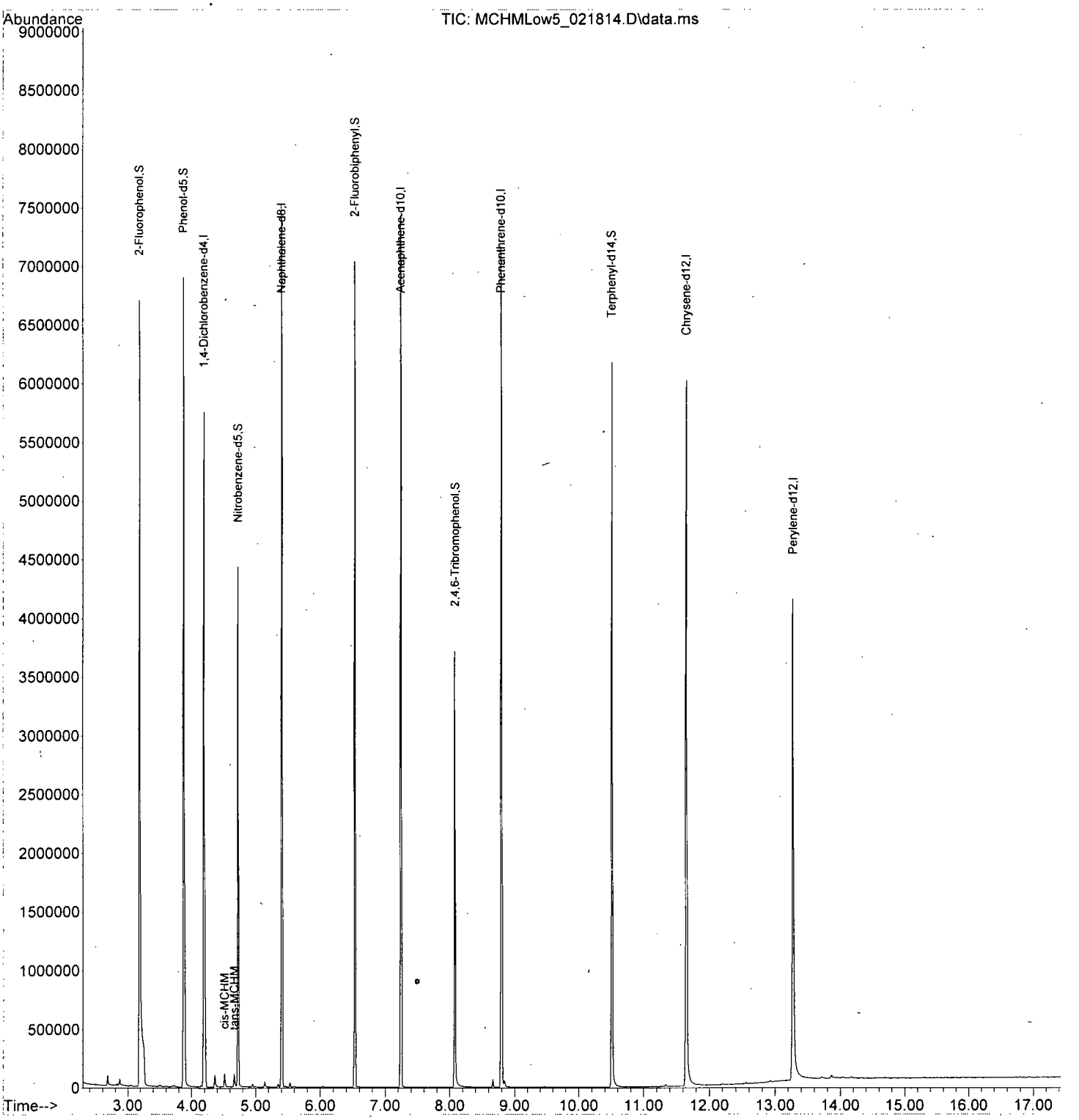
Freedom_0005790_0554

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHMLow5_021814.D
Acq On : 20 Feb 2014 1:18 pm
Operator : ERG 96-5975B
Sample : MCHMLow5_021814
Misc : Initial Calibration on 022014
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:58:18 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHM05_021814.D
Acq On : 20 Feb 2014 2:09 pm
Operator : ERG 96-5975B
Sample : MCHM05_021814
Misc : Initial Calibration on 022014
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 25 12:58:52 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1184488	20.000	ug/mL	0.00
6) Naphthalene-d8	5.404	136	4230938	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2272957	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	3561953	20.000	ug/mL	0.00
12) Chrysene-d12	11.648	240	3458982	20.000	ug/mL	0.00
14) Perylene-d12	13.274	264	2720662	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2857522	52.195	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 104.38%			
3) Phenol-d5	3.875	99	3155667	52.473	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 104.94%			
7) Nitrobenzene-d5	4.723	82	1453038	25.133	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 100.52%			
9) 2-Fluorobiphenyl	6.533	172	2597583	24.941	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 99.76%			
11) 2,4,6-Tribromophenol	8.083	330	438580	53.331	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 106.66%			
13) Terphenyl-d14	10.509	244	2521422	24.168	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 96.68%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	166930	4.992	ug/mL	97
5) tans-MCHM	4.664	55	328455	4.950	ug/mL	95

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

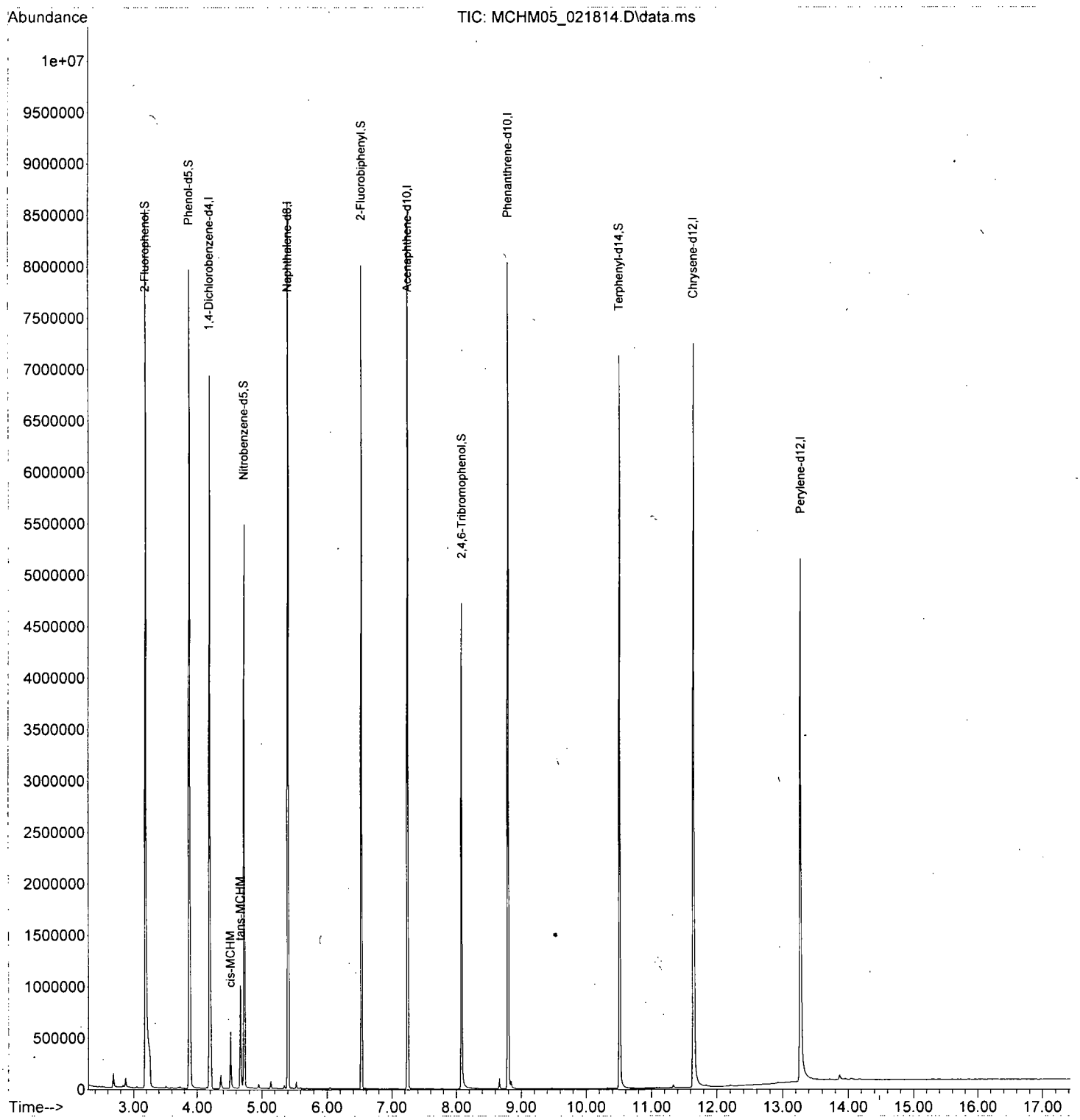
Freedom_0005790_0556

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHM05_021814.D
Acq On : 20 Feb 2014 2:09 pm
Operator : ERG 96-5975B
Sample : MCHM05_021814
Misc : Initial Calibration on 022014
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:58:52 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHM10_021814.D
Acq On : 20 Feb 2014 2:59 pm
Operator : ERG 96-5975B
Sample : MCHM10_021814
Misc : Initial Calibration on 022014
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 25 12:59:46 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1161606	20.000	ug/mL	0.00
6) Naphthalene-d8	5.404	136	4114999	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.240	164	2225061	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.796	188	3550879	20.000	ug/mL	-0.01
12) Chrysene-d12	11.649	240	3423649	20.000	ug/mL	0.00
14) Perylene-d12	13.275	264	2734928	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2610650	48.625	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery =	97.24%		
3) Phenol-d5	3.875	99	2861572	48.520	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery =	97.04%		
7) Nitrobenzene-d5	4.723	82	1378423	24.514	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery =	98.04%		
9) 2-Fluorobiphenyl	6.533	172	2539880	24.912	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery =	99.64%		
11) 2,4,6-Tribromophenol	8.083	330	395680	48.265	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery =	96.52%		
13) Terphenyl-d14	10.509	244	2457208	23.795	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery =	95.20%		
Target Compounds						Qvalue
4) cis-MCHM	4.513	55	323699	9.871	ug/mL	96
5) tans-MCHM	4.664	55	682937	10.495	ug/mL	95

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

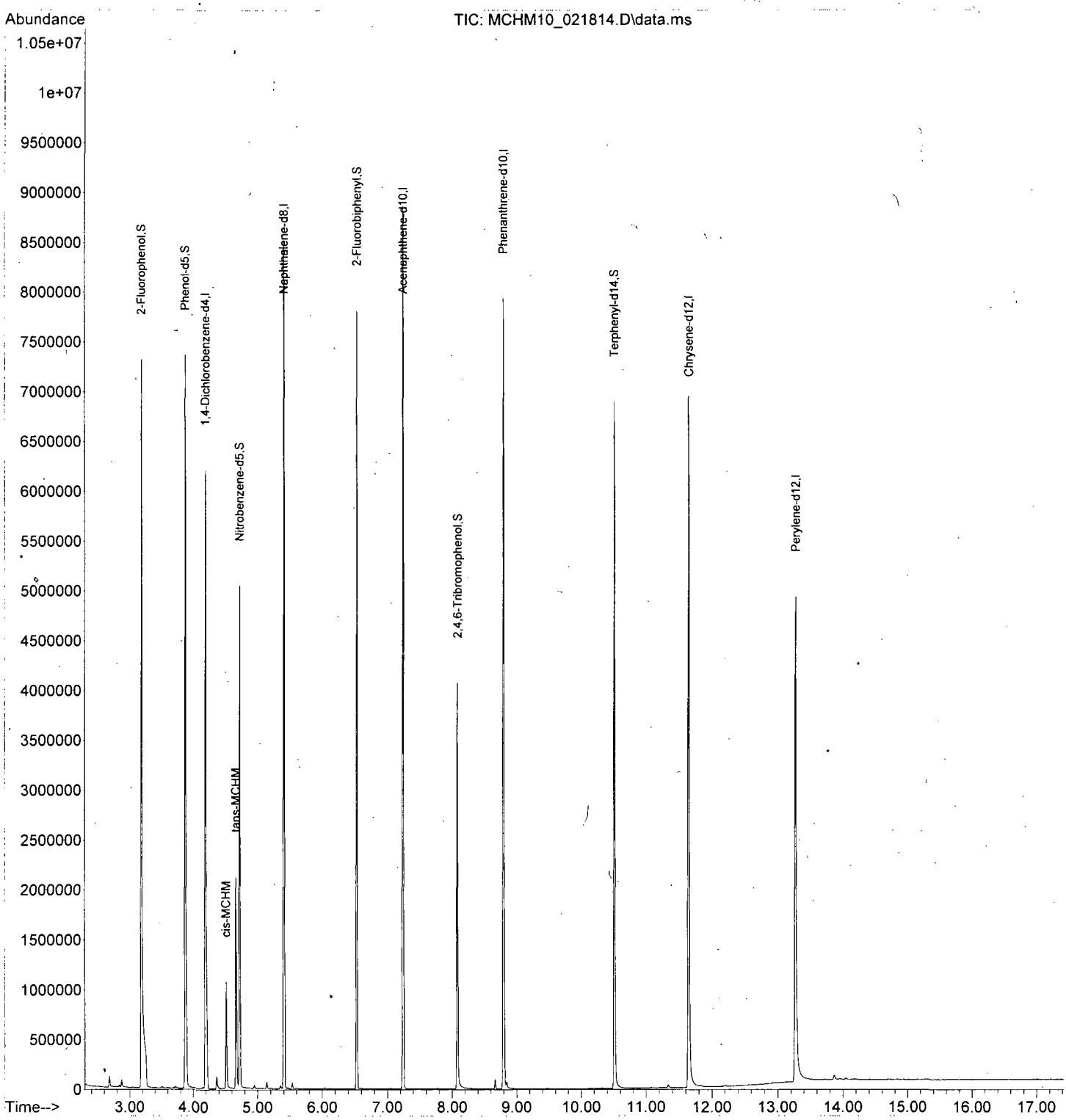
Freedom_0005790_0558

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHM10_021814.D
Acq On : 20 Feb 2014 2:59 pm
Operator : ERG 96-5975B
Sample : MCHM10_021814
Misc : Initial Calibration on 022014
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:59:46 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHM20_021814.D
Acq On : 20 Feb 2014 3:49 pm
Operator : ERG 96-5975B
Sample : MCHM20_021814
Misc : Initial Calibration on 022014
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 25 13:00:13 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.188	152	1157656	20.000 ug/mL	-0.01
6) Naphthalene-d8	5.404	136	4072049	20.000 ug/mL	0.00
8) Acenaphthene-d10	7.241	164	2183302	20.000 ug/mL	0.00
10) Phenanthrene-d10	8.796	188	3544719	20.000 ug/mL	-0.01
12) Chrysene-d12	11.649	240	3542336	20.000 ug/mL	0.00
14) Perylene-d12	13.275	264	2790041	20.000 ug/mL	-0.01
System Monitoring Compounds					
2) 2-Fluorophenol	3.184	112	2726502	50.956 ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 101.92%		
3) Phenol-d5	3.875	99	2933642	49.912 ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 99.82%		
7) Nitrobenzene-d5	4.723	82	1376883	24.745 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 99.00%		
9) 2-Fluorobiphenyl	6.533	172	2518141	25.172 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 100.68%		
11) 2,4,6-Tribromophenol	8.083	330	410518	50.162 ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 100.32%		
13) Terphenyl-d14	10.509	244	2610610	24.434 ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 97.72%		
Target Compounds					Qvalue
4) cis-MCHM	4.513	55	634892	19.427 ug/mL	95
5) tans-MCHM	4.664	55	1323693	20.411 ug/mL	94

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

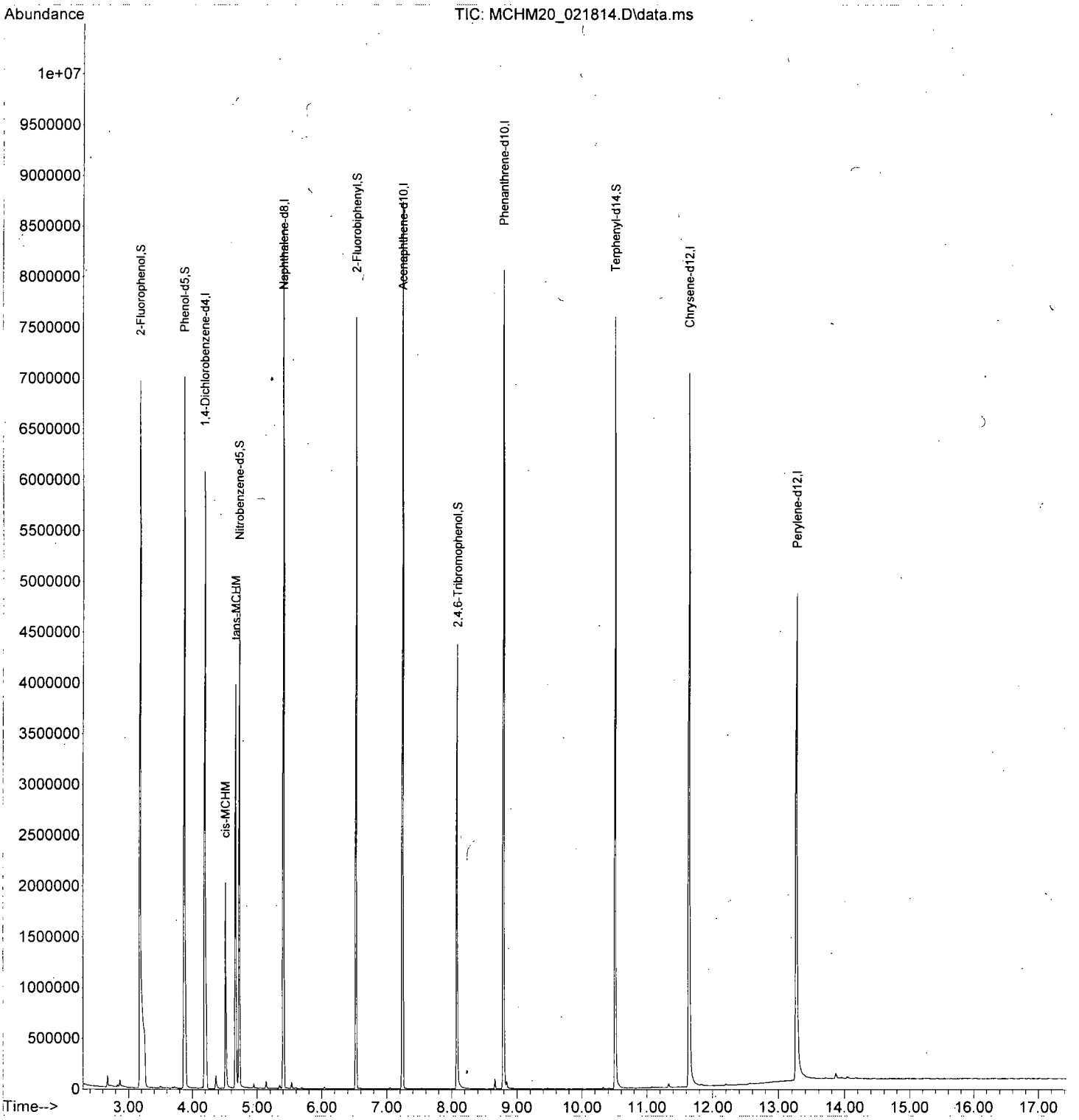
Freedom_0005790_0560

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHM20_021814.D
Acq On : 20 Feb 2014 3:49 pm
Operator : ERG 96-5975B
Sample : MCHM20_021814
Misc : Initial Calibration on 022014
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:00:13 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHM50_021814.D
Acq On : 20 Feb 2014 4:39 pm
Operator : ERG 96-5975B
Sample : MCHM50_021814
Misc : Initial Calibration on 022014
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 25 13:01:18 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1382621	20.000	ug/mL	0.00
6) Naphthalene-d8	5.404	136	4914634	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2670959	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.796	188	4127065	20.000	ug/mL	-0.01
12) Chrysene-d12	11.643	240	3386650	20.000	ug/mL	-0.01
14) Perylene-d12	13.269	264	2072002	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	3081770	48.224	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 96.44%			
3) Phenol-d5	3.875	99	3446469	49.096	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 98.20%			
7) Nitrobenzene-d5	4.723	82	1719662	25.607	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 102.44%			
9) 2-Fluorobiphenyl	6.533	172	3056470	24.975	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 99.88%			
11) 2,4,6-Tribromophenol	8.083	330	459671	48.242	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 96.48%			
13) Terphenyl-d14	10.509	244	2819544	27.603	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 110.40%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	2035743	52.156	ug/mL	95
5) tans-MCHM	4.669	55	3640062	46.997	ug/mL	94

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

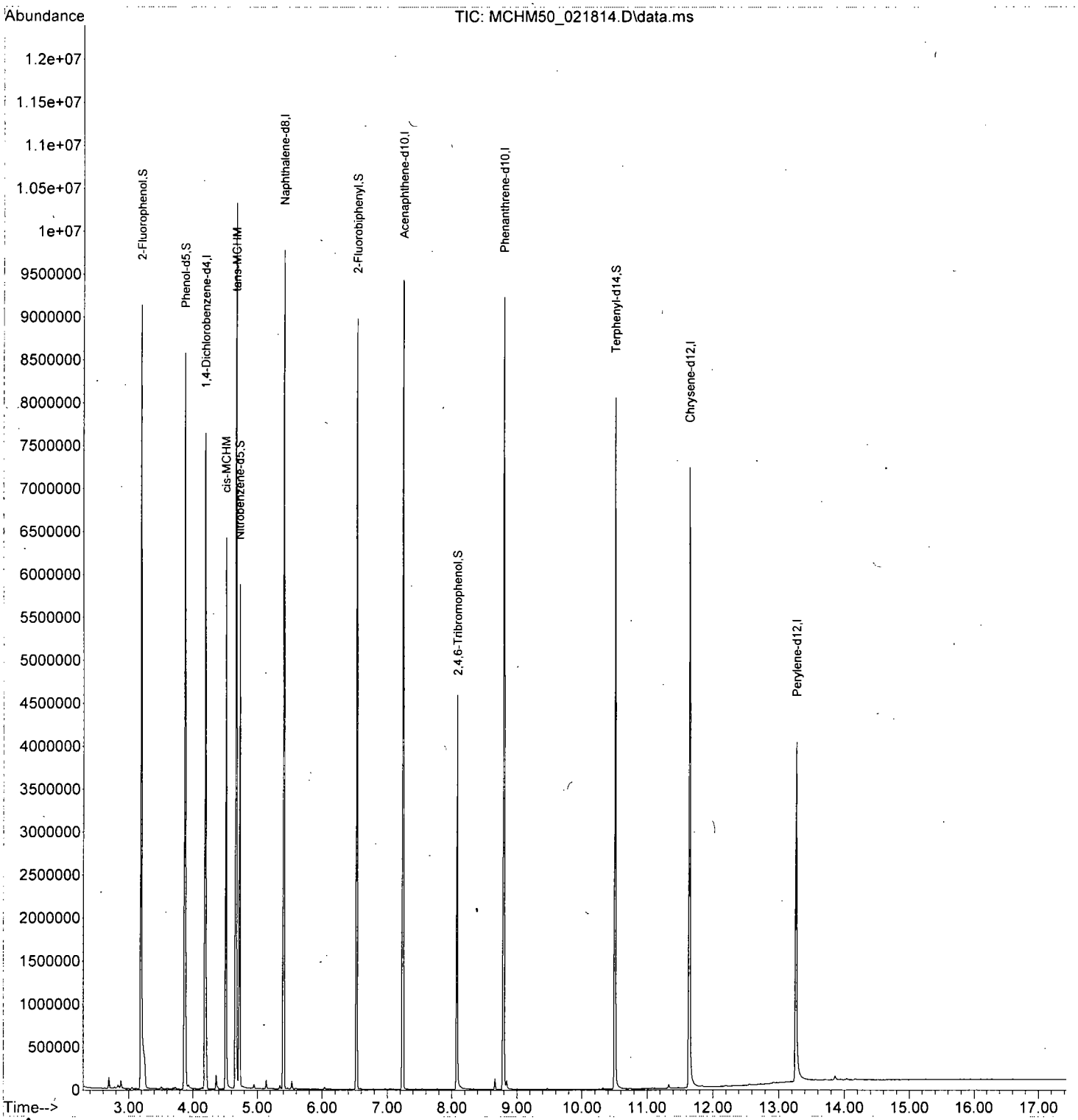
Freedom_0005790_0562

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : MCHM50_021814.D
Acq On : 20 Feb 2014 4:39 pm
Operator : ERG 96-5975B
Sample : MCHM50_021814
Misc : Initial Calibration on 022014
ALS Vial : 6 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:01:18 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : MCHM05_021814.D
Acq On : 21 Feb 2014 12:52 pm
Operator : ERG 96-5975B
Sample : MCHM05_021814
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:05:57 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.194	152	1197611	20.000 ug/mL	0.00
6) Naphthalene-d8	5.404	136	4198519	20.000 ug/mL	0.00
8) Acenaphthene-d10	7.241	164	2251083	20.000 ug/mL	0.00
10) Phenanthrene-d10	8.796	188	3690151	20.000 ug/mL	-0.01
12) Chrysene-d12	11.643	240	2734308	20.000 ug/mL	-0.01
14) Perylene-d12	13.269	264	1707658	20.000 ug/mL	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol	3.184	112	2828858	51.105 ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 102.22%		
3) Phenol-d5	3.875	99	3126028	51.410 ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 102.82%		
7) Nitrobenzene-d5	4.723	82	1419737	24.747 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 99.00%		
9) 2-Fluorobiphenyl	6.533	172	2505434	24.290 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 97.16%		
11) 2,4,6-Tribromophenol	8.083	330	438438	51.462 ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 102.92%		
13) Terphenyl-d14	10.509	244	2390267	28.983 ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 115.92%		
Target Compounds					Qvalue
4) cis-MCHM	4.513	55	191850	5.675 ug/mL	90
5) tans-MCHM	4.664	55	344982	5.142 ug/mL	90

Ave 5.4085

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

$\frac{5.4085}{5} \times 100 = 108\%$

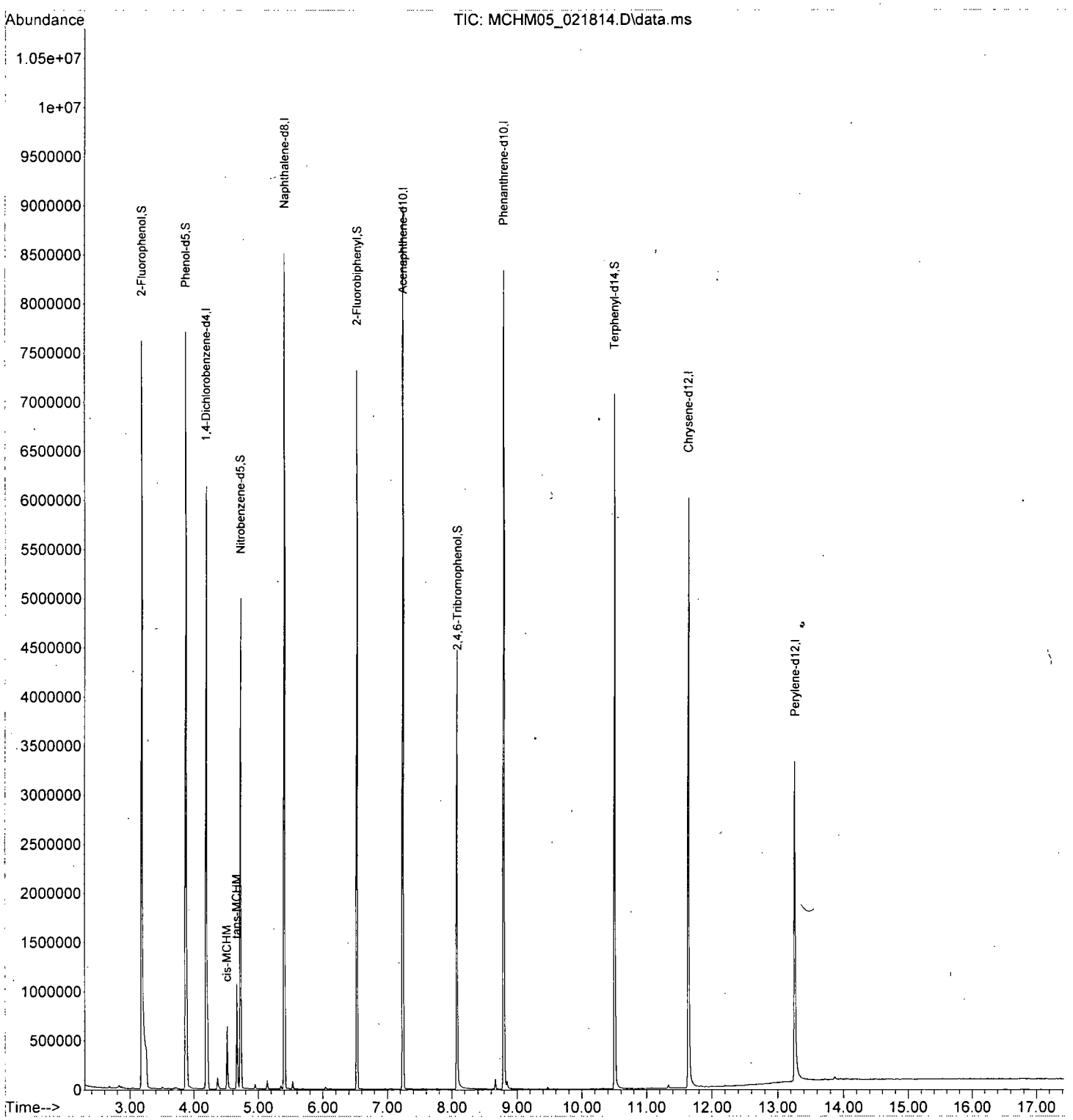
Freedom_0005790_0564

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : MCHM05_021814.D
Acq On : 21 Feb 2014 12:52 pm
Operator : ERG 96-5975B
Sample : MCHM05_021814
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:05:57 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Response Factor Report CWA

Method Path : D:\DATA\SVOC\calibrations\
Method File : PPH012814.M
Title : Calibration
Last Update : Tue Feb 25 13:31:09 2014
Response Via : Initial Calibration

WO: 1401014
Site Name: WV Chem Leak

Calibration Files
0.5 =PPHLow5_012514.D 5 =PPH05_012514.D 10 =PPH10_012514.D 20 =PPH20_012514.D
50 =PPH50_012514.D

		Compound	0.5	5	10	20	50	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	ISTD						
2)	S	2-Fluorophenol	1.510	1.537	1.527	1.515	1.510	1.520	0.77
3)	S	Phenol-d5	1.675	1.723	1.699	1.660	1.646	1.680	1.84
4)	I	Naphthalene-d8	ISTD						
5)		PPH	0.373	0.487	0.483	0.461	0.428	0.446	10.55
6)	S	Nitrobenzene-d5	0.689	0.700	0.698	0.710	0.712	0.702	1.30
7)	I	Acenaphthene-d10	ISTD						
8)	S	2-Fluorobiphenyl	2.373	2.362	2.314	2.405	2.399	2.371	1.52
9)	I	Phenanthrene-d10	ISTD						
10)	S	2,4,6-Tribromoph...	0.084	0.085	0.086	0.084	0.084	0.085	1.06
11)	I	Chrysene-d12	ISTD						
12)	S	Terphenyl-d14	2.030	1.795	1.809	1.807	1.851	1.858	5.28
13)	I	Perylene-d12	ISTD						

(#) = Out of Range

Freedom_0005790_0566

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPHLow5_012514.D
Acq On : 28 Jan 2014 9:11 am
Operator : ERG 96-5975B
Sample : PPHLow5_012514
Misc : Initial Calibration on 012814
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 13:28:08 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:41:58 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	949286	20.000	ug/mL	0.00
4) Naphthalene-d8	5.414	136	3489245	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.251	164	1865944	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.807	188	2714787	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	1948384	20.000	ug/mL	0.00
13) Perylene-d12	13.285	264	1592595	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	3584565	49.689	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 99.38%			
3) Phenol-d5	3.880	99	3974135	49.825	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 99.66%			
6) Nitrobenzene-d5	4.734	82	3005345	24.546	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 98.20%			
8) 2-Fluorobiphenyl	6.543	172	5535616	25.029	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 100.12%			
10) 2,4,6-Tribromophenol	8.094	330	569975	49.653	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 99.30%			
12) Terphenyl-d14	10.525	244	4943146	27.306	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 109.24%			
Target Compounds						Qvalue
5) PPH	5.744	94	32565	0.418	ug/mL#	84

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

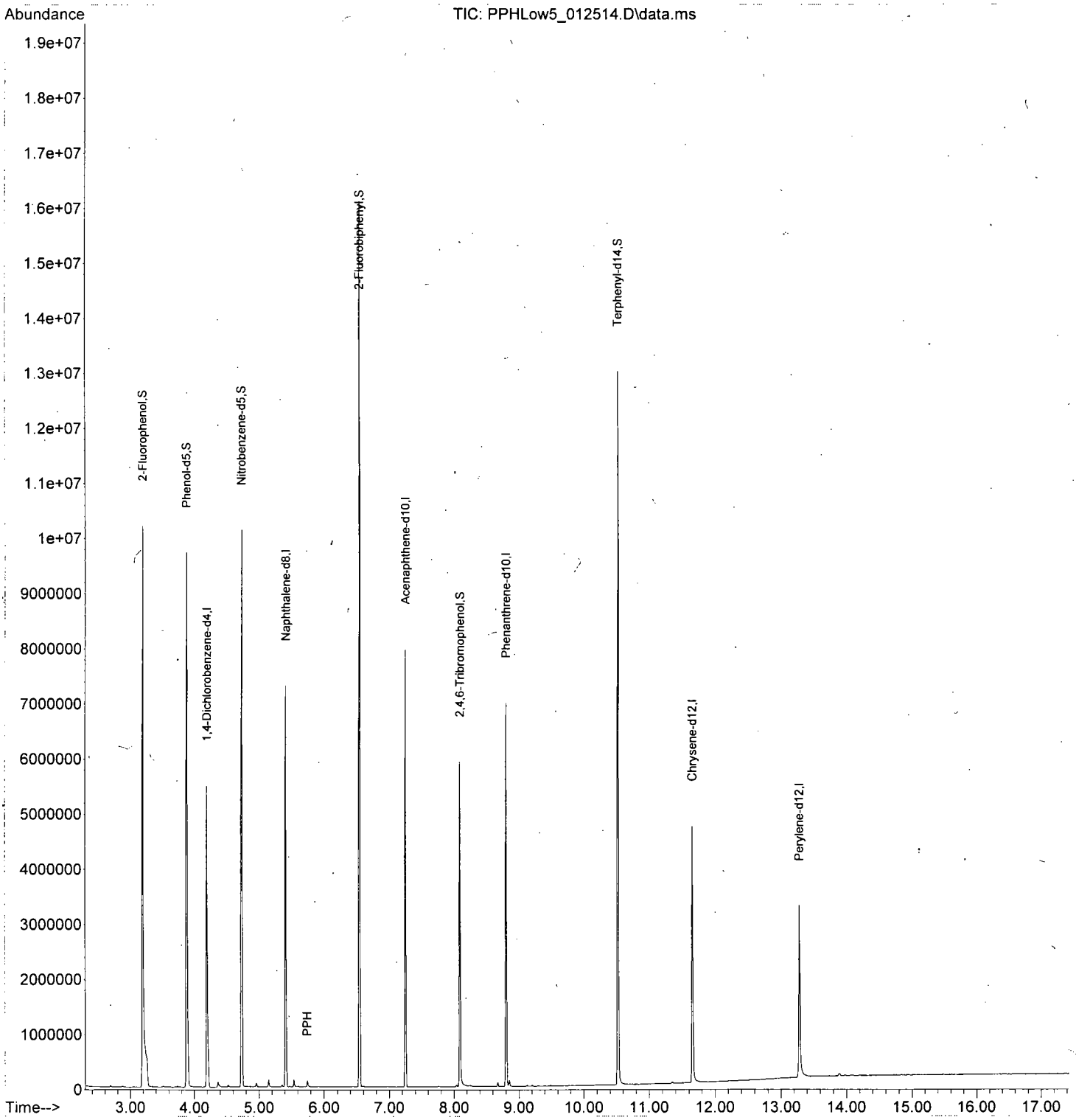
Freedom_0005790_0567

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPHLow5_012514.D
Acq On : 28 Jan 2014 9:11 am
Operator : ERG 96-5975B
Sample : PPHLow5_012514
Misc : Initial Calibration on 012814
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:28:08 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:41:58 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPH05_012514.D
Acq On : 28 Jan 2014 10:02 am
Operator : ERG 96-5975B
Sample : PPH05_012514
Misc : Initial Calibration on 012814
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:28:43 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:28:37 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	962334	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	3515244	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	1909227	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	3027484	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	2855438	20.000	ug/mL	0.00
13) Perylene-d12	13.280	264	2438020	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3697544	50.560	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 101.12%			
3) Phenol-d5	3.880	99	4145077	51.264	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 102.52%			
6) Nitrobenzene-d5	4.734	82	3077536	24.949	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 99.80%			
8) 2-Fluorobiphenyl	6.538	172	5636023	24.906	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 99.64%			
10) 2,4,6-Tribromophenol	8.089	330	647121	50.550	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 101.10%			
12) Terphenyl-d14	10.525	244	6405870	24.145	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 96.60%			
Target Compounds						Qvalue
5) PPH	5.744	94	428000	5.455	ug/mL	98

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

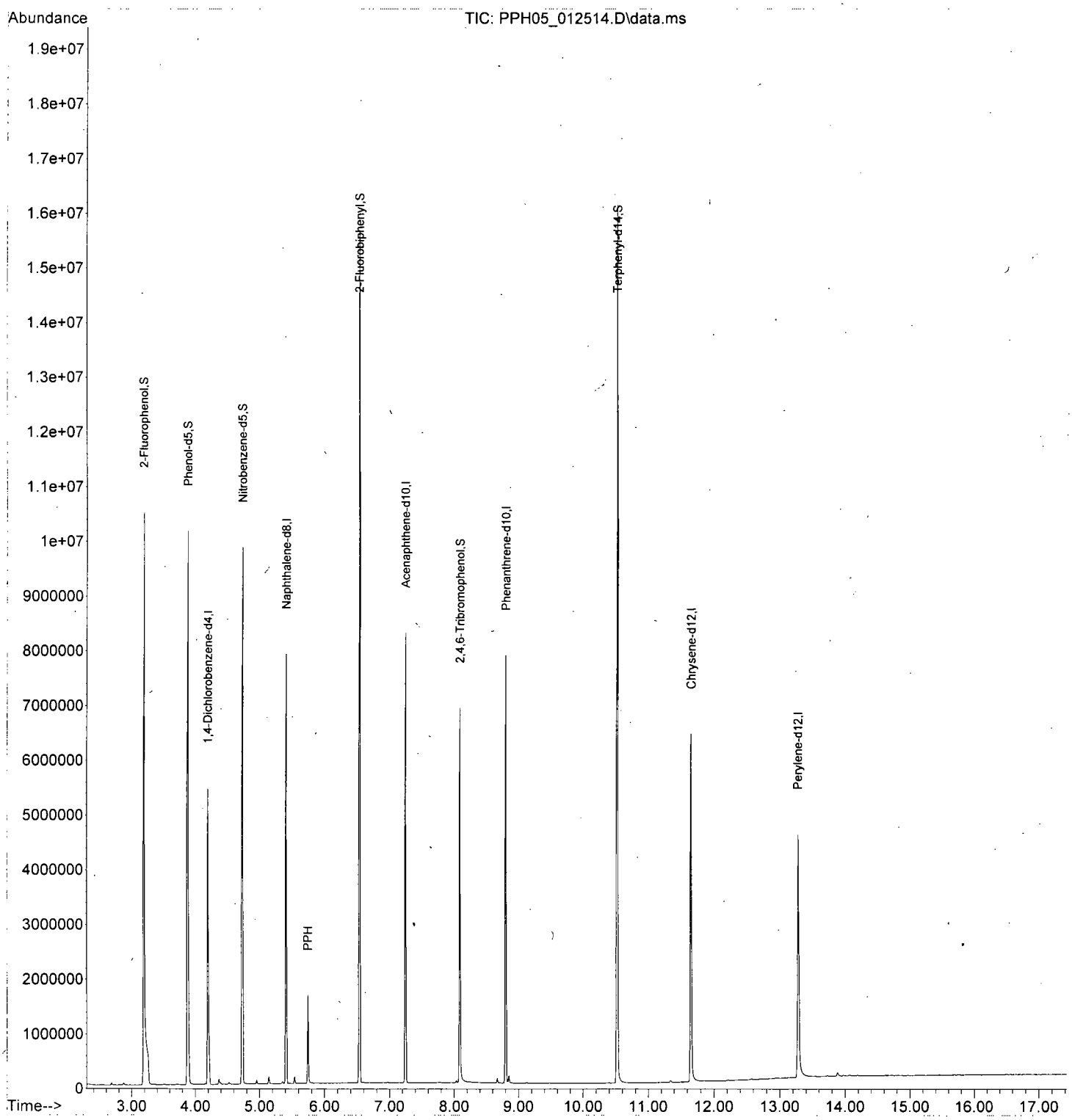
Freedom_0005790_0569

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPH05_012514.D
Acq On : 28 Jan 2014 10:02 am
Operator : ERG 96-5975B
Sample : PPH05_012514
Misc : Initial Calibration on 012814
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:28:43 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:28:37 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPH10_012514.D
Acq On : 28 Jan 2014 10:52 am
Operator : ERG 96-5975B
Sample : PPH10_012514
Misc : Initial Calibration on 012814
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 25 13:29:18 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:29:11 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	978841	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	3568238	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	1961630	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	3002621	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	2862705	20.000	ug/mL	0.00
13) Perylene-d12	13.280	264	2406779	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	3736703	50.234	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 100.46%			
3) Phenol-d5	3.880	99	4157919	50.555	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 101.12%			
6) Nitrobenzene-d5	4.734	82	3114743	24.876	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 99.52%			
8) 2-Fluorobiphenyl	6.538	172	5674627	24.406	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 97.64%			
10) 2,4,6-Tribromophenol	8.089	330	642386	50.596	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 101.20%			
12) Terphenyl-d14	10.525	244	6473841	24.340	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 97.36%			
Target Compounds						Qvalue
5) PPH	5.744	94	861282	10.814	ug/mL	98

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

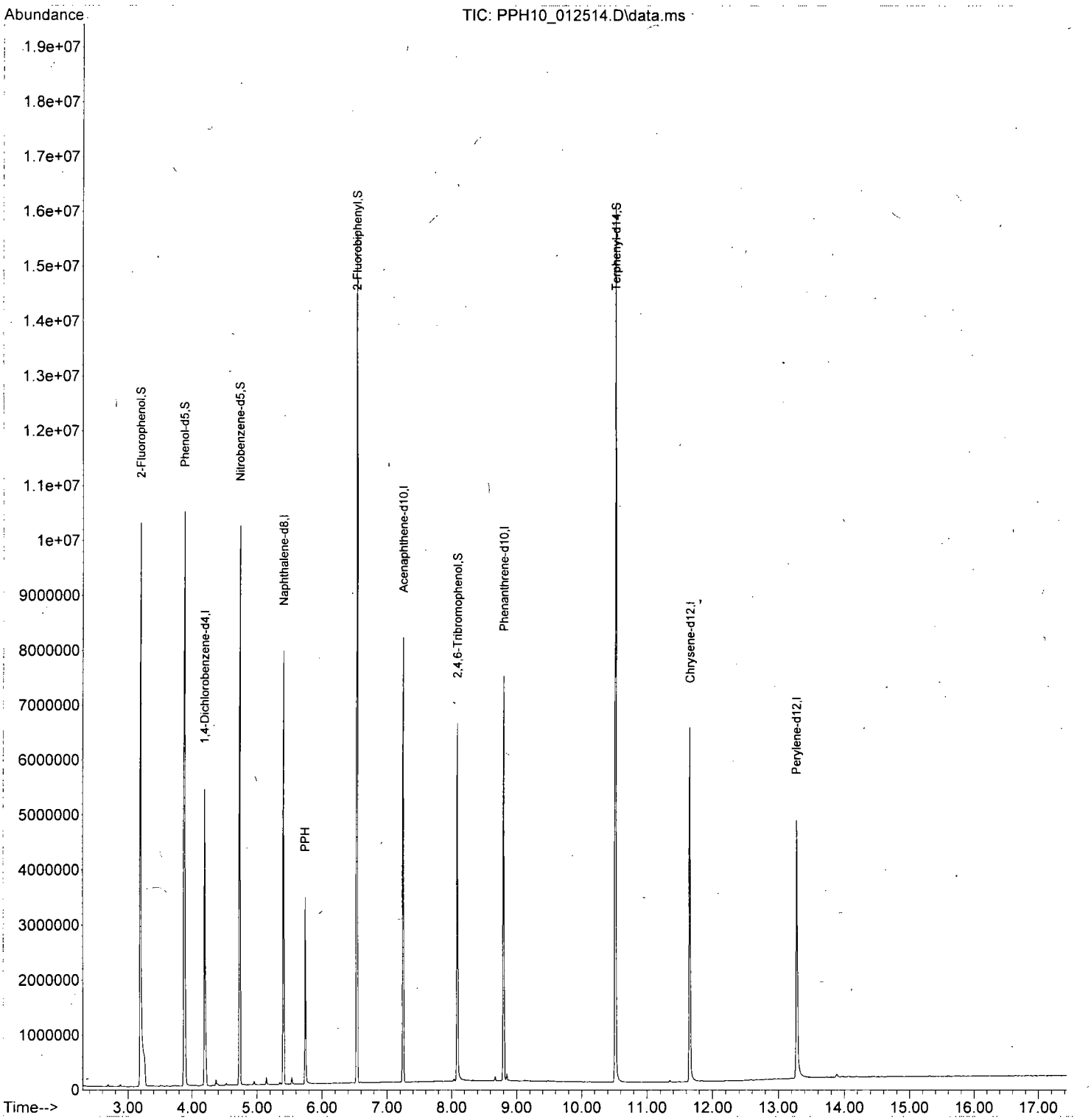
Freedom_0005790_0571

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPH10_012514.D
Acq On : 28 Jan 2014 10:52 am
Operator : ERG 96-5975B
Sample : PPH10_012514
Misc : Initial Calibration on 012814
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:29:18 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:29:11 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPH20_012514.D
Acq On : 28 Jan 2014 11:43 am
Operator : ERG 96-5975B
Sample : PPH20_012514
Misc : Initial Calibration on 012814
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 25 13:30:00 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:29:55 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	994136	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	3627677	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	1955051	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	3046672	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	2985125	20.000	ug/mL	0.00
13) Perylene-d12	13.280	264	2601037	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3764740	49.832	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 99.66%			
3) Phenol-d5	3.880	99	4124793	49.381	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 98.76%			
6) Nitrobenzene-d5	4.734	82	3217629	25.277	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 101.12%			
8) 2-Fluorobiphenyl	6.538	172	5876304	25.359	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 101.44%			
10) 2,4,6-Tribromophenol	8.088	330	640380	49.709	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 99.42%			
12) Terphenyl-d14	10.525	244	6741151	24.305	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 97.24%			
Target Compounds						Qvalue
5) PPH	5.744	94	1672683	20.658	ug/mL	98

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

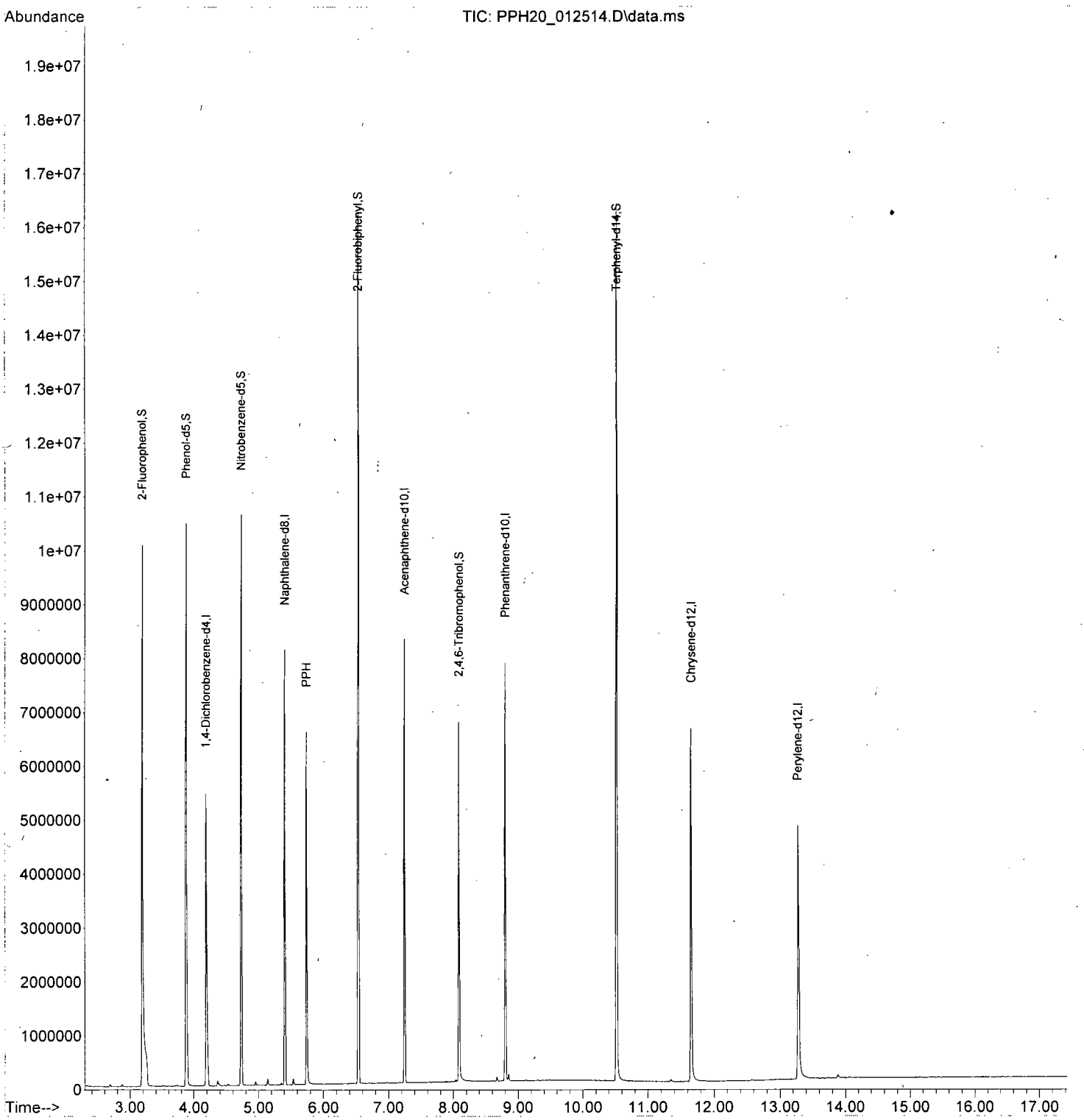
Freedom_0005790_0573

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPH20_012514.D
Acq On : 28 Jan 2014 11:43 am
Operator : ERG 96-5975B
Sample : PPH20_012514
Misc : Initial Calibration on 012814
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:30:00 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:29:55 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPH50_012514.D
Acq On : 28 Jan 2014 12:33 pm
Operator : ERG 96-5975B
Sample : PPH50_012514
Misc : Initial Calibration on 012814
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 25 13:30:55 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:30:14 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1003527	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	3639778	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	1964545	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	3115546	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	2947948	20.000	ug/mL	0.00
13) Perylene-d12	13.285	264	2516515	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	3788953	49.684	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 99.36%			
3) Phenol-d5	3.880	99	4129524	48.975	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 97.94%			
6) Nitrobenzene-d5	4.734	82	3238105	25.353	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 101.40%			
8) 2-Fluorobiphenyl	6.543	172	5891110	25.300	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 101.20%			
10) 2,4,6-Tribromophenol	8.088	330	652002	49.492	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 98.98%			
12) Terphenyl-d14	10.525	244	6821244	24.904	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 99.60%			
Target Compounds						Qvalue
5) PPH	5.749	94	3893332	47.923	ug/mL	98

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

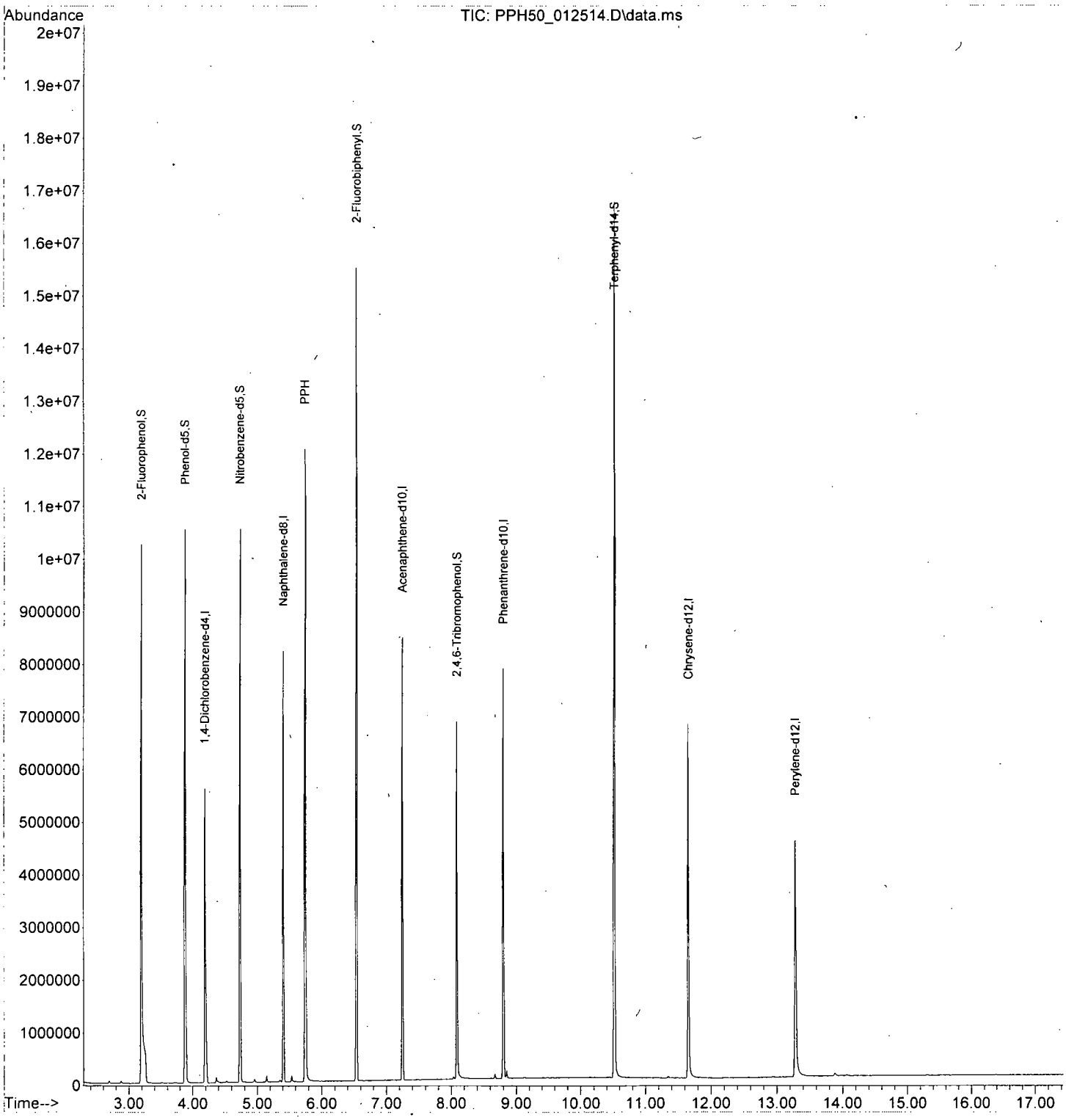
Freedom_0005790_0575

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : PPH50_012514.D
Acq On : 28 Jan 2014 12:33 pm
Operator : ERG 96-5975B
Sample : PPH50_012514
Misc : Initial Calibration on 012814
ALS Vial : 6 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:30:55 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:30:14 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : PPH05_012514.D
Acq On : 5 Feb 2014 3:48 pm
Operator : ERG 96-5975B
Sample : PPH05_012514
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 13:33:11 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1271867	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4529334	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2492014	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	3962145	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	3864912	20.000	ug/mL	# 0.00
13) Perylene-d12	13.285	264	3075331	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	4806166	49.726	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 99.46%			
3) Phenol-d5	3.880	99	5277145	49.381	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 98.76%			
6) Nitrobenzene-d5	4.734	82	3908516	24.592	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 98.36%			
8) 2-Fluorobiphenyl	6.538	172	7126011	24.126	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 96.52%			
10) 2,4,6-Tribromophenol	8.088	330	938830	56.037	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 112.08%			
12) Terphenyl-d14	10.525	244	8851331	24.649	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 98.60%			
Target Compounds						Qvalue
5) PPH	5.739	94	534920	5.291	ug/mL	98

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

$\frac{5.291}{5} \times 100 = 106\%$

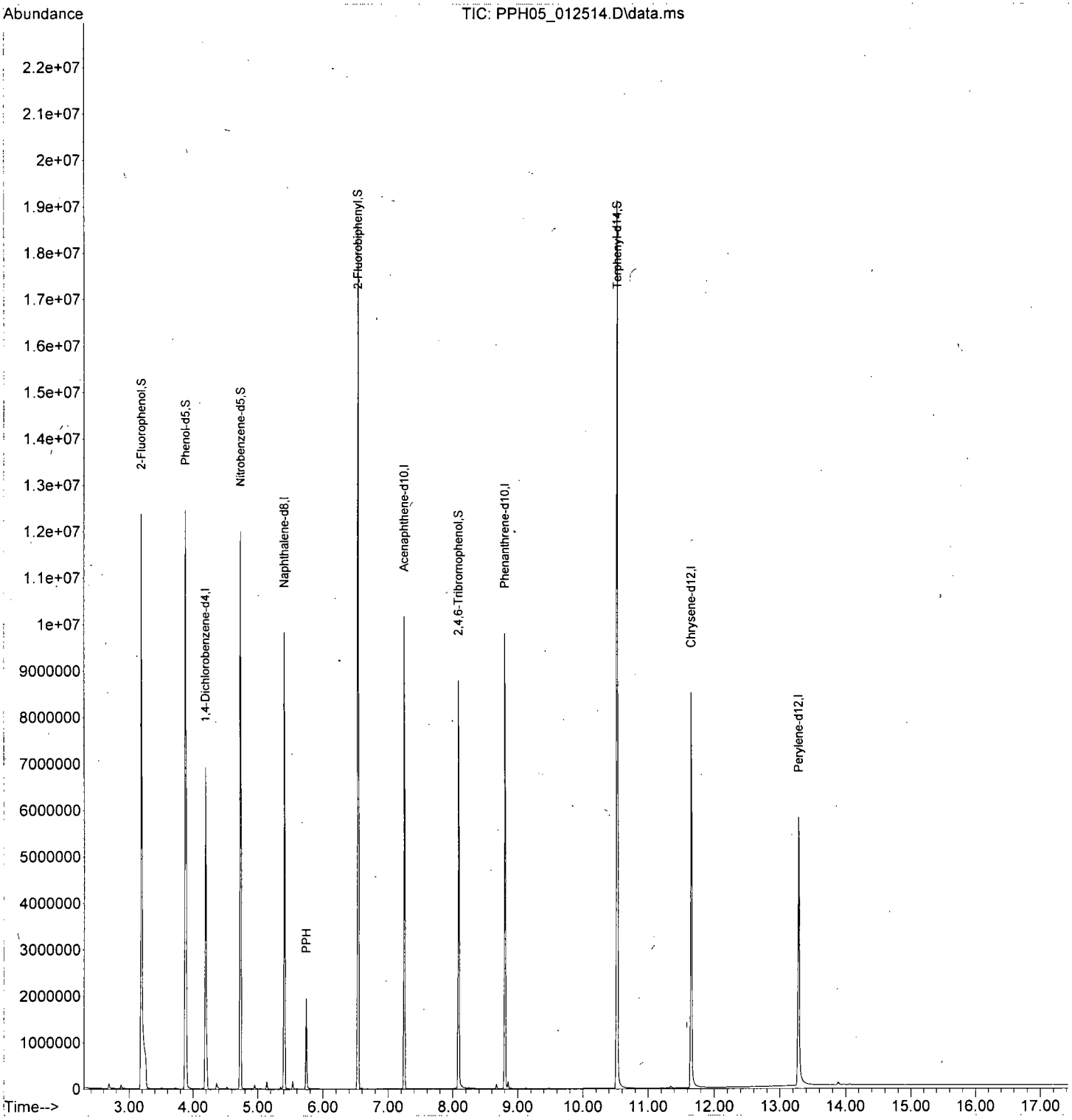
Freedom_0005790_0577

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : PPH05_012514.D
Acq On : 5 Feb 2014 3:48 pm
Operator : ERG 96-5975B
Sample : PPH05_012514
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:33:11 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : PPH05_012514.D
Acq On : 7 Feb 2014 11:36 am
Operator : ERG 96-5975B
Sample : PPH05_012514
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 25 13:39:55 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1381411	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4985129	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2721681	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	4391038	20.000	ug/mL	0.00
11) Chrysene-d12	11.649	240	4388846	20.000	ug/mL	# 0.00
13) Perylene-d12	13.280	264	3549020	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	5091363	48.499	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 97.00%			
3) Phenol-d5	3.880	99	5760531	49.630	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 99.26%			
6) Nitrobenzene-d5	4.734	82	4316617	24.676	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 98.72%			
8) 2-Fluorobiphenyl	6.538	172	7711993	23.906	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 95.64%			
10) 2,4,6-Tribromophenol	8.089	330	1054930	56.817	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 113.64%			
12) Terphenyl-d14	10.525	244	9525451	23.359	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 93.44%			
Target Compounds						Qvalue
5) PPH	5.739	94	635718	5.713	ug/mL	97

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

$$\frac{5.713}{5} \times 100 = 114\%$$

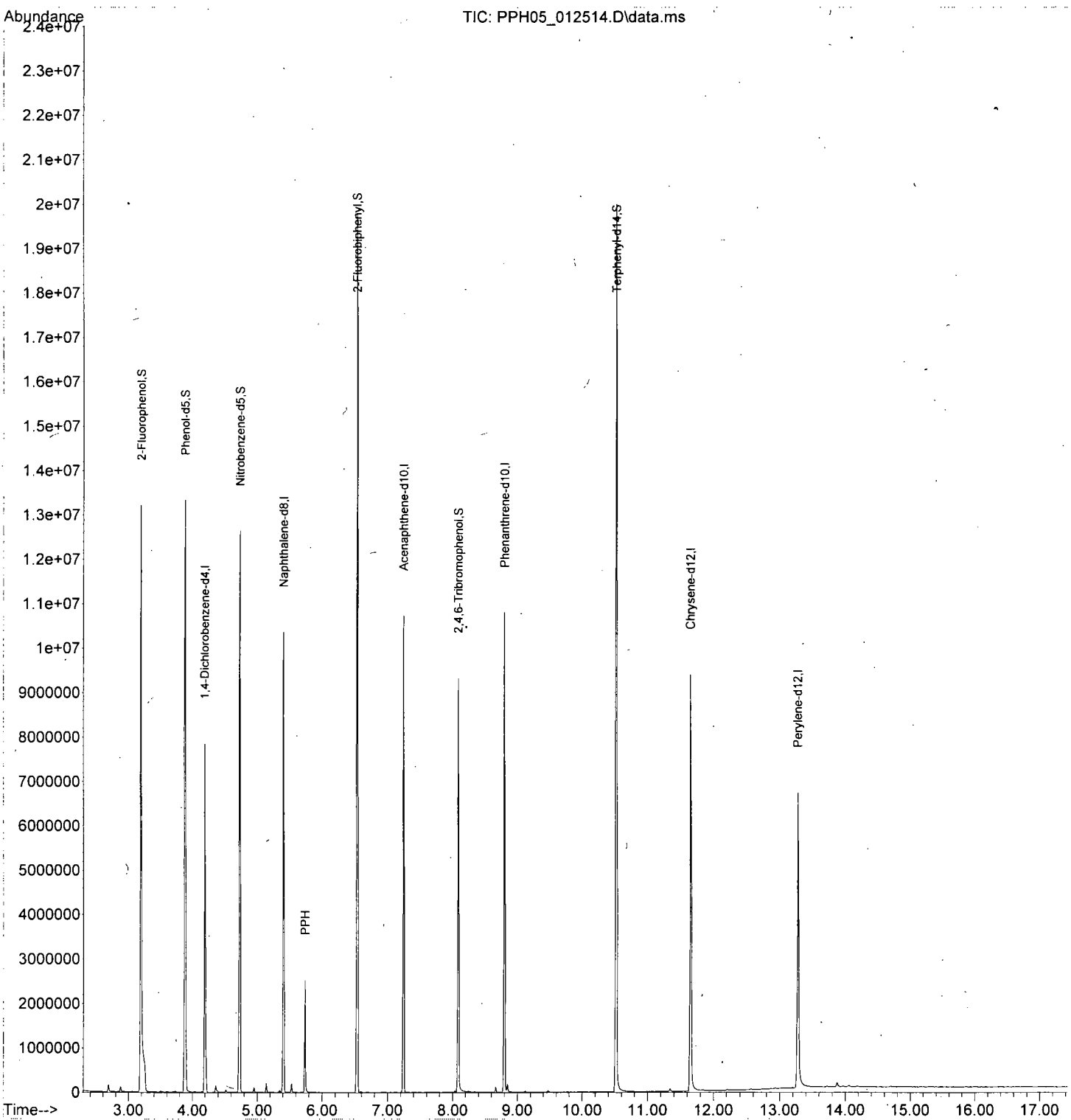
Freedom_0005790_0579

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : PPH05_012514.D
Acq On : 7 Feb 2014 11:36 am
Operator : ERG 96-5975B
Sample : PPH05_012514
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:39:55 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : PPH05_012514.D
Acq On : 10 Feb 2014 2:11 pm
Operator : ERG 96-5975B
Sample : PPH05_012514
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:43:06 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1541262	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	5543184	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	3031237	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	5131660	20.000	ug/mL	0.00
11) Chrysene-d12	11.648	240	5339888	20.000	ug/mL	# 0.00
13) Perylene-d12	13.274	264	4346944	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	5701639	48.680	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 97.36%			
3) Phenol-d5	3.880	99	6375296	49.230	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 98.46%			
6) Nitrobenzene-d5	4.729	82	4662424	23.970	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 95.88%			
8) 2-Fluorobiphenyl	6.538	172	8570644	23.855	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 95.40%			
10) 2,4,6-Tribromophenol	8.089	330	1269498	58.505	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 117.02%			
12) Terphenyl-d14	10.519	244	11278456	22.732	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 90.92%			
Target Compounds						Qvalue
5) PPH	5.739	94	709035	5.731	ug/mL	97

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

$\frac{5.731}{5} \times 100 = 115\%$

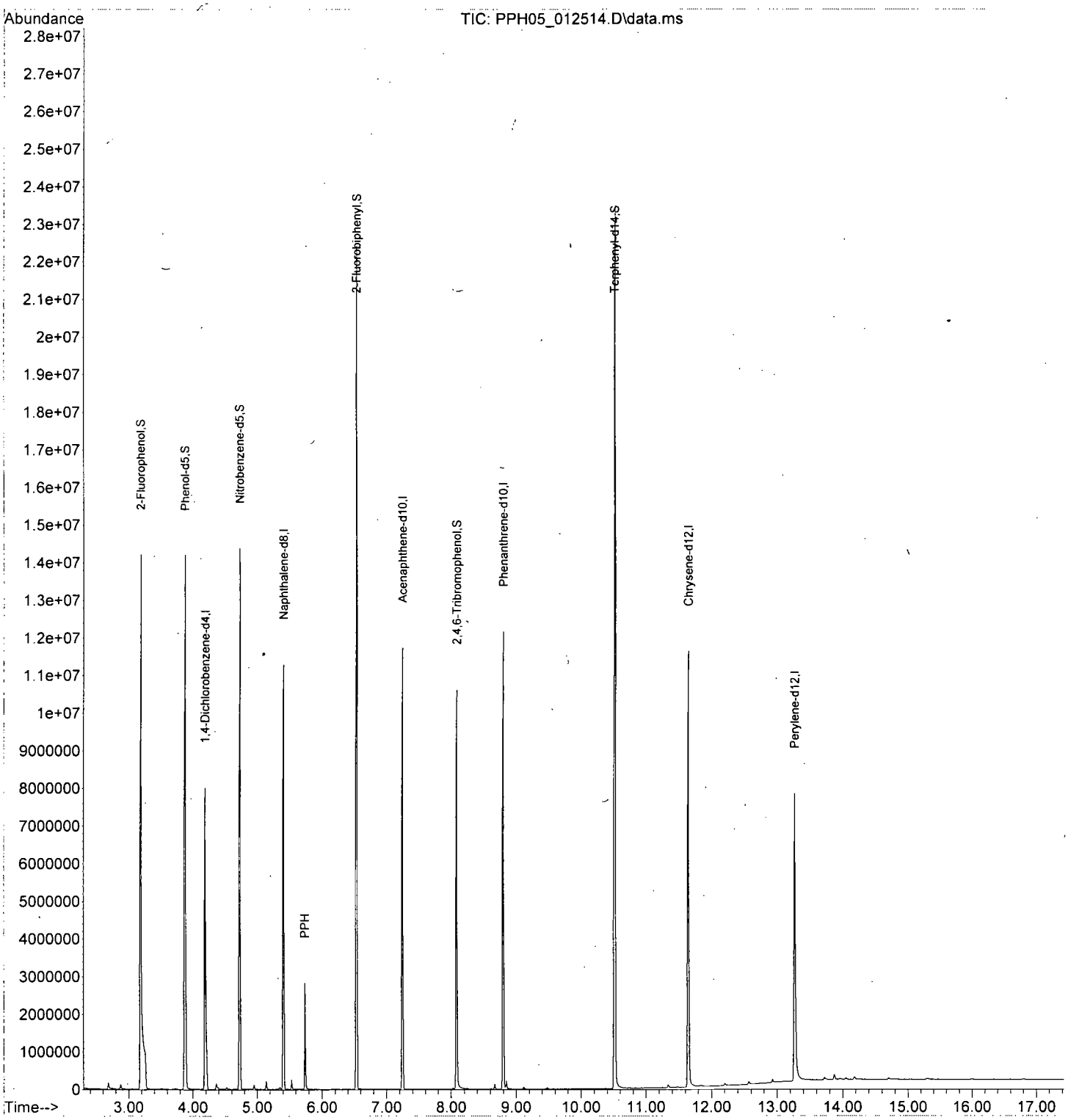
Freedom_0005790_0581

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : PPH05_012514.D
Acq On : 10 Feb 2014 2:11 pm
Operator : ERG 96-5975B
Sample : PPH05_012514
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 2 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:43:06 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Response Factor Report CWA

Method Path : D:\DATA\SVOC\calibrations\
Method File : PPH022014.M
Title : Calibration
Last Update : Fri Feb 21 11:56:38 2014
Response Via : Initial Calibration

WO: 1401014
Site Name: WV Chem Leak

Calibration Files
0.5 =PPHLow5_021914.D 5 =PPH05_021914.D 10 =PPH10_021914.D 20 =PPH20_021914.D
50 =PPH50_021914.D

		Compound	0.5	5	10	20	50	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	ISTD						
2)	S	2-Fluorophenol	1.450	1.382	1.469	1.419	1.468	1.437	2.57
3)	S	Phenol-d5	1.587	1.521	1.615	1.568	1.610	1.580	2.41
4)	I	Naphthalene-d8	ISTD						
5)		PPH	0.357	0.531	0.544	0.483	0.418	0.466	16.85
6)	S	Nitrobenzene-d5	0.403	0.389	0.404	0.382	0.379	0.392	2.99
7)	I	Acenaphthene-d10	ISTD						
8)	S	2-Fluorobiphenyl	1.375	1.328	1.379	1.311	1.274	1.333	3.32
9)	I	Phenanthrene-d10	ISTD						
10)	S	2,4,6-Tribromoph...	0.076	0.074	0.078	0.076	0.074	0.076	2.19
11)	I	Chrysene-d12	ISTD						
12)	S	Terphenyl-d14	1.079	0.996	1.067	1.001	1.046	1.038	3.66
13)	I	Perylene-d12	ISTD						

(#) = Out of Range

Freedom_0005790_0583

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPHLow5_021914.D
Acq On : 20 Feb 2014 5:29 pm
Operator : ERG 96-5975B
Sample : PPHLow5_021914
Misc : Initial Calibration on 022014
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 21 11:55:19 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:41:58 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	885249	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	3188167	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.240	164	1701105	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.796	188	2567438	20.000	ug/mL	-0.01
11) Chrysene-d12	11.638	240	2023341	20.000	ug/mL	-0.02
13) Perylene-d12	13.264	264	1136703	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3209297	47.705	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 95.42%			
3) Phenol-d5	3.875	99	3512851	47.228	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 94.46%			
6) Nitrobenzene-d5	4.723	82	1605894	14.354	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 57.40%			
8) 2-Fluorobiphenyl	6.533	172	2924096	14.503	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 58.00%			
10) 2,4,6-Tribromophenol	8.083	330	487099	44.868	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 89.74%			
12) Terphenyl-d14	10.509	244	2730117	14.522	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 58.08%			
Target Compounds						Qvalue
5) PPH	5.739	94	28453	0.400	ug/mL#	85

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

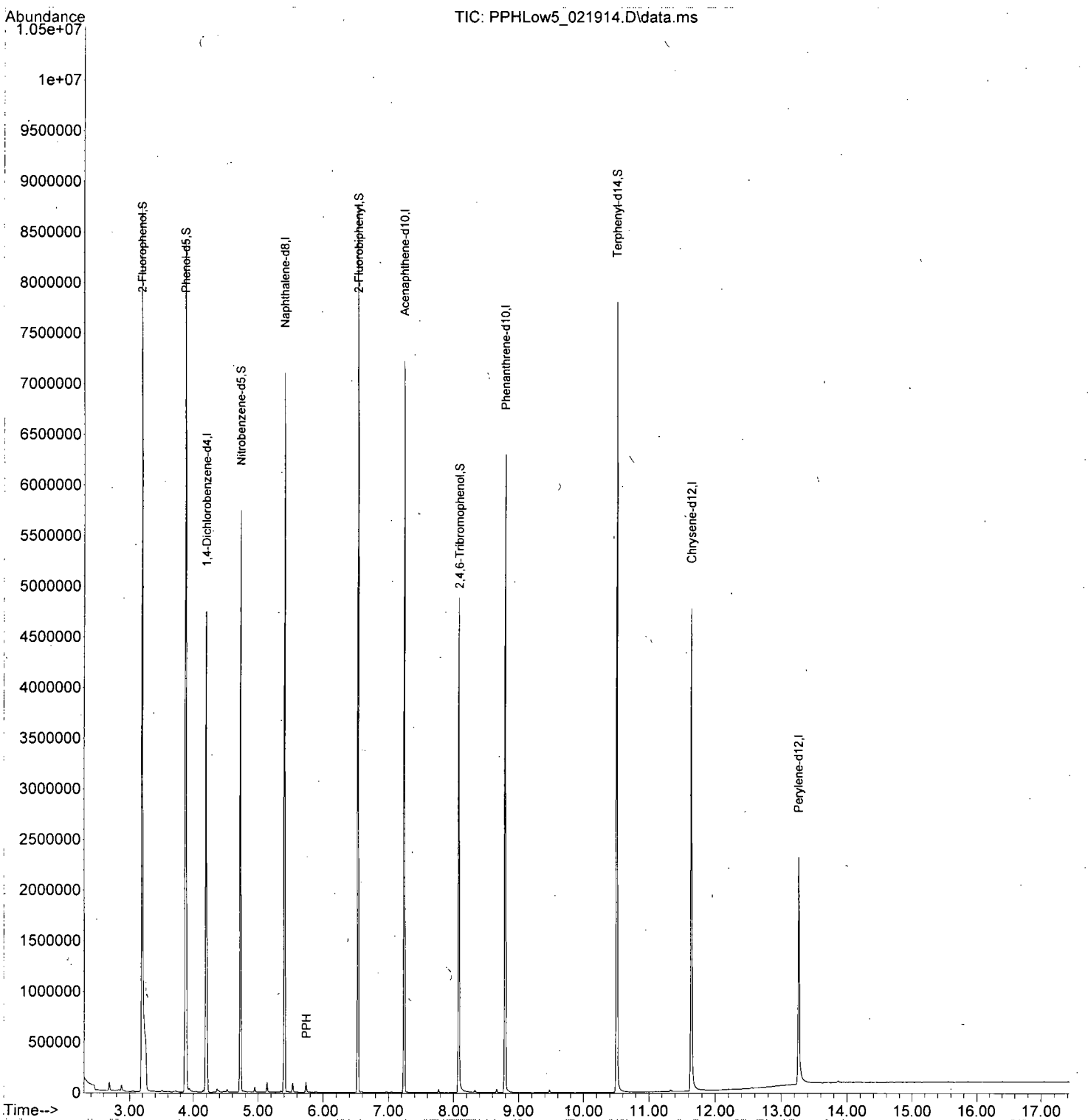
Freedom_0005790_0584

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPHLow5_021914.D
Acq On : 20 Feb 2014 5:29 pm
Operator : ERG 96-5975B
Sample : PPHLow5_021914
Misc : Initial Calibration on 022014
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 21 11:55:19 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:41:58 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPH05_021914.D
Acq On : 20 Feb 2014 6:19 pm
Operator : ERG 96-5975B
Sample : PPH05_021914
Misc : Initial Calibration on 022014
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 21 11:55:42 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:55:34 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	921341	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	3366725	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.240	164	1790899	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.796	188	2734982	20.000	ug/mL	-0.01
11) Chrysene-d12	11.643	240	2240638	20.000	ug/mL	-0.01
13) Perylene-d12	13.264	264	1285539	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3183280	45.829	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery =	91.66%		
3) Phenol-d5	3.875	99	3503157	45.728	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery =	91.46%		
6) Nitrobenzene-d5	4.723	82	1638192	15.097	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery =	60.40%		
8) 2-Fluorobiphenyl	6.533	172	2972519	15.291	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery =	61.16%		
10) 2,4,6-Tribromophenol	8.083	330	508513	44.829	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery =	89.66%		
12) Terphenyl-d14	10.509	244	2790694	14.932	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery =	59.72%		
Target Compounds						Qvalue
5) PPH	5.739	94	446722	5.988	ug/mL	97

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

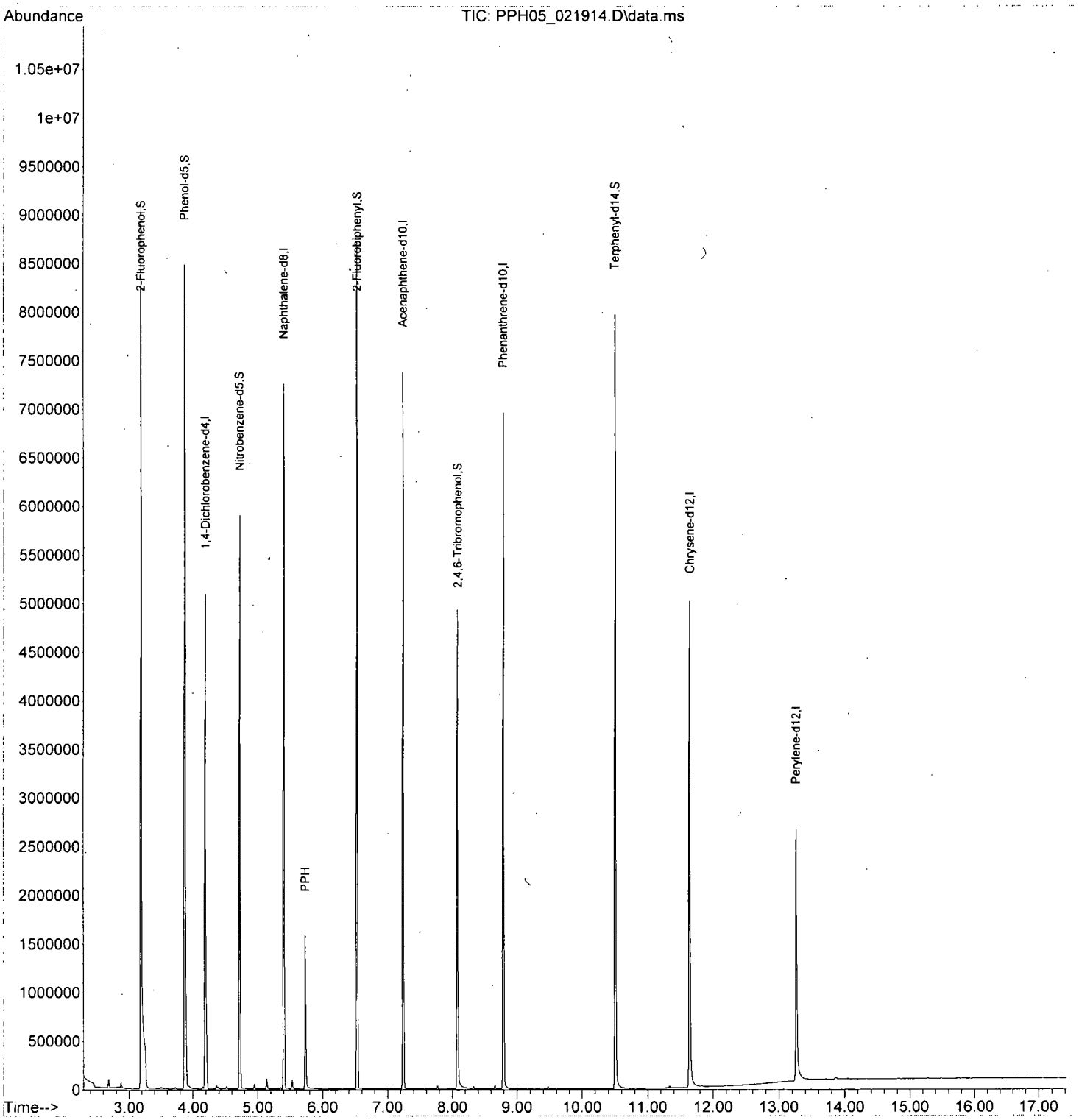
Freedom_0005790_0586

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPH05_021914.D
Acq On : 20 Feb 2014 6:19 pm
Operator : ERG 96-5975B
Sample : PPH05_021914
Misc : Initial Calibration on 022014
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 21 11:55:42 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:55:34 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPH10_021914.D
Acq On : 20 Feb 2014 7:09 pm
Operator : ERG 96-5975B
Sample : PPH10_021914
Misc : Initial Calibration on 022014
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 21 11:55:57 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:55:51 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	855168	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	3109776	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.241	164	1667536	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.796	188	2586647	20.000	ug/mL	-0.01
11) Chrysene-d12	11.638	240	2063236	20.000	ug/mL	-0.02
13) Perylene-d12	13.264	264	1152464	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3139763	49.721	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 99.44%			
3) Phenol-d5	3.875	99	3452296	49.760	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 99.52%			
6) Nitrobenzene-d5	4.723	82	1572116	17.362	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 69.44%			
8) 2-Fluorobiphenyl	6.533	172	2873942	17.549	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 70.20%			
10) 2,4,6-Tribromophenol	8.083	330	505670	48.434	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 96.86%			
12) Terphenyl-d14	10.509	244	2752195	17.685	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 70.72%			
Target Compounds						Qvalue
5) PPH	5.739	94	845505	12.033	ug/mL	97

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

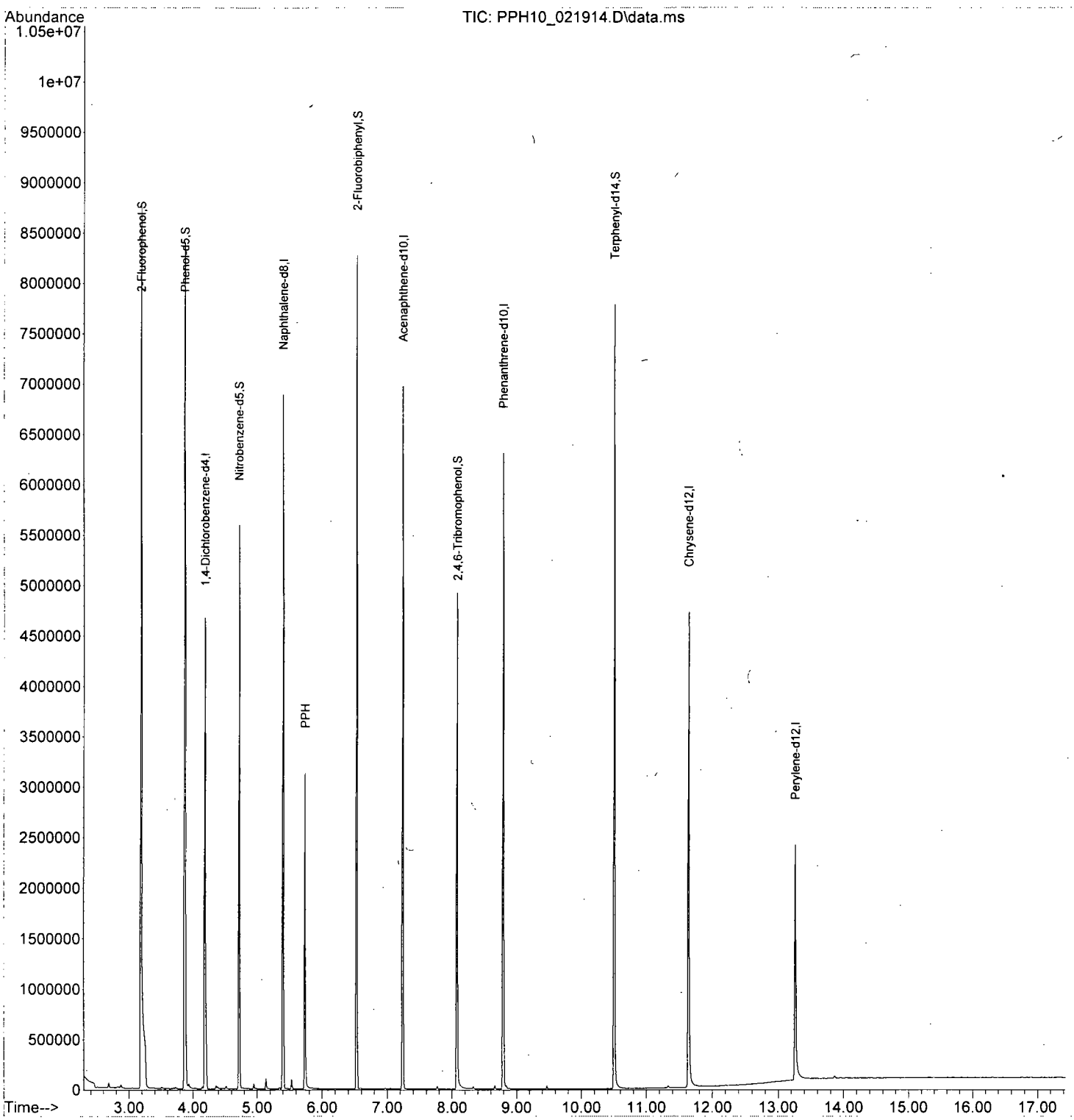
Freedom_0005790_0588

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPH10_021914.D
Acq On : 20 Feb 2014 7:09 pm
Operator : ERG 96-5975B
Sample : PPH10_021914
Misc : Initial Calibration on 022014
ALS Vial : 9 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 21 11:55:57 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:55:51 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPH20_021914.D
Acq On : 20 Feb 2014 7:59 pm
Operator : ERG 96-5975B
Sample : PPH20_021914
Misc : Initial Calibration on 022014
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 21 11:56:13 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	864991	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	3134885	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.240	164	1656381	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.796	188	2600082	20.000	ug/mL	-0.01
11) Chrysene-d12	11.643	240	2126699	20.000	ug/mL	-0.01
13) Perylene-d12	13.264	264	1250620	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3068832	48.429	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 96.86%			
3) Phenol-d5	3.875	99	3391407	48.835	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 97.66%			
6) Nitrobenzene-d5	4.723	82	1495322	18.220	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 72.88%			
8) 2-Fluorobiphenyl	6.533	172	2714805	18.446	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 73.80%			
10) 2,4,6-Tribromophenol	8.083	330	495327	48.078	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 96.16%			
12) Terphenyl-d14	10.509	244	2659888	18.391	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 73.56%			
Target Compounds						Qvalue
5) PPH	5.739	94	1513389	20.804	ug/mL	98

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

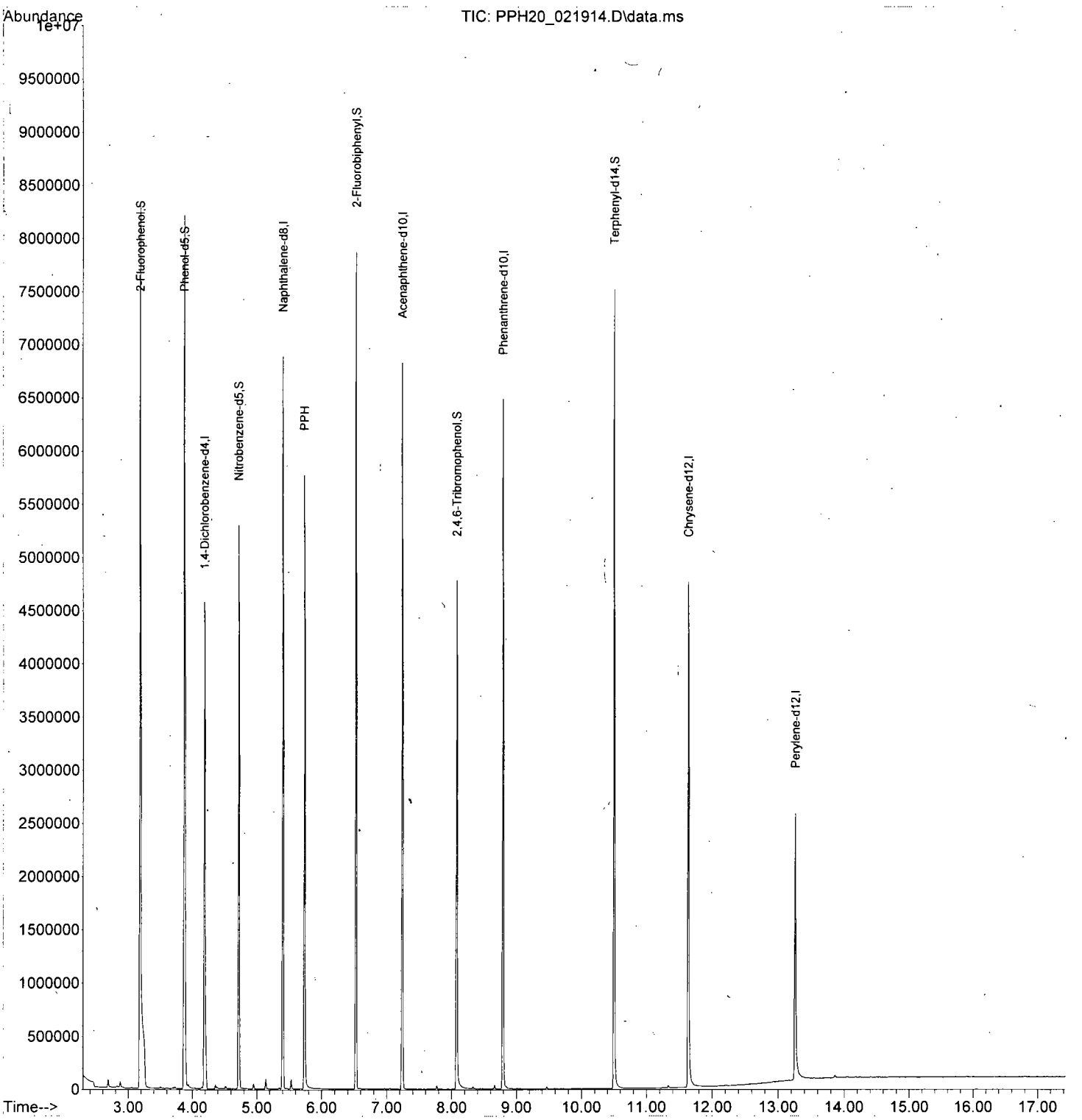
Freedom_0005790_0590

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPH20_021914.D
Acq On : 20 Feb 2014 7:59 pm
Operator : ERG 96-5975B
Sample : PPH20_021914
Misc : Initial Calibration on 022014
ALS Vial : 10 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 21 11:56:13 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPH50_021914.D
Acq On : 20 Feb 2014 8:49 pm
Operator : ERG 96-5975B
Sample : PPH50_021914
Misc : Initial Calibration on 022014
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 21 11:56:29 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:23 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.188	152	805349	20.000	ug/mL	-0.01
4) Naphthalene-d8	5.404	136	2873853	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.240	164	1530207	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.796	188	2372116	20.000	ug/mL	-0.01
11) Chrysene-d12	11.638	240	1818584	20.000	ug/mL	-0.02
13) Perylene-d12	13.264	264	1022428	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2954738	50.744	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 101.48%			
3) Phenol-d5	3.875	99	3241105	50.703	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 101.40%			
6) Nitrobenzene-d5	4.723	82	1362673	20.706	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 82.84%			
8) 2-Fluorobiphenyl	6.533	172	2437363	20.442	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 81.76%			
10) 2,4,6-Tribromophenol	8.083	330	439142	47.668	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 95.34%			
12) Terphenyl-d14	10.509	244	2378845	21.821	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 87.28%			
Target Compounds						Qvalue
5) PPH	5.744	94	3002481	44.607	ug/mL	98

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

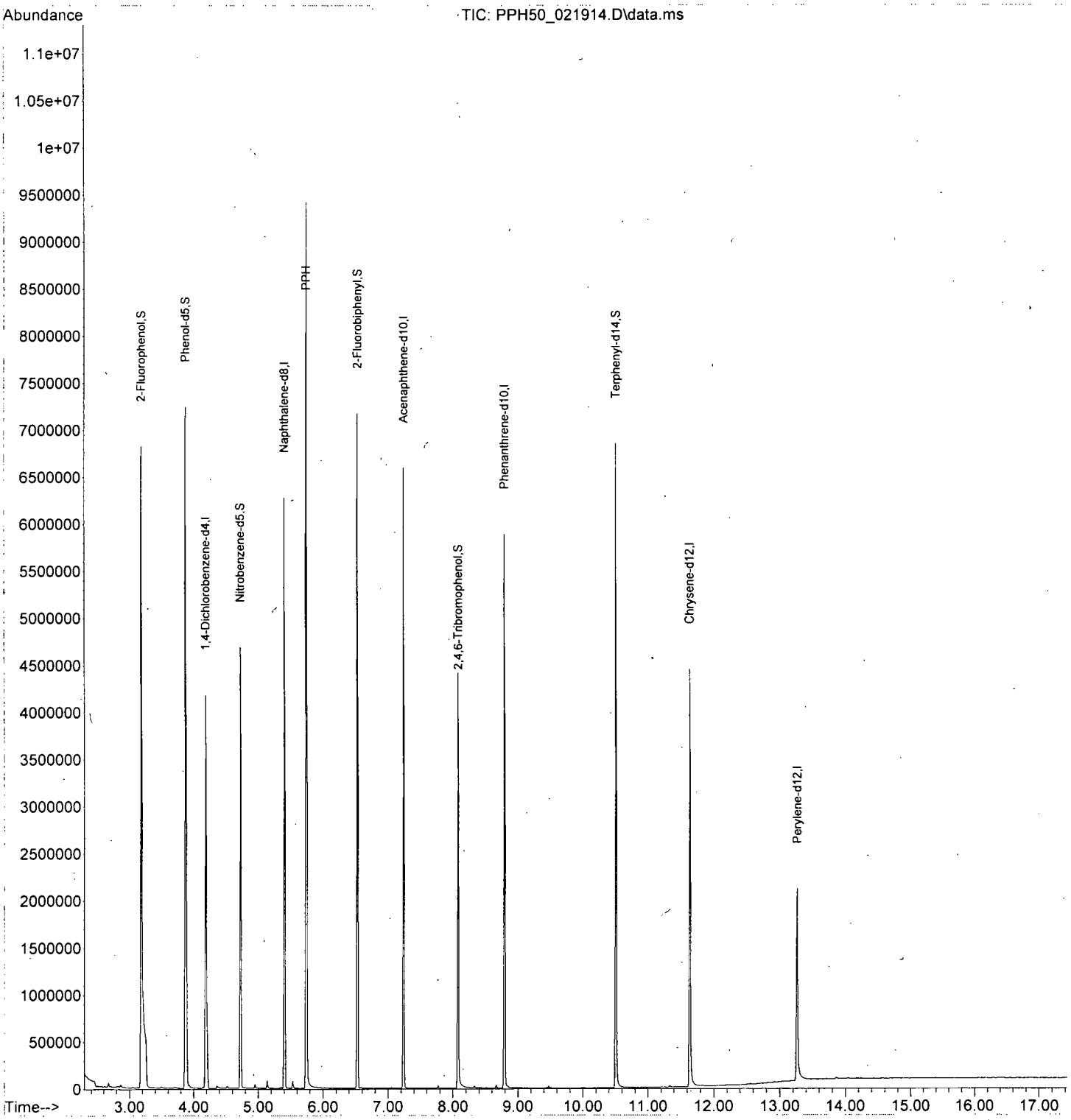
Freedom_0005790_0592

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : PPH50_021914.D
Acq On : 20 Feb 2014 8:49 pm
Operator : ERG 96-5975B
Sample : PPH50_021914
Misc : Initial Calibration on 022014
ALS Vial : 11 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 21 11:56:29 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:23 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : PPH05_021914.D
Acq On : 21 Feb 2014 1:17 pm
Operator : ERG 96-5975B
Sample : PPH05_021914
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:47:41 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	891309	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	3176952	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.240	164	1671254	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.796	188	2623625	20.000	ug/mL	-0.01
11) Chrysene-d12	11.643	240	2020365	20.000	ug/mL	-0.01
13) Perylene-d12	13.264	264	1219898	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3069692	47.917	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery =	95.84%		
3) Phenol-d5	3.875	99	3379278	47.986	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery =	95.98%		
6) Nitrobenzene-d5	4.723	82	1542755	24.806	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery =	99.24%		
8) 2-Fluorobiphenyl	6.533	172	2716748	24.382	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery =	97.52%		
10) 2,4,6-Tribromophenol	8.083	330	491166	49.433	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery =	98.86%		
12) Terphenyl-d14	10.509	244	2609328	24.885	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery =	99.52%		
Target Compounds						Qvalue
5) PPH	5.739	94	403127	5.441	ug/mL ✓	97

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

$\frac{5.441}{5} = 109\%$

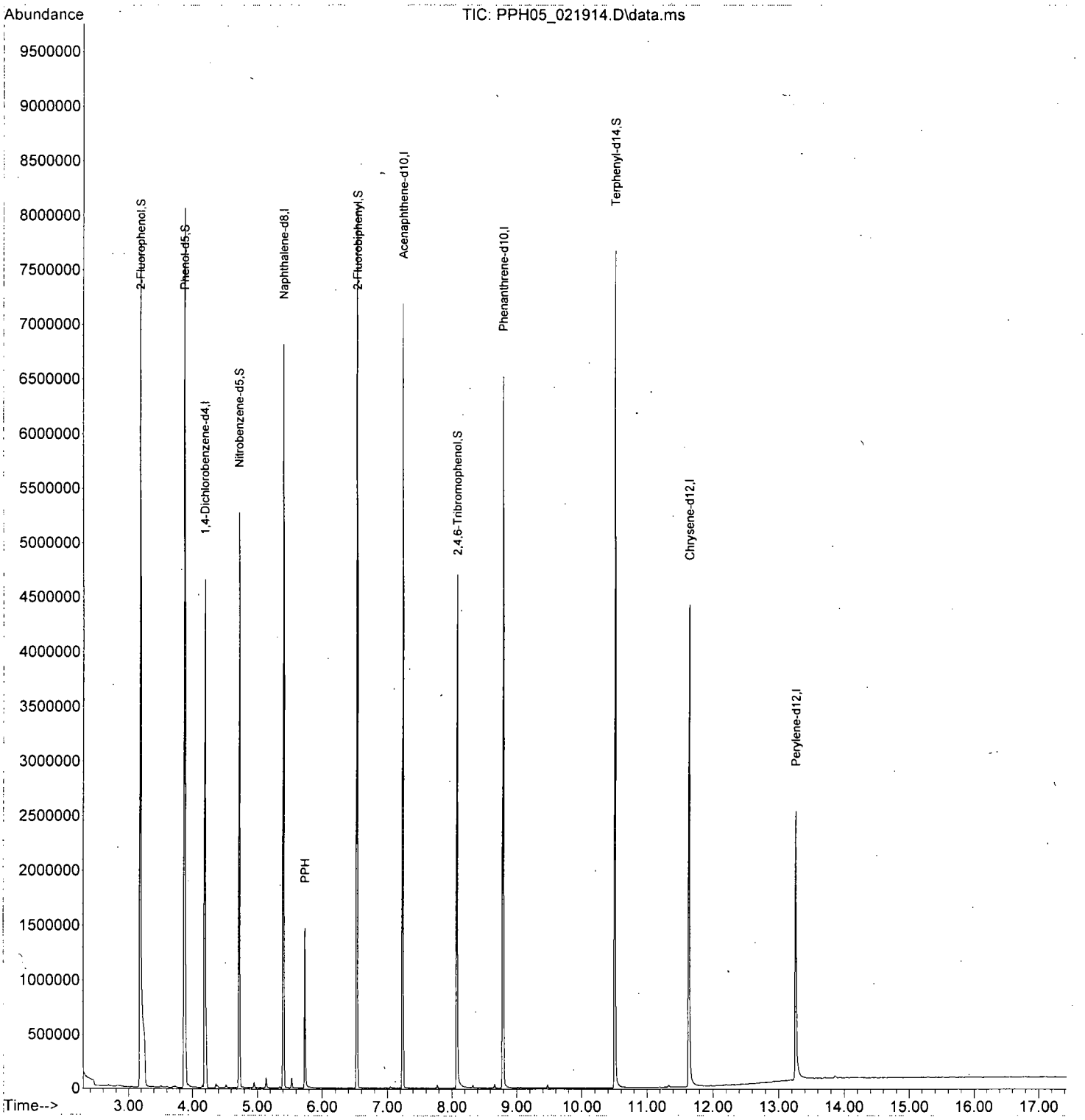
Freedom_0005790_0594

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : PPH05_021914.D
Acq On : 21 Feb 2014 1:17 pm
Operator : ERG 96-5975B
Sample : PPH05_021914
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 3 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:47:41 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Summary of Results / Project Information

Graybill, Eric

From: Curry, John
Sent: Thursday, January 30, 2014 5:51 PM
To: Gundersen, Jennifer; Graybill, Eric; Zawodny, Peggy; Warner, Sue
Cc: Wilding, Stevie; Caporale, Cynthia
Subject: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO#1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Surface water	5	-	PZ/SW	G 206
SVOCs by SW846 8270D	Surface water	4	-	ERG	G 206
HPLC Identification Scan	Surface water	4	-	JG	G 206

Temperature Blank: 3 °C
Due Date: 02/13/2014

Comments:

Freedom_0005790_0597

Graybill, Eric

From: Curry, John
Sent: Wednesday, February 05, 2014 12:15 PM
To: Gundersen, Jennifer; Graybill, Eric; Zawodny, Peggy; Warner, Sue
Cc: Caporale, Cynthia; Wilding, Stevie
Subject: FW: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO# 1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Ground water /water	3	-	PZ/SW	G 206
SVOCs by SW846 8270D	Ground water /water	2	-	ERG	G 206
HPLC Identification Scan	Ground water /water	2	-	JG	G 206

Temperature Blank: 3 °C
Due Date: 02/18/2014

Comments: One 1 liter bottle for Pipe-1 broken.

Freedom_0005790_0598

Graybill, Eric

From: Curry, John
Sent: Friday, February 07, 2014 3:33 PM
To: Gundersen, Jennifer; Zawodny, Peggy; Warner, Sue; Graybill, Eric
Cc: Poff, Kevin; Wilding, Stevie; Caporale, Cynthia
Subject: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO#1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Surface water	5	-	PZ/SW	G 206
SVOCs by SW846 8270D	Surface water	3	-	ERG	G 206
HPLC Identification Scan	Surface water	3	-	JG	G 206

Temperature Blank: 3 °C and 3 °C
Due Date: Unvalidated: 02/21/2014 Final: 02/21/14

Comments: this is for both shipments 2/4 and 2/7

Graybill, Eric

From: Poff, Kevin
Sent: Monday, February 10, 2014 8:29 AM
To: Curry, John; Gundersen, Jennifer; Zawodny, Peggy; Warner, Sue; Graybill, Eric
Cc: Wilding, Stevie; Caporale, Cynthia
Subject: RE: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO# 1401014

Eric and I are splitting the SVOC samples. I am running the SVOC's and Eric is running MCHM and DiPPH.

From: Curry, John
Sent: Friday, February 07, 2014 3:33 PM
To: Gundersen, Jennifer; Zawodny, Peggy; Warner, Sue; Graybill, Eric
Cc: Poff, Kevin; Wilding, Stevie; Caporale, Cynthia
Subject: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO#1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Surface water	5	-	PZ/SW	G 206
SVOCs by SW846 8270D	Surface water	3	-	ERG	G 206
HPLC Identification Scan	Surface water	3	-	JG	G 206

Temperature Blank: 3 °C and 3 °C
Due Date: Unvalidated: 02/21/2014 Final: 02/21/14

Comments: this is for both shipments 2/4 and 2/7

Freedom_0005790_0600

Graybill, Eric

From: Curry, John
Sent: Tuesday, February 11, 2014 1:45 PM
To: Gundersen, Jennifer; Poff, Kevin; Graybill, Eric; Zawodny, Peggy
Cc: Wilding, Stevie; Caporale, Cynthia
Subject: FW: Sample Assignment Memo for: West Virginia Chemical Leak; DAS R34317; WO# 1401014

Sample Assignment Memo for West Virginia Chemical Leak; DAS R34317; WO#1401014

Parameter(s)	Matrix	Number of Samples	pH	Analyst	Location
VOCs by CLP Equivalent (trace)	Surface water	6	-	PZ/SW	G 206
SVOCs by SW846 8270D	Surface water	5	-	ERG	G 206
HPLC Identification Scan	Surface water	5	-	JG	G 206

Temperature Blank: 4 °C and 3 °C
Due Date: Unvalidated: 02/25/2014 Final: 02/25/14

Comments: Case is Complete.

Freedom_0005790_0601

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

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Ex. 5 - Deliberative

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Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Sample Data

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : 1401014-01.D
Acq On : 6 Feb 2014 10:43 am
Operator : ERG 96-5975B
Sample : 1401014-01 10X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:29:41 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1304367	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4692420	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2558630	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	4183725	20.000	ug/mL	0.00
12) Chrysene-d12	11.648	240	4159297	20.000	ug/mL	# 0.00
14) Perylene-d12	13.274	264	3321369	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	410977	5.557	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery	=	11.12%#	
3) Phenol-d5	3.870	99	500533	6.154	ug/mL	-0.01
Spiked Amount 50.000	Range 39 - 106		Recovery	=	12.30%#	
7) Nitrobenzene-d5	4.723	82	184904	1.882	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery	=	7.52%#	
9) 2-Fluorobiphenyl	6.533	172	451708	2.480	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery	=	9.92%#	
11) 2,4,6-Tribromophenol	8.083	330	70833	5.504	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery	=	11.00%	
13) Terphenyl-d14	10.509	244	476840	2.276	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery	=	9.12%#	
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	389137	10.025	ug/mL	90
5) tans-MCHM	4.669	55	228745	2.924	ug/mL#	90

Ave 6.4715 x 10

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

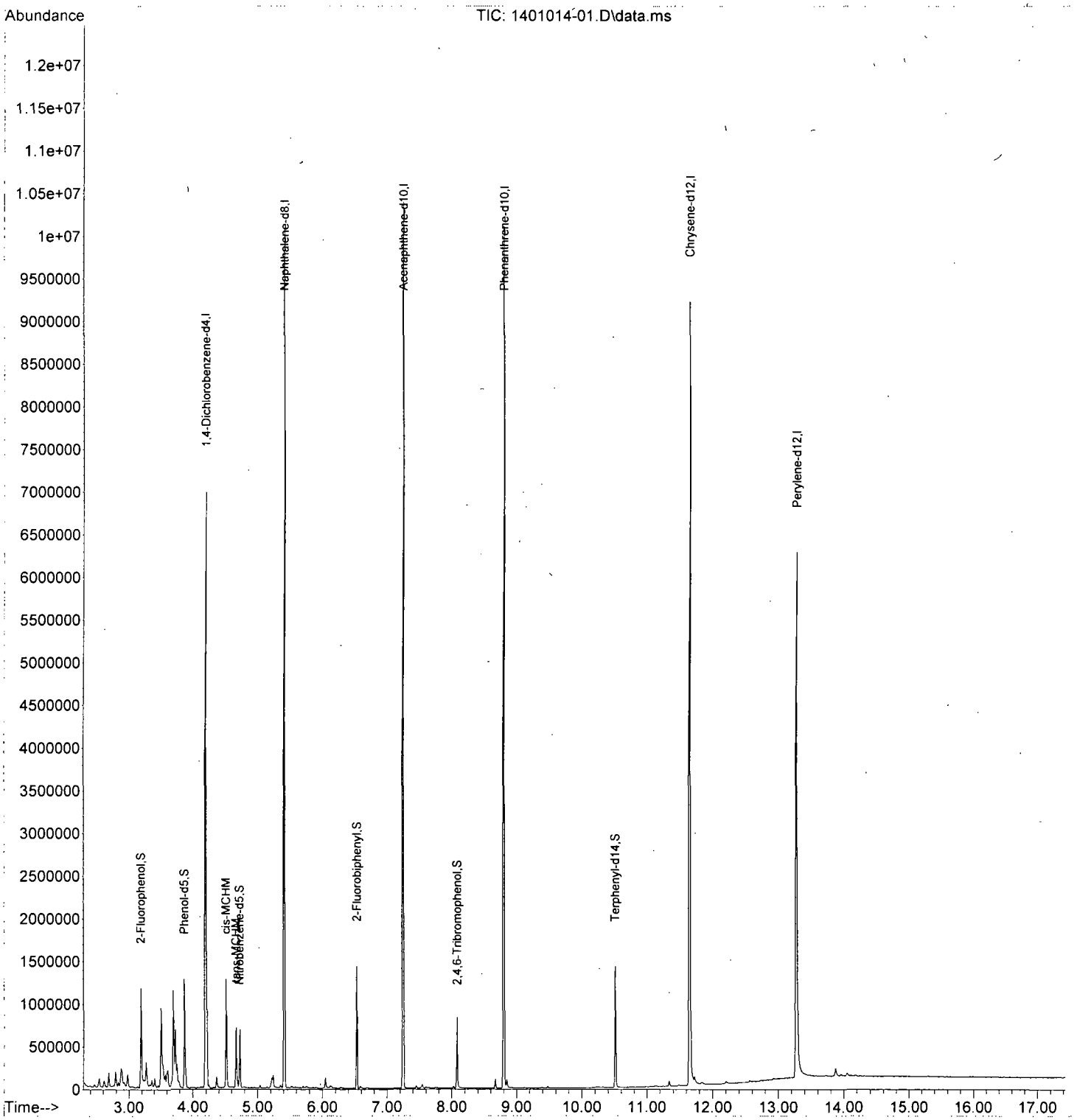
Freedom_0005790_0654

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : 1401014-01.D
Acq On : 6 Feb 2014 10:43 am
Operator : ERG 96-5975B
Sample : 1401014-01 10X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

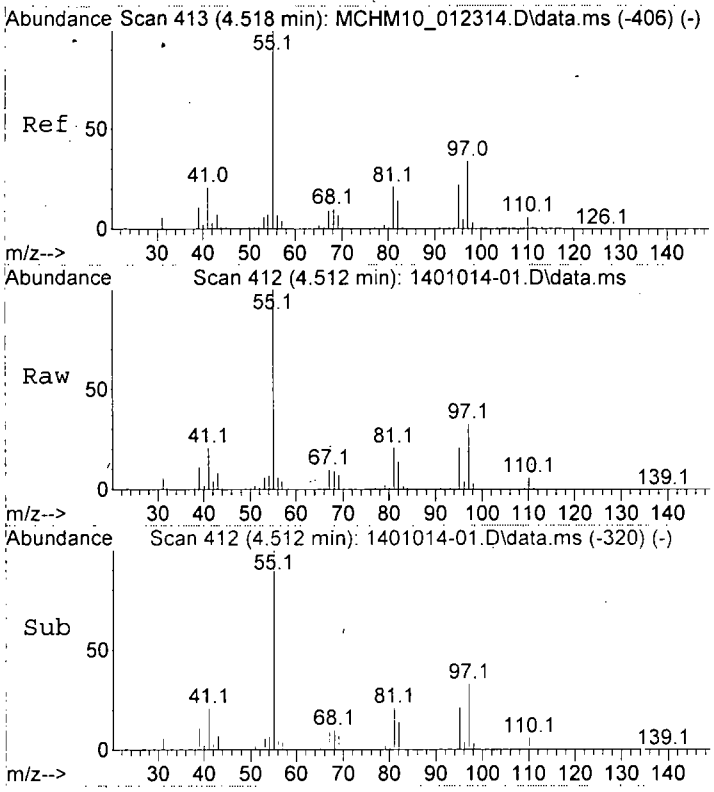
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:29:41 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



MCHM012814.M Tue Feb 25 12:30:07 2014

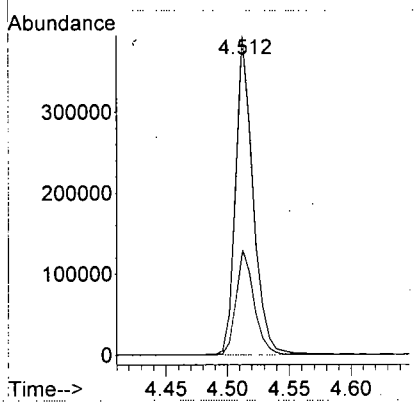
WO: 1401014
Site Name: WV Chem Leak

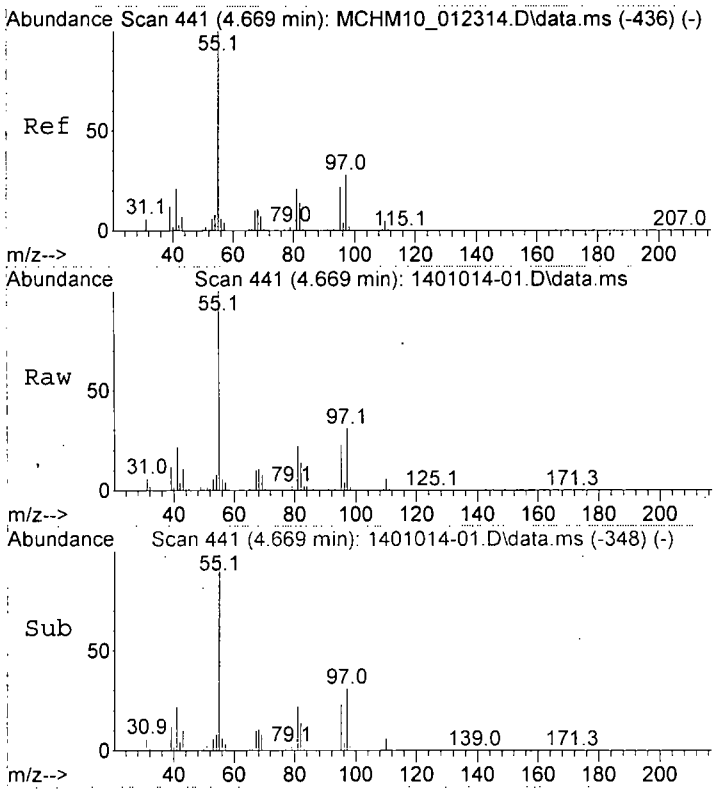


#4
cis-MCHM
Concen: 10.025 ug/mL
RT: 4.512 min Scan# 412
Delta R.T. -0.006 min
Lab File: 1401014-01.D
Acq: 6 Feb 2014 10:43 am

Tgt Ion: 55 Resp: 389137

Ion	Ratio	Lower	Upper
55	100		
97	34.3	23.2	34.8

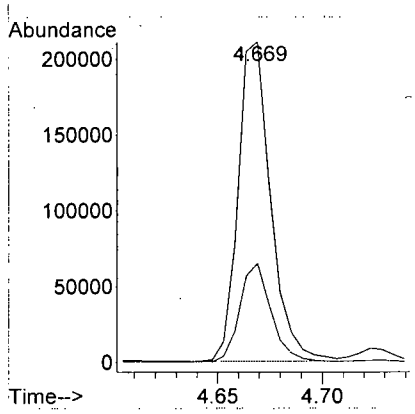




#5
tans-MCHM
Concen: 2.924 ug/mL
RT: 4.669 min Scan# 441
Delta R.T. 0.000 min
Lab File: 1401014-01.D
Acq: 6 Feb 2014 10:43 am

Tgt Ion: 55 Resp: 228745

Ion	Ratio	Lower	Upper
55	100		
97	30.0	20.0	30.0#



Freedom_0005790_0656

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : 1401014-02.D
Acq On : 6 Feb 2014 11:34 am
Operator : ERG 96-5975B
Sample : 1401014-02 10X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 25 12:30:29 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1299079	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4696054	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2604261	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	4167000	20.000	ug/mL	0.00
12) Chrysene-d12	11.648	240	4101992	20.000	ug/mL	# 0.00
14) Perylene-d12	13.274	264	3090962	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	394740	5.359	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery	=	10.72%#	
3) Phenol-d5	3.870	99	508807	6.281	ug/mL	-0.01
Spiked Amount 50.000	Range 39 - 106		Recovery	=	12.56%#	
7) Nitrobenzene-d5	4.723	82	186406	1.895	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery	=	7.60%#	
9) 2-Fluorobiphenyl	6.533	172	467705	2.523	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery	=	10.08%#	
11) 2,4,6-Tribromophenol	8.083	330	71262	5.559	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery	=	11.12%	
13) Terphenyl-d14	10.509	244	481971	2.333	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery	=	9.32%#	
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	917760	23.740	ug/mL	90
5) tans-MCHM	4.669	55	524641	6.734	ug/mL#	90

Ave
15.237
x 10

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

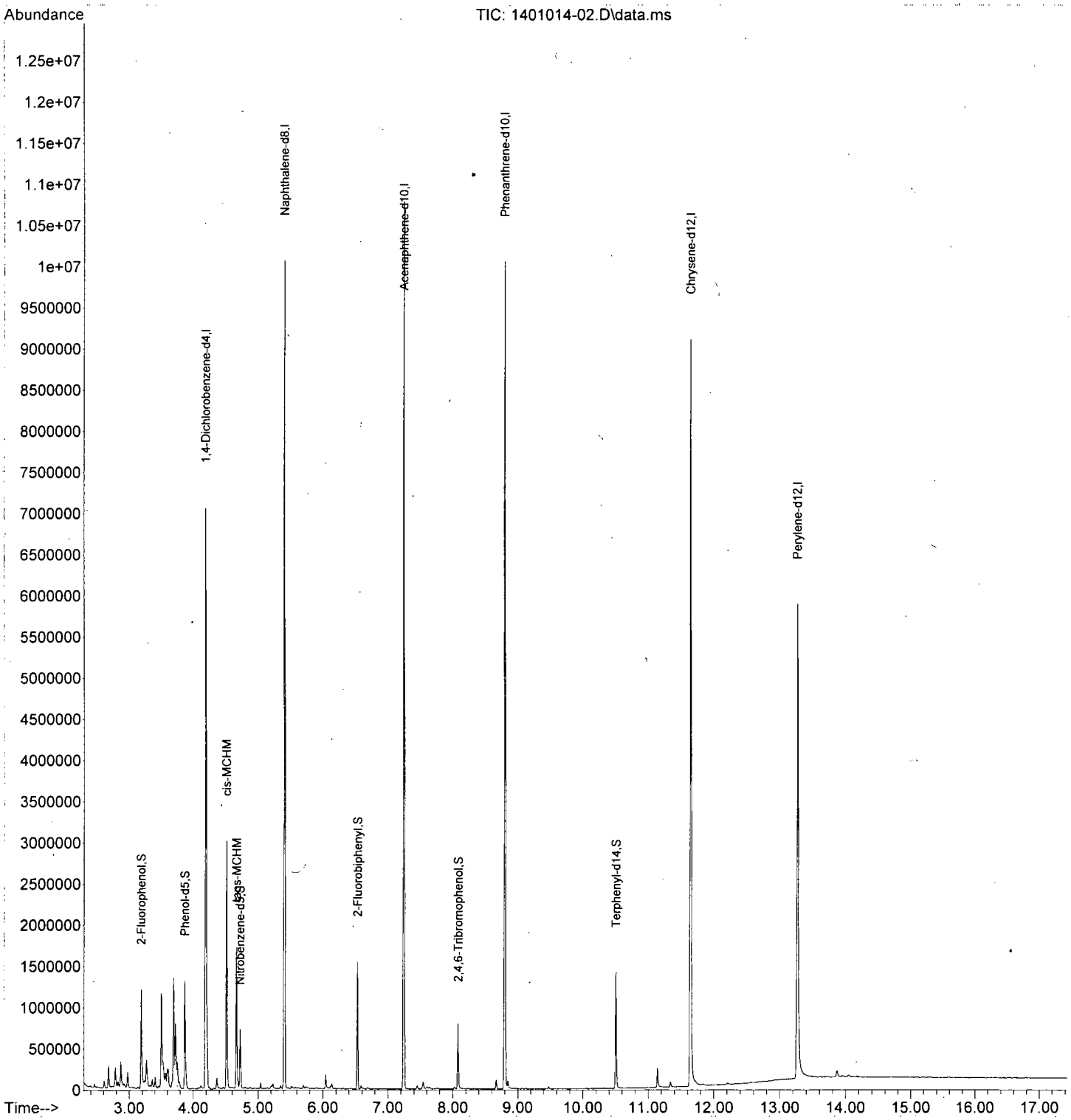
Freedom_0005790_0657

Quantitation Report (QT Reviewed)

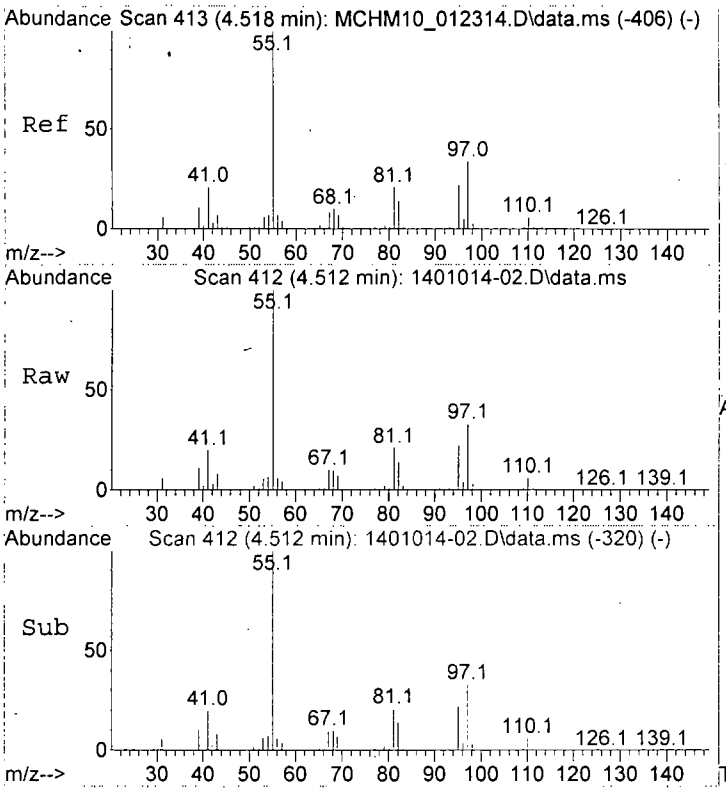
Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : 1401014-02.D
Acq On : 6 Feb 2014 11:34 am
Operator : ERG 96-5975B
Sample : 1401014-02 10X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:30:29 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



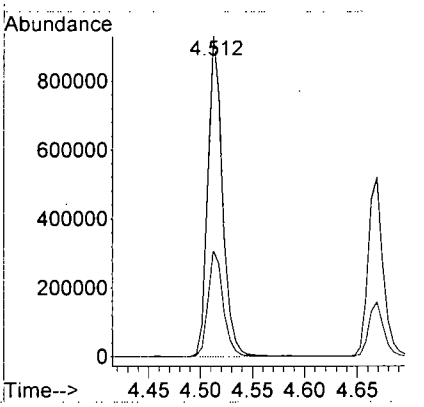
WO: 1401014
Site Name: WV Chem Leak

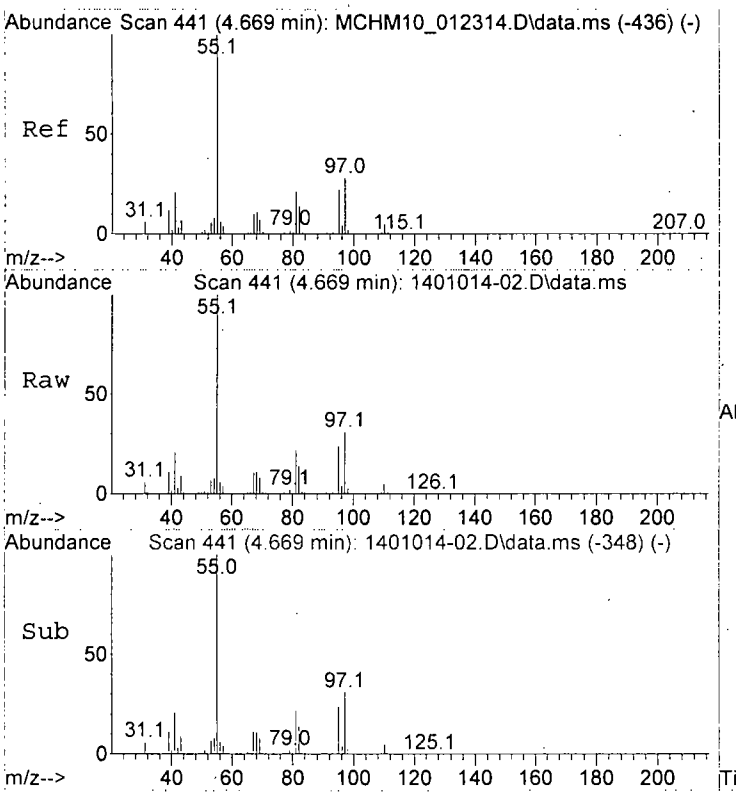


#4
cis-MCHM
Concen: 23.740 ug/mL
RT: 4.512 min Scan# 412
Delta R.T. -0.006 min
Lab File: 1401014-02.D
Acq: 6 Feb 2014 11:34 am

Tgt Ion: 55 Resp: 917760

Ion	Ratio	Lower	Upper
55	100		
97	34.2	23.2	34.8

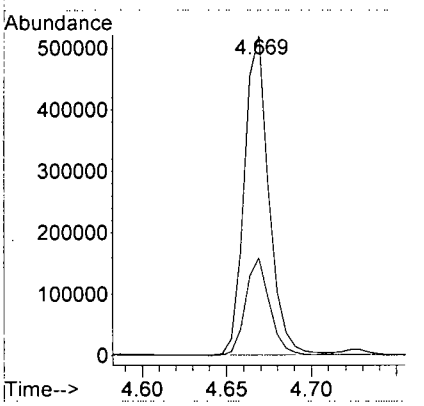




#5
tans-MCHM
Concen: 6.734 ug/mL
RT: 4.669 min Scan# 441
Delta R.T. 0.000 min
Lab File: 1401014-02.D
Acq: 6 Feb 2014 11:34 am

Tgt Ion: 55 Resp: 524641

Ion	Ratio	Lower	Upper
55	100		
97	30.1	20.0	30.0#



Freedom_0005790_0659

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : 1401014-03.D
Acq On : 6 Feb 2014 12:25 pm
Operator : ERG 96-5975B
Sample : 1401014-03 10X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:31:06 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1281744	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4636439	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2556762	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	4203271	20.000	ug/mL	0.00
12) Chrysene-d12	11.649	240	4124918	20.000	ug/mL	# 0.00
14) Perylene-d12	13.275	264	3349780	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	358412	4.931	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery	=	9.86%#	
3) Phenol-d5	3.870	99	448675	5.614	ug/mL	-0.01
Spiked Amount 50.000	Range 39 - 106		Recovery	=	11.22%#	
7) Nitrobenzene-d5	4.723	82	162213	1.671	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery	=	6.68%#	
9) 2-Fluorobiphenyl	6.533	172	402794	2.213	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery	=	8.84%#	
11) 2,4,6-Tribromophenol	8.083	330	62405	4.826	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery	=	9.66%#	
13) Terphenyl-d14	10.509	244	440856	2.122	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery	=	8.48%#	
Target Compounds						Qvalue
4) cis-MCHM	4.513	55	778218	20.403	ug/mL	91
5) tans-MCHM	4.669	55	436842	5.683	ug/mL#	89

Ave 13.043 x 10

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

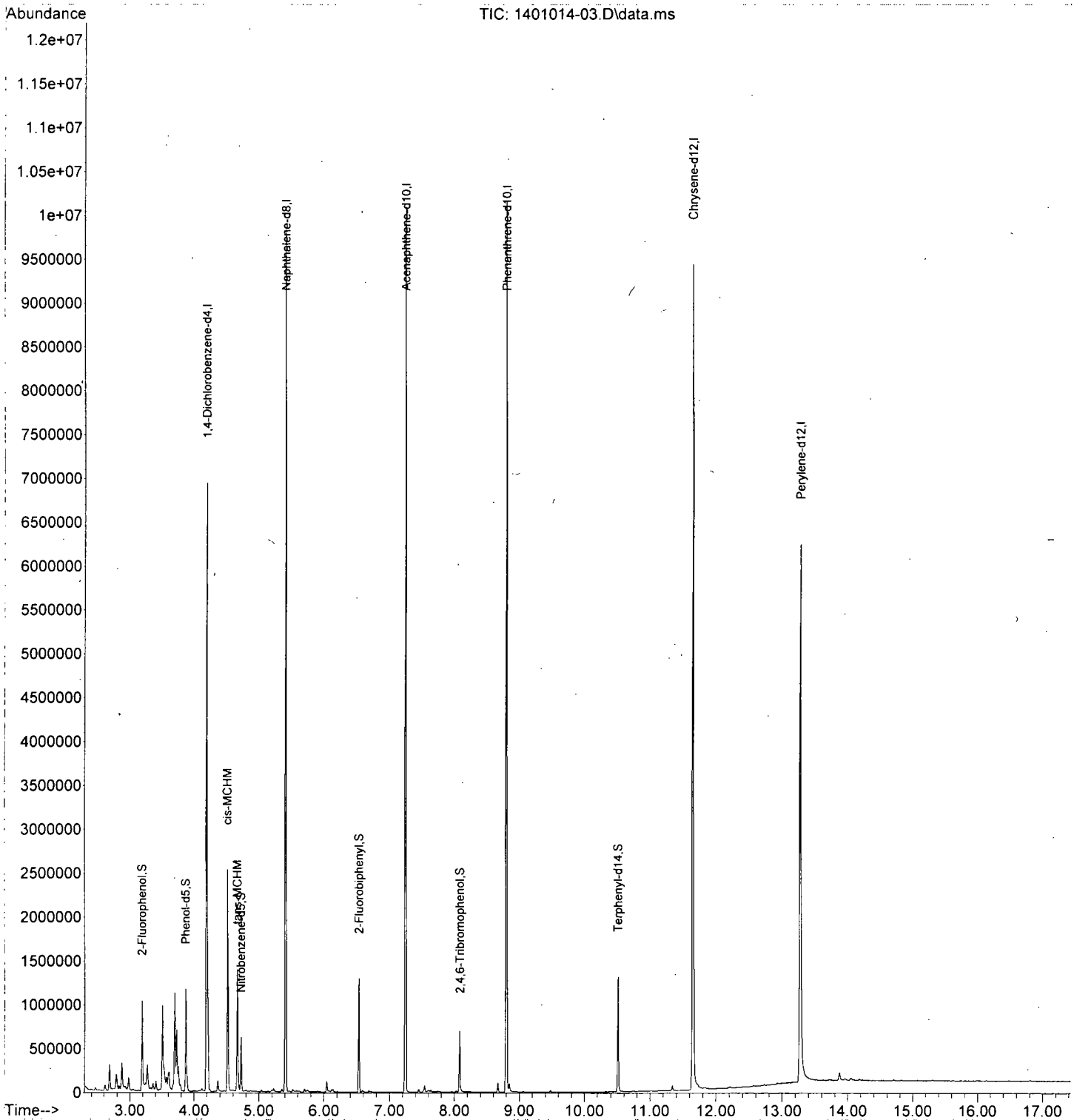
Freedom_0005790_0660

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : 1401014-03.D
Acq On : 6 Feb 2014 12:25 pm
Operator : ERG 96-5975B
Sample : 1401014-03 10X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

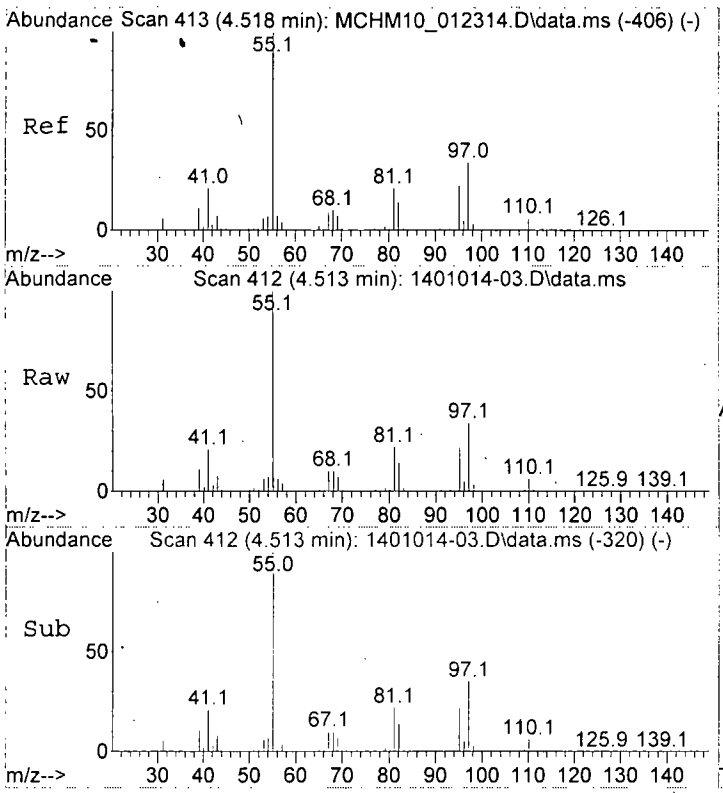
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:31:06 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Freedom_0005790_0661

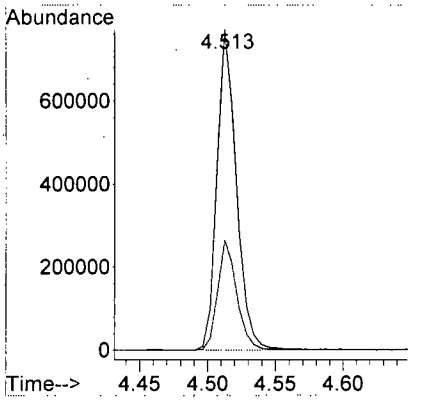
WO: 1401014
Site Name: WV Chem Leak

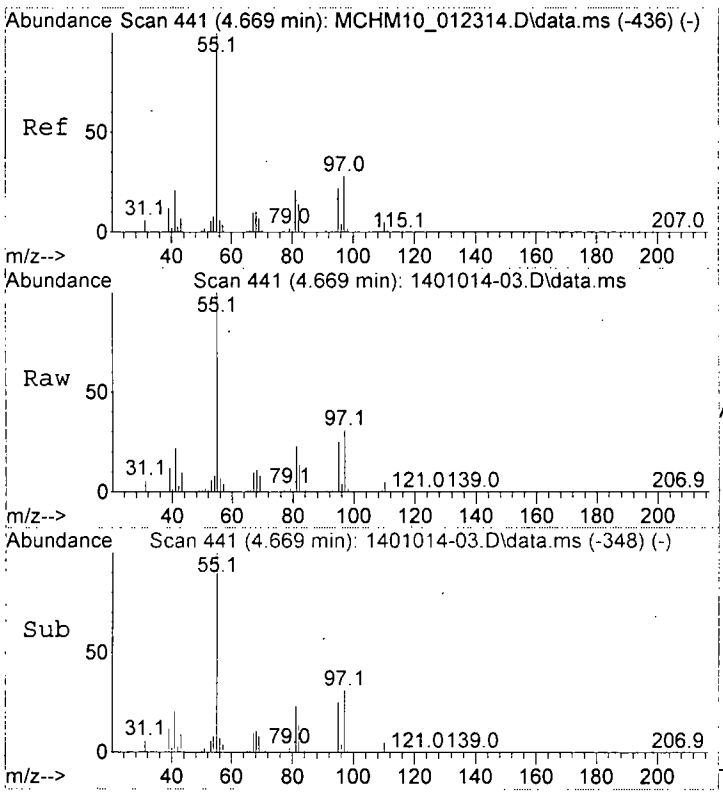


#4
cis-MCHM
Concen: 20.403 ug/mL
RT: 4.513 min Scan# 412
Delta R.T. -0.005 min
Lab File: 1401014-03.D
Acq: 6 Feb 2014 12:25 pm

Tgt Ion: 55 Resp: 778218

Ion	Ratio	Lower	Upper
55	100		
97	33.8	23.2	34.8

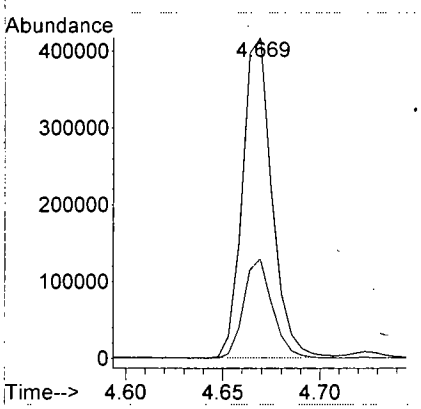




#5
tans-MCHM
Concen: 5.683 ug/mL
RT: 4.669 min Scan# 441
Delta R.T. 0.000 min
Lab File: 1401014-03.D
Acq: 6 Feb 2014 12:25 pm

Tgt Ion: 55 Resp: 436842

Ion	Ratio	Lower	Upper
55	100		
97	30.7	20.0	30.0#



Freedom_0005790_0662

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-04.D
Acq On : 5 Feb 2014 9:17 pm
Operator : ERG 96-5975B
Sample : 1401014-04
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 9 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:32:24 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1322639	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4815593	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2676920	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	4276518	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	4188821	20.000	ug/mL	# 0.00
14) Perylene-d12	13.280	264	3149213	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3505578	46.742	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 93.48%			
3) Phenol-d5	3.875	99	4012127	48.645	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 97.28%			
7) Nitrobenzene-d5	4.729	82	1774823	17.599	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 70.40%			
9) 2-Fluorobiphenyl	6.533	172	3551834	18.642	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 74.56%			
11) 2,4,6-Tribromophenol	8.089	330	725960	55.182	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 110.36%			
13) Terphenyl-d14	10.514	244	3994999	18.935	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 75.72%			

Target Compounds Qvalue

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

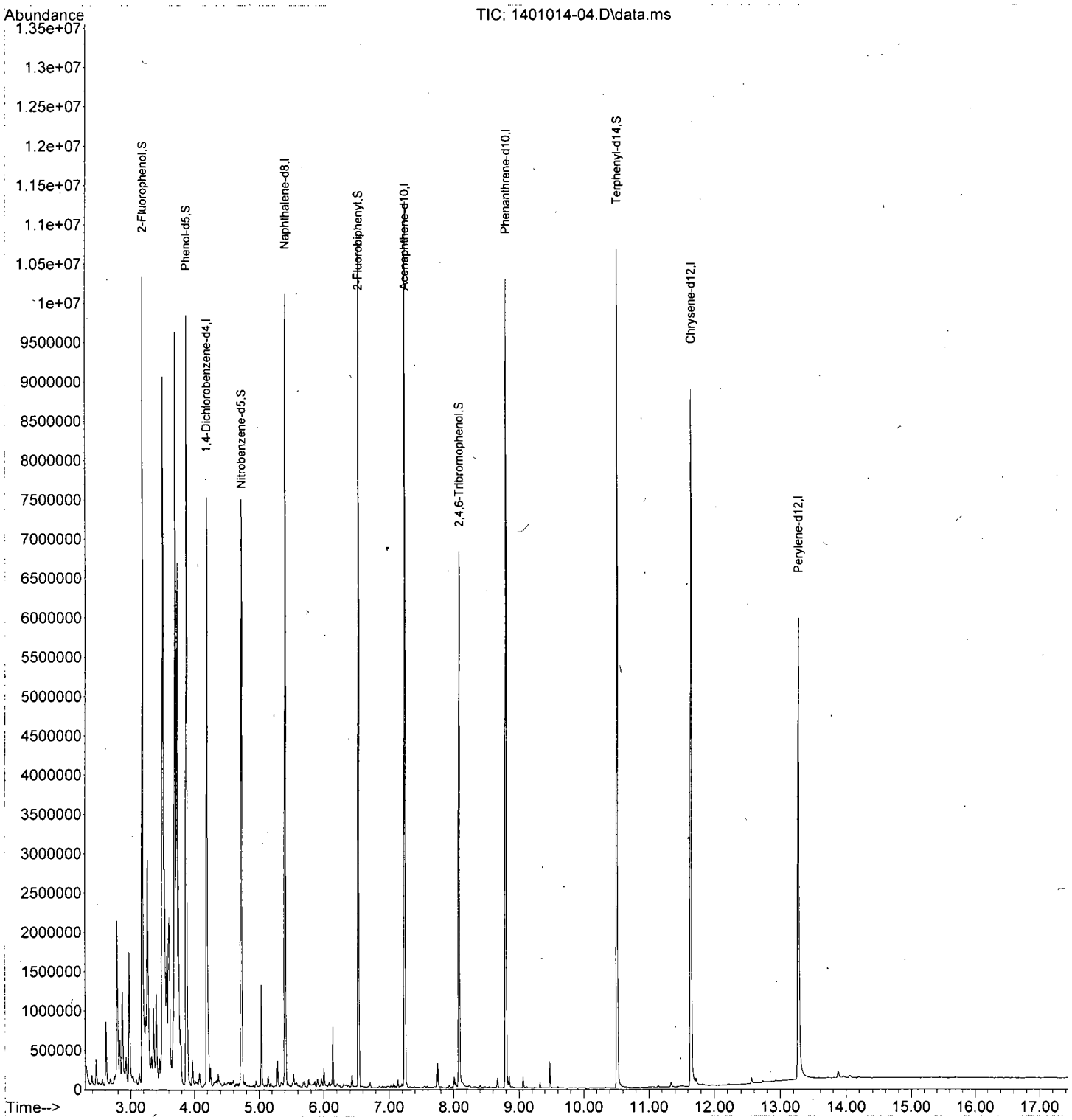
Freedom_0005790_0663

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-04.D
Acq On : 5 Feb 2014 9:17 pm
Operator : ERG 96-5975B
Sample : 1401014-04
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 9 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:32:24 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-06 10000X.D
Acq On : 10 Feb 2014 5:07 pm
Operator : ERG 96-5975B
Sample : 1401014-06 10000X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:33:17 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.188	152	1529925	20.000	ug/mL	-0.01
6) Naphthalene-d8	5.404	136	5473982	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.240	164	3061002	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.796	188	4970423	20.000	ug/mL	-0.01
12) Chrysene-d12	11.648	240	4739035	20.000	ug/mL	# 0.00
14) Perylene-d12	13.274	264	3911640	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.178	112	523	0.006	ug/mL	-0.02
Spiked Amount 50.000	Range 21 - 110		Recovery	=	0.02%#	
3) Phenol-d5	3.870	99	695	0.007	ug/mL	-0.01
Spiked Amount 50.000	Range 39 - 106		Recovery	=	0.02%#	
7) Nitrobenzene-d5	4.664	82	144589	1.261	ug/mL	-0.06
Spiked Amount 25.000	Range 43 - 108		Recovery	=	5.04%#	
9) 2-Fluorobiphenyl	6.592	172	149	0.001	ug/mL	0.05
Spiked Amount 25.000	Range 43 - 116		Recovery	=	0.00%#	
11) 2,4,6-Tribromophenol	0.000	330	0	0.000	ug/mL	
Spiked Amount 50.000	Range 10 - 123		Recovery	=	0.00%#	
13) Terphenyl-d14	10.503	244	1517	0.006	ug/mL	-0.02
Spiked Amount 25.000	Range 33 - 141		Recovery	=	0.04%#	
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	1606953	35.295	ug/mL	90
5) tans-MCHM	4.664	55	1011940	11.028	ug/mL#	89

Ave
23.1615
x 10,000

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

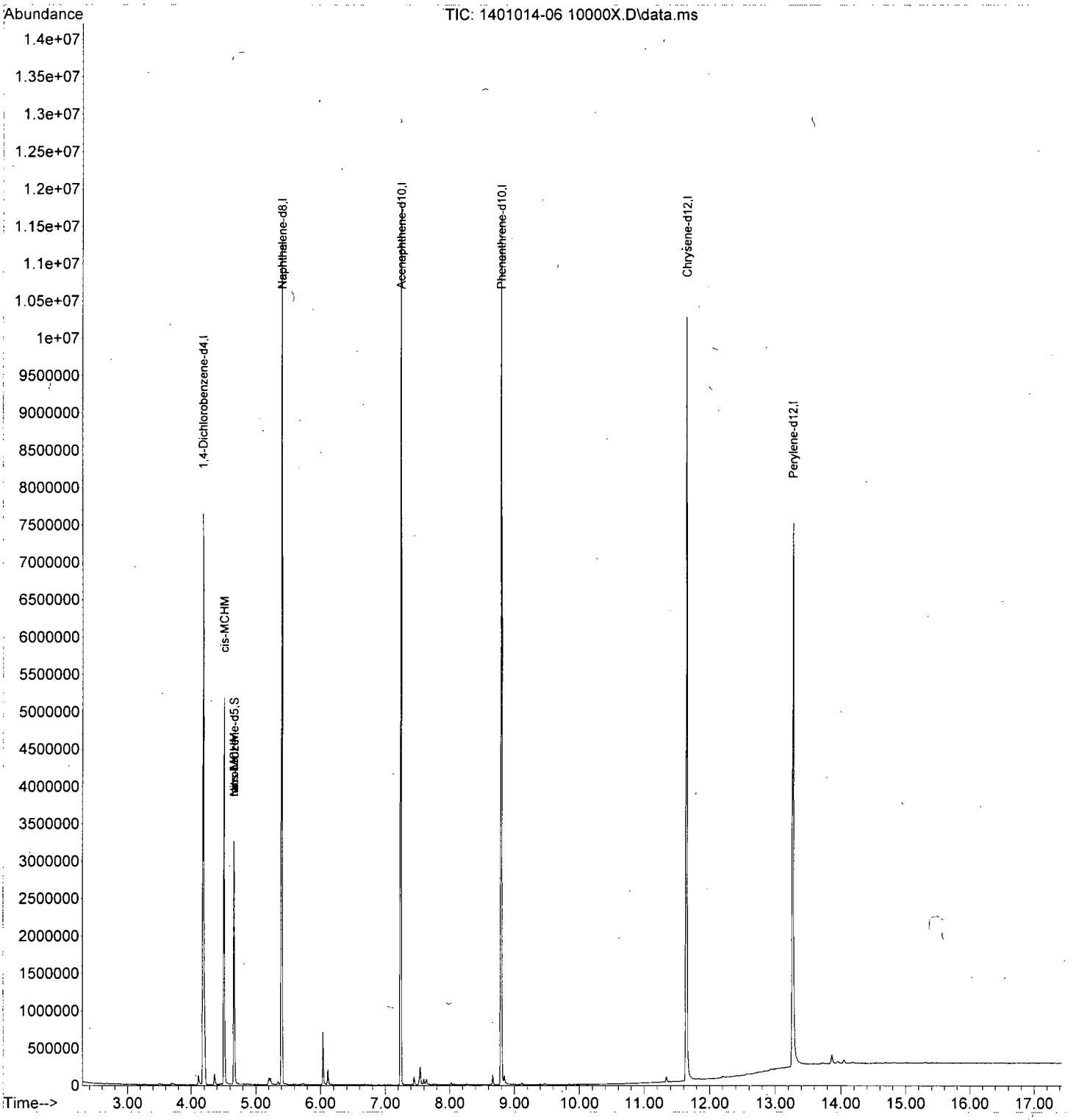
Freedom_0005790_0665

Quantitation Report (QT Reviewed)

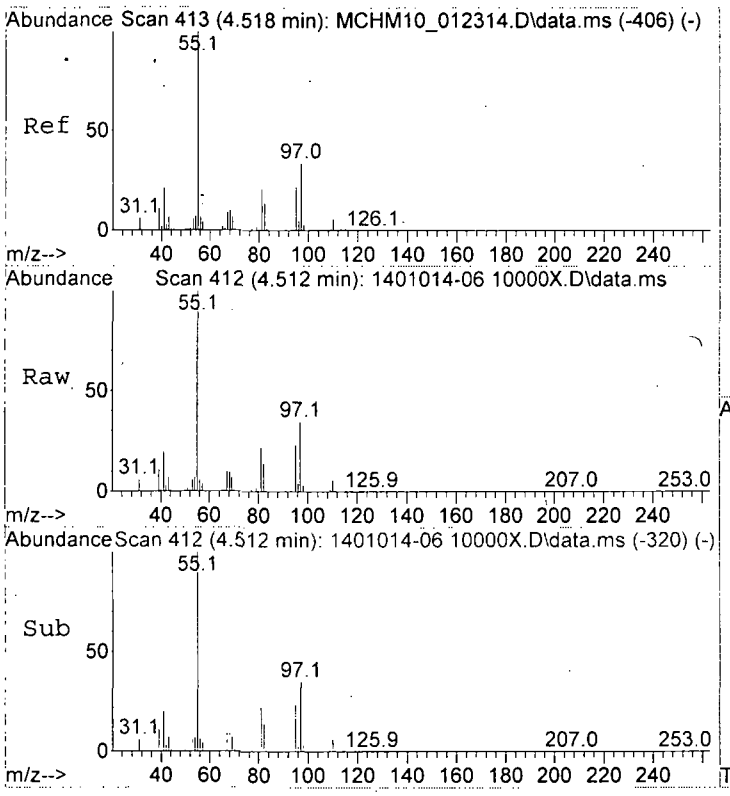
Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-06 10000X.D
Acq On : 10 Feb 2014 5:07 pm
Operator : ERG 96-5975B
Sample : 1401014-06 10000X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:33:17 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



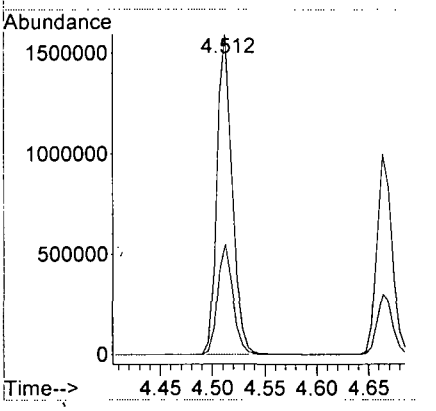
WO: 1401014
Site Name: WV Chem Leak

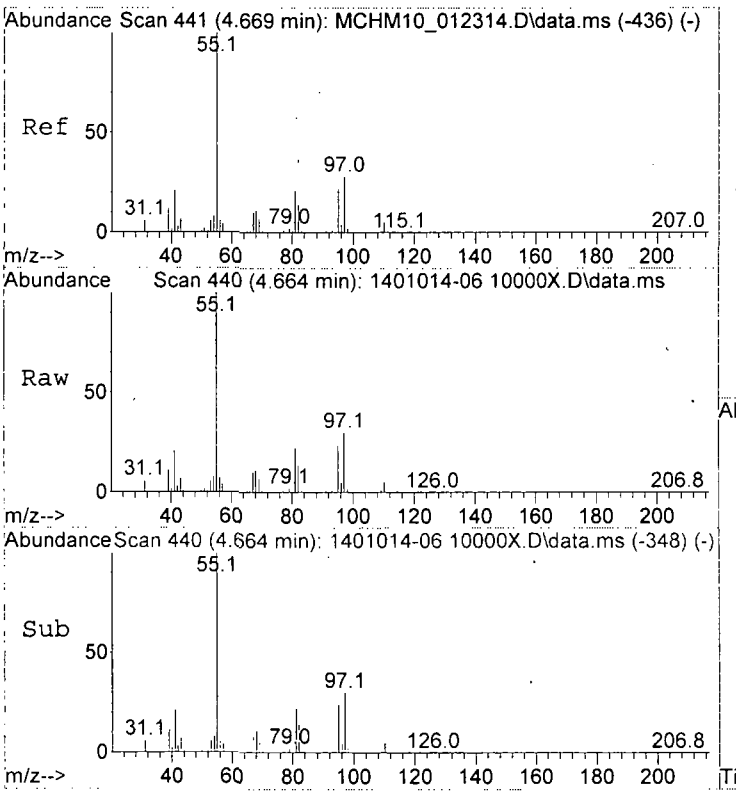


#4
cis-MCHM
Concen: 35.295 ug/mL
RT: 4.512 min Scan# 412
Delta R.T. -0.006 min
Lab File: 1401014-06 10000X.D
Acq: 10 Feb 2014 5:07 pm

Tgt Ion: 55 Resp: 1606953

Ion	Ratio	Lower	Upper
55	100		
97	34.4	23.2	34.8

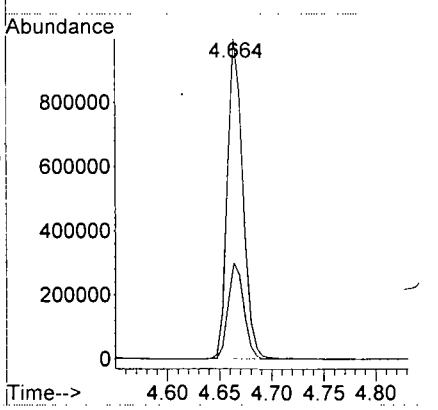




#5
tans-MCHM
Concen: 11.028 ug/mL
RT: 4.664 min Scan# 440
Delta R.T. -0.005 min
Lab File: 1401014-06 10000X.D
Acq: 10 Feb 2014 5:07 pm

Tgt Ion: 55 Resp: 1011940

Ion	Ratio	Lower	Upper
55	100		
97	30.7	20.0	30.0#



Freedom_0005790_0667

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-07.D
Acq On : 10 Feb 2014 4:17 pm
Operator : ERG 96-5975B
Sample : 1401014-07
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 25 12:34:22 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	4.194	152	1527098	20.000 ug/mL	0.00
6) Naphthalene-d8	5.404	136	5498632	20.000 ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3116754	20.000 ug/mL	0.00
10) Phenanthrene-d10	8.802	188	5145655	20.000 ug/mL	0.00
12) Chrysene-d12	11.648	240	4908557	20.000 ug/mL	# 0.00
14) Perylene-d12	13.274	264	3882581	20.000 ug/mL	-0.01
System Monitoring Compounds					
2) 2-Fluorophenol	3.184	112	3449348	39.835 ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 79.66%		
3) Phenol-d5	3.875	99	4174347	43.836 ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 87.68%		
7) Nitrobenzene-d5	4.723	82	1795954	15.596 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 62.40%		
9) 2-Fluorobiphenyl	6.533	172	3680439	16.591 ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 66.36%		
11) 2,4,6-Tribromophenol	8.083	330	834157	52.696 ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 105.40%		
13) Terphenyl-d14	10.509	244	3892658	15.744 ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 62.96%		
Target Compounds					Qvalue
4) cis-MCHM	4.512	55	758540m	16.692 ug/mL	
5) tans-MCHM	4.669	55	474642	5.182 ug/mL#	89

Ave 10.937

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

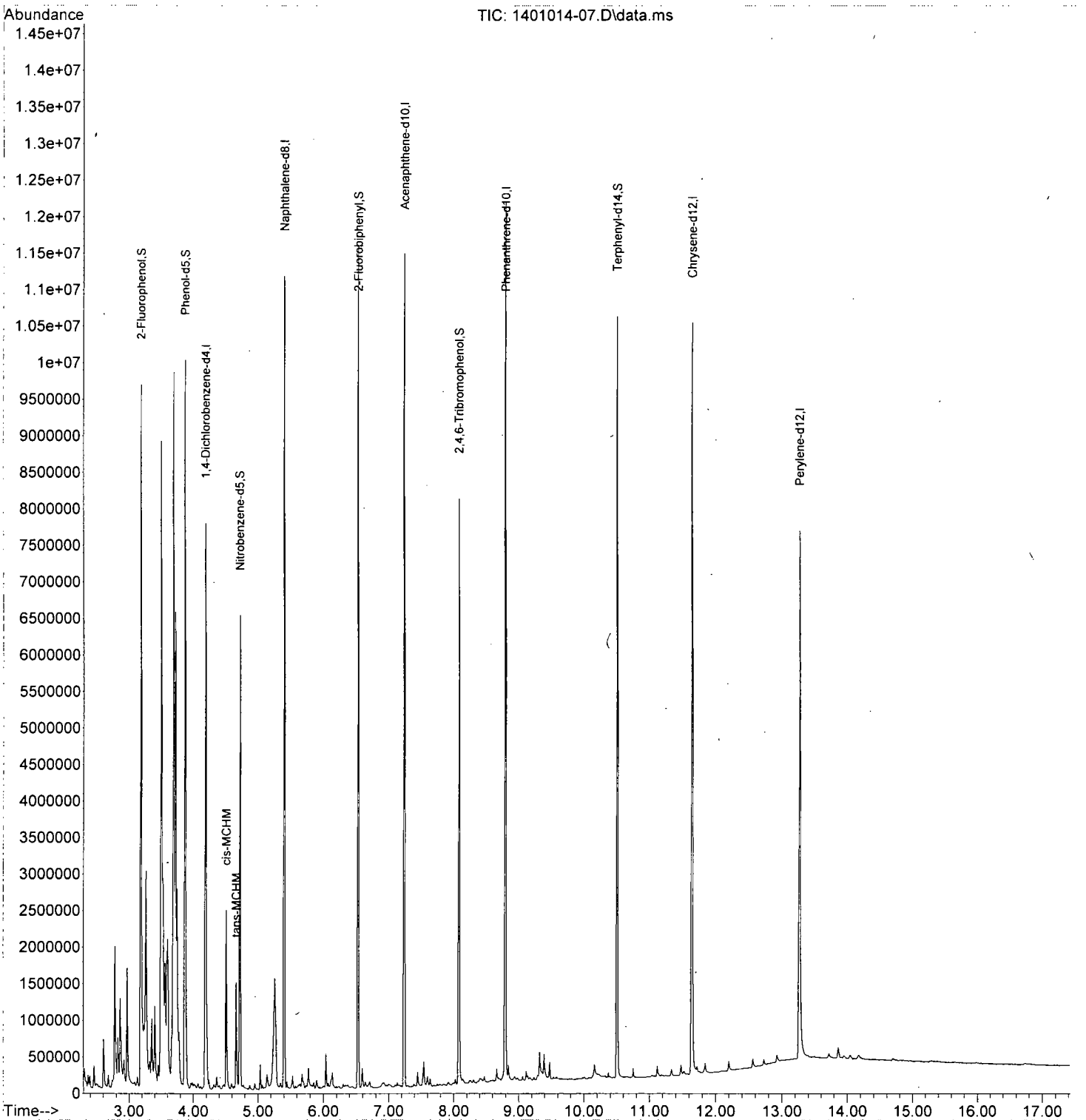
Freedom_0005790_0668

Quantitation Report (QT Reviewed)

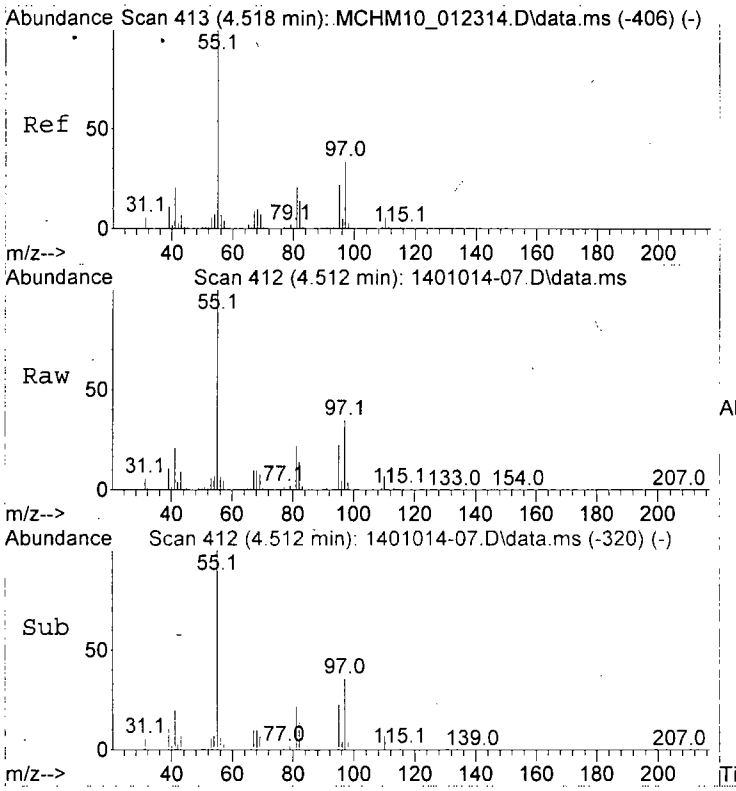
Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-07.D
Acq On : 10 Feb 2014 4:17 pm
Operator : ERG 96-5975B
Sample : 1401014-07
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:34:22 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



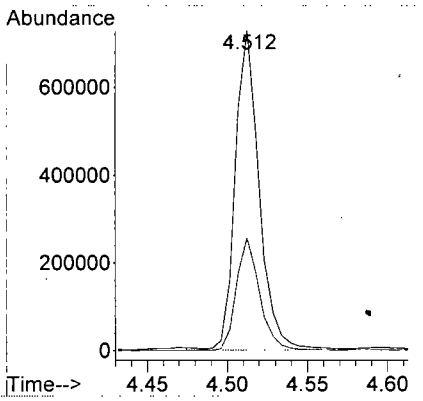
WO: 1401014
Site Name: WV Chem Leak

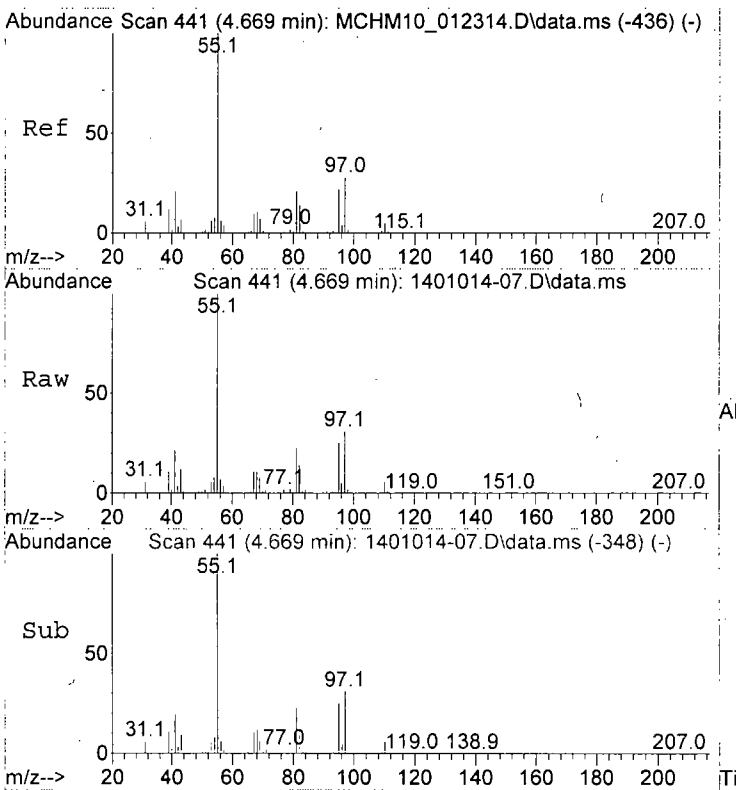


#4
cis-MCHM
Concen: 16.692 ug/mL m
RT: 4.512 min Scan# 412
Delta R.T. -0.006 min
Lab File: 1401014-07.D
Acq: 10 Feb 2014 4:17 pm

Tgt Ion: 55 Resp: 758540

Ion	Ratio	Lower	Upper
55	100		
97	18.9	23.2	34.8#

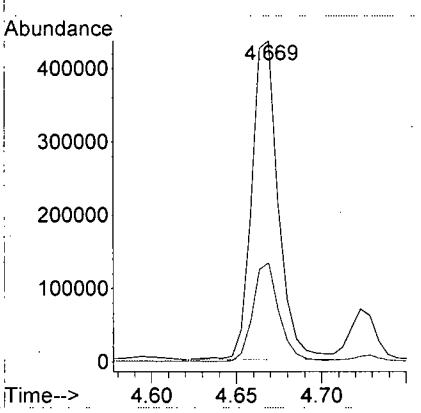




#5
tans-MCHM
Concen: 5.182 ug/mL
RT: 4.669 min Scan# 441
Delta R.T. 0.000 min
Lab File: 1401014-07.D
Acq: 10 Feb 2014 4:17 pm

Tgt Ion: 55 Resp: 474642

Ion	Ratio	Lower	Upper
55	100		
97	30.3	20.0	30.0#



Freedom_0005790_0670

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-09.D
Acq On : 21 Feb 2014 3:48 pm
Operator : ERG 96-5975B
Sample : 1401014-09
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 25 13:04:30 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1265866	20.000	ug/mL	0.00
6) Naphthalene-d8	5.404	136	4471523	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2520678	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	4140374	20.000	ug/mL	0.00
12) Chrysene-d12	11.643	240	2782535	20.000	ug/mL	-0.01
14) Perylene-d12	13.264	264	1741693	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2435477	41.626	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 83.26%			
3) Phenol-d5	3.875	99	2785580	43.341	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 86.68%			
7) Nitrobenzene-d5	4.723	82	1249363	20.448	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 81.80%			
9) 2-Fluorobiphenyl	6.533	172	2314610	20.040	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 80.16%			
11) 2,4,6-Tribromophenol	8.083	330	561773	58.768	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 117.54%			
13) Terphenyl-d14	10.503	244	1398110	16.659	ug/mL	-0.02
Spiked Amount 25.000	Range 33 - 141		Recovery = 66.64%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	147756m	4.135	ug/mL	
5) tans-MCHM	4.664	55	180536	2.546	ug/mL	95

Ave 3.3405

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

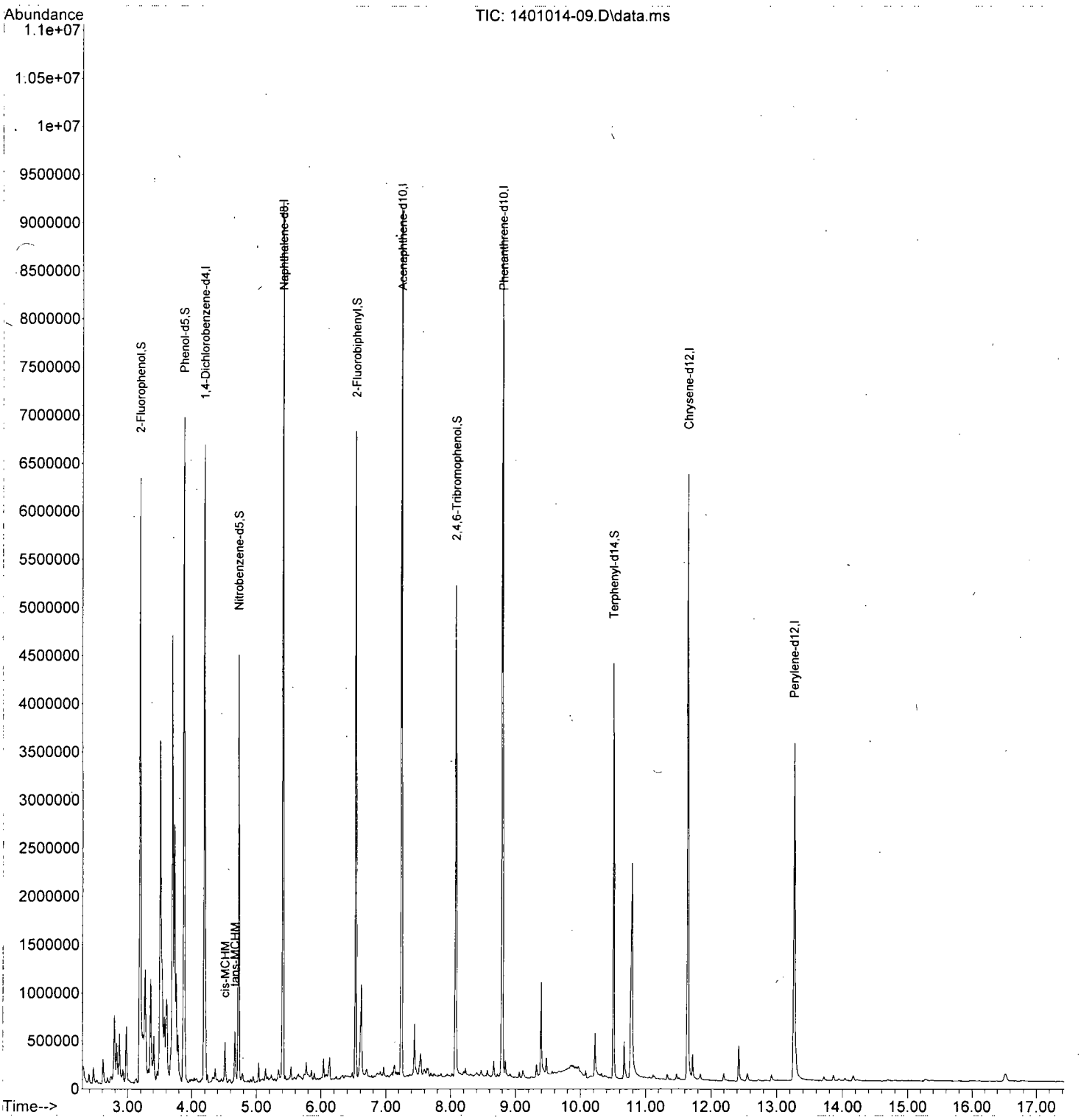
Freedom_0005790_0671

Quantitation Report (QT Reviewed)

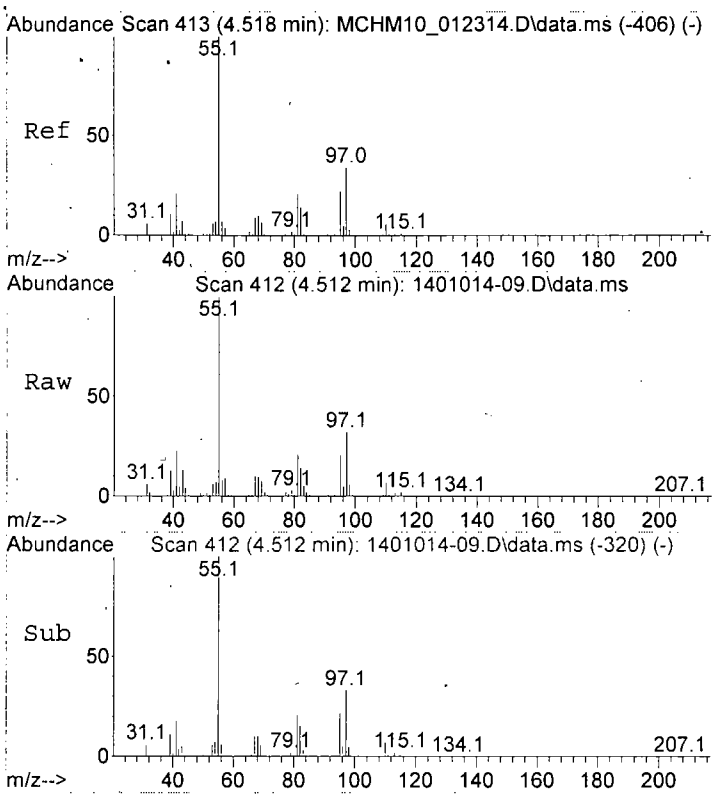
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-09.D
Acq On : 21 Feb 2014 3:48 pm
Operator : ERG 96-5975B
Sample : 1401014-09
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:04:30 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



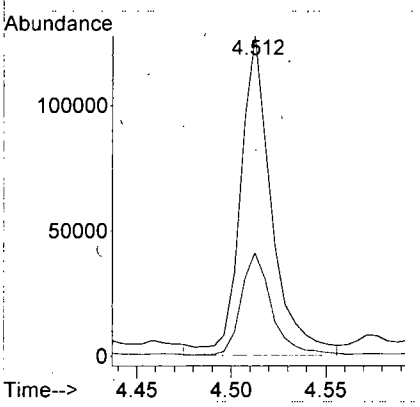
WO: 1401014
Site Name: WV Chem Leak

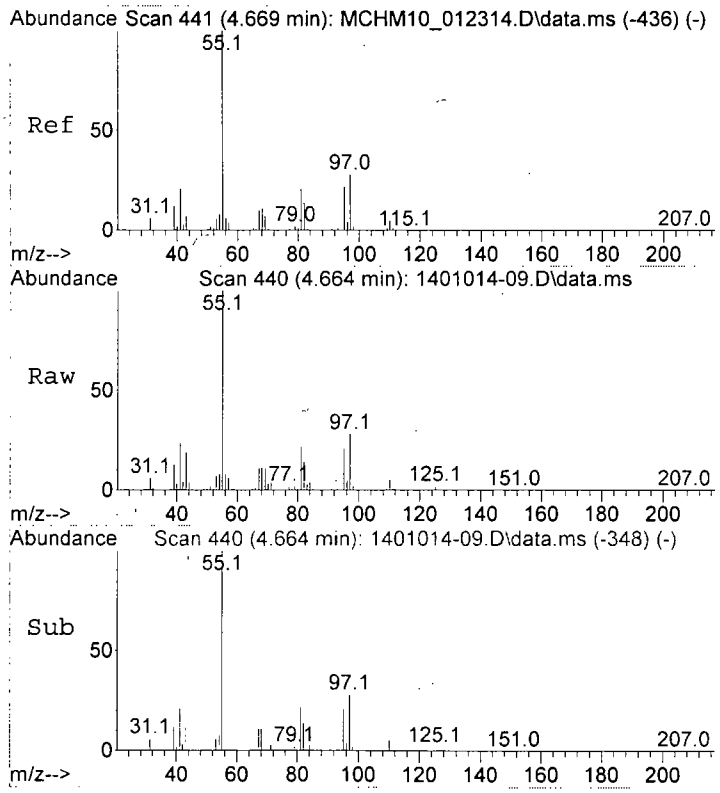


#4
cis-MCHM
Concen: 4.135 ug/mL m
RT: 4.512 min Scan# 412
Delta R.T. -0.006 min
Lab File: 1401014-09.D
Acq: 21 Feb 2014 3:48 pm

Tgt Ion: 55 Resp: 147756

Ion	Ratio	Lower	Upper
55	100		
97	33.5	23.2	34.8

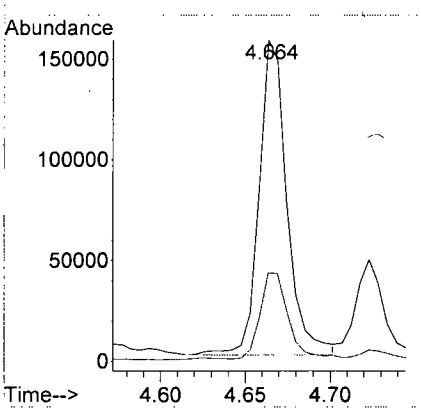




#5
tans-MCHM
Concen: 2.546 ug/mL
RT: 4.664 min Scan# 440
Delta R.T. -0.005 min
Lab File: 1401014-09.D
Acq: 21 Feb 2014 3:48 pm

Tgt Ion: 55 Resp: 180536

Ion	Ratio	Lower	Upper
55	100		
97	27.4	20.0	30.0

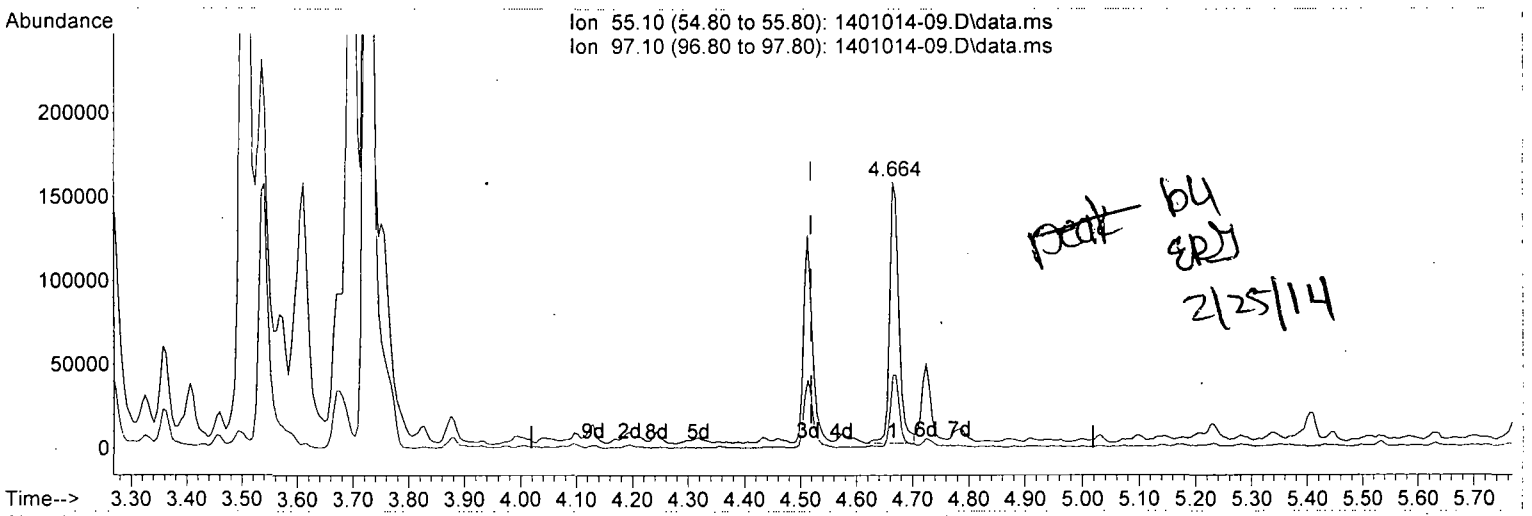


Quantitation Report (Qedit)

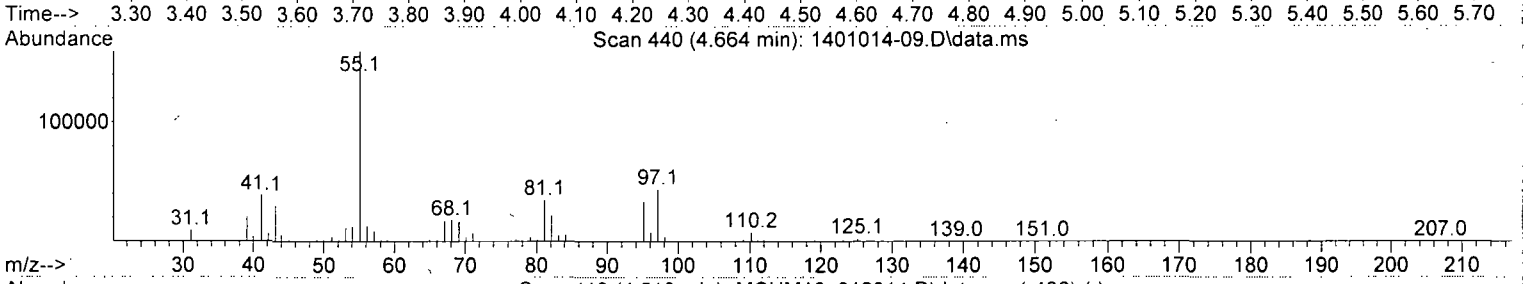
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-09.D
Acq On : 21 Feb 2014 3:48 pm
Operator : ERG 96-5975B
Sample : 1401014-09
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

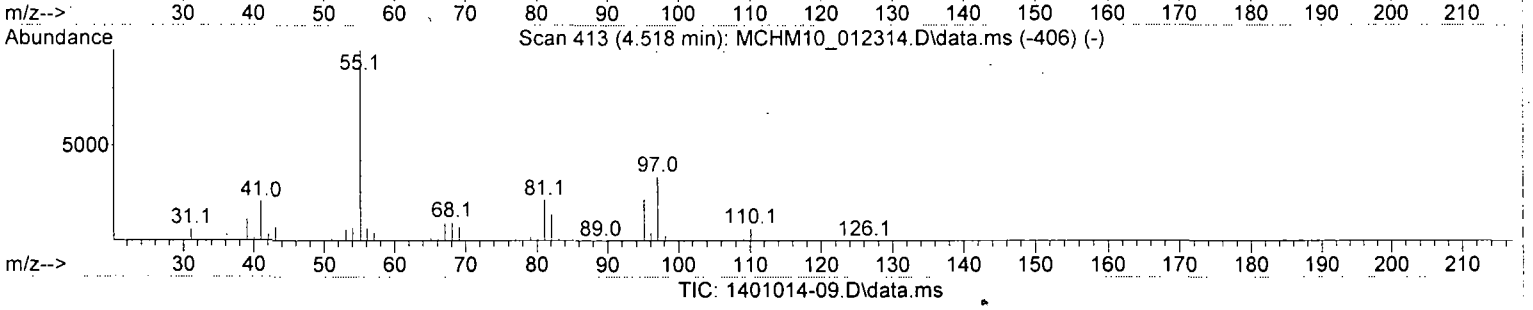
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:03:39 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



~~peak~~ bl
ERY
2/25/14





TIC: 1401014-09.D\data.ms

(4) cis-MCHM

4.664min (+0.146) 5.05 ug/mL

response 180536

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	27.43
0.00	0.00	0.00
0.00	0.00	0.00

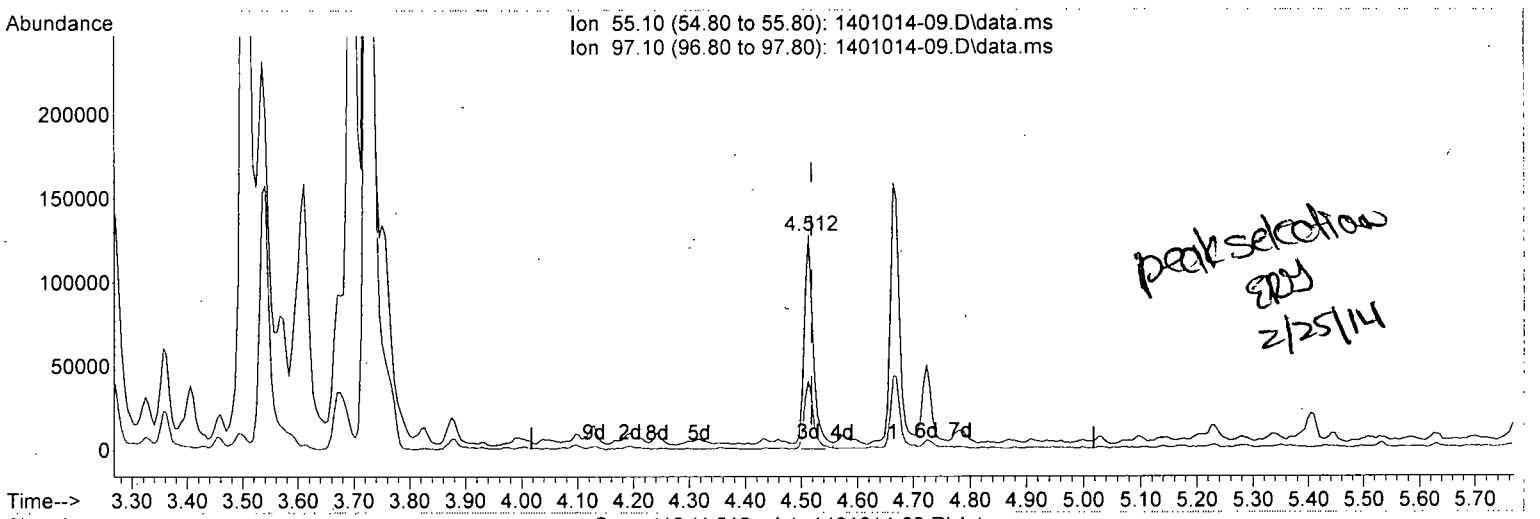
Freedom_0005790_0674

Quantitation Report (Qedit)

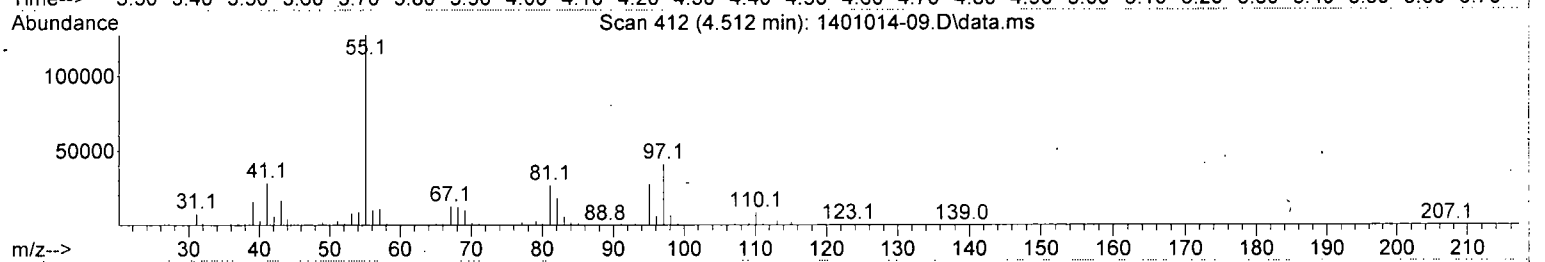
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-09.D
Acq On : 21 Feb 2014 3:48 pm
Operator : ERG 96-5975B
Sample : 1401014-09
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

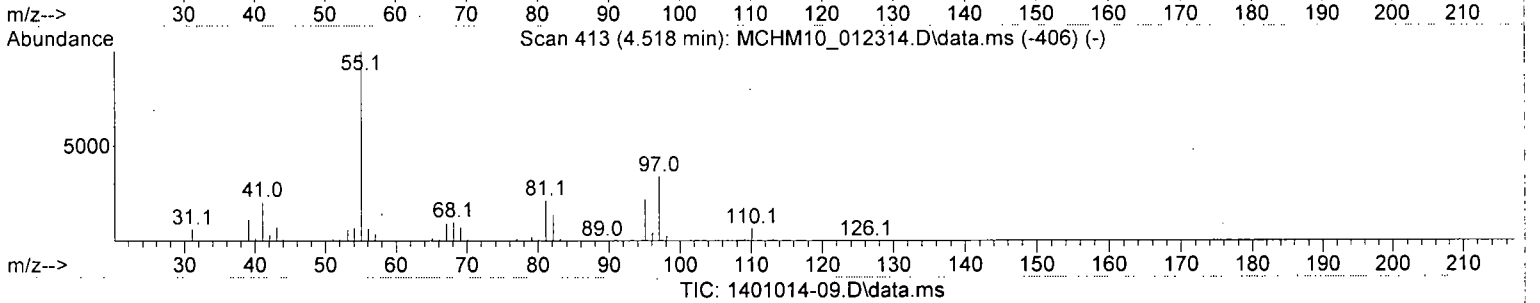
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:03:39 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



peak selection
ERG
2/25/14





TIC: 1401014-09.D\data.ms

(4) cis-MCHM

4.512min (-0.006) 4.13 ug/mL m

response 147756

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	33.51
0.00	0.00	0.00
0.00	0.00	0.00

Freedom_0005790_0675

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-07.D
Acq On : 10 Feb 2014 4:17 pm
Operator : ERG 96-5975B
Sample : 1401014-07
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:34:22 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1527098	20.000	ug/mL	0.00
6) Naphthalene-d8	5.404	136	5498632	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3116754	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	5145655	20.000	ug/mL	0.00
12) Chrysene-d12	11.648	240	4908557	20.000	ug/mL	# 0.00
14) Perylene-d12	13.274	264	3882581	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	3449348	39.835	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 79.66%			
3) Phenol-d5	3.875	99	4174347	43.836	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 87.68%			
7) Nitrobenzene-d5	4.723	82	1795954	15.596	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 62.40%			
9) 2-Fluorobiphenyl	6.533	172	3680439	16.591	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 66.36%			
11) 2,4,6-Tribromophenol	8.083	330	834157	52.696	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 105.40%			
13) Terphenyl-d14	10.509	244	3892658	15.744	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 62.96%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	758540m	16.692	ug/mL	
5) tans-MCHM	4.669	55	474642	5.182	ug/mL#	89

Ave 10.937

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

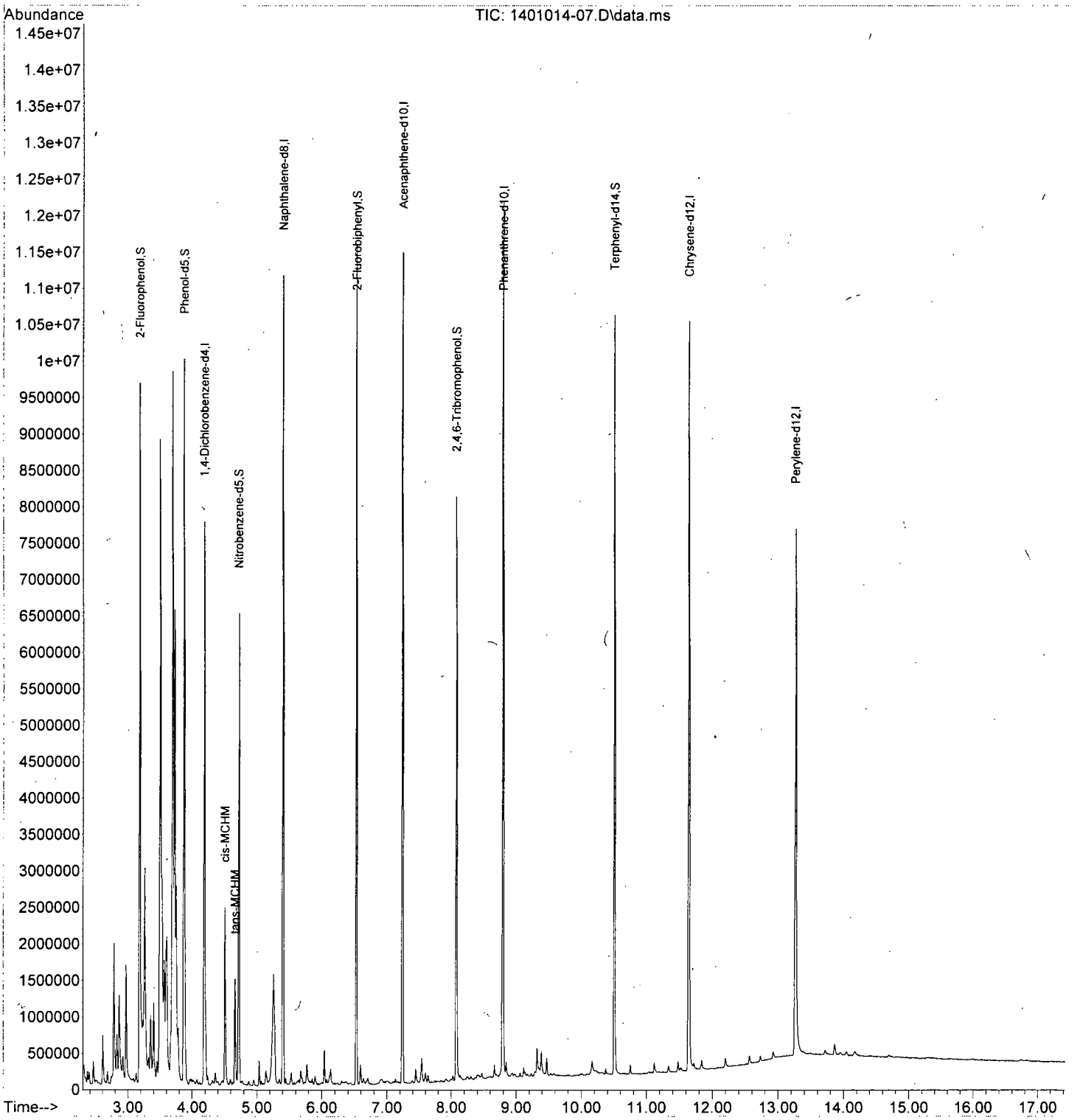
Freedom_0005790_0676

Quantitation Report (QT Reviewed)

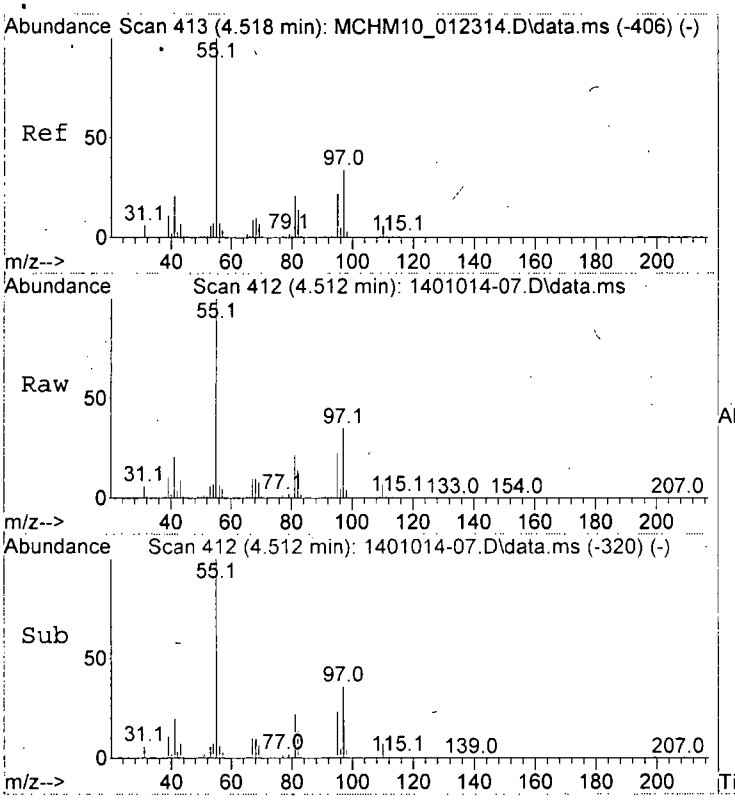
Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-07.D
Acq On : 10 Feb 2014 4:17 pm
Operator : ERG 96-5975B
Sample : 1401014-07
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:34:22 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Freedom_0005790_0677

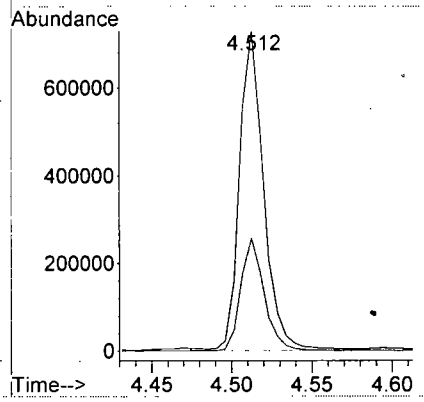


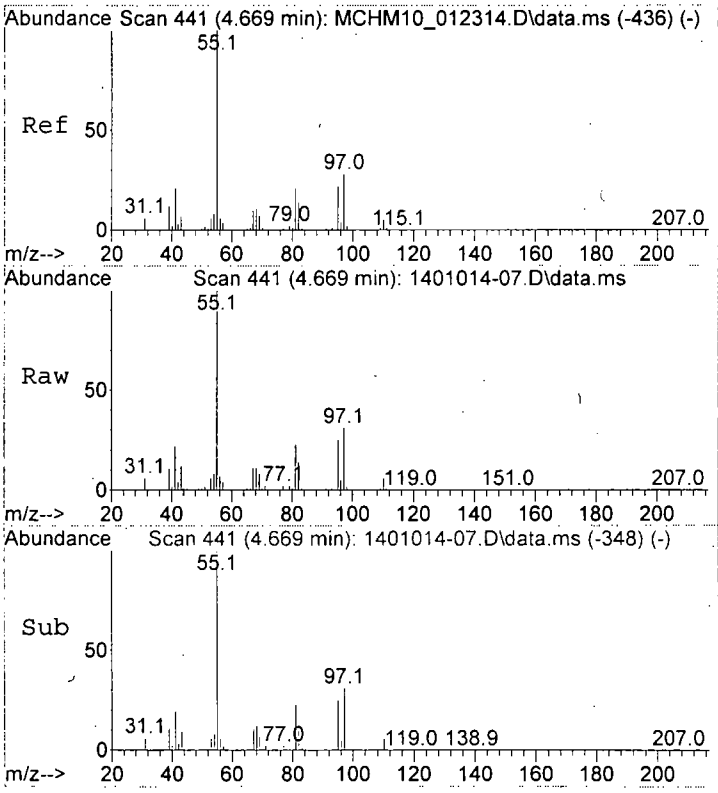
#4
cis-MCHM
Concen: 16.692 ug/mL m
RT: 4.512 min Scan# 412
Delta R.T. -0.006 min
Lab File: 1401014-07.D
Acq: 10 Feb 2014 4:17 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 55 Resp: 758540

Ion	Ratio	Lower	Upper
55	100		
97	18.9	23.2	34.8#

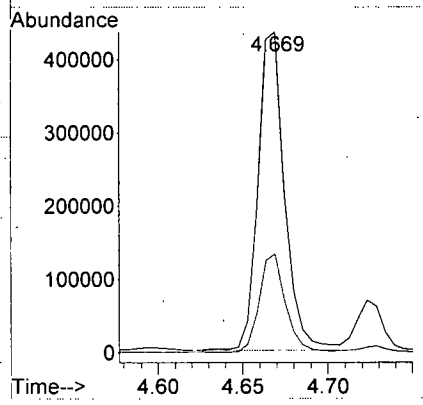




#5
tans-MCHM
Concen: 5.182 ug/mL
RT: 4.669 min Scan# 441
Delta R.T. 0.000 min
Lab File: 1401014-07.D
Acq: 10 Feb 2014 4:17 pm

Tgt Ion: 55 Resp: 474642

Ion	Ratio	Lower	Upper
55	100		
97	30.3	20.0	30.0#



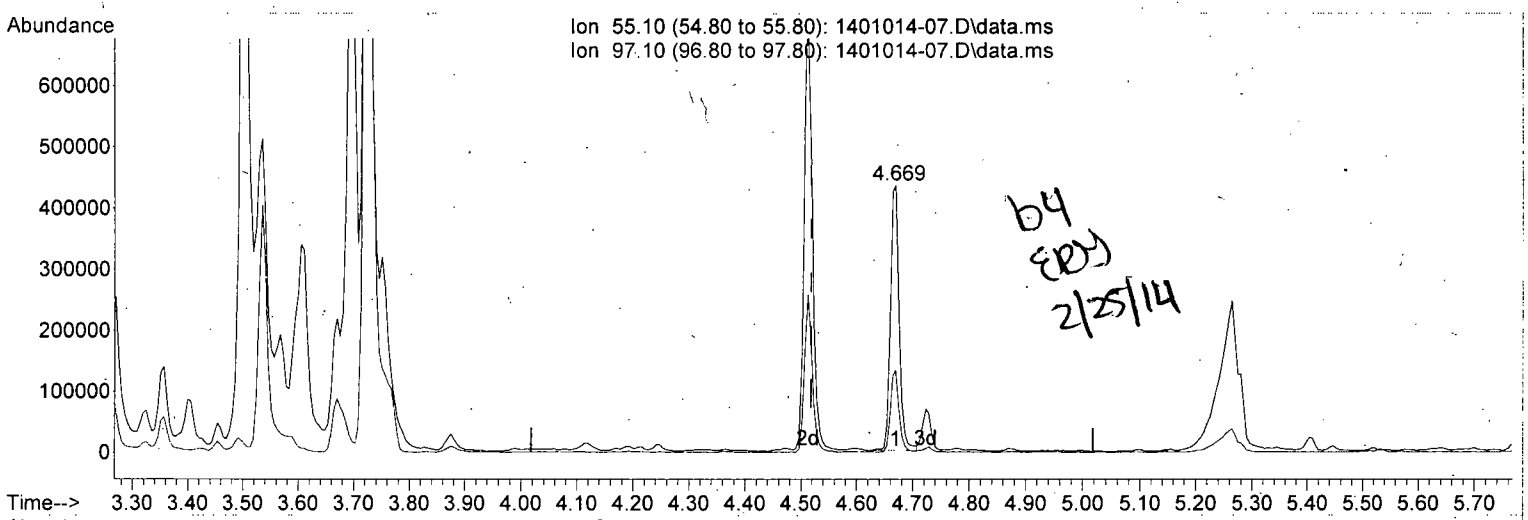
Freedom_0005790_0678

Quantitation Report (Qedit)

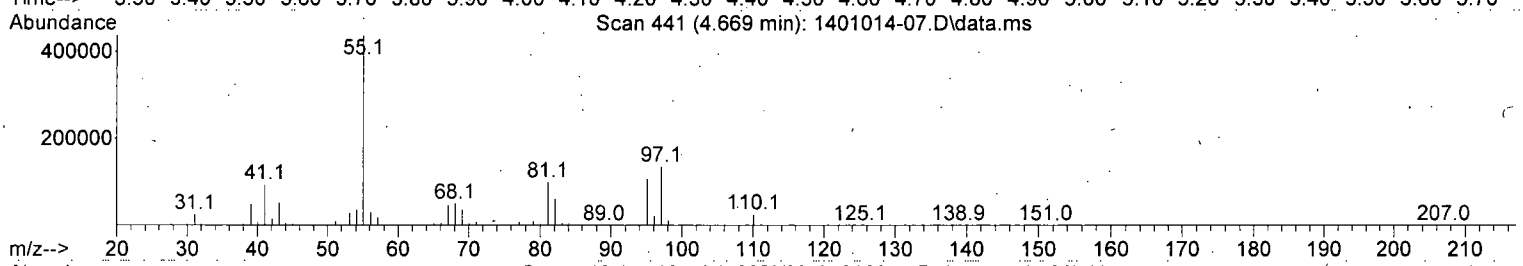
Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-07.D
Acq On : 10 Feb 2014 4:17 pm
Operator : ERG 96-5975B
Sample : 1401014-07
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

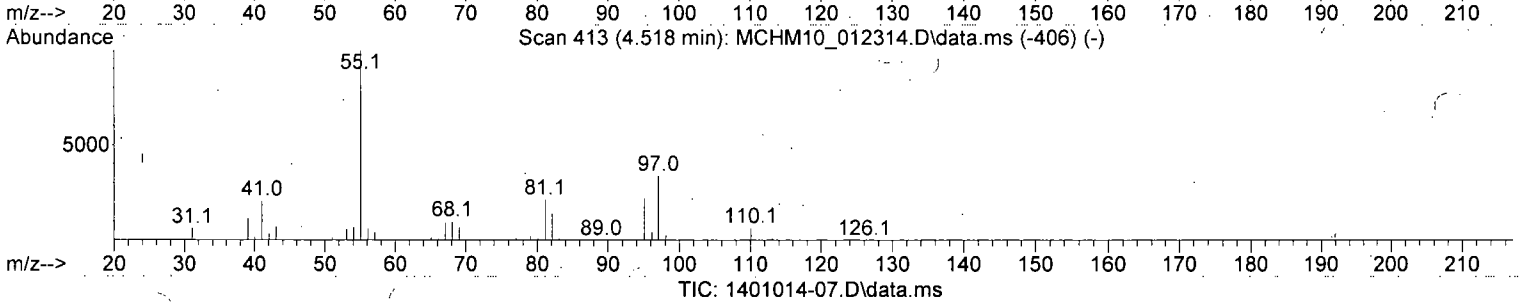
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:33:58 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



b4
(RD)
2/25/14





TIC: 1401014-07.D\data.ms

(4) cis-MCHM

4.669min (+0.151) 10.44 ug/mL

response 474642

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	30.28
0.00	0.00	0.00
0.00	0.00	0.00

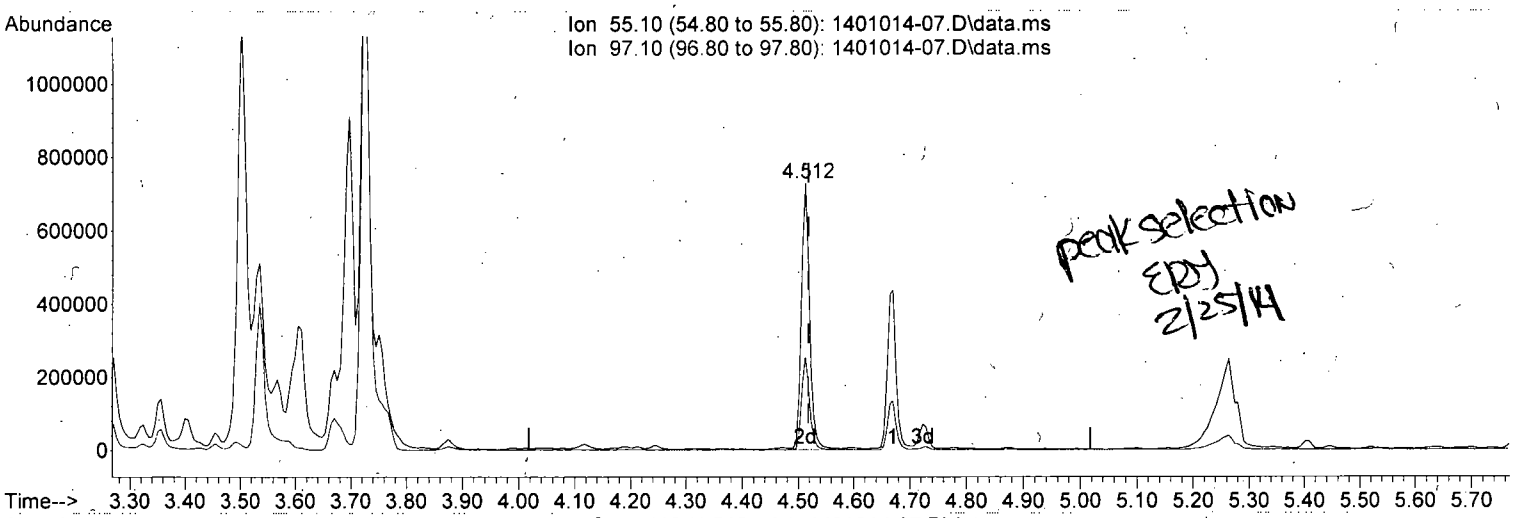
Freedom_0005790_0679

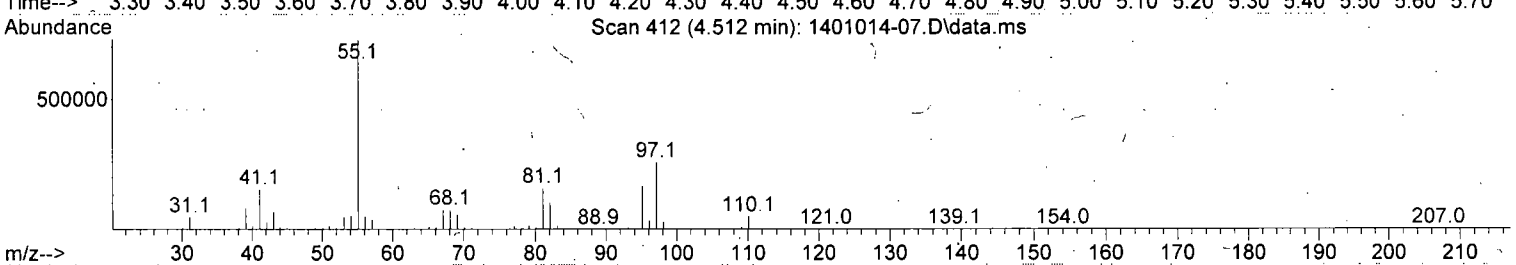
Quantitation Report (Qedit)

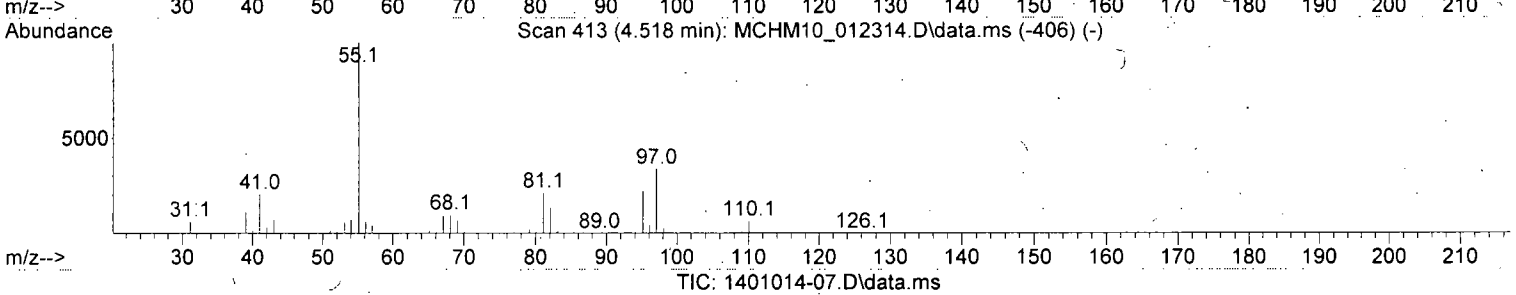
Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-07.D
Acq On : 10 Feb 2014 4:17 pm
Operator : ERG 96-5975B
Sample : 1401014-07
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:33:58 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration







TIC: 1401014-07.D\data.ms

(4) cis-MCHM

4.512min (-0.006) 16.69 ug/mL m

response 758540

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	18.94#
0.00	0.00	0.00
0.00	0.00	0.00

Freedom_0005790_0680

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-12.D
Acq On : 21 Feb 2014 6:18 pm
Operator : ERG 96-5975B
Sample : 1401014-12
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 13:07:18 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	1330574	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4840811	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2972346	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	5079388	20.000	ug/mL	0.00
12) Chrysene-d12	11.649	240	3899866	20.000	ug/mL	# 0.00
14) Perylene-d12	13.269	264	2822023	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.205	112	2488528	40.464	ug/mL	0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 80.92%			
3) Phenol-d5	3.891	99	2878661	42.611	ug/mL	0.01
Spiked Amount 50.000	Range 39 - 106		Recovery = 85.22%			
7) Nitrobenzene-d5	4.729	82	1195492	18.073	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 72.28%			
9) 2-Fluorobiphenyl	6.533	172	2483413	18.235	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 72.92%			
11) 2,4,6-Tribromophenol	8.083	330	629005	53.637	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 107.28%			
13) Terphenyl-d14	10.509	244	2245273	19.088	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 76.36%			

Target Compounds Qvalue

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

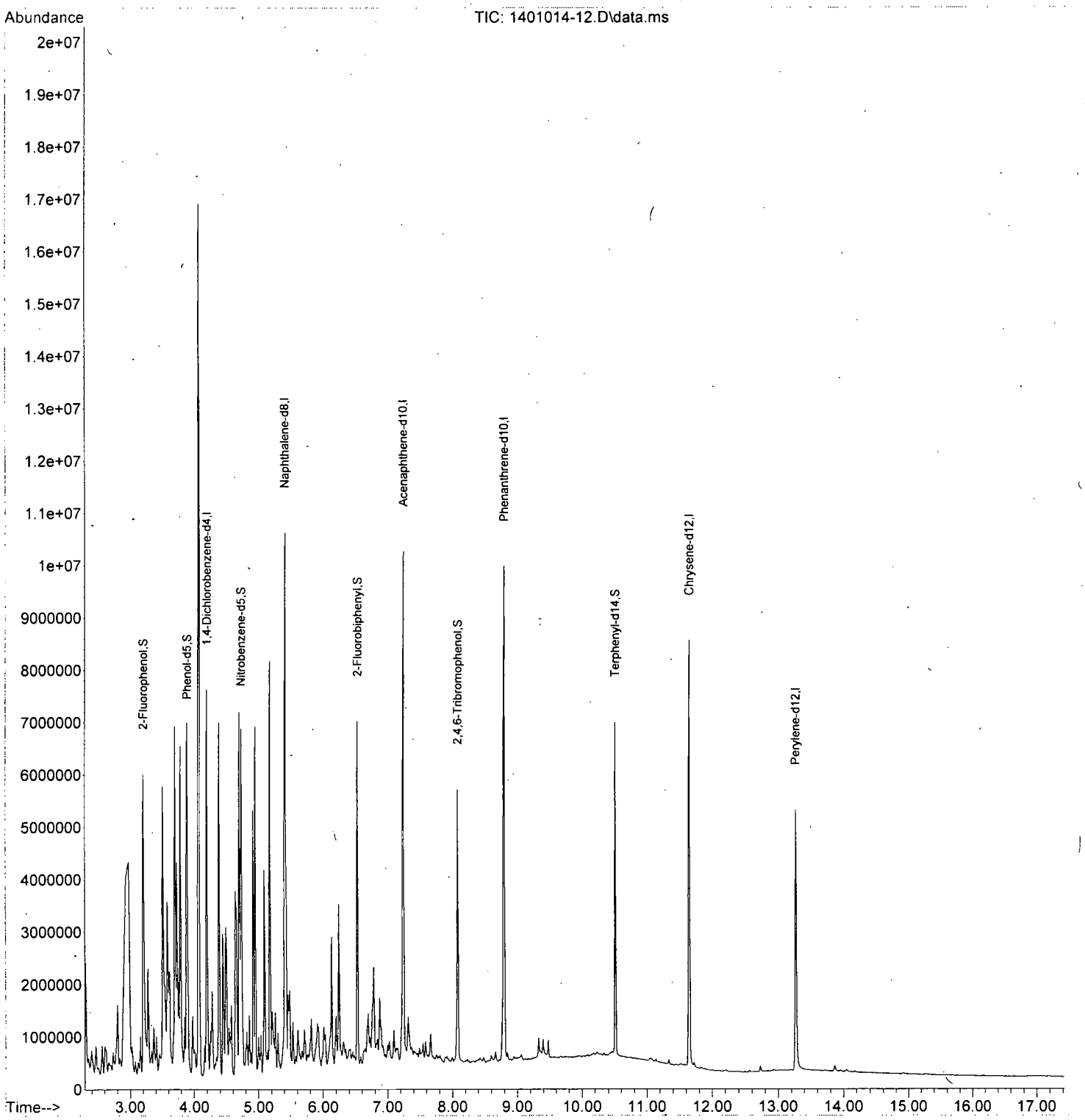
Freedom_0005790_0681

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-12.D
Acq On : 21 Feb 2014 6:18 pm
Operator : ERG 96-5975B
Sample : 1401014-12
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 9 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:07:18 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-13.D
Acq On : 21 Feb 2014 8:48 pm
Operator : ERG 96-5975B
Sample : 1401014-13
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 13:07:54 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1434054	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	5030490	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3120445	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	5320379	20.000	ug/mL	0.00
12) Chrysene-d12	11.648	240	3505488	20.000	ug/mL	# 0.00
14) Perylene-d12	13.269	264	2156035	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.183	112	2309730	34.847	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 69.70%			
3) Phenol-d5	3.875	99	3023131	41.521	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 83.04%			
7) Nitrobenzene-d5	4.723	82	1257581	18.295	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 73.20%			
9) 2-Fluorobiphenyl	6.533	172	2599605	18.182	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 72.72%			
11) 2,4,6-Tribromophenol	8.088	330	667198	54.317	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 108.64%			
13) Terphenyl-d14	10.514	244	2257256	21.349	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 85.40%			

Target Compounds Qvalue

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

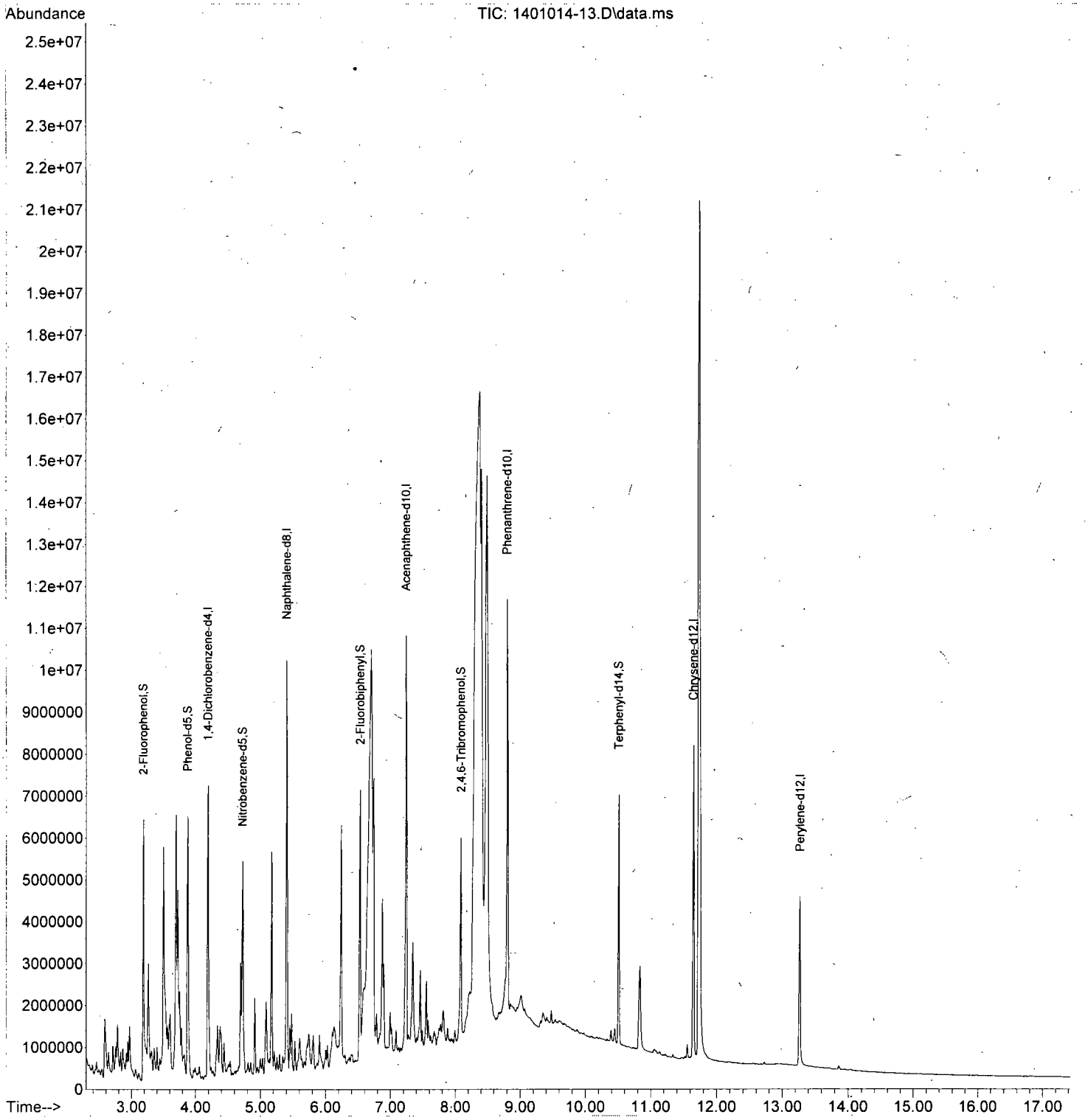
Freedom_0005790_0683

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-13.D
Acq On : 21 Feb 2014 8:48 pm
Operator : ERG 96-5975B
Sample : 1401014-13
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 12 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:07:54 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-14.D
Acq On : 21 Feb 2014 9:38 pm
Operator : ERG 96-5975B
Sample : 1401014-14
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 25 13:13:44 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1628020	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	5845533	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3546067	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	6078217	20.000	ug/mL	0.00
12) Chrysene-d12	11.643	240	4084456	20.000	ug/mL	#-0.01
14) Perylene-d12	13.269	264	2617785	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	2609313	34.676	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 69.36%			
3) Phenol-d5	3.886	99	3378844	40.877	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 81.76%			
7) Nitrobenzene-d5	4.723	82	1483217	18.569	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 74.28%			
9) 2-Fluorobiphenyl	6.533	172	2881577	17.735	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 70.92%			
11) 2,4,6-Tribromophenol	8.089	330	761779	54.284	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 108.56%			
13) Terphenyl-d14	10.509	244	2771627	22.498	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 90.00%			

Target Compounds Qvalue

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

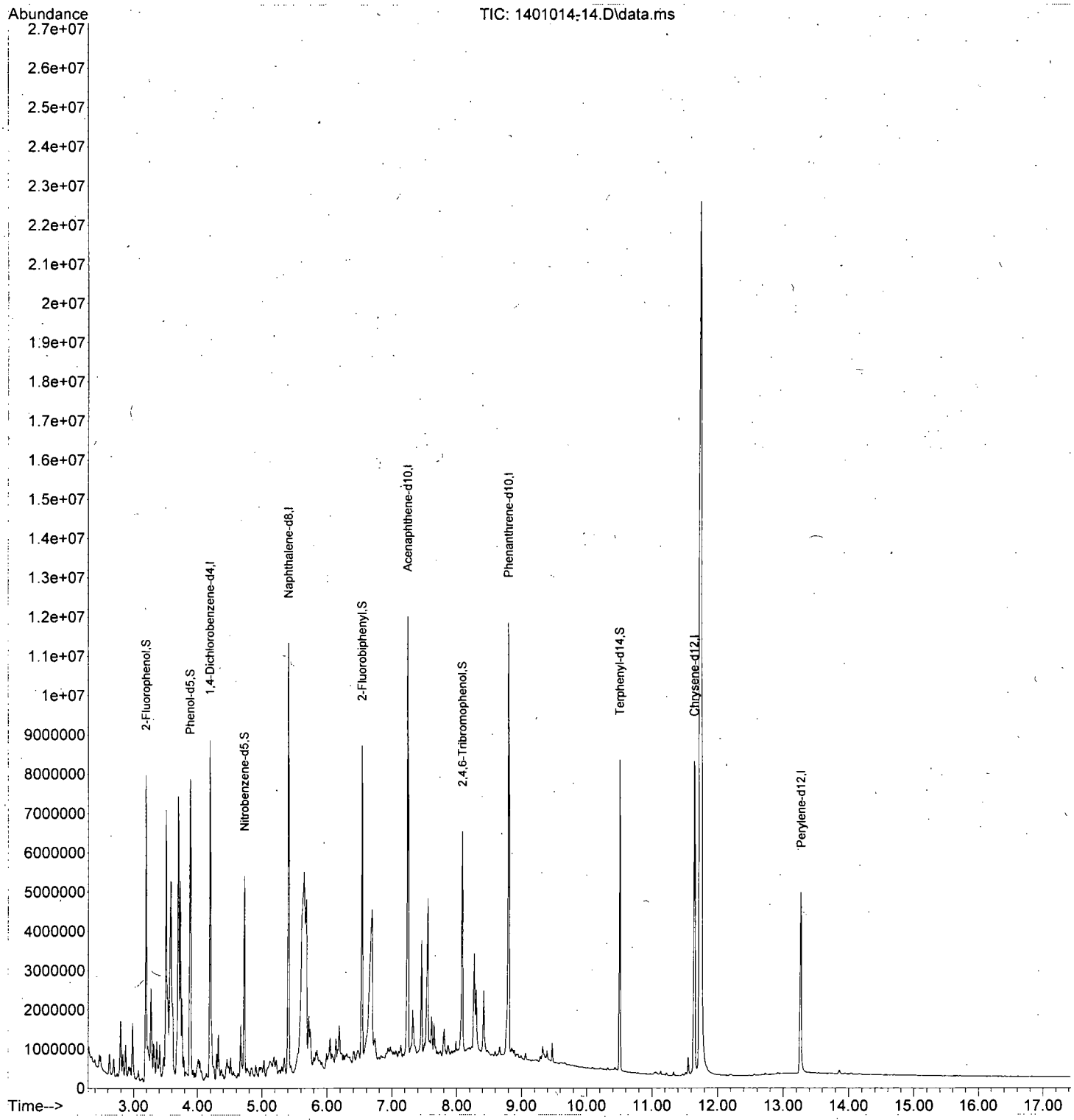
Freedom_0005790_0685

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-14.D
Acq On : 21 Feb 2014 9:38 pm
Operator : ERG 96-5975B
Sample : 1401014-14
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 13 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:13:44 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Freedom_0005790_0686

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-13.D
Acq On : 21 Feb 2014 8:48 pm
Operator : ERG 96-5975B
Sample : 1401014-13
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 13:07:54 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1434054	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	5030490	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3120445	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	5320379	20.000	ug/mL	0.00
12) Chrysene-d12	11.648	240	3505488	20.000	ug/mL	# 0.00
14) Perylene-d12	13.269	264	2156035	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.183	112	2309730	34.847	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 69.70%			
3) Phenol-d5	3.875	99	3023131	41.521	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 83.04%			
7) Nitrobenzene-d5	4.723	82	1257581	18.295	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 73.20%			
9) 2-Fluorobiphenyl	6.533	172	2599605	18.182	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 72.72%			
11) 2,4,6-Tribromophenol	8.088	330	667198	54.317	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 108.64%			
13) Terphenyl-d14	10.514	244	2257256	21.349	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 85.40%			

Target Compounds Qvalue

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

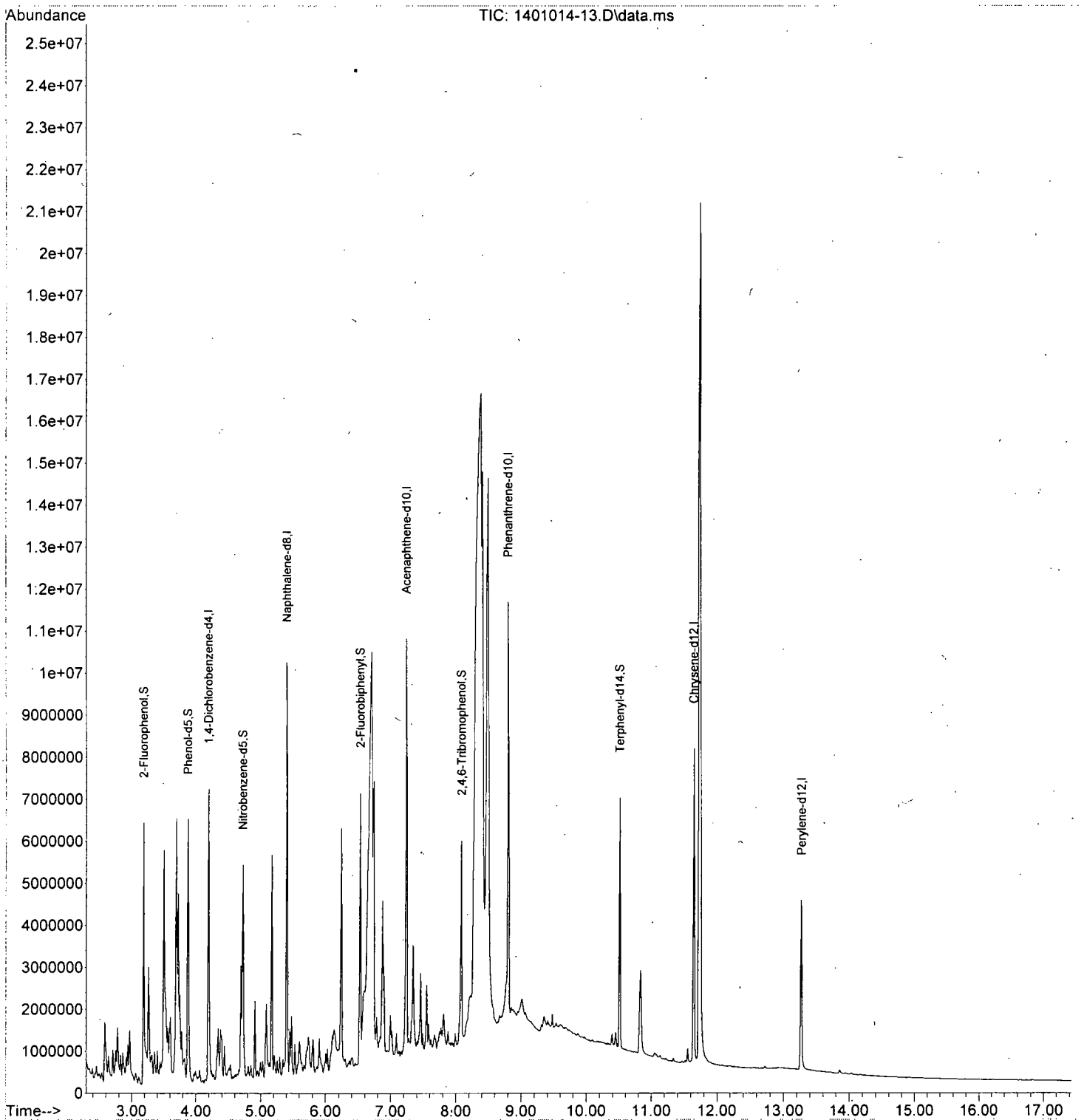
Freedom_0005790_0687

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-13.D
Acq On : 21 Feb 2014 8:48 pm
Operator : ERG 96-5975B
Sample : 1401014-13
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 12 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:07:54 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-15.D
Acq On : 21 Feb 2014 10:28 pm
Operator : ERG 96-5975B
Sample : 1401014-15
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 25 13:14:43 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1429547	20.000	ug/mL	0.00
6) Naphthalene-d8	5.415	136	4977425	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.262	164	3055814	20.000	ug/mL	0.02
10) Phenanthrene-d10	8.823	188	5049114	20.000	ug/mL	# 0.02
12) Chrysene-d12	11.659	240	3932702	20.000	ug/mL	# 0.00
14) Perylene-d12	13.275	264	2297074	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2190107	33.146	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 66.30%			
3) Phenol-d5	3.897	99	3205232	44.161	ug/mL	0.02
Spiked Amount 50.000	Range 39 - 106		Recovery = 88.32%			
7) Nitrobenzene-d5	4.729	82	1205691	17.727	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 70.92%			
9) 2-Fluorobiphenyl	6.544	172	1954700	13.960	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 55.84%			
11) 2,4,6-Tribromophenol	8.121	330	593465	50.910	ug/mL	0.03
Spiked Amount 50.000	Range 10 - 123		Recovery = 101.82%			
13) Terphenyl-d14	10.520	244	1818997	15.335	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 61.32%			

Target Compounds Qvalue

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

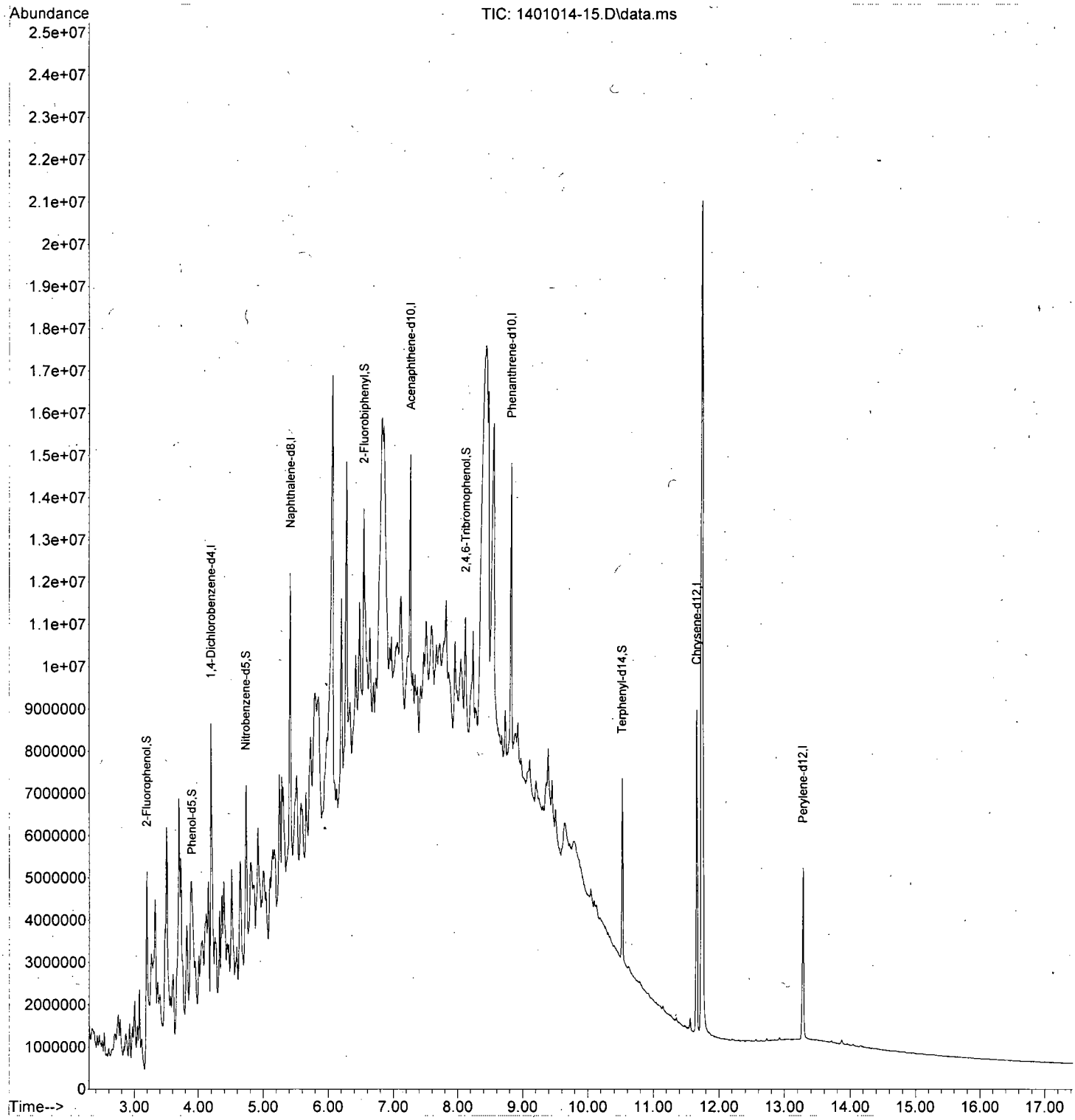
Freedom_0005790_0689

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-15.D
Acq On : 21 Feb 2014 10:28 pm
Operator : ERG 96-5975B
Sample : 1401014-15
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 14 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:14:43 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-16.D
Acq On : 21 Feb 2014 11:18 pm
Operator : ERG 96-5975B
Sample : 1401014-16
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 25 13:15:09 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1554677	20.000	ug/mL	0.00
6) Naphthalene-d8	5.404	136	5446376	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.240	164	3066926	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.796	188	5099823	20.000	ug/mL	-0.01
12) Chrysene-d12	11.643	240	4203587	20.000	ug/mL	#-0.01
14) Perylene-d12	13.264	264	2536161	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2613617	36.372	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 72.74%			
3) Phenol-d5	3.880	99	3150710	39.916	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 79.84%			
7) Nitrobenzene-d5	4.723	82	1370445	18.415	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 73.64%			
9) 2-Fluorobiphenyl	6.533	172	2597012	18.481	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 73.92%			
11) 2,4,6-Tribromophenol	8.083	330	586902	49.846	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 99.70%			
13) Terphenyl-d14	10.509	244	2863286	22.583	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 90.32%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	91043	2.074	ug/mL	90
5) tans-MCHM	4.664	55	58009	0.666	ug/mL#	86

Ave 1.37

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

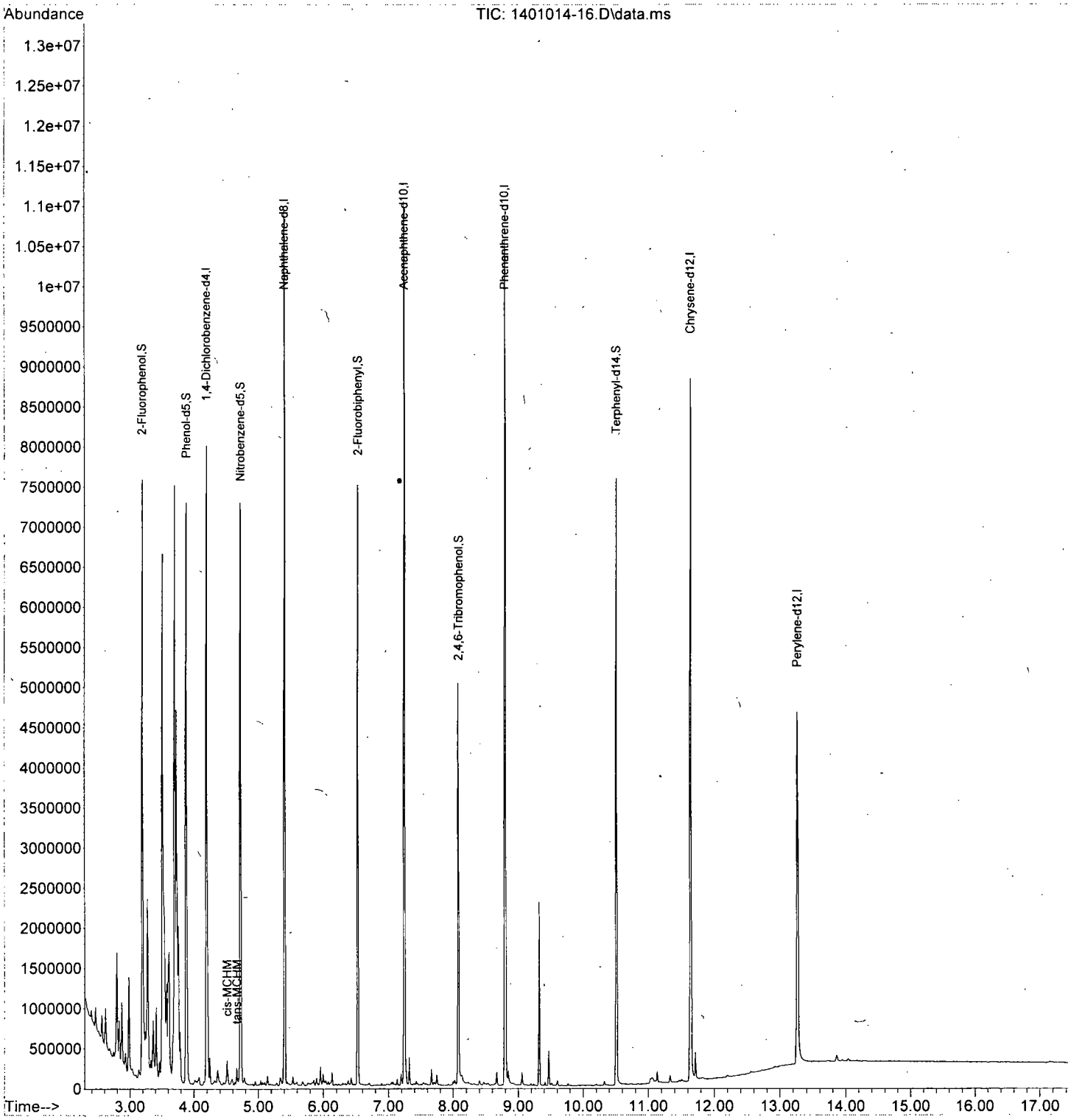
Freedom_0005790_0691

Quantitation Report (QT Reviewed)

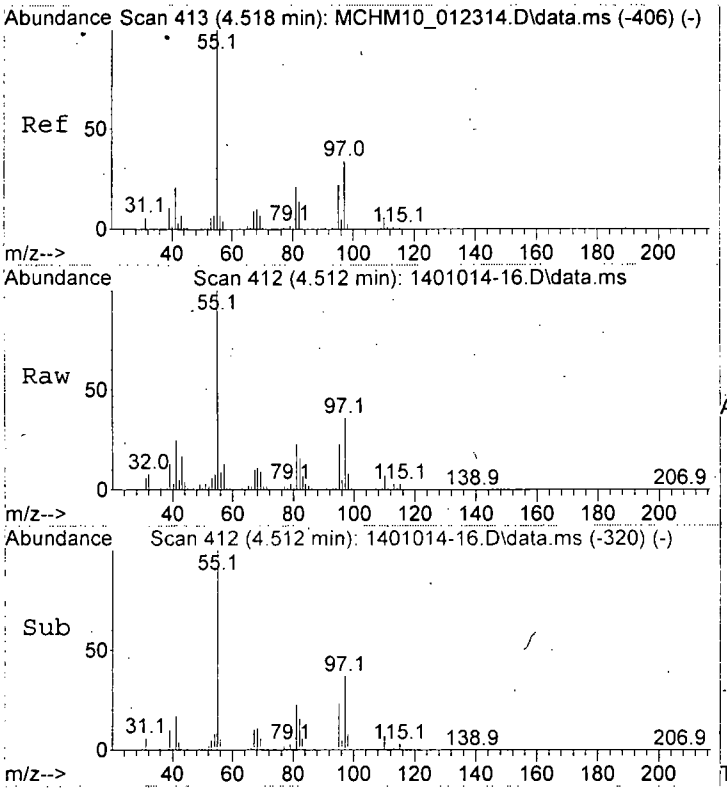
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-16.D
Acq On : 21 Feb 2014 11:18 pm
Operator : ERG 96-5975B
Sample : 1401014-16
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 15 Sample Multiplier: 1

Site Name: WV

Quant Time: Feb 25 13:15:09 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



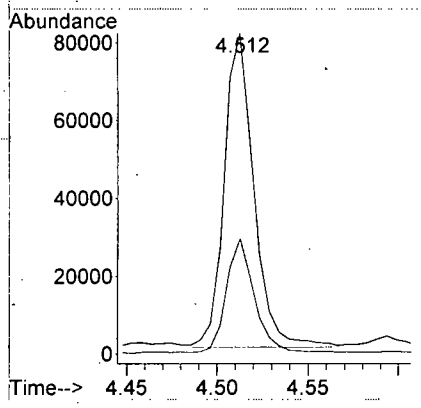
WO: 1401014
Site Name: WV Chem Leak

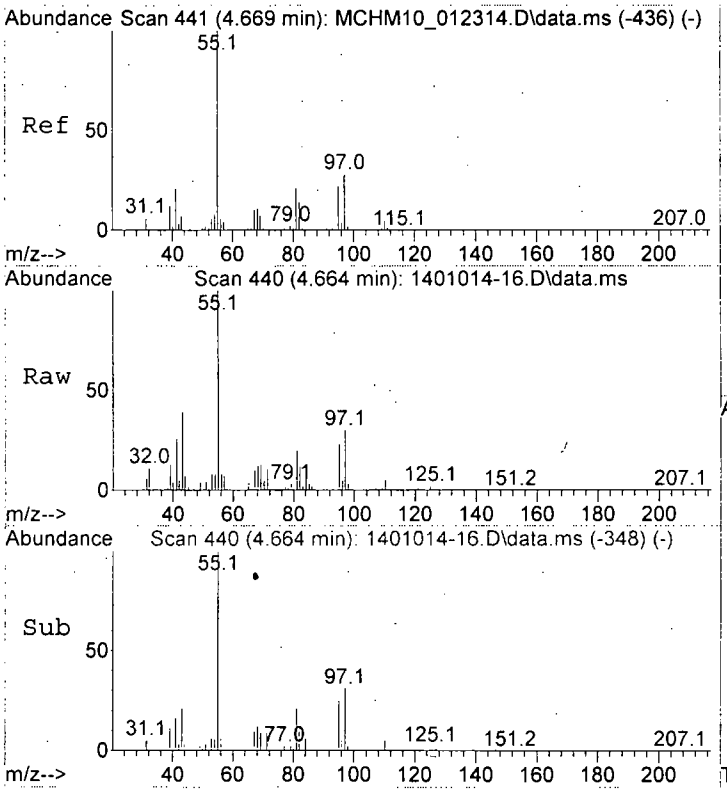


#4
cis-MCHM
Concen: 2.074 ug/mL
RT: 4.512 min Scan# 412
Delta R.T. -0.006 min
Lab File: 1401014-16.D
Acq: 21 Feb 2014 11:18 pm

Tgt Ion: 55 Resp: 91043

Ion	Ratio	Lower	Upper
55	100		
97	34.3	23.2	34.8

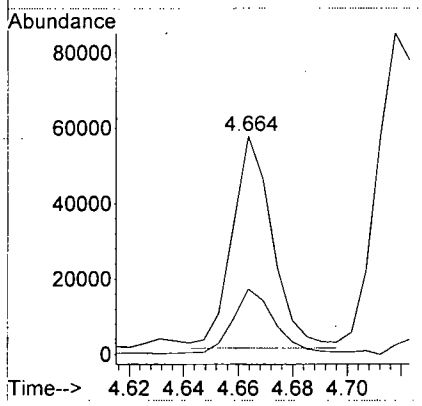




#5
tans-MCHM
Concen: 0.666 ug/mL
RT: 4.664 min Scan# 440
Delta R.T. -0.005 min
Lab File: 1401014-16.D
Acq: 21 Feb 2014 11:18 pm

Tgt Ion: 55 Resp: 58009

Ion	Ratio	Lower	Upper
55	100		
97	32.0	20.0	30.0#



Freedom_0005790_0693

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-01.D
Acq On : 5 Feb 2014 6:46 pm
Operator : ERG 96-5975B
Sample : 1401014-01
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:34:22 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1206450	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4384257	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2485035	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	4133496	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	4005203	20.000	ug/mL	# 0.00
13) Perylene-d12	13.280	264	3336143	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3055306	33.325	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery =	66.64%		
3) Phenol-d5	3.875	99	3754468	37.038	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery =	74.08%		
6) Nitrobenzene-d5	4.729	82	1619484	10.527	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery =	42.12%#		
8) 2-Fluorobiphenyl	6.533	172	3325519	11.290	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery =	45.16%		
10) 2,4,6-Tribromophenol	8.089	330	745052	42.628	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery =	85.26%		
12) Terphenyl-d14	10.514	244	3816676	10.256	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery =	41.04%		
Target Compounds						Qvalue
5) PPH	5.744	94	50508	0.516	ug/mL#	83

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

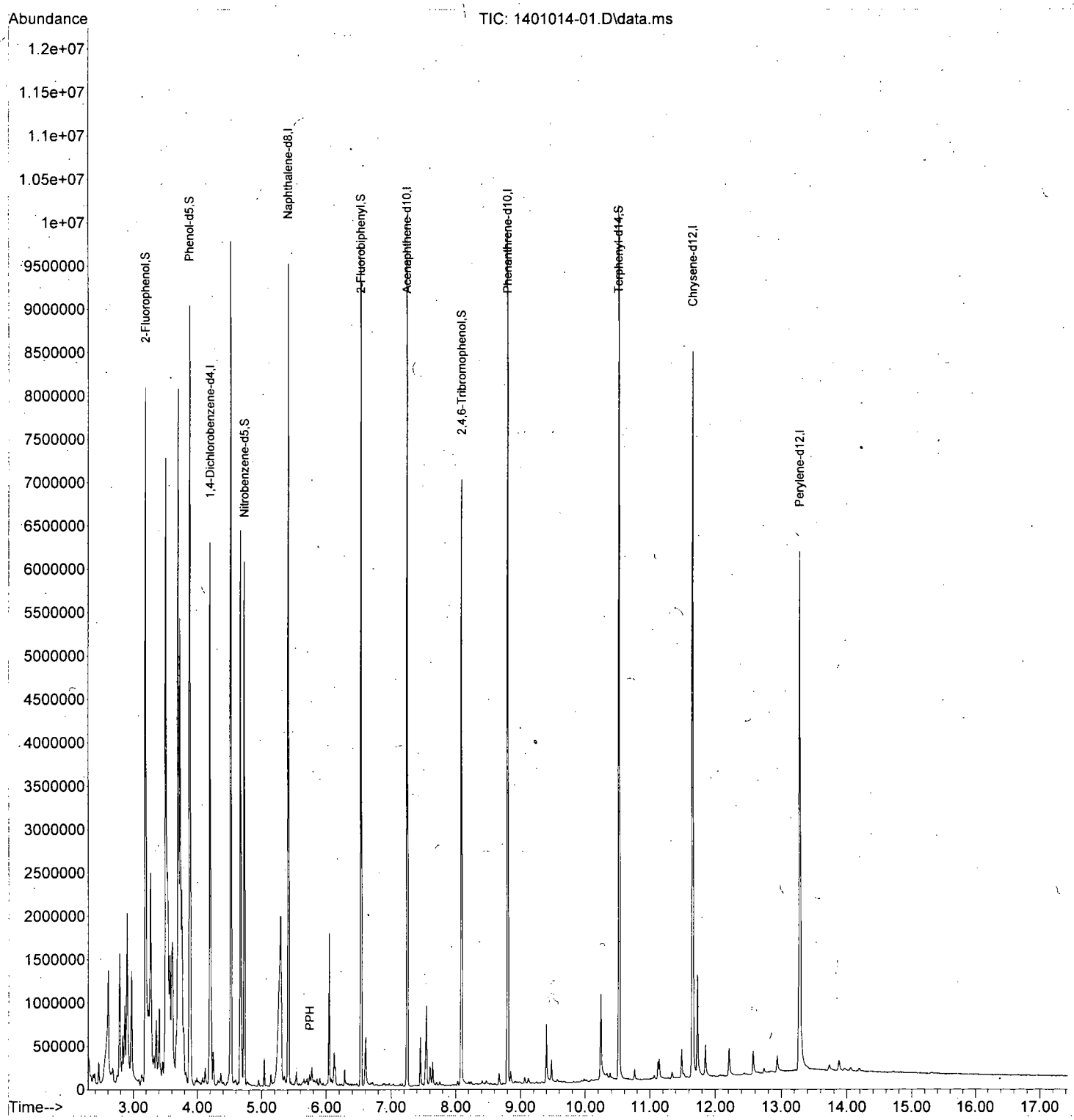
Freedom_0005790_0694

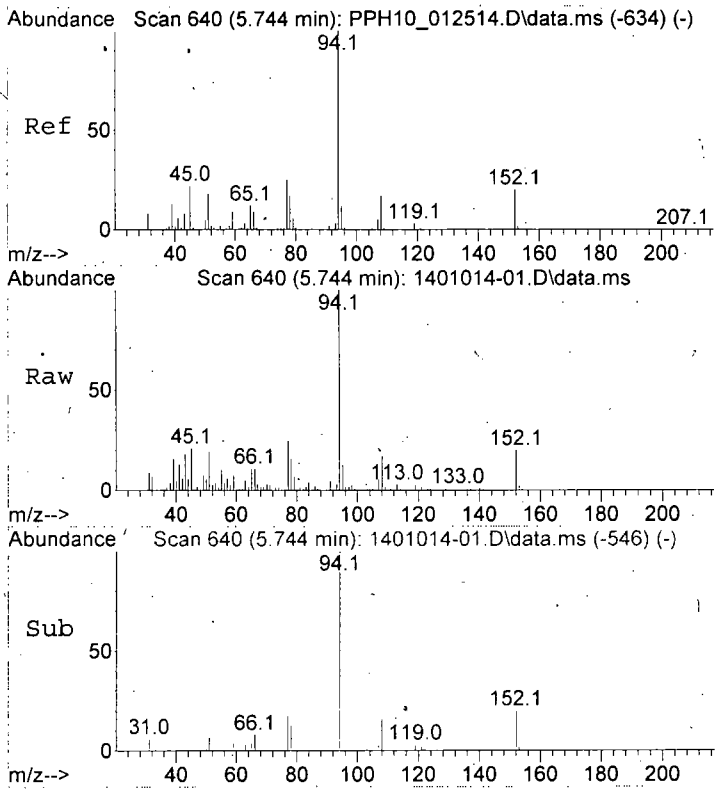
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-01.D
Acq On : 5 Feb 2014 6:46 pm
Operator : ERG 96-5975B
Sample : 1401014-01
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:34:22 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



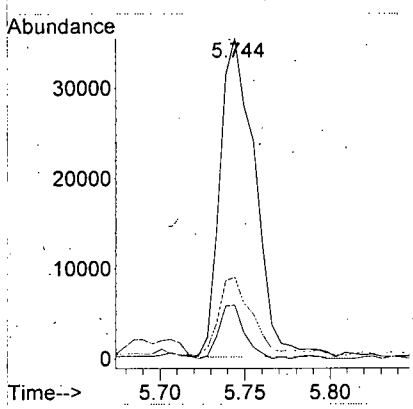


#5
PPH
Concen: 0.516 ug/mL
RT: 5.744 min Scan# 640
Delta R.T. 0.005 min
Lab File: 1401014-01.D
Acq: 5 Feb 2014 6:46 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 94 Resp: 50508

Ion	Ratio	Lower	Upper
94	100		
108	0.0	13.0	19.4#
77	24.4	21.5	32.3



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-02.D
Acq On : 5 Feb 2014 7:36 pm
Operator : ERG 96-5975B
Sample : 1401014-02
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:34:56 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1326232	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4849939	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2701640	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	4458450	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	4358167	20.000	ug/mL	# 0.00
13) Perylene-d12	13.280	264	3523888	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3711548	36.826	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 73.66%			
3) Phenol-d5	3.880	99	4153170	37.270	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 74.54%			
6) Nitrobenzene-d5	4.729	82	1827113	10.736	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 42.96%#			
8) 2-Fluorobiphenyl	6.538	172	3633789	11.348	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 45.40%			
10) 2,4,6-Tribromophenol	8.089	330	822121	43.609	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 87.22%			
12) Terphenyl-d14	10.520	244	4248011	10.491	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 41.96%			
Target Compounds						Qvalue
5) PPH	5.739	94	103788	0.959	ug/mL	95

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

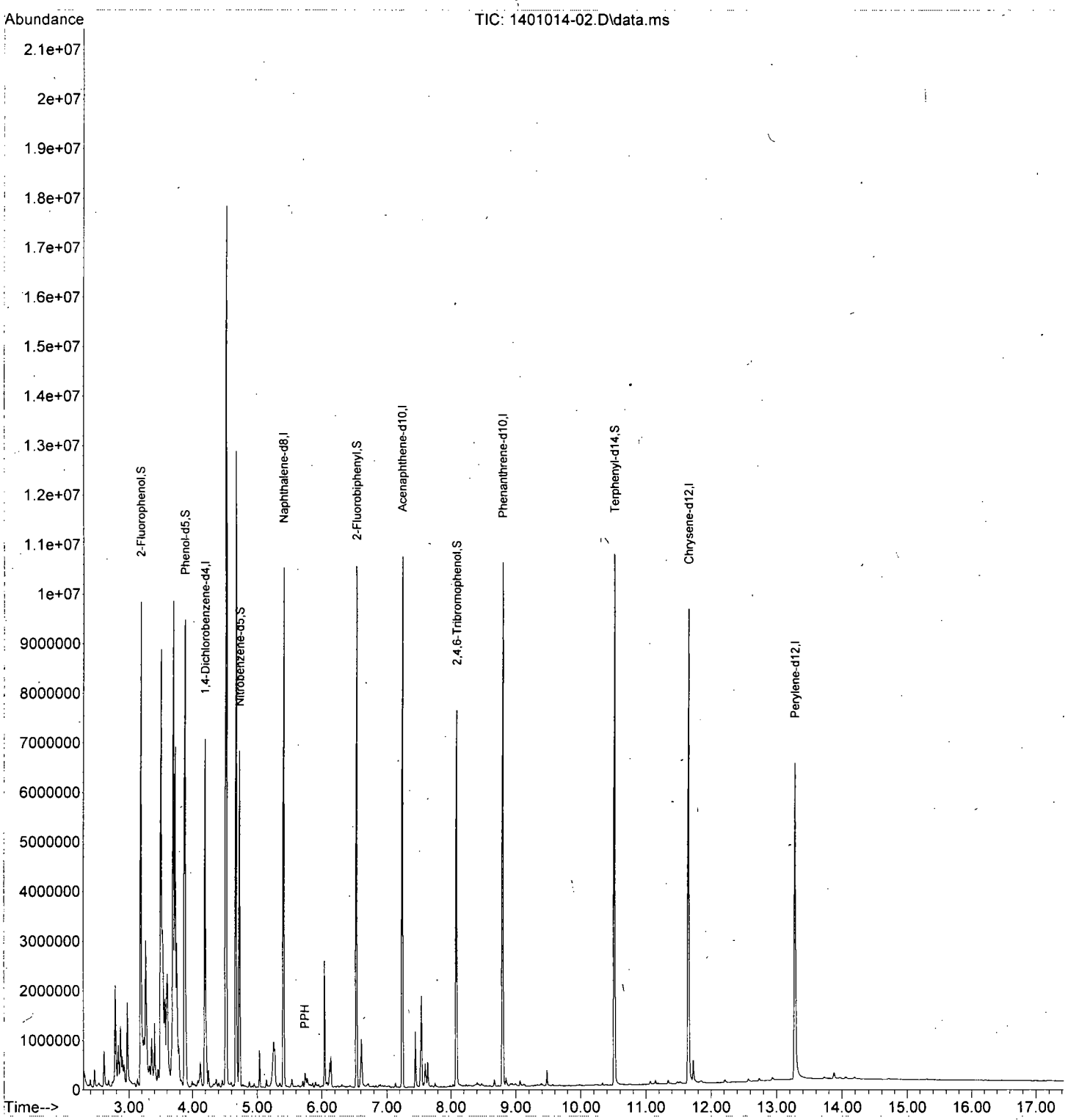
Freedom_0005790_0697

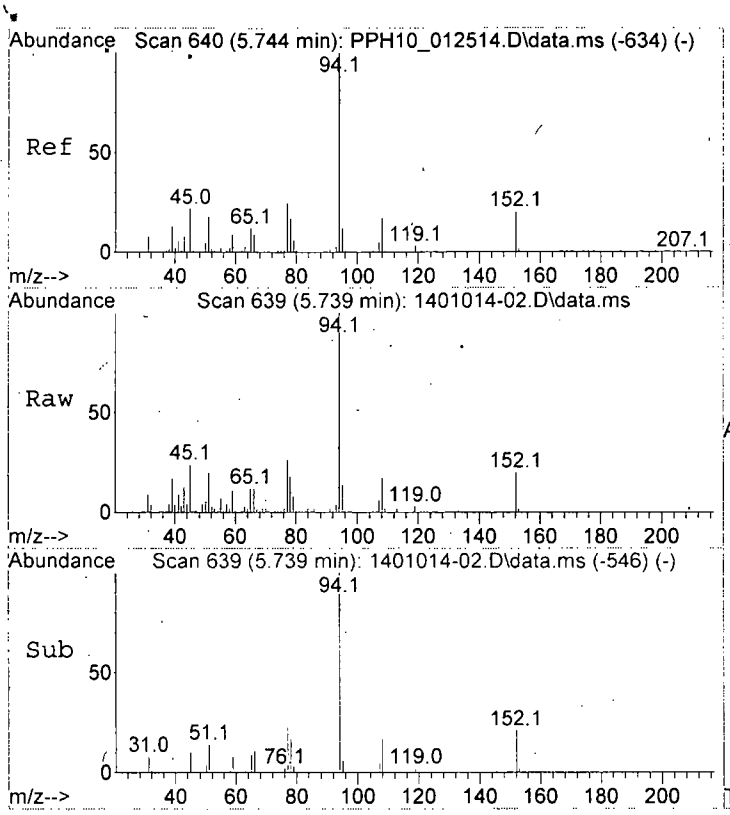
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-02.D
Acq On : 5 Feb 2014 7:36 pm
Operator : ERG 96-5975B
Sample : 1401014-02
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:34:56 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



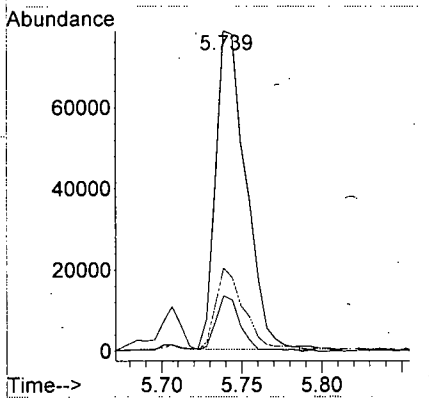


#5
PPH
Concen: 0.959 ug/mL
RT: 5.739 min Scan# 639
Delta R.T. -0.000 min
Lab File: 1401014-02.D
Acq: 5 Feb 2014 7:36 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 94 Resp: 103788

Ion	Ratio	Lower	Upper
94	100		
108	14.4	13.0	19.4
77	23.7	21.5	32.3



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-03.D
Acq On : 5 Feb 2014 8:27 pm
Operator : ERG 96-5975B
Sample : 1401014-03
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 13:35:28 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.194	152	1389546	20.000	ug/mL		0.00
4) Naphthalene-d8	5.409	136	5015974	20.000	ug/mL		0.00
7) Acenaphthene-d10	7.246	164	2804744	20.000	ug/mL		0.00
9) Phenanthrene-d10	8.802	188	4628014	20.000	ug/mL		0.00
11) Chrysene-d12	11.654	240	4554400	20.000	ug/mL	#	0.00
13) Perylene-d12	13.285	264	3659506	20.000	ug/mL		0.00
System Monitoring Compounds							
2) 2-Fluorophenol	3.194	112	3566393	33.774	ug/mL		0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 67.54%				
3) Phenol-d5	3.880	99	3986889	34.148	ug/mL		0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 68.30%				
6) Nitrobenzene-d5	4.729	82	1754193	9.966	ug/mL		0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 39.88%#				
8) 2-Fluorobiphenyl	6.533	172	3450281	10.379	ug/mL		0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 41.52%#				
10) 2,4,6-Tribromophenol	8.089	330	768331	39.262	ug/mL		0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 78.52%				
12) Terphenyl-d14	10.514	244	4159186	9.829	ug/mL		0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 39.32%				
Target Compounds							Qvalue
5) PPH	5.739	94	94338	0.843	ug/mL	#	82

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

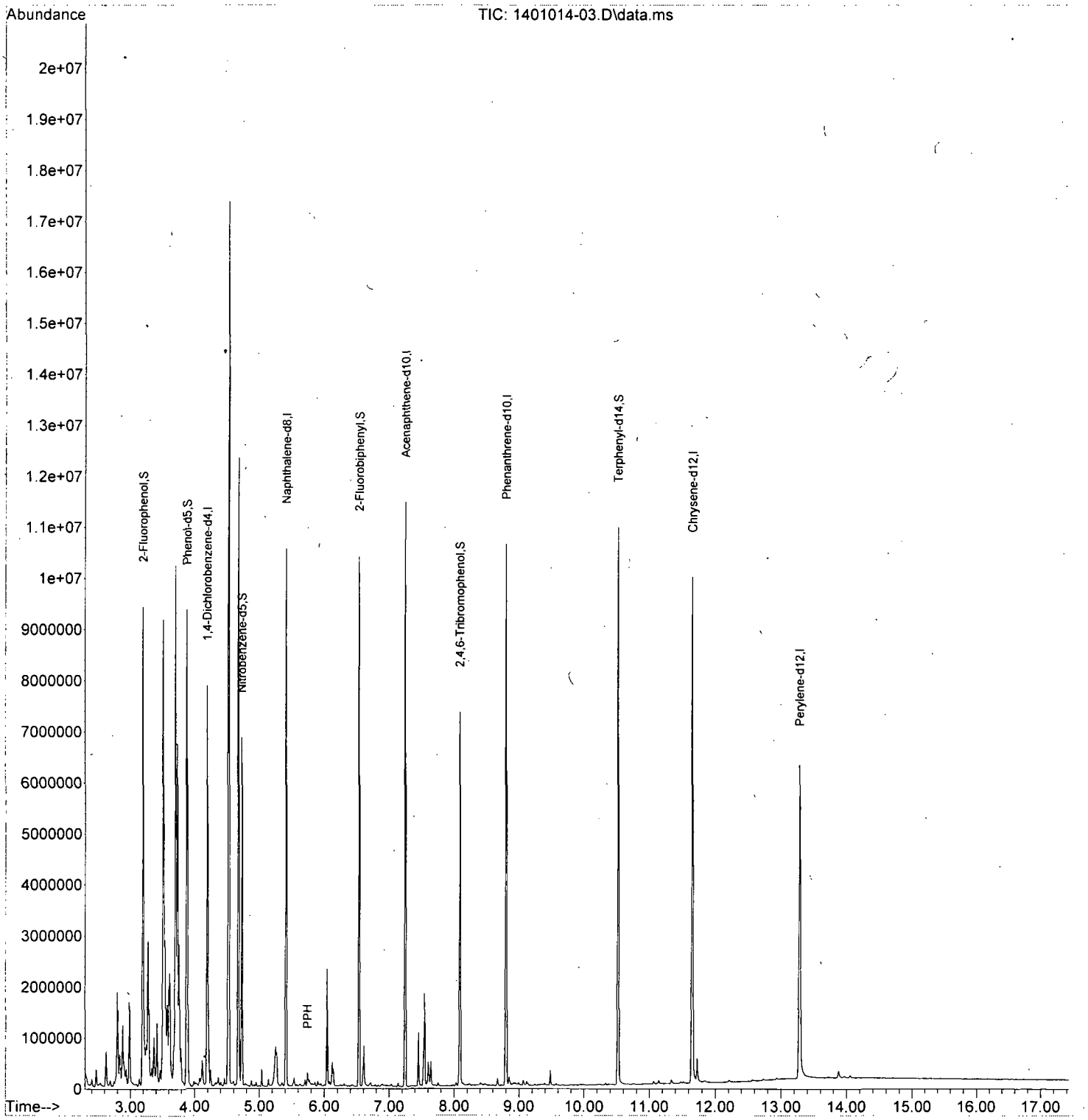
Freedom_0005790_0700

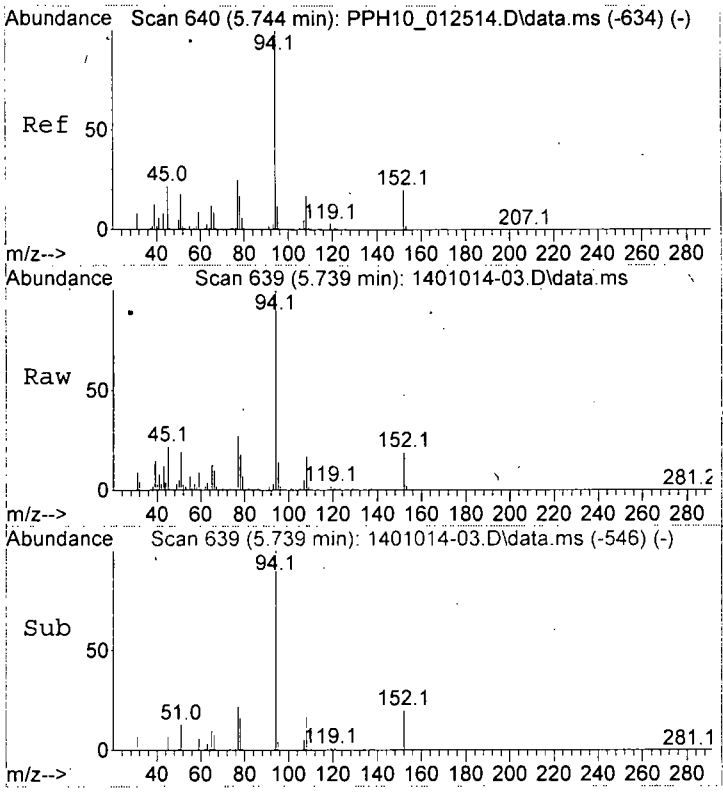
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-03.D
Acq On : 5 Feb 2014 8:27 pm
Operator : ERG 96-5975B
Sample : 1401014-03
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:35:28 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



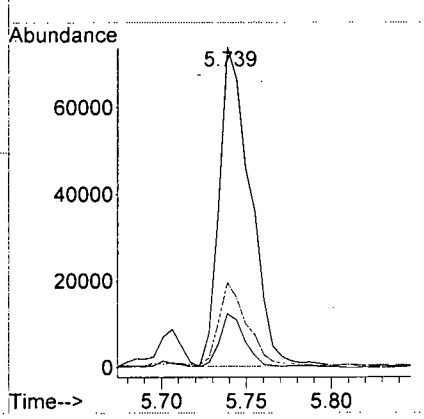


#5
PPH
Concen: 0.843 ug/mL
RT: 5.739 min Scan# 639
Delta R.T. -0.000 min
Lab File: 1401014-03.D
Acq: 5 Feb 2014 8:27 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 94 Resp: 94338

Ion	Ratio	Lower	Upper
94	100		
108	0.0	13.0	19.4#
77	23.9	21.5	32.3



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-04.D
Acq On : 5 Feb 2014 9:17 pm
Operator : ERG 96-5975B
Sample : 1401014-04
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 13:36:07 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1322639	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4815593	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2676920	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	4276518	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	4188821	20.000	ug/mL	# 0.00
13) Perylene-d12	13.280	264	3149213	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3505578	34.877	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 69.76%			
3) Phenol-d5	3.875	99	4012127	36.102	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 72.20%			
6) Nitrobenzene-d5	4.729	82	1774823	10.503	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 42.00%#			
8) 2-Fluorobiphenyl	6.533	172	3551834	11.194	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 44.76%			
10) 2,4,6-Tribromophenol	8.089	330	725960	40.146	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 80.30%			
12) Terphenyl-d14	10.514	244	3994999	10.265	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 41.04%			

Target Compounds Qvalue

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

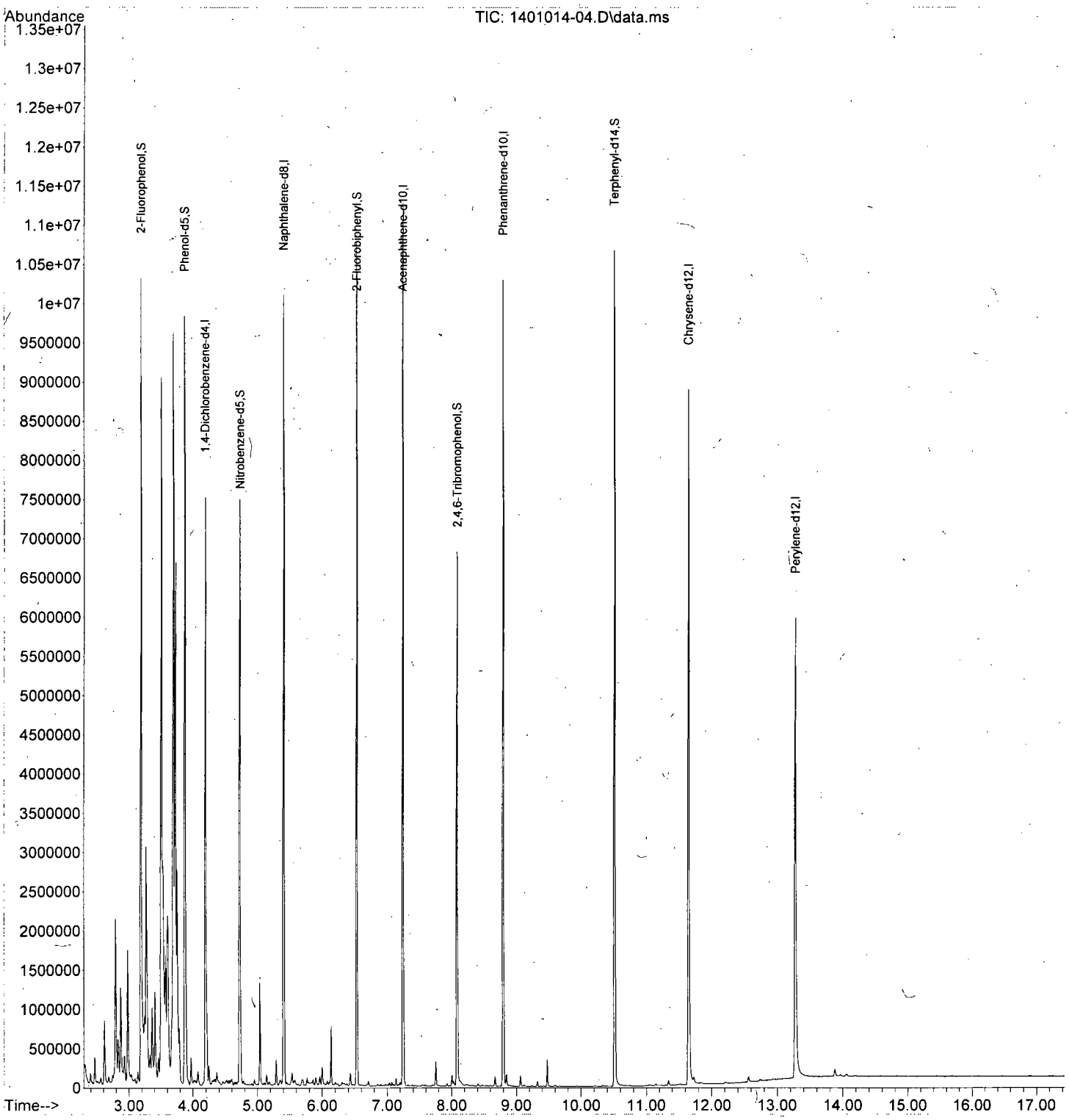
Freedom_0005790_0703

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : 1401014-04.D
Acq On : 5 Feb 2014 9:17 pm
Operator : ERG 96-5975B
Sample : 1401014-04
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 9 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:36:07 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : 1401014-06 10X.D
Acq On : 7 Feb 2014 4:13 pm
Operator : ERG 96-5975B
Sample : 1401014-06 10X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 25 13:39:15 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1412540	20.000	ug/mL	0.00
4) Naphthalene-d8	5.442	136	5851403	20.000	ug/mL	0.03
7) Acenaphthene-d10	7.262	164	3912152	20.000	ug/mL	0.02
9) Phenanthrene-d10	8.813	188	6575323	20.000	ug/mL	0.00
11) Chrysene-d12	11.649	240	5282600	20.000	ug/mL	# 0.00
13) Perylene-d12	13.275	264	4130108	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.205	112	173592	1.617	ug/mL	0.01
Spiked Amount 50.000	Range 21 - 110		Recovery	=	3.24%#	
3) Phenol-d5	3.864	99	15648	0.132	ug/mL	-0.02
Spiked Amount 50.000	Range 39 - 106		Recovery	=	0.26%#	
6) Nitrobenzene-d5	4.761	82	11032419	53.730	ug/mL	0.03
Spiked Amount 25.000	Range 43 - 108		Recovery	=	214.92%#	
8) 2-Fluorobiphenyl	6.560	172	677774	1.462	ug/mL	0.02
Spiked Amount 25.000	Range 43 - 116		Recovery	=	5.84%#	
10) 2,4,6-Tribromophenol	8.116	330	130801	4.705	ug/mL	0.03
Spiked Amount 50.000	Range 10 - 123		Recovery	=	9.40%#	
12) Terphenyl-d14	10.509	244	661684	1.348	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery	=	5.40%#	
Target Compounds						Qvalue
5) PPH	5.793	94	3566296	27.306	ug/mL#	69

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

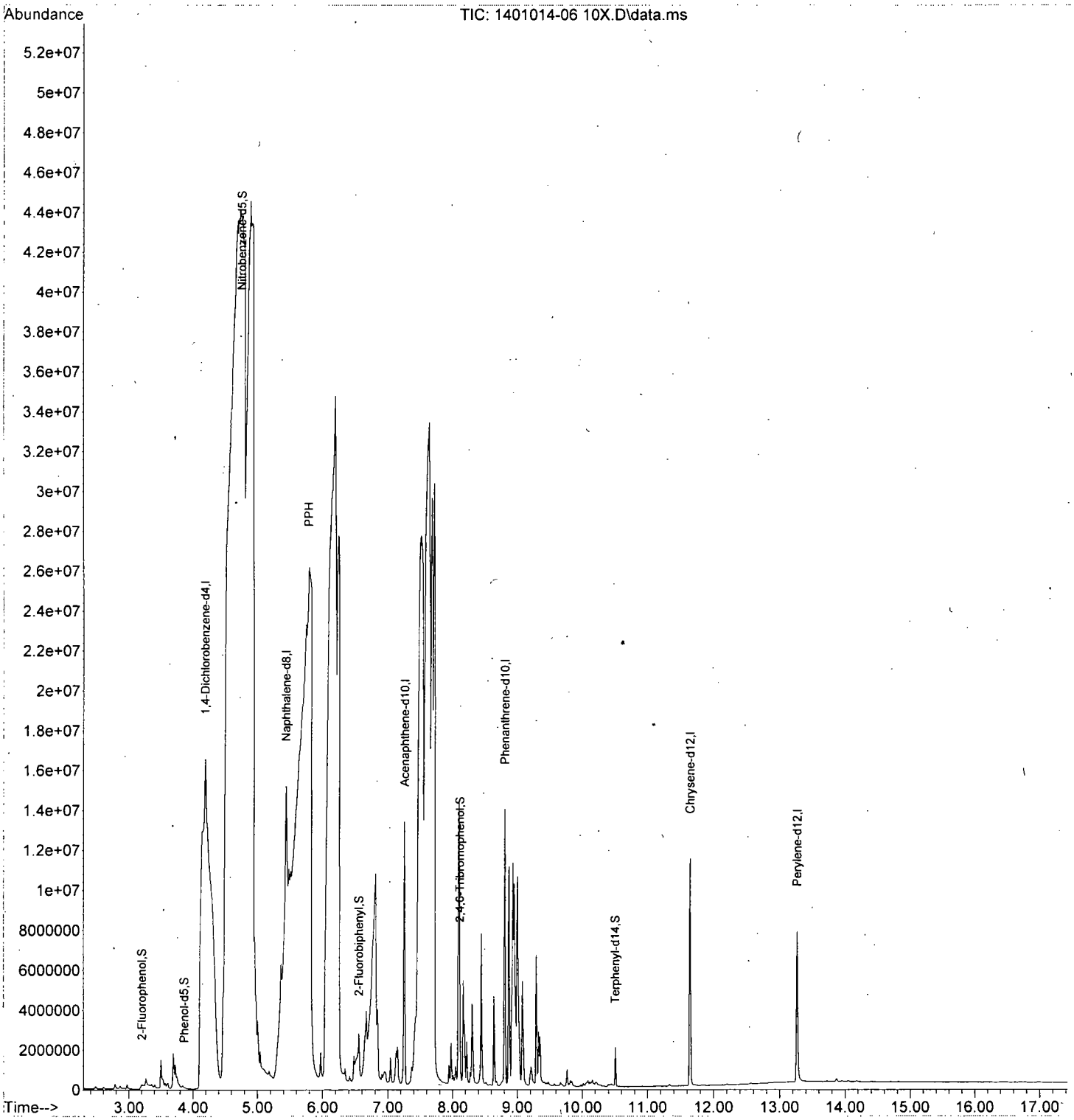
Freedom_0005790_0705

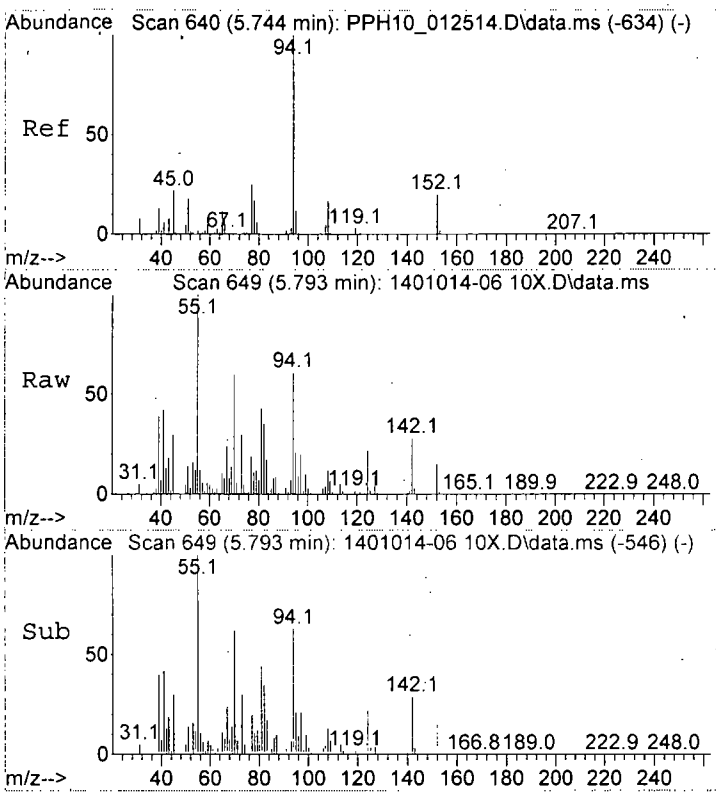
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : 1401014-06 10X.D
Acq On : 7 Feb 2014 4:13 pm
Operator : ERG 96-5975B
Sample : 1401014-06 10X
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:39:15 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



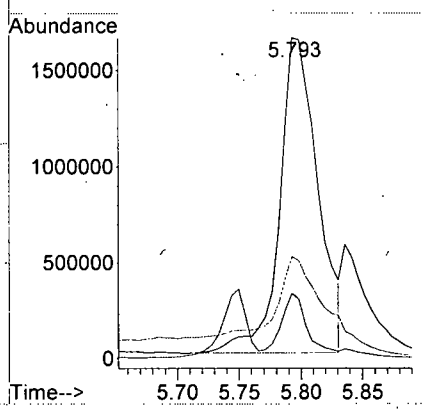


#5
PPH
Concen: 27.306 ug/mL
RT: 5.793 min Scan# 649
Delta R.T. 0.054 min
Lab File: 1401014-06 10X.D
Acq: 7 Feb 2014 4:13 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 94 Resp: 3566296

Ion	Ratio	Lower	Upper
94	100		
108	0.0	13.0	19.4#
77	40.9	21.5	32.3#



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-07.D
Acq On : 10 Feb 2014 4:17 pm
Operator : ERG 96-5975B
Sample : 1401014-07
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 25 13:42:38 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1527098	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	5498632	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	3116754	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	5145655	20.000	ug/mL	0.00
11) Chrysene-d12	11.648	240	4908557	20.000	ug/mL	# 0.00
13) Perylene-d12	13.274	264	3882581	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	3449348	29.723	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 59.44%			
3) Phenol-d5	3.875	99	4174347	32.533	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 65.06%			
6) Nitrobenzene-d5	4.723	82	1795954	9.308	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 37.24%#			
8) 2-Fluorobiphenyl	6.533	172	3680439	9.963	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 39.84%#			
10) 2,4,6-Tribromophenol	8.083	330	834157	38.338	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 76.68%			
12) Terphenyl-d14	10.509	244	3892658	8.535	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 34.16%			

Target Compounds Qvalue

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

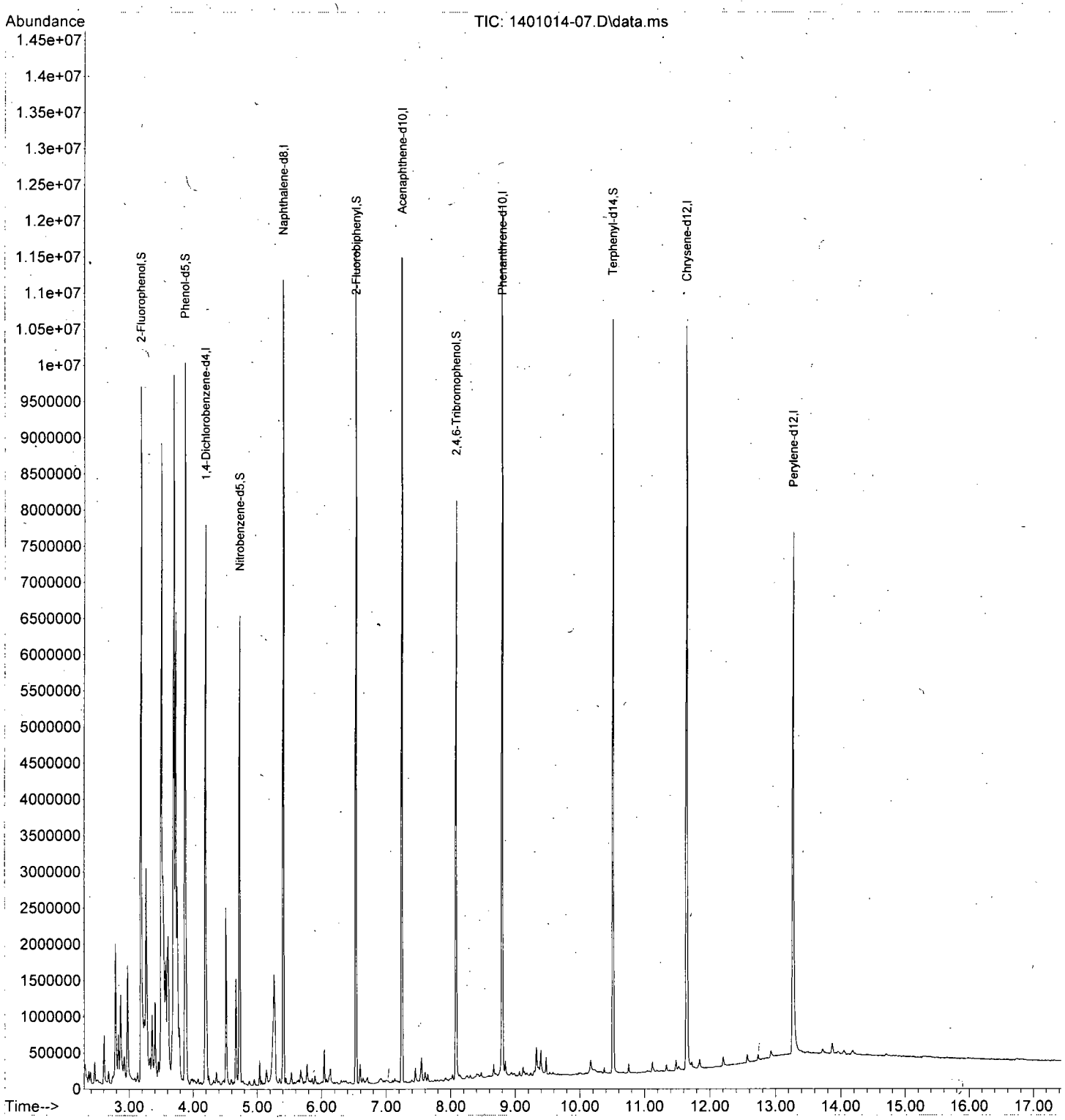
Freedom_0005790_0708

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : 1401014-07.D
Acq On : 10 Feb 2014 4:17 pm
Operator : ERG 96-5975B
Sample : 1401014-07
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:42:38 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-09.D
Acq On : 21 Feb 2014 3:48 pm
Operator : ERG 96-5975B
Sample : 1401014-09
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 08:40:18 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1265866	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	4471523	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2520678	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	4140374	20.000	ug/mL	0.00
11) Chrysene-d12	11.643	240	2782535	20.000	ug/mL	-0.01
13) Perylene-d12	13.264	264	1741693	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2435477	26.768	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 53.54%			
3) Phenol-d5	3.875	99	2785580	27.851	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 55.70%			
6) Nitrobenzene-d5	4.723	82	1249363	14.273	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 57.08%			
8) 2-Fluorobiphenyl	6.533	172	2314610	13.773	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 55.08%			
10) 2,4,6-Tribromophenol	8.083	330	561773	35.827	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 71.66%			
12) Terphenyl-d14	10.503	244	1398110	9.681	ug/mL	-0.02
Spiked Amount 25.000	Range 33 - 141		Recovery = 38.72%			
Target Compounds						Qvalue
5) PPH	5.739	94	34991	0.336	ug/mL#	85

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

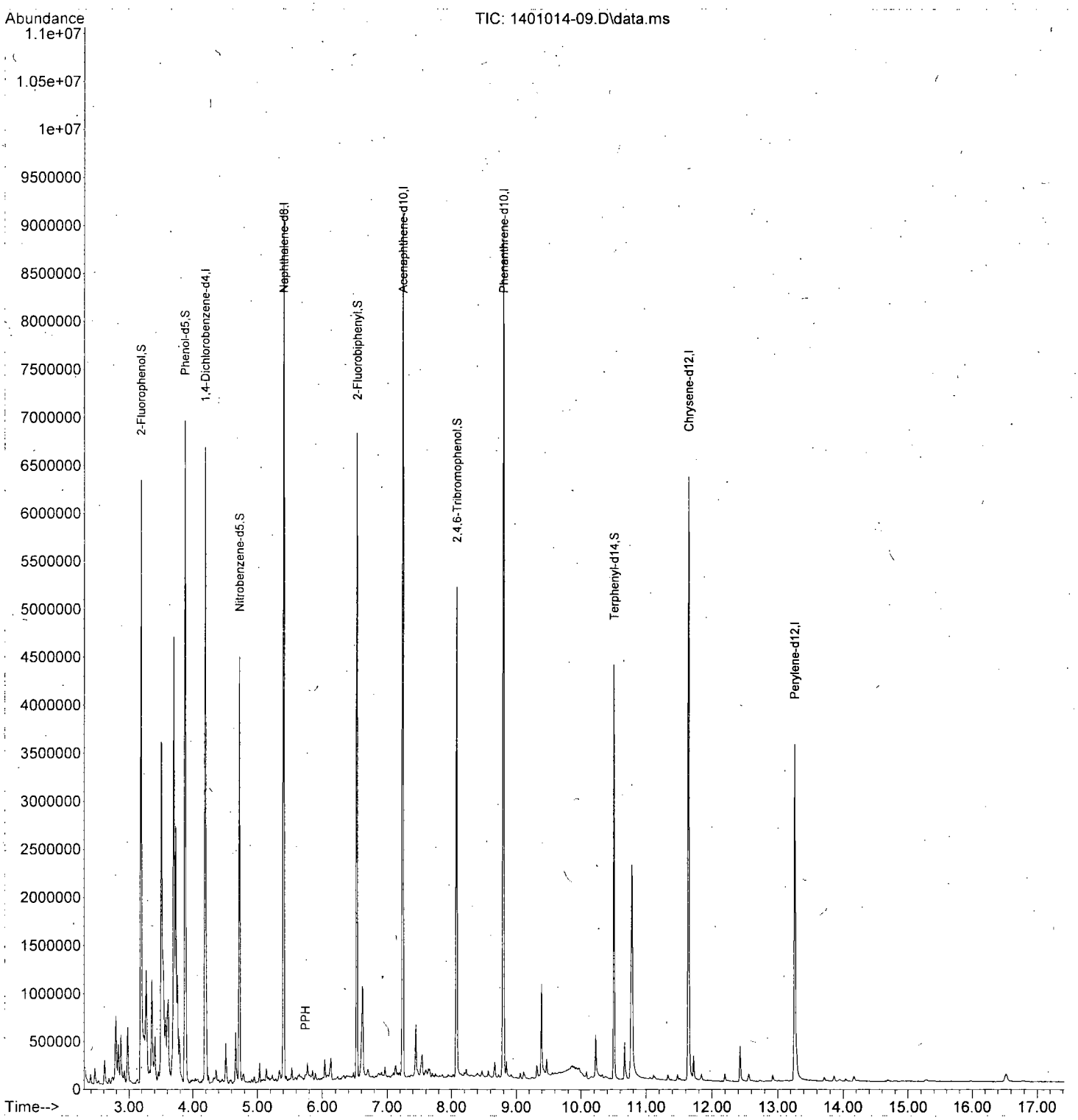
Freedom_0005790_0710

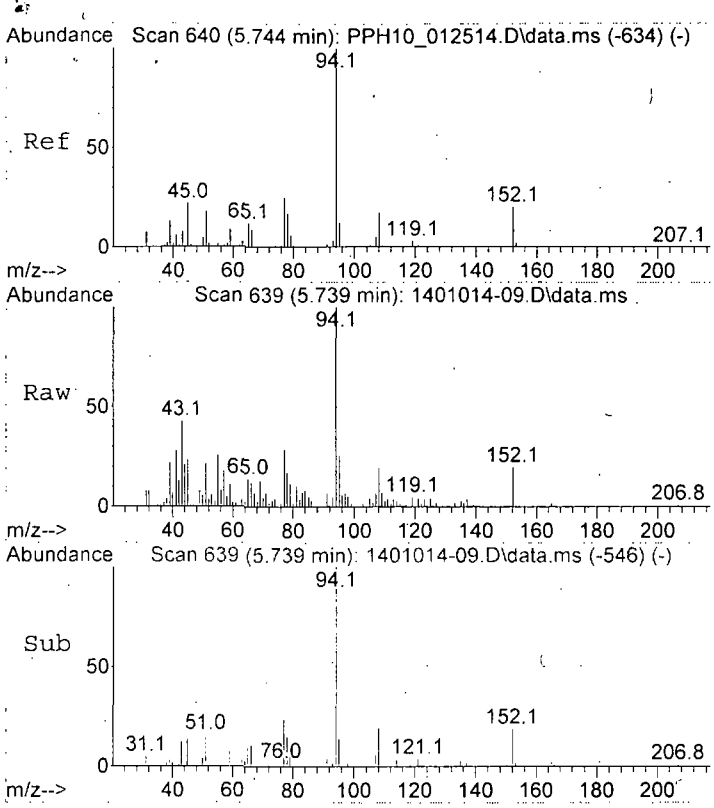
Quantitation Report (Not Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-09.D
Acq On : 21 Feb 2014 3:48 pm
Operator : ERG 96-5975B
Sample : 1401014-09
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 6 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:40:18 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



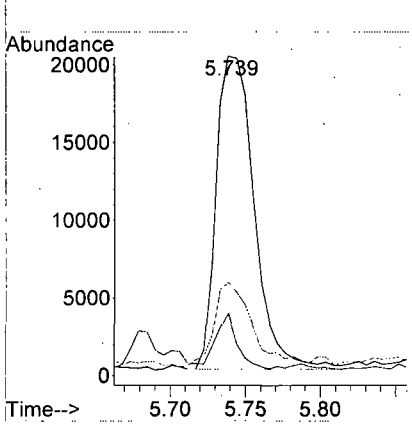


#5
PPH
Concen: 0.336 ug/mL
RT: 5.739 min Scan# 639
Delta R.T. -0.000 min
Lab File: 1401014-09.D
Acq: 21 Feb 2014 3:48 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 94 Resp: 34991

Ion	Ratio	Lower	Upper
94	100		
108	0.0	13.0	19.4#
77	27.3	21.5	32.3



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-12.D
Acq On : 21 Feb 2014 6:18 pm
Operator : ERG 96-5975B
Sample : 1401014-12
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 24 08:42:20 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	1330574	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4840811	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2972346	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	5079388	20.000	ug/mL	0.00
11) Chrysene-d12	11.649	240	3899866	20.000	ug/mL	# 0.00
13) Perylene-d12	13.269	264	2822023	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.205	112	2488528	26.021	ug/mL	0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 52.04%			
3) Phenol-d5	3.891	99	2878661	27.382	ug/mL	0.01
Spiked Amount 50.000	Range 39 - 106		Recovery = 54.76%			
6) Nitrobenzene-d5	4.729	82	1195492	12.616	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 50.48%			
8) 2-Fluorobiphenyl	6.533	172	2483413	12.532	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 50.12%			
10) 2,4,6-Tribromophenol	8.083	330	629005	32.699	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 65.40%			
12) Terphenyl-d14	10.509	244	2245273	11.093	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 44.36%			

Target Compounds Qvalue

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

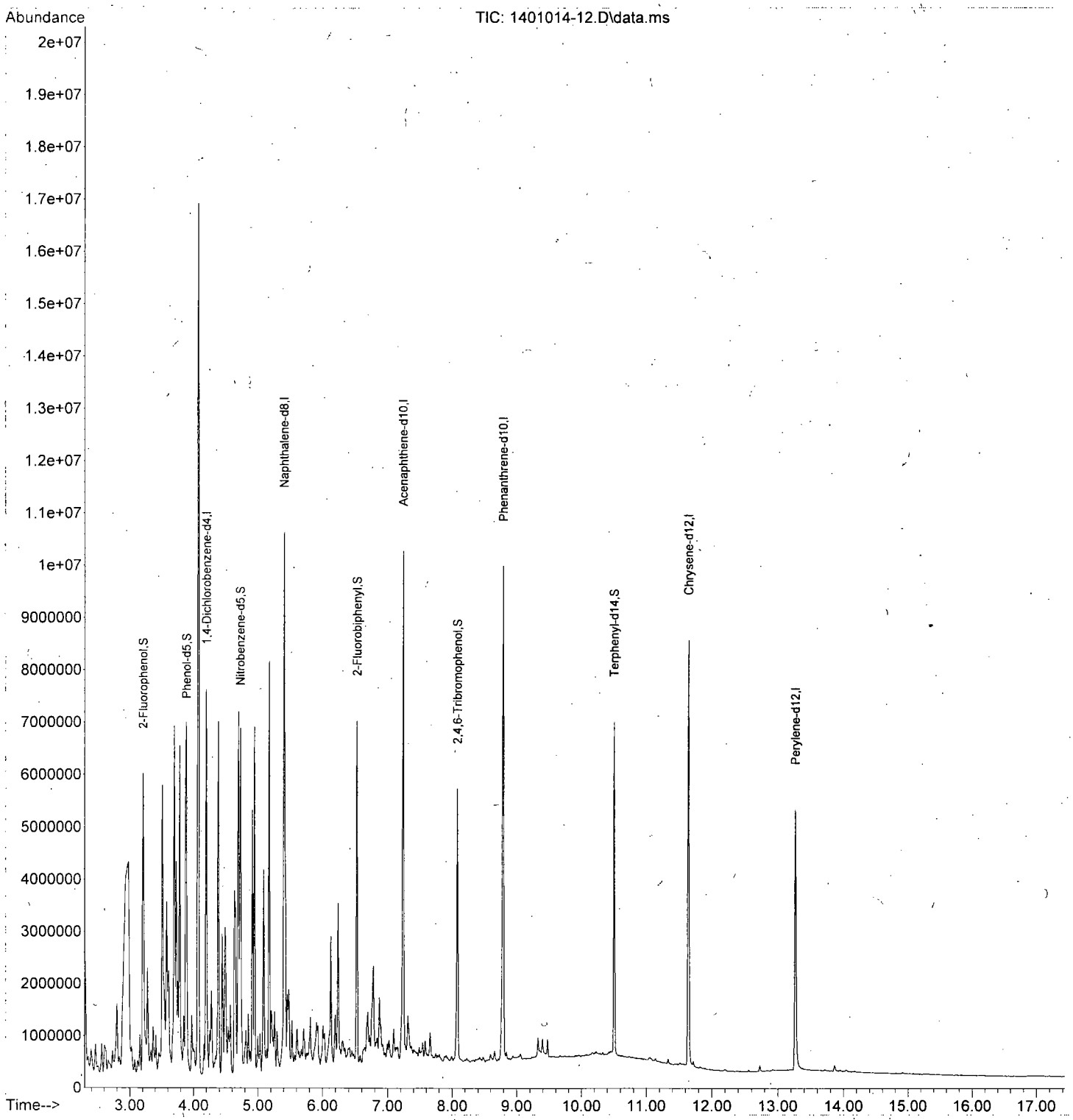
Freedom_0005790_0713

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-12.D
Acq On : 21 Feb 2014 6:18 pm
Operator : ERG 96-5975B
Sample : 1401014-12
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 9 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:42:20 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-13.D
Acq On : 21 Feb 2014 8:48 pm
Operator : ERG 96-5975B
Sample : 1401014-13
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 24 08:43:51 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1434054	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	5030490	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	3120445	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.807	188	5320379	20.000	ug/mL	0.00
11) Chrysene-d12	11.648	240	3505488	20.000	ug/mL	# 0.00
13) Perylene-d12	13.269	264	2156035	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.183	112	2309730	22.409	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 44.82%			
3) Phenol-d5	3.875	99	3023131	26.681	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 53.36%			
6) Nitrobenzene-d5	4.723	82	1257581	12.770	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 51.08%			
8) 2-Fluorobiphenyl	6.533	172	2599605	12.495	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 50.00%			
10) 2,4,6-Tribromophenol	8.088	330	667198	33.114	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 66.22%			
12) Terphenyl-d14	10.514	244	2257256	12.407	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 49.64%			
Target Compounds						Qvalue
5) PPH	5.744	94	469101	3.998	ug/mL#	89

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

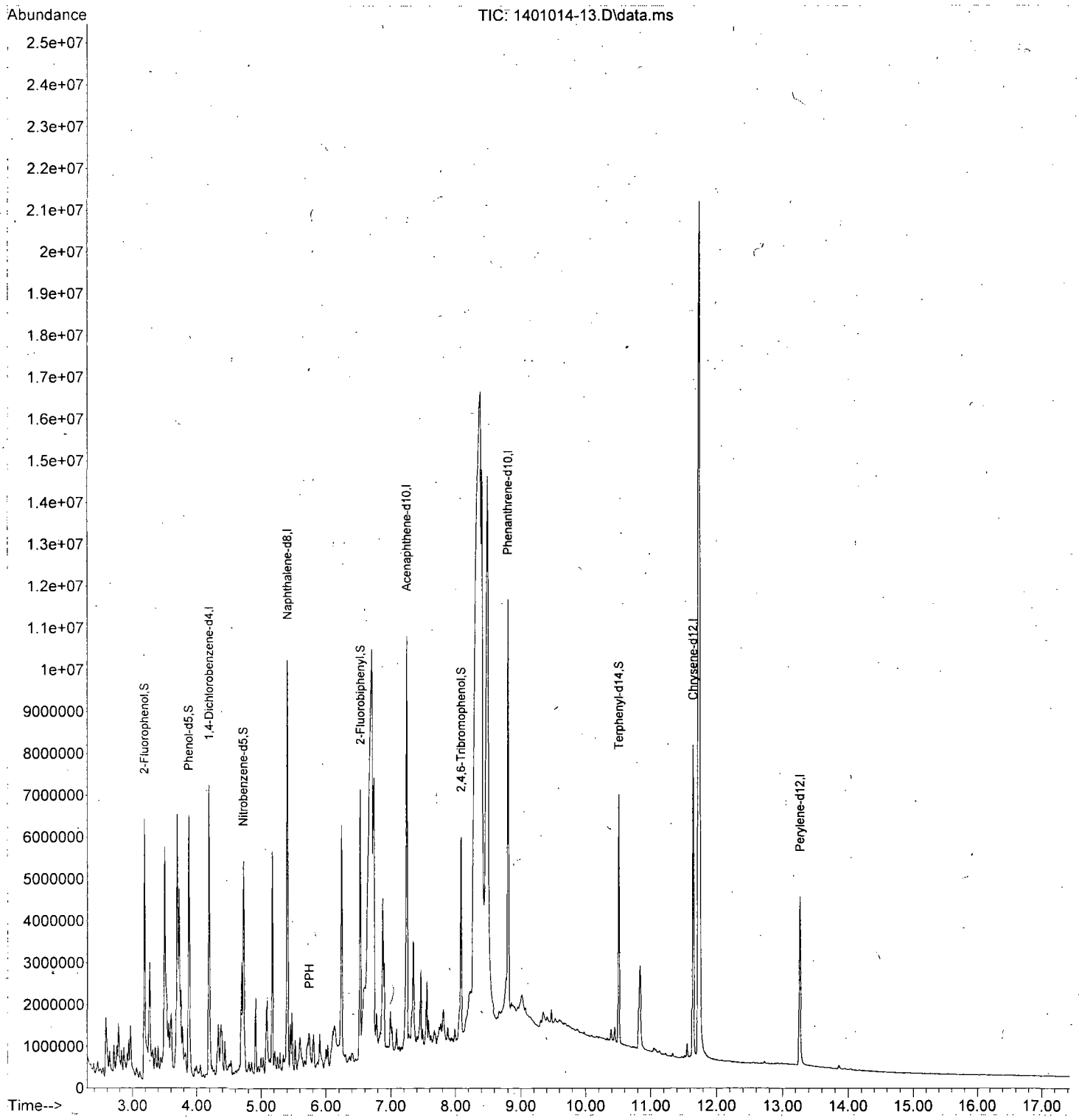
Freedom_0005790_0715

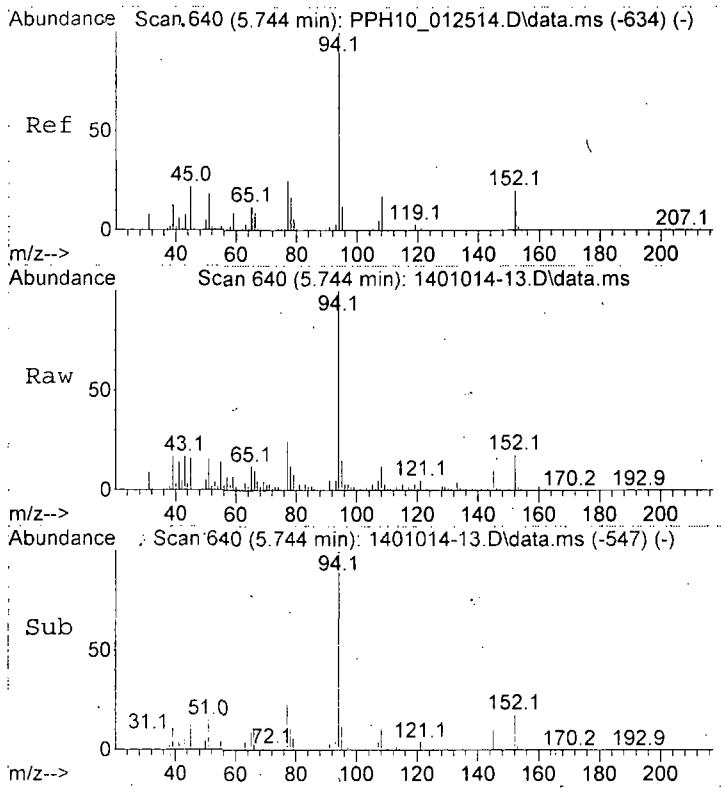
Quantitation Report (Not Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-13.D
Acq On : 21 Feb 2014 8:48 pm
Operator : ERG 96-5975B
Sample : 1401014-13
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 12 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:43:51 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



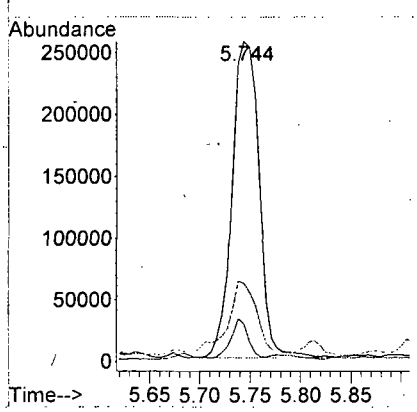


#5
PPH
Concen: 3.998 ug/mL
RT: 5.744 min Scan# 640
Delta R.T. 0.005 min
Lab File: 1401014-13.D
Acq: 21 Feb 2014 8:48 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 94 Resp: 469101

Ion	Ratio	Lower	Upper
94	100		
108	7.8	13.0	19.4#
77	23.7	21.5	32.3



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-14.D
Acq On : 21 Feb 2014 9:38 pm
Operator : ERG 96-5975B
Sample : 1401014-14
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 24 08:44:17 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1628020	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	5845533	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	3546067	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	6078217	20.000	ug/mL	0.00
11) Chrysene-d12	11.643	240	4084456	20.000	ug/mL	#-0.01
13) Perylene-d12	13.269	264	2617785	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.194	112	2609313	22.299	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 44.60%			
3) Phenol-d5	3.886	99	3378844	26.268	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 52.54%			
6) Nitrobenzene-d5	4.723	82	1483217	12.962	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 51.84%			
8) 2-Fluorobiphenyl	6.533	172	2881577	12.188	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 48.76%			
10) 2,4,6-Tribromophenol	8.089	330	761779	33.094	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 66.18%			
12) Terphenyl-d14	10.509	244	2771627	13.075	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 52.28%			
Target Compounds						Qvalue
5) PPH	5.744	94	394350	2.893	ug/mL#	93

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

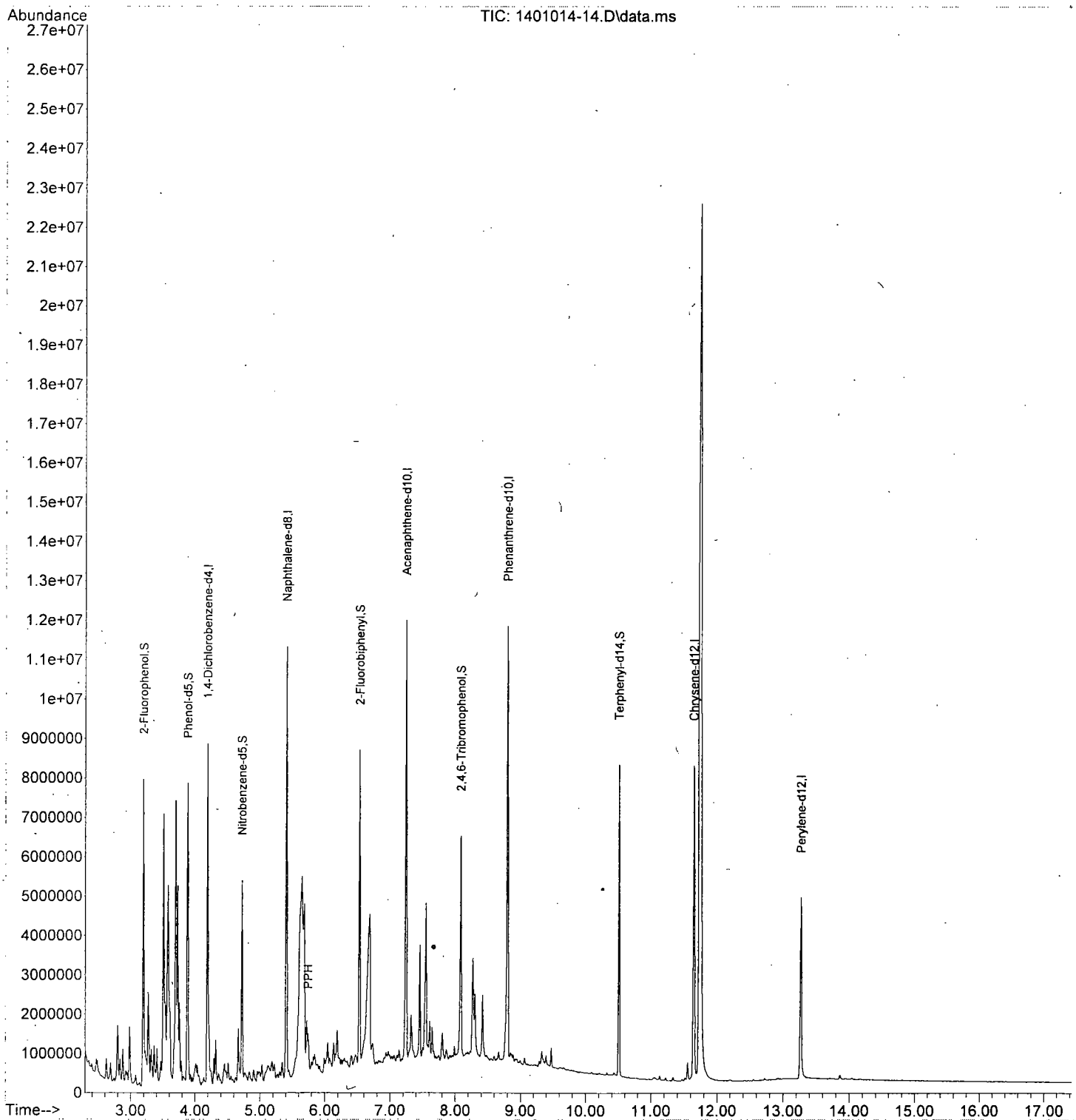
Freedom_0005790_0718

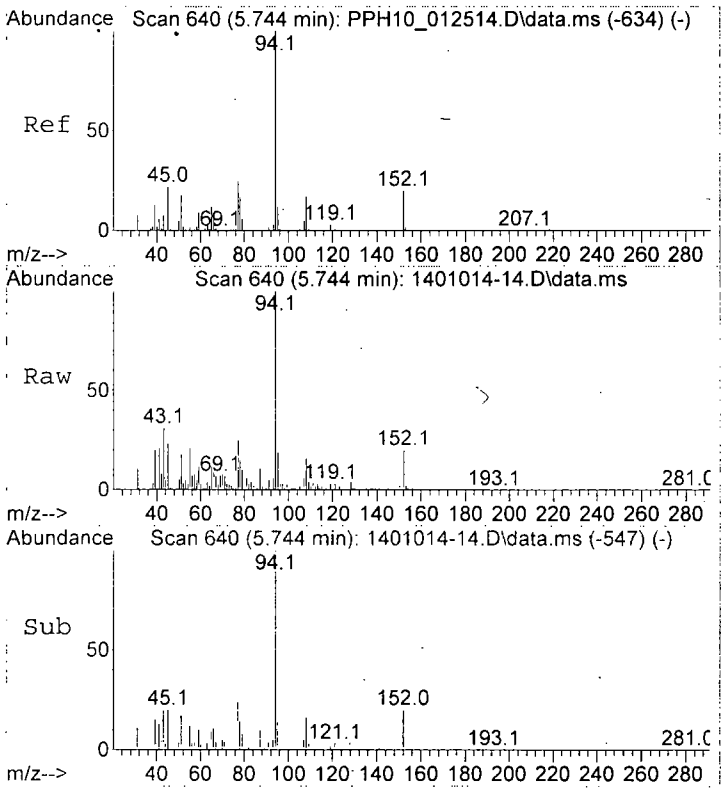
Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-14.D
Acq On : 21 Feb 2014 9:38 pm
Operator : ERG 96-5975B
Sample : 1401014-14
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 13 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:44:17 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



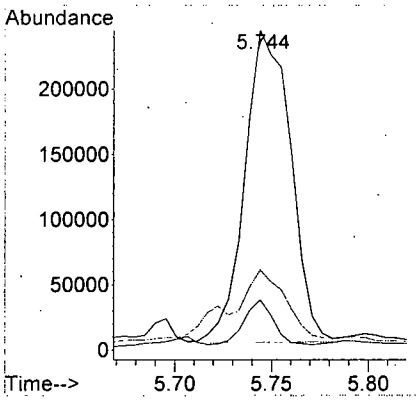


#5
PPH
Concen: 2.893 ug/mL
RT: 5.744 min Scan# 640
Delta R.T. 0.005 min
Lab File: 1401014-14.D
Acq: 21 Feb 2014 9:38 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 94 Resp: 394350

Ion	Ratio	Lower	Upper
94	100		
108	8.9	13.0	19.4#
77	27.5	21.5	32.3



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-15.D
Acq On : 21 Feb 2014 10:28 pm
Operator : ERG 96-5975B
Sample : 1401014-15
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 14 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:46:06 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1429547	20.000	ug/mL	0.00
4) Naphthalene-d8	5.415	136	4977425	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.262	164	3055814	20.000	ug/mL	0.02
9) Phenanthrene-d10	8.823	188	5049114	20.000	ug/mL	# 0.02
11) Chrysene-d12	11.659	240	3932702	20.000	ug/mL	# 0.00
13) Perylene-d12	13.275	264	2297074	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2190107	21.315	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery	=	42.64%	
3) Phenol-d5	3.897	99	3205232	28.378	ug/mL	0.02
Spiked Amount 50.000	Range 39 - 106		Recovery	=	56.76%	
6) Nitrobenzene-d5	4.729	82	1205691	12.374	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery	=	49.48%	
8) 2-Fluorobiphenyl	6.544	172	1954700	9.594	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery	=	38.36%#	
10) 2,4,6-Tribromophenol	8.121	330	593465	31.037	ug/mL	0.03
Spiked Amount 50.000	Range 10 - 123		Recovery	=	62.08%	
12) Terphenyl-d14	10.520	244	1818997	8.912	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery	=	35.64%	
Target Compounds						Qvalue
5) PPH	5.787	94	2198606	18.940	ug/mL#	79

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

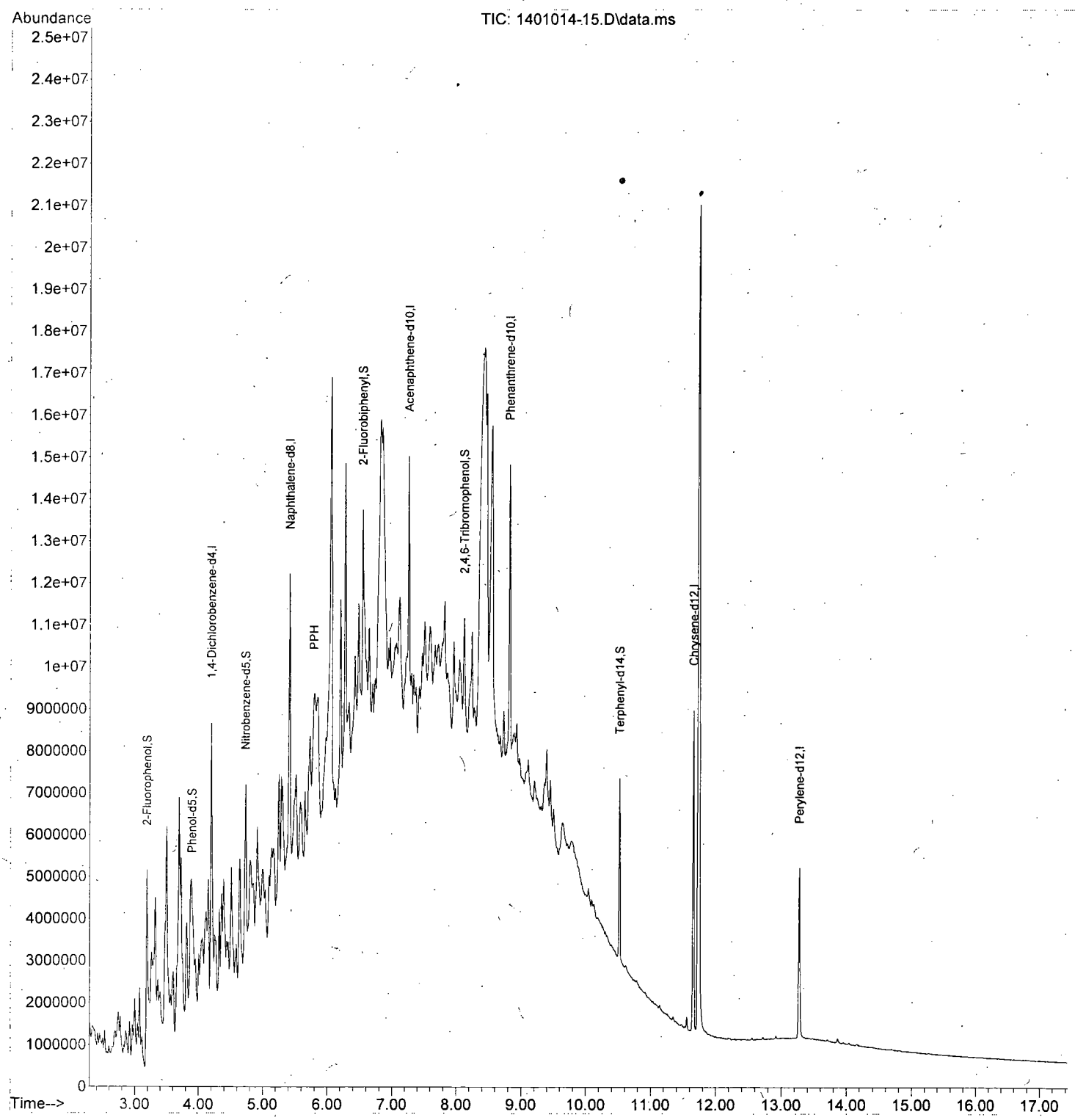
Freedom_0005790_0721

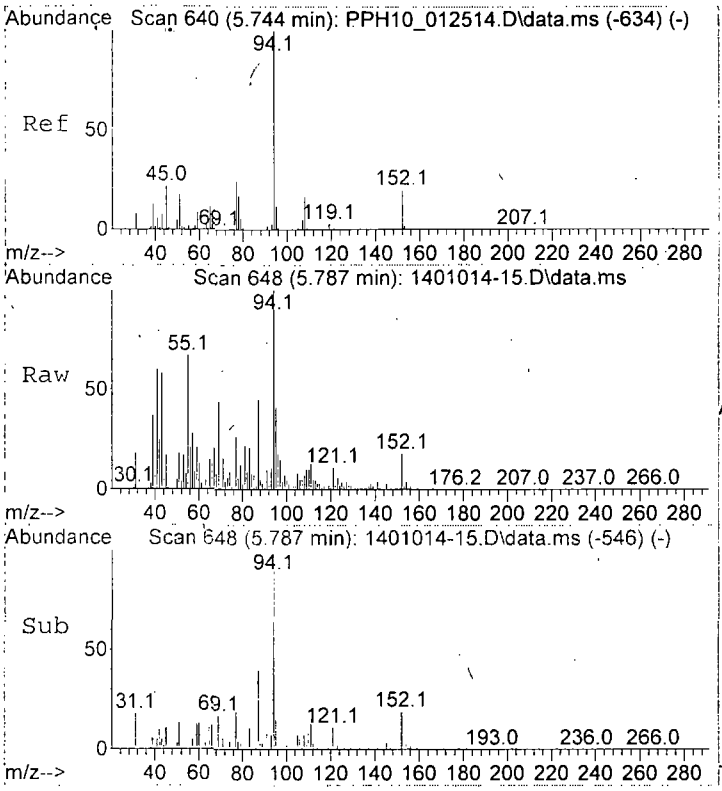
Quantitation Report (Not Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-15.D
Acq On : 21 Feb 2014 10:28 pm
Operator : ERG 96-5975B
Sample : 1401014-15
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 14 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:46:06 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



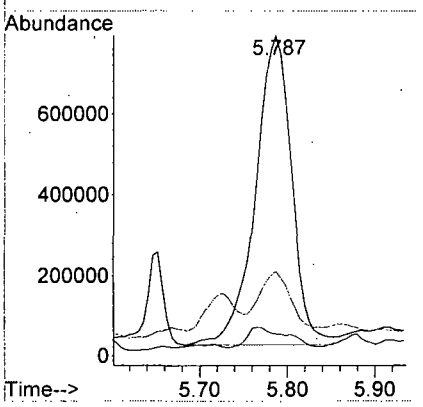


#5
PPH
Concen: 18.940 ug/mL
RT: 5.787 min Scan# 648
Delta R.T. 0.048 min
Lab File: 1401014-15.D
Acq: 21 Feb 2014 10:28 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 94 Resp: 2198606

Ion	Ratio	Lower	Upper
94	100		
108	7.1	13.0	19.4#
77	15.7	21.5	32.3#



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-16.D
Acq On : 21 Feb 2014 11:18 pm
Operator : ERG 96-5975B
Sample : 1401014-16
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 24 08:45:09 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1554677	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	5446376	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.240	164	3066926	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.796	188	5099823	20.000	ug/mL	-0.01
11) Chrysene-d12	11.643	240	4203587	20.000	ug/mL	#-0.01
13) Perylene-d12	13.264	264	2536161	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2613617	23.390	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 46.78%			
3) Phenol-d5	3.880	99	3150710	25.650	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 51.30%			
6) Nitrobenzene-d5	4.723	82	1370445	12.854	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 51.40%			
8) 2-Fluorobiphenyl	6.533	172	2597012	12.701	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 50.80%			
10) 2,4,6-Tribromophenol	8.083	330	586902	30.388	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 60.78%			
12) Terphenyl-d14	10.509	244	2863286	13.124	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 52.48%			

Target Compounds Qvalue

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

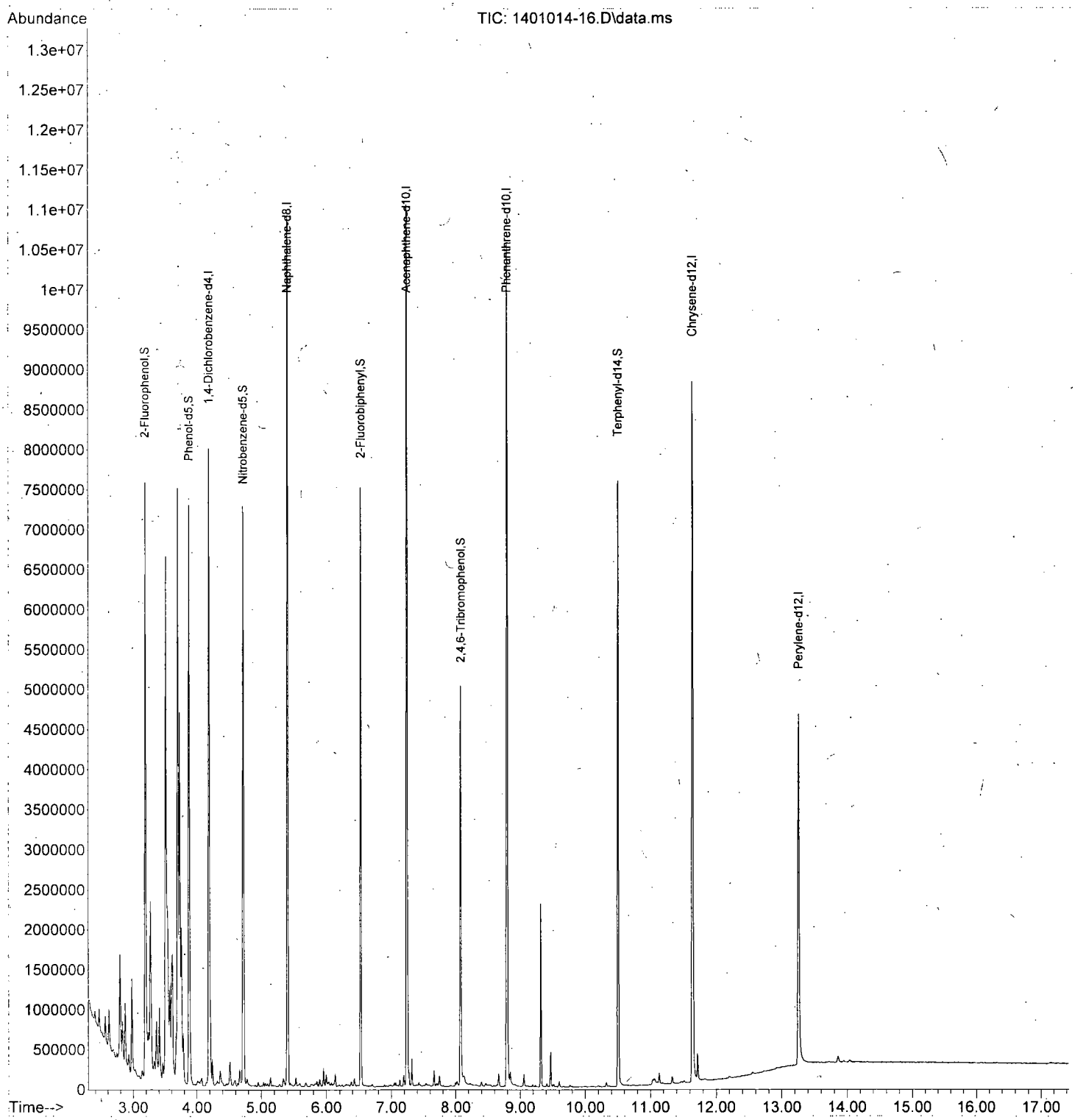
Freedom_0005790_0724

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : 1401014-16.D
Acq On : 21 Feb 2014 11:18 pm
Operator : ERG 96-5975B
Sample : 1401014-16
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 15 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:45:09 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Quality Control Data

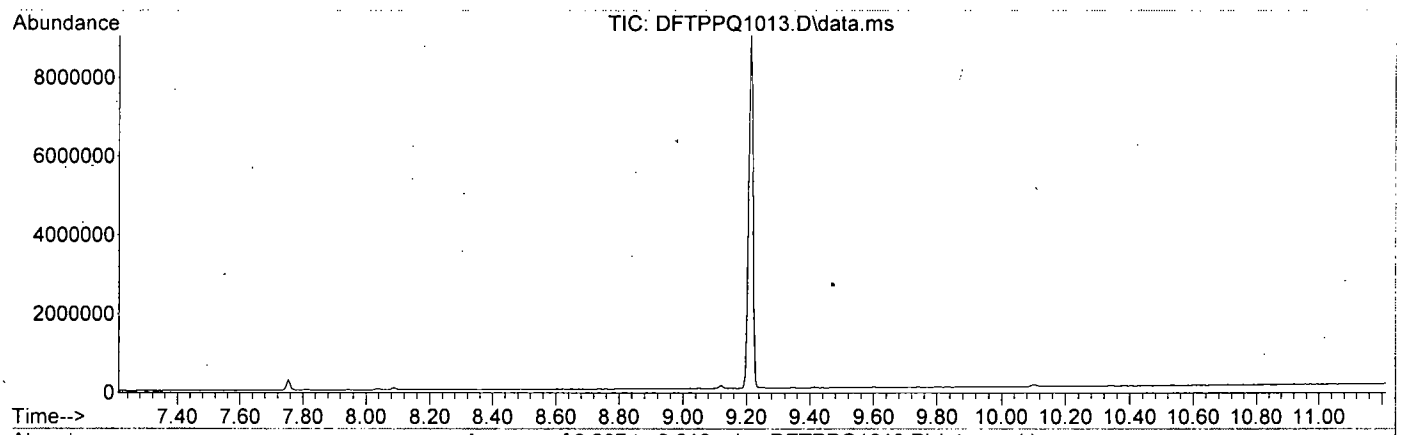
DFTPP

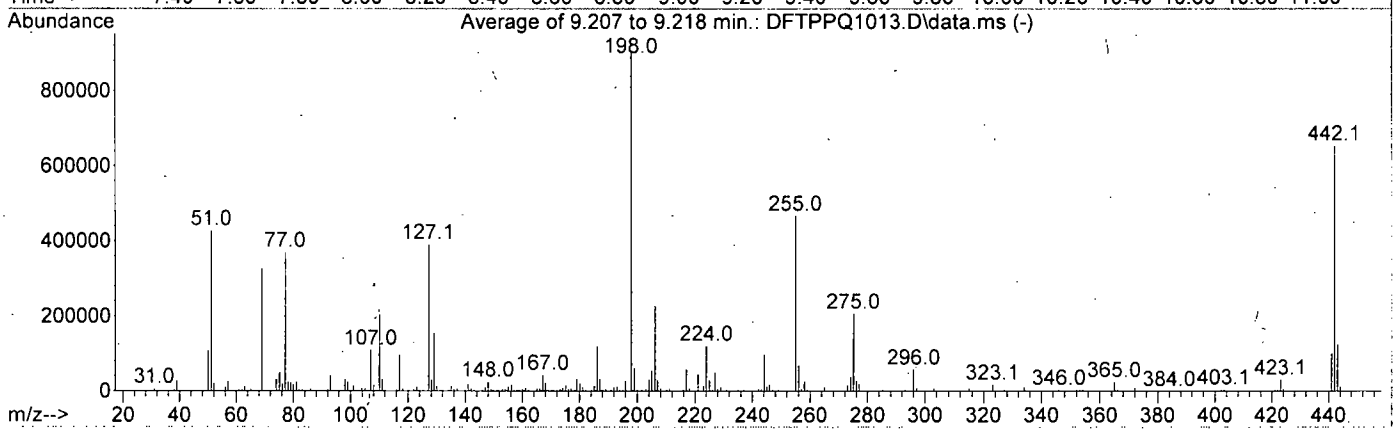
Data Path : D:\DATA\SVOC\2014\01 JAN\012814\
Data File : DFTPPQ1013.D
Acq On : 28 Jan 2014 8:17 am
Operator : ERG 96-5975B
Sample : DFTPPQ1013
Misc : DFTPP Testing
ALS Vial : 1 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Integration File: rteint.p

Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Title : Calibration
Last Update : Tue Feb 25 12:26:06 2014





AutoFind: Scans 1281, 1282, 1283; Background Corrected with Scan 1275

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	47.2	428235	PASS
68	69	0.00	2	1.0	3172	PASS
69	198	0.00	100	35.9	325661	PASS
70	69	0.00	2	0.4	1256	PASS
127	198	40	60	43.2	391381	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	906517	PASS
199	198	5	9	6.7	60363	PASS
275	198	10	30	22.8	206253	PASS
365	198	1	100	2.7	24310	PASS
441	443	0.01	100	81.1	101480	PASS
442	198	40	100	72.2	654549	PASS
443	442	17	23	19.1	125099	PASS

Freedom_0005790_0727

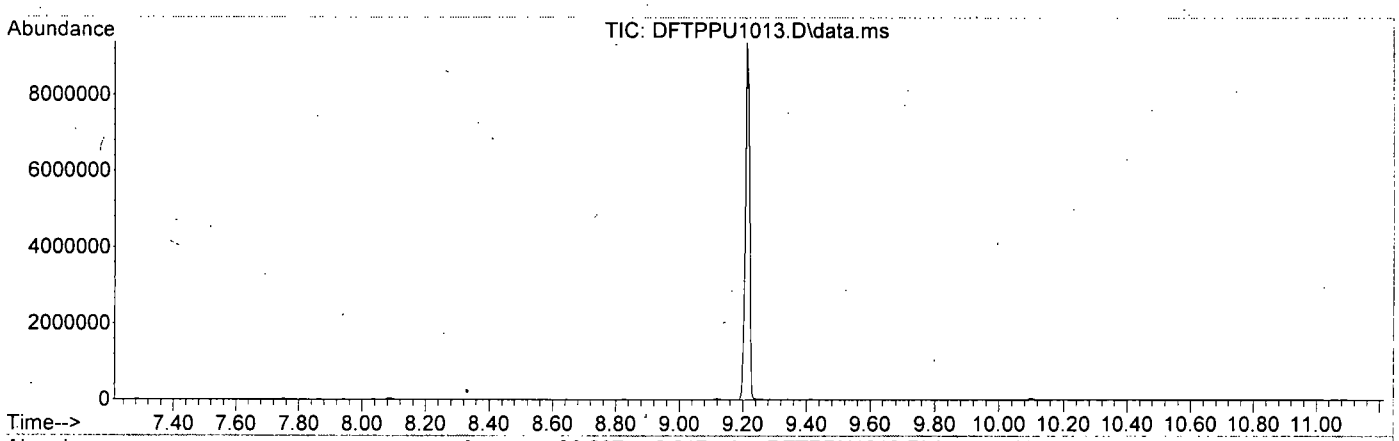
DFTPP

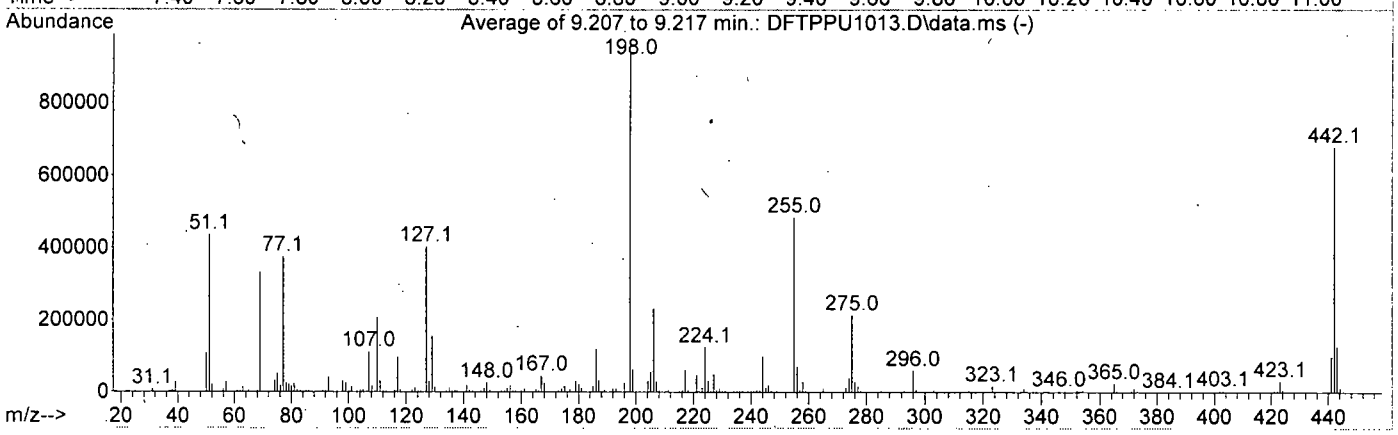
Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : DFTPPU1013.D
Acq On : 5 Feb 2014 3:23 pm
Operator : ERG 96-5975B
Sample : DFTPPU1013
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 1 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Integration File: rteint.p

Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Title : Calibration
Last Update : Tue Feb 25 12:26:06 2014





AutoFind: Scans 1281, 1282, 1283; Background Corrected with Scan 1275

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	46.2	435627	PASS
68	69	0.00	2	1.6	5361	PASS
69	198	0.00	100	35.2	331925	PASS
70	69	0.00	2	0.5	1720	PASS
127	198	40	60	42.8	403669	PASS
197	198	0.00	1	0.2	1442	PASS
198	198	100	100	100.0	942101	PASS
199	198	5	9	6.7	63440	PASS
275	198	10	30	22.8	214339	PASS
365	198	1	100	2.6	24804	PASS
441	443	0.01	100	78.3	99672	PASS
442	198	40	100	72.1	678848	PASS
443	442	17	23	18.8	127296	PASS

Freedom_0005790_0728

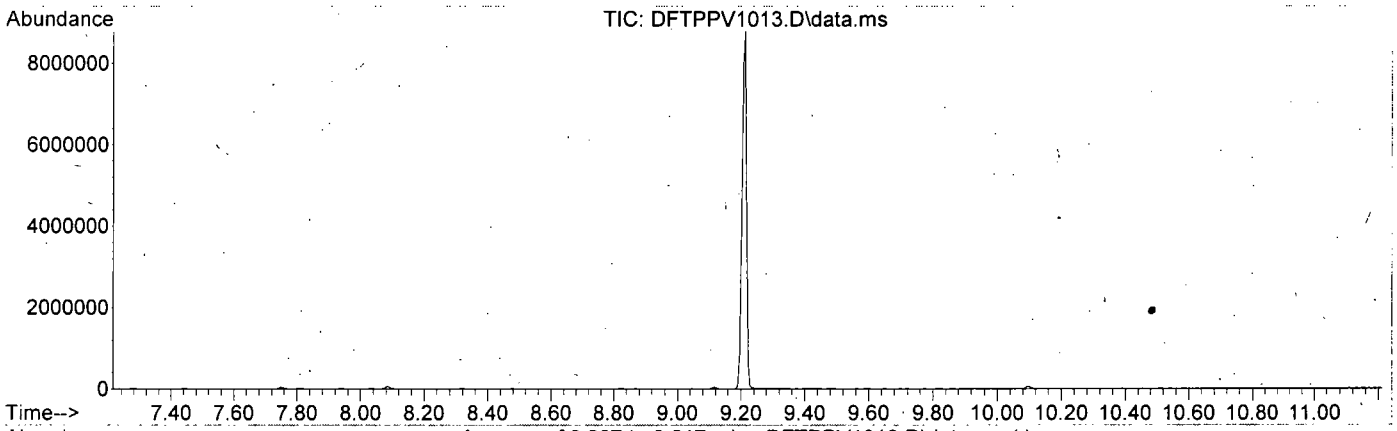
DFTPP

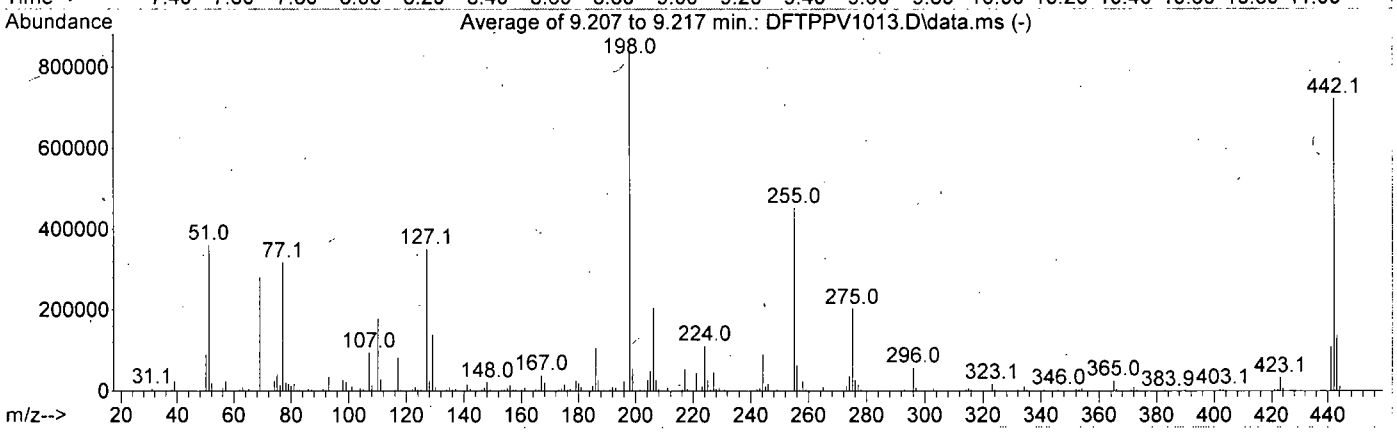
Data Path : D:\DATA\SVOC\2014\02 Feb\020614\
Data File : DFTPPV1013.D
Acq On : 6 Feb 2014 9:02 am
Operator : ERG 96-5975B
Sample : DFTPPV1013
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 1 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Integration File: rteint.p

Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Title : Calibration
Last Update : Tue Feb 25 12:26:06 2014





AutoFind: Scans 1281, 1282, 1283; Background Corrected with Scan 1274

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.1	362046	PASS
68	69	0.00	2	1.4	3958	PASS
69	198	0.00	100	33.7	282947	PASS
70	69	0.00	2	0.5	1363	PASS
127	198	40	60	41.9	352149	PASS
197	198	0.00	1	0.1	1046	PASS
198	198	100	100	100.0	840427	PASS
199	198	5	9	6.7	56405	PASS
275	198	10	30	24.2	203176	PASS
365	198	1	100	3.0	25568	PASS
441	443	0.01	100	79.0	109344	PASS
442	198	40	100	86.0	722688	PASS
443	442	17	23	19.2	138467	PASS

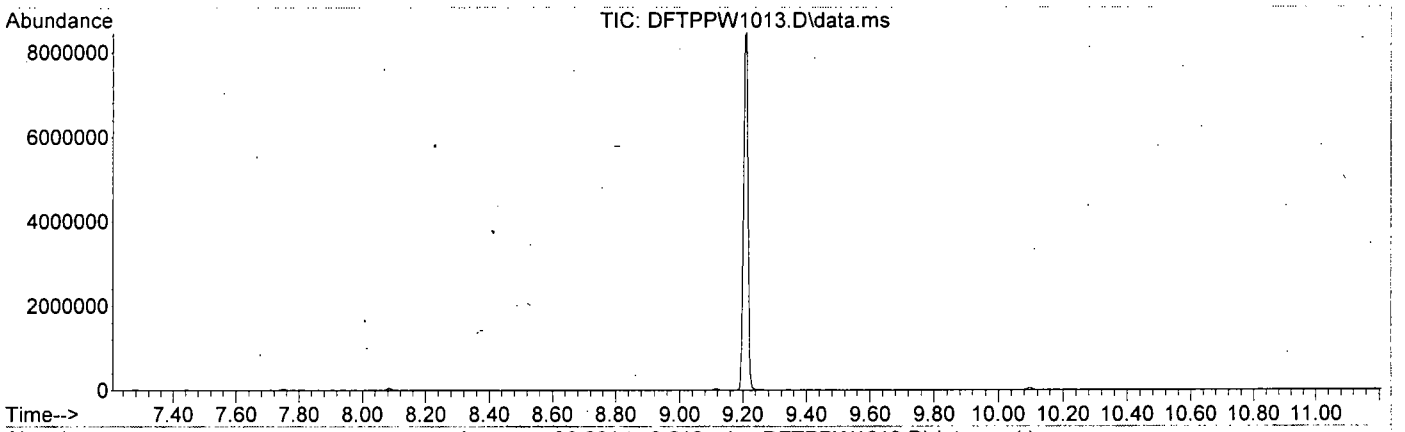
DFTPP

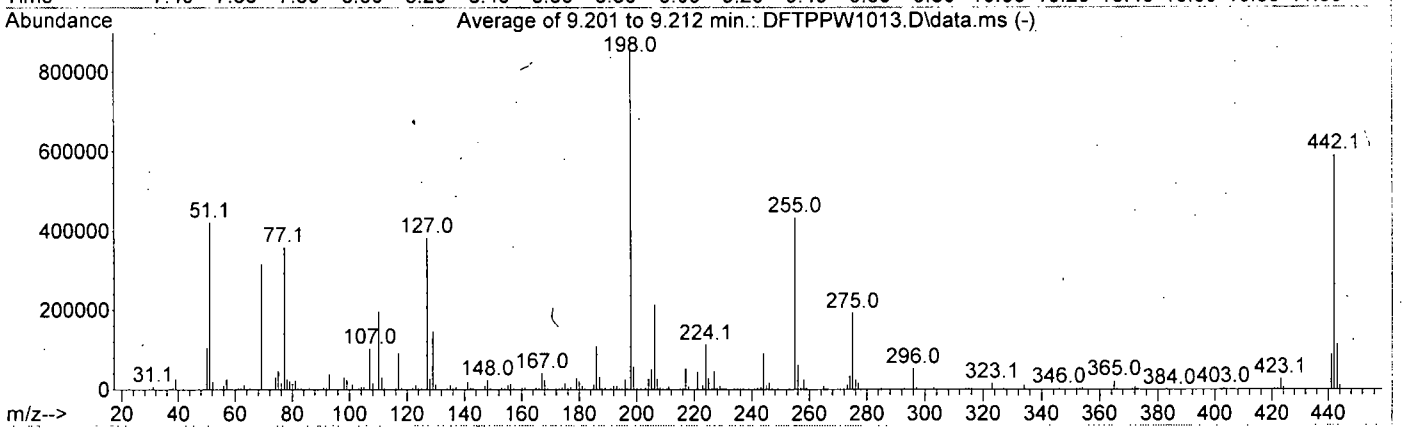
Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : DFTPPW1013.D
Acq On : 7 Feb 2014 11:11 am
Operator : ERG 96-5975B
Sample : DFTPPW1013
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 1 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Integration File: rteint.p

Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Title : Calibration
Last Update : Tue Feb 25 12:26:06 2014





AutoFind: Scans 1280, 1281, 1282; Background Corrected with Scan 1274

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.2	421542	PASS
68	69	0.00	2	1.0	3132	PASS
69	198	0.00	100	37.0	317205	PASS
70	69	0.00	2	0.5	1518	PASS
127	198	40	60	44.6	382741	PASS
197	198	0.00	1	0.4	3571	PASS
198	198	100	100	100.0	857344	PASS
199	198	5	9	6.8	58029	PASS
275	198	10	30	22.5	192789	PASS
365	198	1	100	2.6	21866	PASS
441	443	0.01	100	77.7	87621	PASS
442	198	40	100	68.9	590635	PASS
443	442	17	23	19.1	112808	PASS

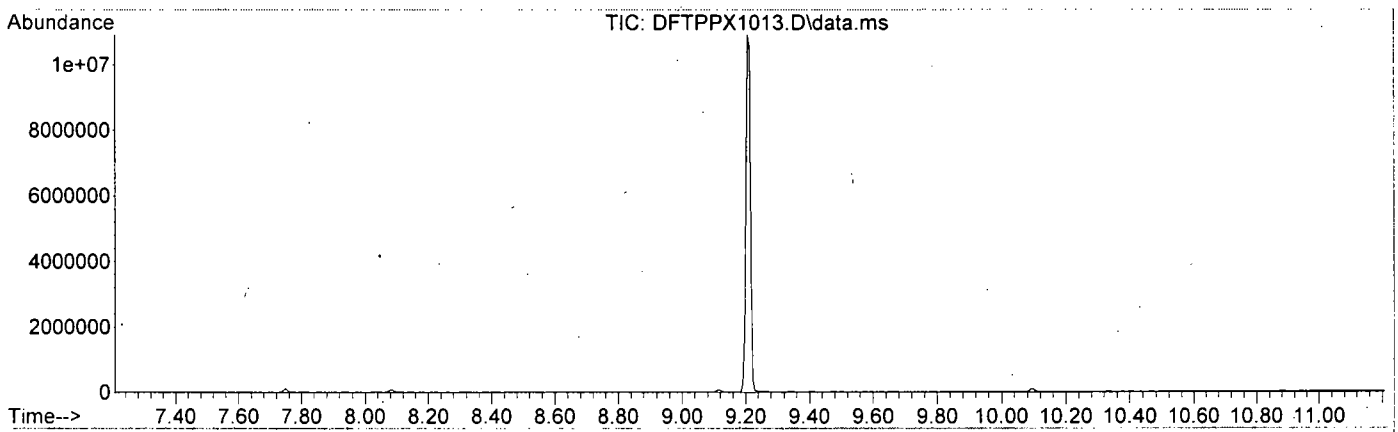
Freedom_0005790_0730

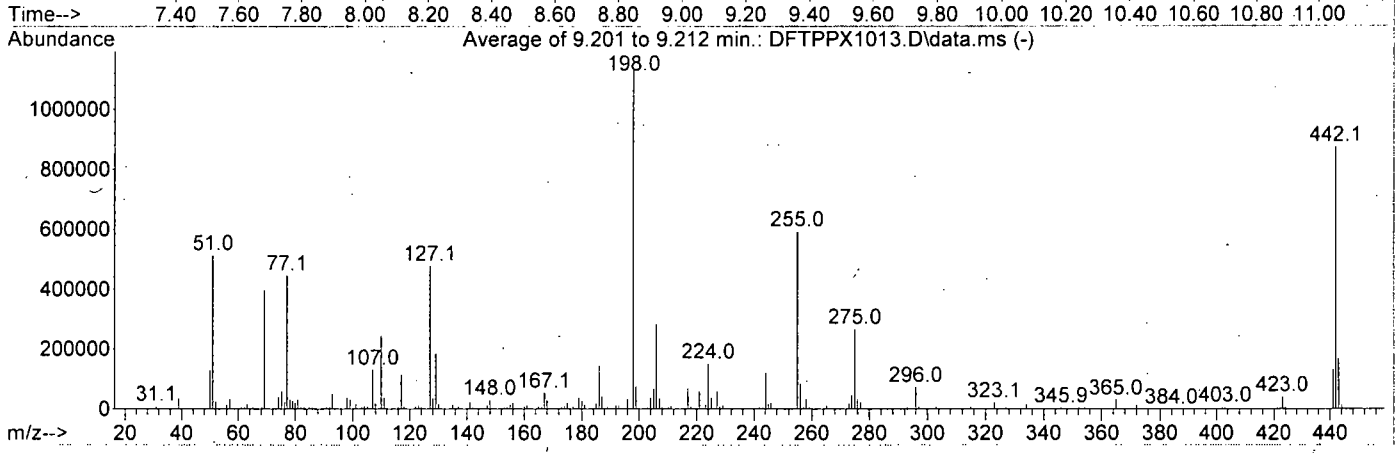
Data Path : D:\DATA\SVOC\2014\02 Feb\021014\
Data File : DFTPPX1013.D
Acq On : 10 Feb 2014 1:45 pm
Operator : ERG 96-5975B
Sample : DFTPPX1013
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 1 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Integration File: rteint.p

Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Title : Calibration
Last Update : Tue Feb 25 12:26:06 2014





AutoFind: Scans 1280, 1281, 1282; Background Corrected with Scan 1274

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.1	513253	PASS
68	69	0.00	2	1.7	6815	PASS
69	198	0.00	100	34.9	396459	PASS
70	69	0.00	2	0.5	1914	PASS
127	198	40	60	42.1	478656	PASS
197	198	0.00	1	0.2	1777	PASS
198	198	100	100	100.0	1137237	PASS
199	198	5	9	6.8	76789	PASS
275	198	10	30	23.5	267157	PASS
365	198	1	100	2.7	30632	PASS
441	443	0.01	100	78.7	131565	PASS
442	198	40	100	76.9	874901	PASS
443	442	17	23	19.1	167123	PASS

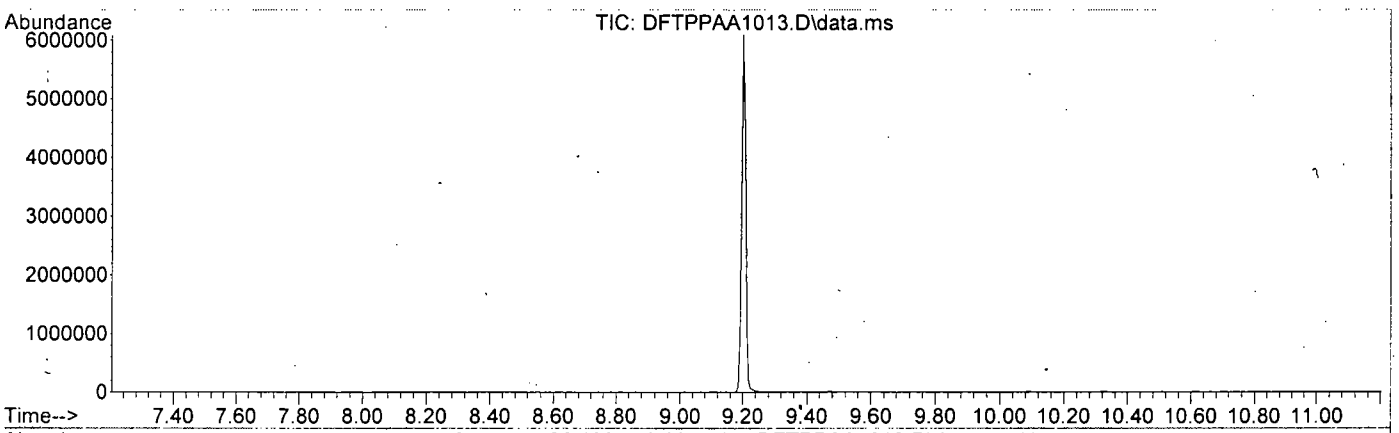
DFTPP

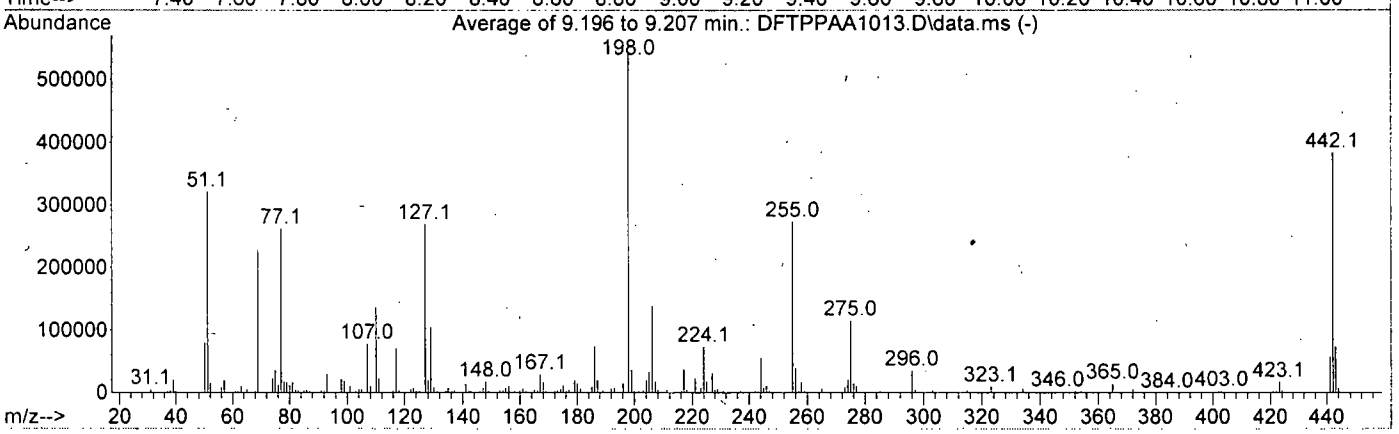
Data Path : D:\DATA\SVOC\2014\02 Feb\022014B\
Data File : DFTPPAA1013.D
Acq On : 20 Feb 2014 12:53 pm
Operator : ERG 96-5975B
Sample : DFTPPAA1013
Misc : Initial Calibration on 022014
ALS Vial : 1 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Integration File: rteint.p

Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Title : Calibration
Last Update : Fri Feb 21 11:54:06 2014





AutoFind: Scans 1279, 1280, 1281; Background Corrected with Scan 1273

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	59.1	321412	PASS
68	69	0.00	2	1.6	3646	PASS
69	198	0.00	100	42.3	230123	PASS
70	69	0.00	2	0.5	1231	PASS
127	198	40	60	49.6	269504	PASS
197	198	0.00	1	0.3	1476	PASS
198	198	100	100	100.0	543701	PASS
199	198	5	9	6.7	36459	PASS
275	198	10	30	21.2	115381	PASS
365	198	1	100	2.7	14617	PASS
441	443	0.01	100	77.4	58077	PASS
442	198	40	100	70.6	383851	PASS
443	442	17	23	19.5	75037	PASS

Freedom_0005790_0732

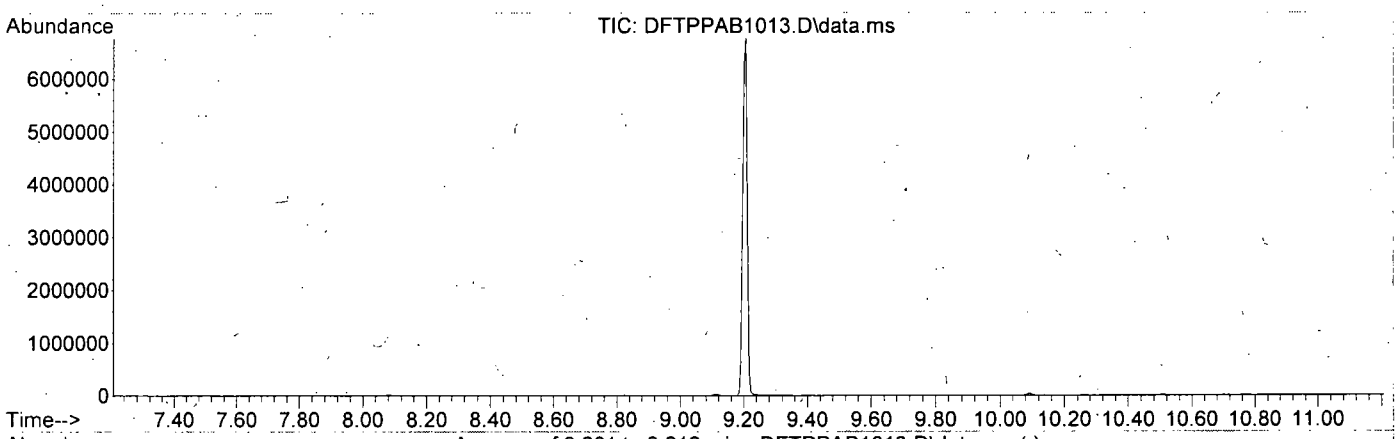
DFTPP

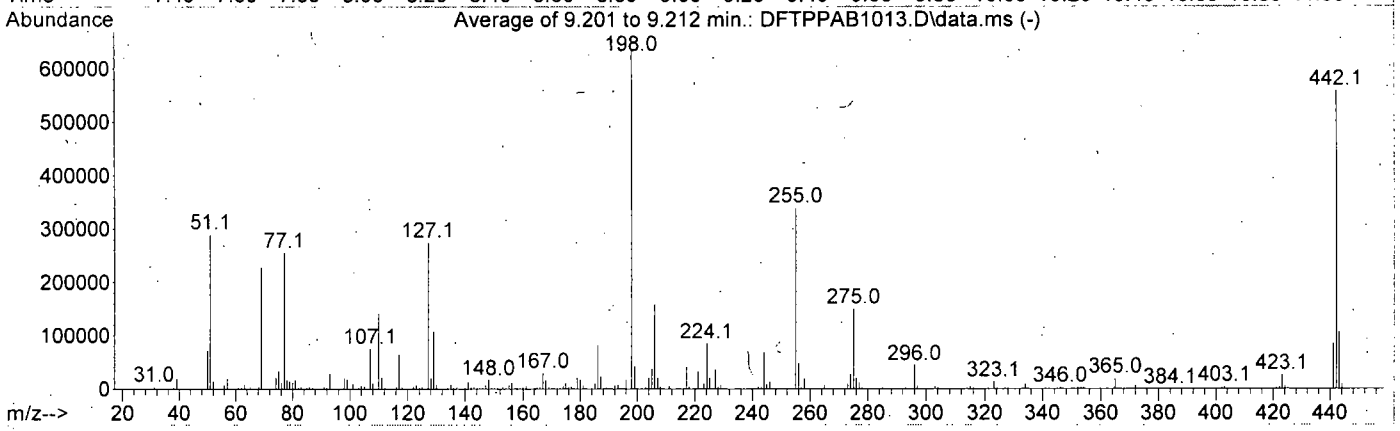
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : DFTPPAB1013.D
Acq On : 21 Feb 2014 12:26 pm
Operator : ERG 96-5975B
Sample : DFTPPAB1013
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 1 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Integration File: rteint.p

Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Title : Calibration
Last Update : Fri Feb 21 11:54:06 2014





AutoFind: Scans 1280, 1281, 1282; Background Corrected with Scan 1273

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.6	290845	PASS
68	69	0.00	2	1.7	3932	PASS
69	198	0.00	100	35.8	228496	PASS
70	69	0.00	2	0.5	1090	PASS
127	198	40	60	43.2	275392	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	637760	PASS
199	198	5	9	6.7	42747	PASS
275	198	10	30	23.6	150323	PASS
365	198	1	100	3.1	20044	PASS
441	443	0.01	100	79.8	84528	PASS
442	198	40	100	87.5	558059	PASS
443	442	17	23	19.0	105931	PASS

Freedom_0005790_0733

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\01 JAN\012814\DFTPPQ1013.D
Tune Time : 28 Jan 2014 8:17 am

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\MCHM05_012314.D

					1423050	5148370	2846660
					4547280	4413440	3754000

File	Sample	Surrogate Recovery %				Internal Standard Responses		
MCHM05_012314.D								
	MCHM05_012	98	97	101	101	1423046	5148367	2846658
		100	91			4547276	4413438	3754003
MCHM10_012314.D								
	MCHM10_012	98	98	98	97	1445410	5243854	2894965
		100	99			4573365	4536244	3928353
MCHM20_012314.D								
	MCHM20_012	99	99	102	104	1478460	5355678	2961466
		104	97			4716570	4538575	3867062
MCHM50_012314.D								
	MCHM50_012	106	105	102	103	1231940	4476037	2500883
		102	102			4016538	3968307	3399172
MCHMLow5_012314.D								
	MCHMLow5_0	99	98	98	98	1296975	4683152	2574139
		96	96			4103591	4063136	3631871

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:38:53 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\020514\DFTPPU1013.D
Tune Time : 5 Feb 2014 3:23 pm

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\MCHM05_012314.D

					1423050	5148370	2846660
					4547280	4413440	3754000

File	Sample	Surrogate Recovery %				Internal Standard Responses		
1401014-04.D								
	1401014-04	93	97	70	75	1322639	4815593	2676920
		110	76			4276518	4188821	3149213
BB40301-BLK1.D								
	BB40301-BL	90	96	70	74	1222203	4409776	2432107
		105	77			3873638	3638387	2793173
BB40301-BS1.D								
	BB40301-BS	89	92	68	76	1131924	4157146	2419731
		115	76			4263517	3649308	3108249
MCHM05_012314.D								
	MCHM05_012	96	96	98	100	1534982	5530955	3049370
		105	100			4908639	4878506	3875129

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:40:13 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\020614\DFTPPV1013.D
Tune Time : 6 Feb 2014 9:02 am

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\MCHM05_012314.D

					1423050	5148370	2846660
					4547280	4413440	3754000

File	Sample	Surrogate Recovery %				Internal Standard Responses		
1401014-01.D								
	1401014-01	11*	12*	8*	10*	1304367	4692420	2558630
		11	9*			4183725	4159297	3321369
1401014-02.D								
	1401014-02	11*	13*	8*	10*	1299079	4696054	2604261
		11	9*			4167000	4101992	3090962
1401014-03.D								
	1401014-03	10*	11*	7*	9*	1281744	4636439	2556762
		10*	8*			4203271	4124918	3349780

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:40:56 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\020714\DFTPPW1013.D
Tune Time : 7 Feb 2014 11:11 am

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\MCHM05_012314.D

					1423050	5148370	2846660
					4547280	4413440	3754000

File	Sample	Surrogate Recovery %				Internal Standard Responses		
BB40502-BLK1.D								
	BB40502-BL	89	97	69	72	1173970	4286493	2364754
		101	73			3853241	3670726	2948357
BB40502-BS1.D								
	BB40502-BS	81	85	66	71	1401006	5113043	2891768
		107	72			5061971	4277560	3392560
MCHM05_012314.D								
	MCHM05_012	97	97	99	99	1530695	5451244	3009802
		105	99			4954193	4947629	4067223

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:42:09 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\021014\DFTPPX1013.D
Tune Time : 10 Feb 2014 1:45 pm

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\MCHM05_012314.D

					1423050	5148370	2846660
					4547280	4413440	3754000

File	Sample	Surrogate Recovery %				Internal Standard Responses		
1401014-06 10000X.D								
	1401014-06	0*	0*	5*	0*	1529925	5473982	3061002
		0*	0*			4970423	4739035	3911640
1401014-07.D								
	1401014-07	80	88	62	66	1527098	5498632	3116754
		105	63			5145655	4908557	3882581
MCHM05_012314.D								
	MCHM05_012	96	96	97	98	1772746	6333301	3501376
		105	98			5814104	5783665	4733575

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:42:48 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\022014B\DFTPPAA1013.D
Tune Time : 20 Feb 2014 12:53 pm

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\02 Feb\022014B\MCHM05_021814.D

						1184490	4230940	2272960
						3561950	3458980	2720660

File	Sample	Surrogate Recovery %				Internal Standard Responses		
MCHM05_021814.D								
	MCHM05_021	104	105	101	100	1184488	4230938	2272957
		107	97			3561953	3458982	2720662
MCHM10_021814.D								
	MCHM10_021	97	97	98	100	1161606	4114999	2225061
		97	95			3550879	3423649	2734928
MCHM20_021814.D								
	MCHM20_021	102	100	99	101	1157656	4072049	2183302
		100	98			3544719	3542336	2790041
MCHM50_021814.D								
	MCHM50_021	96	98	102	100	1382621	4914634	2670959
		96	110			4127065	3386650	2072002
MCHMLow5_021814.D								
	MCHMLow5_0	98	97	96	100	1008424	3610009	1921944
		95	99			3024884	2831378	2150054

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:44:08 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\022114\DFTPPAB1013.D
Tune Time : 21 Feb 2014 12:26 pm

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\02 Feb\022014B\MCHM05_021814.D

						1184490	4230940	2272960
						3561950	3458980	2720660

File	Sample	Surrogate Recovery %				Internal Standard Responses		
1401014-09.D								
	1401014-09	83	87	82	80	1265866	4471523	2520678
		118	67			4140374	2782535	1741693
1401014-12.D								
	1401014-12	81	85	72	73	1330574	4840811	2972346
		107	76			5079388	3899866	2822023
1401014-13.D								
	1401014-13	70	83	73	73	1434054	5030490	3120445
		109	85			5320379	3505488	2156035
1401014-14.D								
	1401014-14	69	82	74	71	1628020	5845533	3546067
		109	90			6078217	4084456	2617785
1401014-15.D								
	1401014-15	66	88	71	56	1429547	4977425	3055814
		102	61			5049114	3932702	2297074
1401014-16.D								
	1401014-16	73	80	74	74	1554677	5446376	3066926
		100	90			5099823	4203587	2536161
BB41002-BLK1.D								
	BB41002-BL	91	92	88	87	1276946	4489842	2409482
		103	112			3868908	2887129	1753645
BB41002-BS1.D								
	BB41002-BS	87	88	88	89	1232361	4378074	2550334
		117	108			4422111	2963981	2072103
BB41801-BLK1.D								
	BB41801-BL	72	80	77	74	1388139	4960310	2752903
		93	95			4561529	3521272	2271862
BB41801-BS1.D								
	BB41801-BS	76	79	79	80	1385081	4935358	2924944
		109	96			5152143	3577442	2424586
BB41801-MS1.D								
	BB41801-MS	72	78	69	76	1487779	5392210	3312682
		123	79			5062840	4299425	3164713
BB41801-MSD1.D								
	BB41801-MS	85	89	77	80	1541334	5730090	3607250
		112	81			6405205	4670868	3131528
MCHM05_021814.D								
	MCHM05_021	102	103	99	97	1197611	4198519	2251083
		103	116			3690151	2734308	1707658

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:45:13 2014 CWA

WO: 1401014
Site Name: WV Chem Leak

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\01 JAN\012814\DFTPPQ1013.D
Tune Time : 28 Jan 2014 8:17 am

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\PPH05_012514.D

					962334	3515240	1909230
					3027480	2855440	2438020

File	Sample	Surrogate Recovery %				Internal Standard Responses		
PPH05_012514.D								
	PPH05_0125	101	103	100	100	962334	3515244	1909227
		101	97			3027484	2855438	2438020
PPH10_012514.D								
	PPH10_0125	100	101	100	98	978841	3568238	1961630
		101	97			3002621	2862705	2406779
PPH20_012514.D								
	PPH20_0125	100	99	101	101	994136	3627677	1955051
		99	97			3046672	2985125	2601037
PPH50_012514.D								
	PPH50_0125	99	98	101	101	1003527	3639778	1964545
		99	100			3115546	2947948	2516515
PPHLow5_012514.D								
	PPHLow5_01	99	100	98	100	949286	3489245	1865944
		99	109			2714787	1948384	1592595

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:46:27 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\020514\DFTPPU1013.D
Tune Time : 5 Feb 2014 3:23 pm

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\PPH05_012514.D

					962334	3515240	1909230
					3027480	2855440	2438020

File	Sample	Surrogate Recovery %				Internal Standard Responses		
1401014-01.D								
	1401014-01	67	74	42*	45	1206450	4384257	2485035
		85	41			4133496	4005203	3336143
1401014-02.D								
	1401014-02	74	75	43*	45	1326232	4849939	2701640
		87	42			4458450	4358167	3523888
1401014-03.D								
	1401014-03	68	68	40*	42*	1389546	5015974	2804744
		79	39			4628014	4554400	3659506
1401014-04.D								
	1401014-04	70	72	42*	45	1322639	4815593	2676920
		80	41			4276518	4188821	3149213
BB40301-BLK1.D								
	BB40301-BL	67	71	42*	44	1222203	4409776	2432107
		77	42			3873638	3638387	2793173
BB40301-BS1.D								
	BB40301-BS	66	68	41*	45	1131924	4157146	2419731
		84	41			4263517	3649308	3108249
PPH05_012514.D								
	PPH05_0125	99	99	98	97	1271867	4529334	2492014
		112	99			3962145	3864912	3075331

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:47:27 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\020714\DFTPPW1013.D
Tune Time : 7 Feb 2014 11:11 am

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\PPH05_012514.D

					962334	3515240	1909230
					3027480	2855440	2438020

File	Sample	Surrogate Recovery %				Internal Standard Responses		
1401014-06 10X.D								
	1401014-06	3*	0*	215*	6*	1412540	5851403	3912152*
		9*	5*			6575323*	5282600	4130108
BB40502-BLK1.D								
	BB40502-BL	67	72	41*	44	1173970	4286493	2364754
		74	40			3853241	3670726	2948357
BB40502-BS1.D								
	BB40502-BS	61	63	39*	42*	1401006	5113043	2891768
		78	39			5061971	4277560	3392560
PPH05_012514.D								
	PPH05_0125	97	99	99	96	1381411	4985129	2721681
		114	93			4391038	4388846	3549020

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:48:19 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\021014\DFTPPX1013.D
Tune Time : 10 Feb 2014 1:45 pm

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\01 JAN\012814\PPH05_012514.D

					962334	3515240	1909230
					3027480	2855440	2438020

File	Sample	Surrogate Recovery %				Internal Standard Responses		
1401014-07.D								
	1401014-07	59	65	37*	40*	1527098	5498632	3116754
		77	34			5145655	4908557	3882581
PPH05_012514.D								
	PPH05_0125	97	98	96	95	1541262	5543184	3031237
		117	91			5131660	5339888	4346944

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:49:00 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\022014B\DFTPPAA1013.D
Tune Time : 20 Feb 2014 12:53 pm

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\02 Feb\022014B\PPH05_021914.D

921341	3366730	1790900	
2734980	2240640	1285540	

File	Sample	Surrogate Recovery %				Internal Standard Responses		
PPH05_021914.D								
	PPH05_0219	92	91	60	61	921341	3366725	1790899
		90	60			2734982	2240638	1285539
PPH10_021914.D								
	PPH10_0219	99	100	69	70	855168	3109776	1667536
		97	71			2586647	2063236	1152464
PPH20_021914.D								
	PPH20_0219	97	98	73	74	864991	3134885	1656381
		96	74			2600082	2126699	1250620
PPH50_021914.D								
	PPH50_0219	101	101	83	82	805349	2873853	1530207
		95	87			2372116	1818584	1022428
PPHLow5_021914.D								
	PPHLow5_02	95	94	57	58	885249	3188167	1701105
		90	58			2567438	2023341	1136703

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:50:10 2014 CWA

GC/MS QA-QC Check Report

Tune File : D:\DATA\SVOC\2014\02 Feb\022114\DFTPPAB1013.D
Tune Time : 21 Feb 2014 12:26 pm

WO: 1401014
Site Name: WV Chem Leak

Daily Calibration File : D:\DATA\SVOC\2014\02 Feb\022014B\PPH05_021914.D

						921341	3366730	1790900
						2734980	2240640	1285540

File	Sample	Surrogate Recovery %				Internal Standard Responses		
1401014-09.D								
	1401014-09	54	56	57	55	1265866	4471523	2520678
		72	39			4140374	2782535	1741693
1401014-12.D								
	1401014-12	52	55	50	50	1330574	4840811	2972346
		65	44			5079388	3899866	2822023*
1401014-13.D								
	1401014-13	45	53	51	50	1434054	5030490	3120445
		66	50			5320379	3505488	2156035
1401014-14.D								
	1401014-14	45	53	52	49	1628020	5845533	3546067
		66	52			6078217*	4084456	2617785*
1401014-15.D								
	1401014-15	43	57	49	38*	1429547	4977425	3055814
		62	36			5049114	3932702	2297074
1401014-16.D								
	1401014-16	47	51	51	51	1554677	5446376	3066926
		61	52			5099823	4203587	2536161
BB41002-BLK1.D								
	BB41002-BL	58	59	61	59	1276946	4489842	2409482
		63	65			3868908	2887129	1753645
BB41002-BS1.D								
	BB41002-BS	56	56	62	61	1232361	4378074	2550334
		71	63			4422111	2963981	2072103
BB41801-BLK1.D								
	BB41801-BL	46	52	53	51	1388139	4960310	2752903
		57	55			4561529	3521272	2271862
BB41801-BS1.D								
	BB41801-BS	49	51	55	55	1385081	4935358	2924944
		66	56			5152143	3577442	2424586
BB41801-MS1.D								
	BB41801-MS	46	50	48	52	1487779	5392210	3312682
		75	46			5062840	4299425	3164713*
BB41801-MSD1.D								
	BB41801-MS	55	57	54	55	1541334	5730090	3607250*
		68	47			6405205*	4670868*	3131528*
PPH05_021914.D								
	PPH05_0219	96	96	99	98	891309	3176952	1671254
		99	100			2623625	2020365	1219898

(fails) - fails 12hr time check * - fails criteria

Created: Thu Feb 27 15:51:09 2014 CWA

WO: 1401014
Site Name: WV Chem Leak

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BLK1.D
Acq On : 5 Feb 2014 5:04 pm
Operator : ERG 96-5975B
Sample : BB40301-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:41:24 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1222203	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4409776	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2432107	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	3873638	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	3638387	20.000	ug/mL	# 0.00
14) Perylene-d12	13.280	264	2793173	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3125821	45.104	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 90.20%			
3) Phenol-d5	3.875	99	3669853	48.152	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 96.30%			
7) Nitrobenzene-d5	4.729	82	1607505	17.407	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 69.64%			
9) 2-Fluorobiphenyl	6.538	172	3193947	18.451	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 73.80%			
11) 2,4,6-Tribromophenol	8.089	330	628509	52.743	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 105.48%			
13) Terphenyl-d14	10.520	244	3546020	19.349	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 77.40%			

Target Compounds Qvalue

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

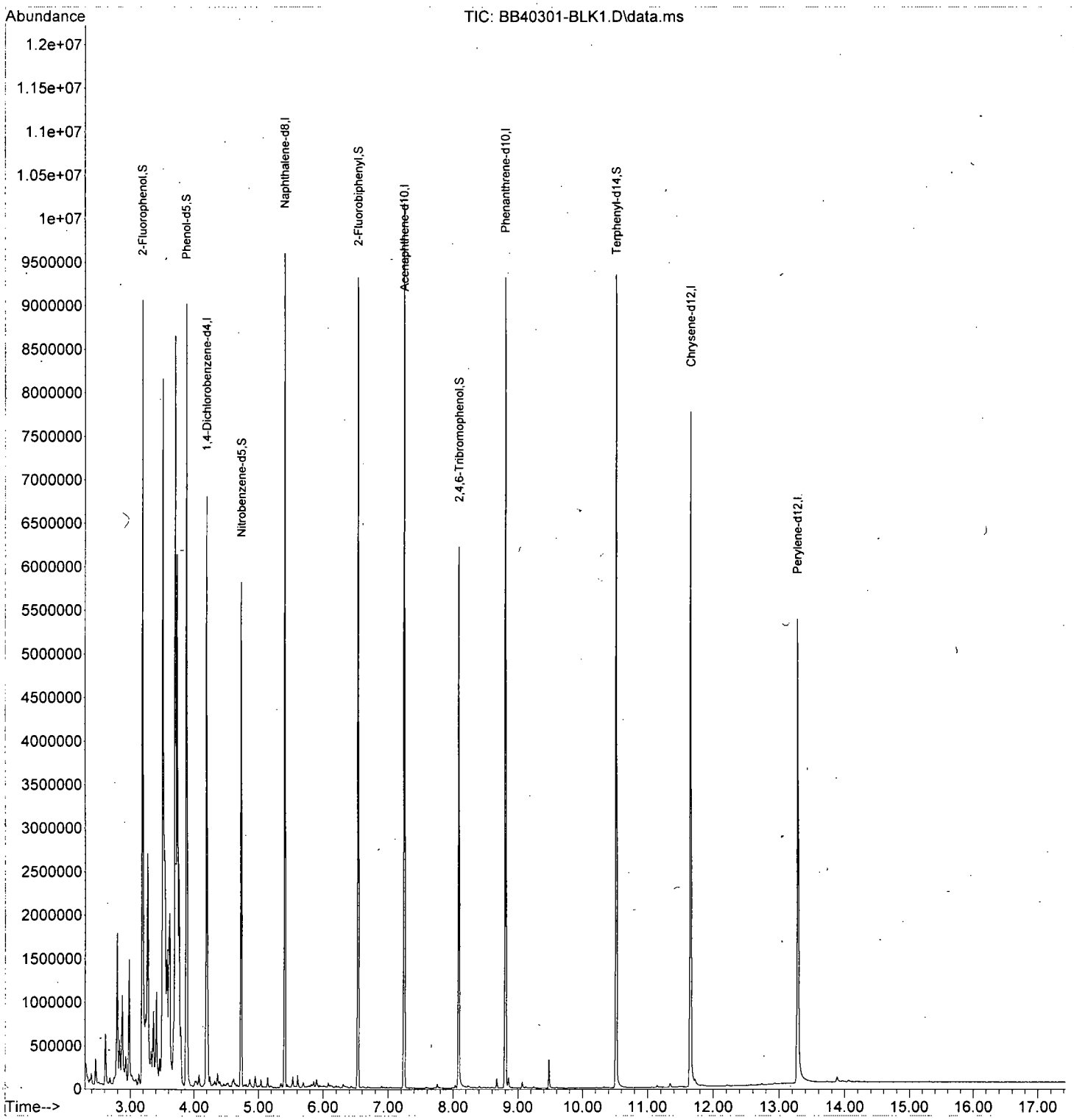
Freedom_0005790_0749

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BLK1.D
Acq On : 5 Feb 2014 5:04 pm
Operator : ERG 96-5975B
Sample : BB40301-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:41:24 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BS1.D
Acq On : 5 Feb 2014 5:55 pm
Operator : ERG 96-5975B
Sample : BB40301-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:42:43 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1131924	20.000	ug/mL	0.00
6) Naphthalene-d8	5.415	136	4157146	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.251	164	2419731	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.812	188	4263517	20.000	ug/mL	0.00
12) Chrysene-d12	11.665	240	3649308	20.000	ug/mL	# 0.01
14) Perylene-d12	13.291	264	3108249	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2852064	44.436	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 88.88%			
3) Phenol-d5	3.880	99	3240576	45.910	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 91.82%			
7) Nitrobenzene-d5	4.734	82	1479404	16.993	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 67.96%			
9) 2-Fluorobiphenyl	6.538	172	3253039	18.889	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 75.56%			
11) 2,4,6-Tribromophenol	8.094	330	754806	57.549	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 115.10%			
13) Terphenyl-d14	10.519	244	3510656	19.099	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 76.40%			
Target Compounds						Qvalue
4) cis-MCHM	4.518	55	134398m	3.990	ug/mL	✓
5) tans-MCHM	4.680	55	326586	4.811	ug/mL	✓ 90

Ave 4.4005

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

$\frac{4.4005}{5} \times 100 = 88\%$

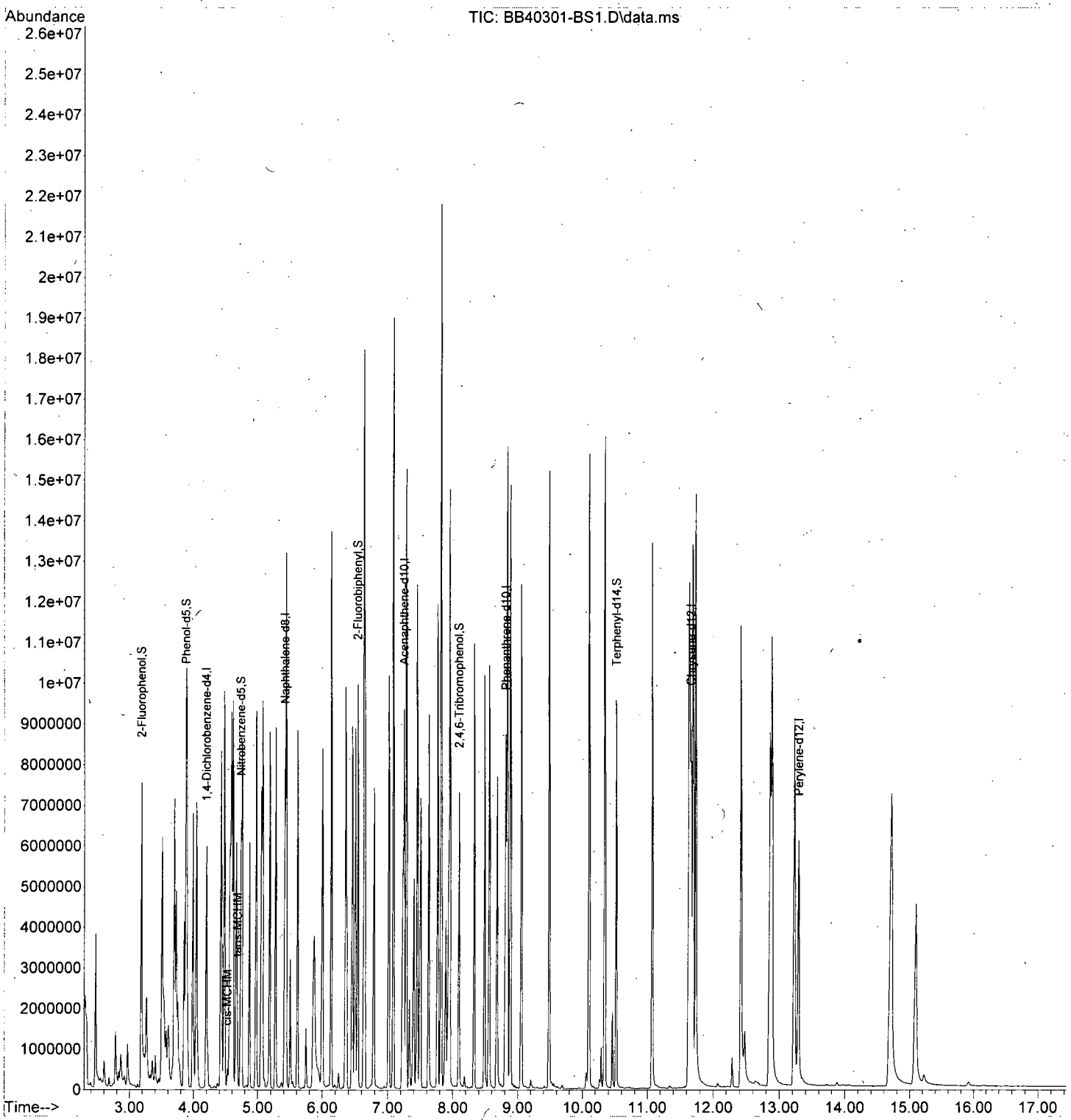
Freedom_0005790_0751

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BS1.D
Acq On : 5 Feb 2014 5:55 pm
Operator : ERG 96-5975B
Sample : BB40301-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:42:43 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

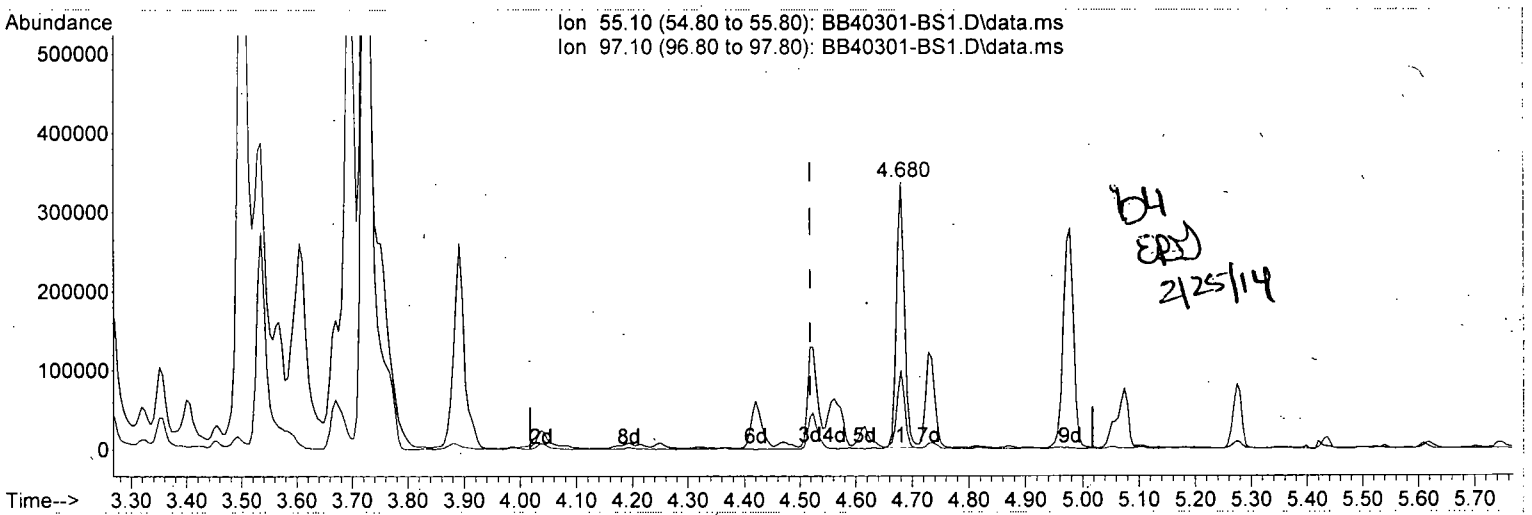


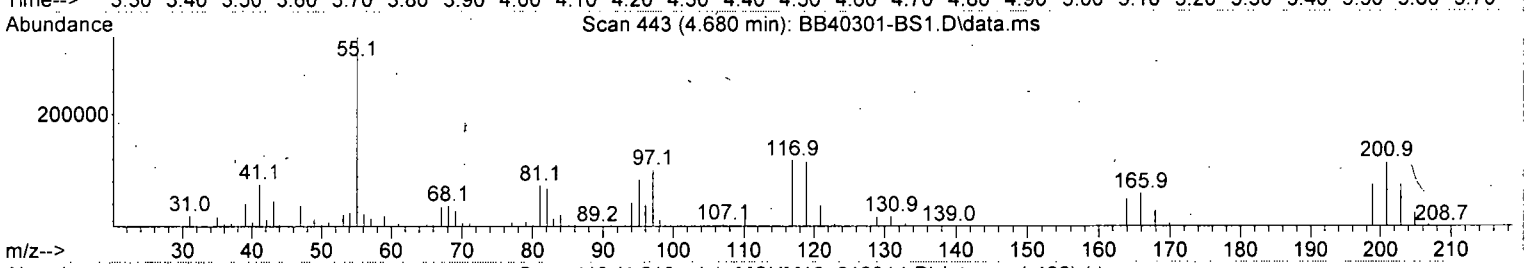
Quantitation Report (Qedit)

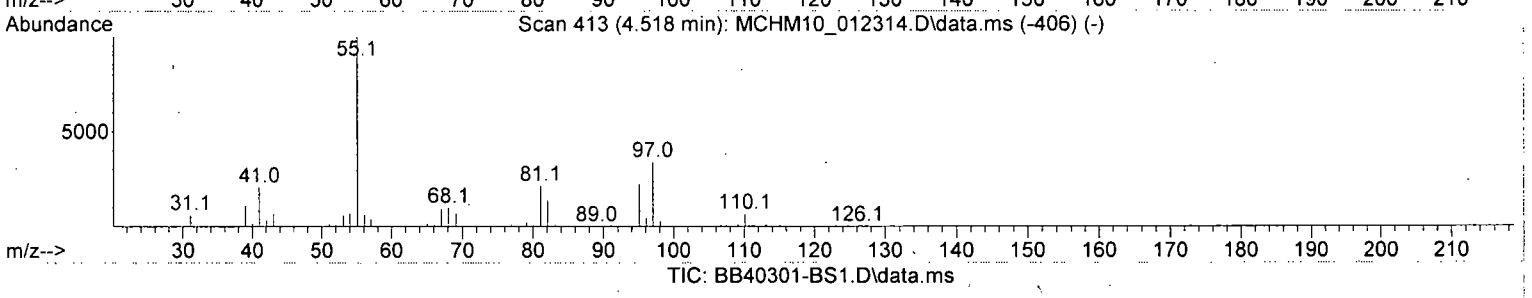
Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BS1.D
Acq On : 5 Feb 2014 5:55 pm
Operator : ERG 96-5975B
Sample : BB40301-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:42:18 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration







TIC: BB40301-BS1.D\data.ms

(4) cis-MCHM

4.680min (+0.162) 9.70 ug/mL

response 326586

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	29.93
0.00	0.00	0.00
0.00	0.00	0.00

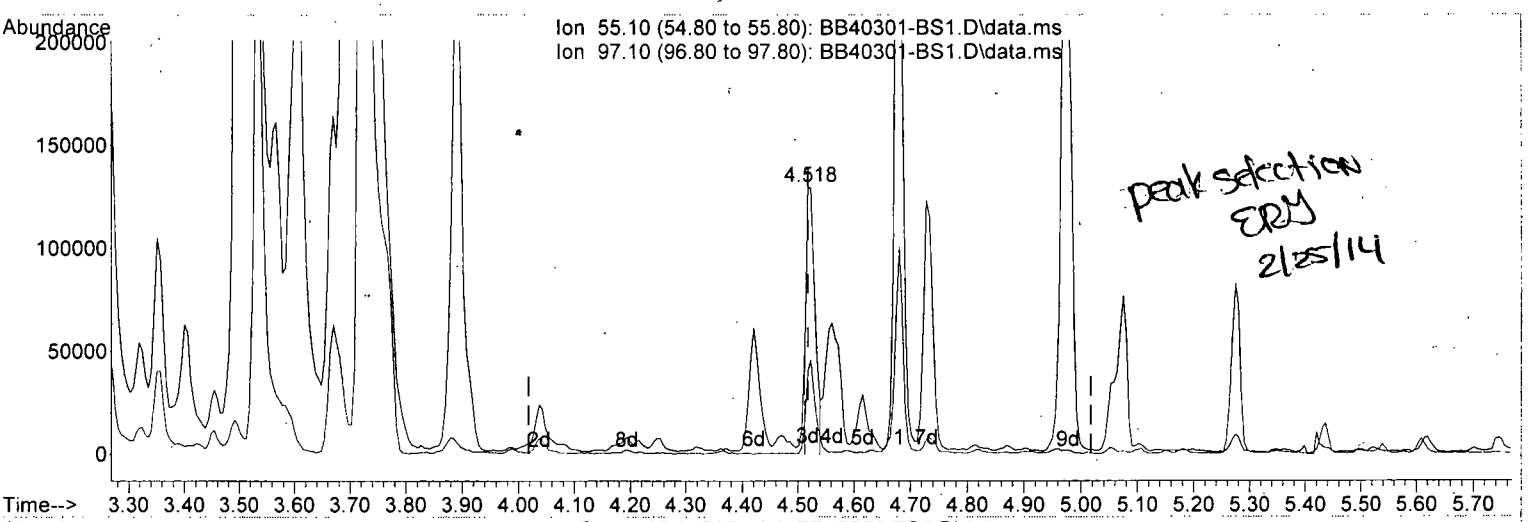
Freedom_0005790_0753

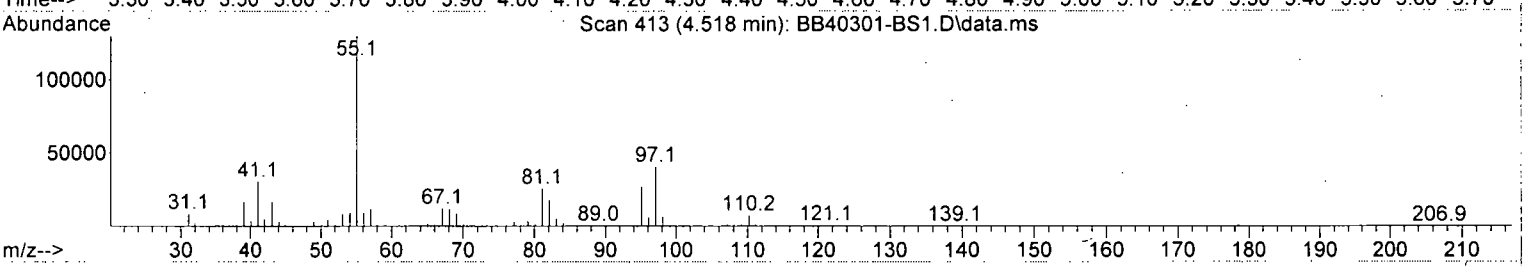
Quantitation Report (Qedit)

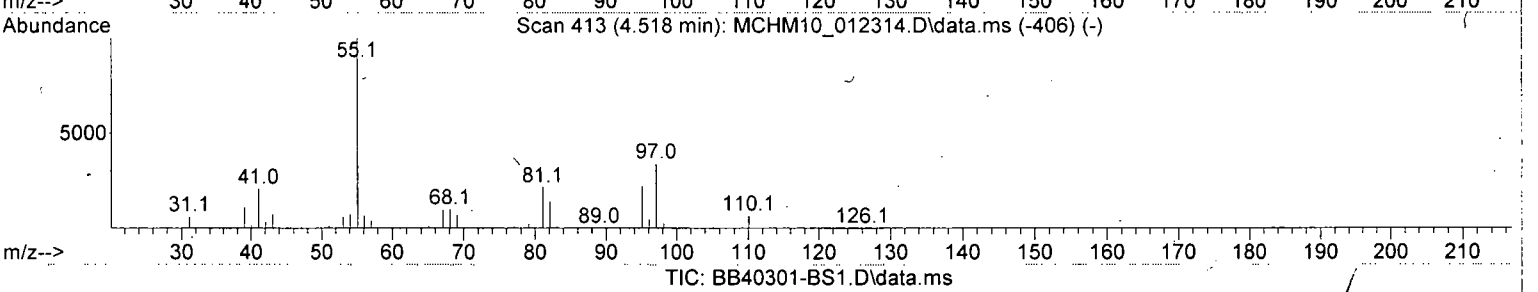
Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BS1.D
Acq On : 5 Feb 2014 5:55 pm
Operator : ERG 96-5975B
Sample : BB40301-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:42:18 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration







TIC: BB40301-BS1.D\data.ms

(4) cis-MCHM

4.518min (-0.000) 3.99 ug/mL m

response 134398

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	72.73#
0.00	0.00	0.00
0.00	0.00	0.00

Freedom_0005790_0754

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : BB40502-BLK1.D
Acq On : 7 Feb 2014 12:51 pm
Operator : ERG 96-5975B
Sample : BB40502-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 25 12:47:58 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1173970	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4286493	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.241	164	2364754	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	3853241	20.000	ug/mL	0.00
12) Chrysene-d12	11.649	240	3670726	20.000	ug/mL	# 0.00
14) Perylene-d12	13.275	264	2948357	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2972713	44.657	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 89.32%			
3) Phenol-d5	3.875	99	3542887	48.396	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 96.80%			
7) Nitrobenzene-d5	4.723	82	1555730	17.330	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 69.32%			
9) 2-Fluorobiphenyl	6.533	172	3049548	18.119	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 72.48%			
11) 2,4,6-Tribromophenol	8.083	330	600287	50.641	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 101.28%			
13) Terphenyl-d14	10.514	244	3368368	18.218	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 72.88%			

Target Compounds Qvalue

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

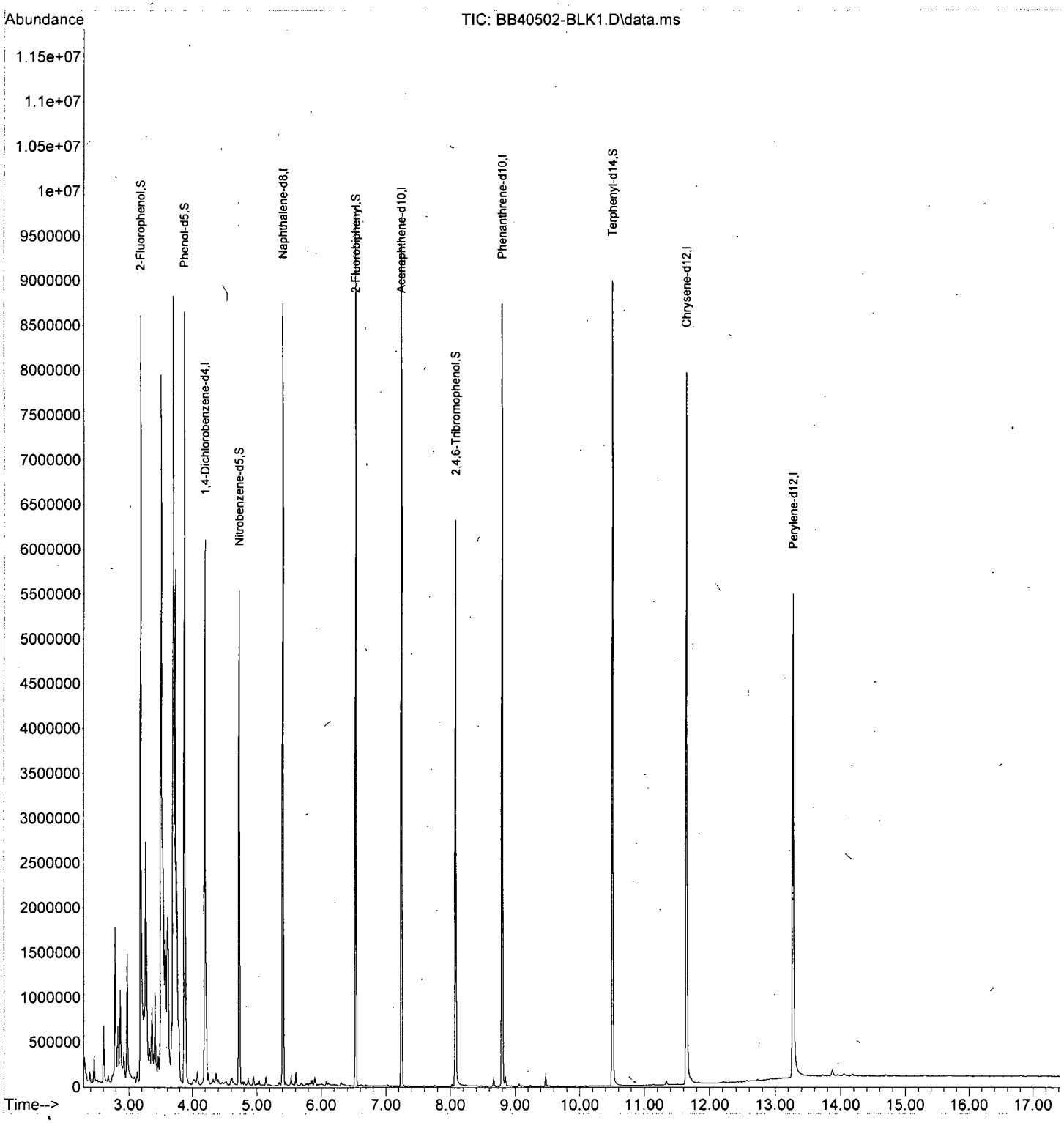
Freedom_0005790_0755

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : BB40502-BLK1.D
Acq On : 7 Feb 2014 12:51 pm
Operator : ERG 96-5975B
Sample : BB40502-BLK1
Misc : WO#1401014,Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:47:58 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : BB40502-BS1.D
Acq On : 7 Feb 2014 1:42 pm
Operator : ERG 96-5975B
Sample : BB40502-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:48:29 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1401006	20.000	ug/mL	0.00
6) Naphthalene-d8	5.415	136	5113043	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.251	164	2891768	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	5061971	20.000	ug/mL	0.00
12) Chrysene-d12	11.659	240	4277560	20.000	ug/mL	# 0.00
14) Perylene-d12	13.285	264	3392560	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3230100	40.660	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery	=	81.32%	
3) Phenol-d5	3.880	99	3725462	42.643	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery	=	85.28%	
7) Nitrobenzene-d5	4.734	82	1768929	16.520	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery	=	66.08%	
9) 2-Fluorobiphenyl	6.538	172	3634175	17.657	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery	=	70.64%	
11) 2,4,6-Tribromophenol	8.094	330	829911	53.295	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery	=	106.58%	
13) Terphenyl-d14	10.514	244	3878556	18.001	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery	=	72.00%	
Target Compounds						Qvalue
4) cis-MCHM	4.523	55	198704	4.766	ug/mL	90
5) tans-MCHM	4.680	55	411053	4.892	ug/mL#	89

Ave 4.829

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

$$\frac{4.829}{5} \times 100 = 97\%$$

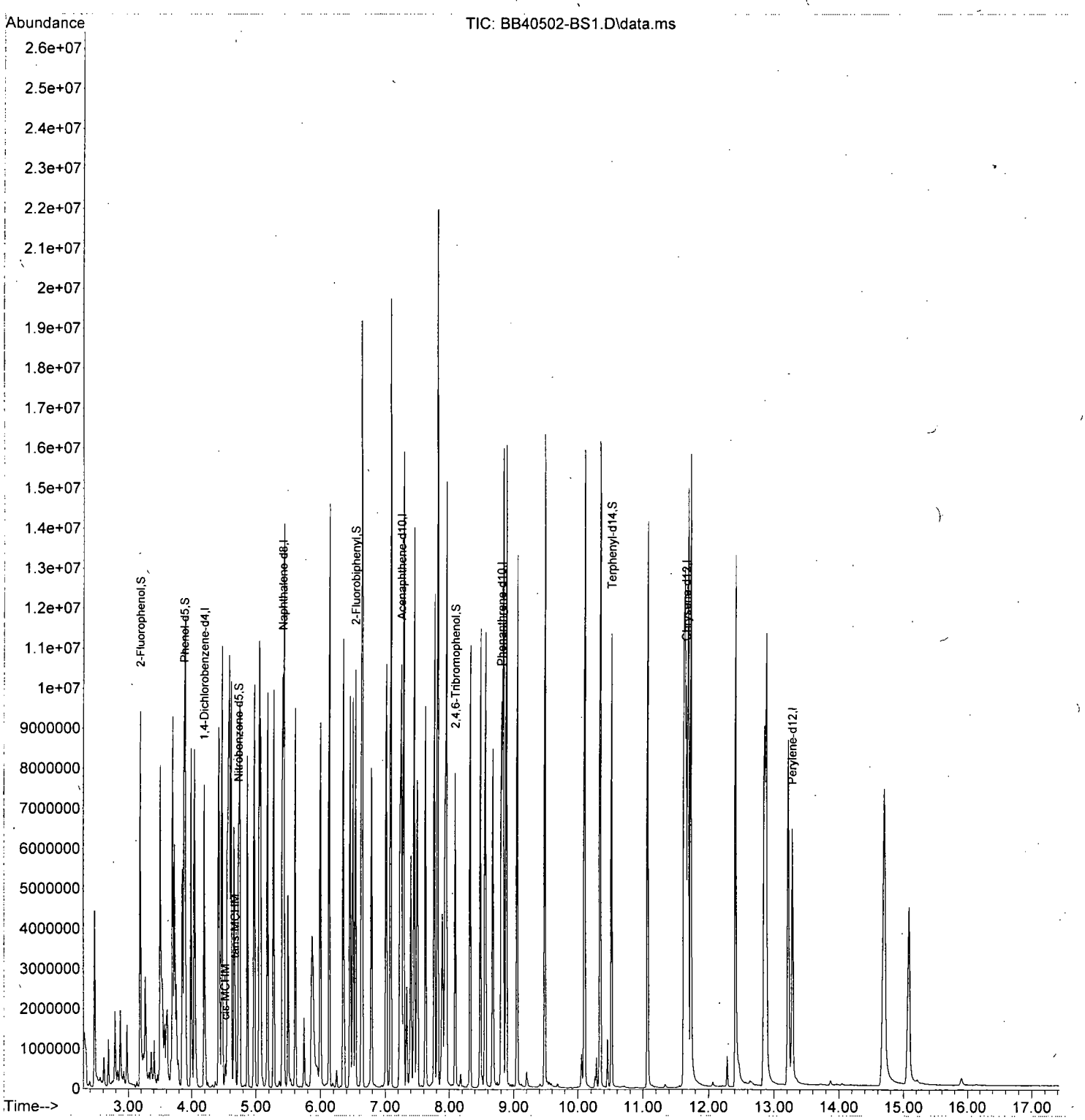
Freedom_0005790_0757

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : BB40502-BS1.D
Acq On : 7 Feb 2014 1:42 pm
Operator : ERG 96-5975B
Sample : BB40502-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 12:48:29 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 12:26:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BLK1.D
Acq On : 21 Feb 2014 2:08 pm
Operator : ERG 96-5975B
Sample : BB41002-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:16:34 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1276946	20.000	ug/mL	0.00
6) Naphthalene-d8	5.404	136	4489842	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.240	164	2409482	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.796	188	3868908	20.000	ug/mL	-0.01
12) Chrysene-d12	11.643	240	2887129	20.000	ug/mL	-0.01
14) Perylene-d12	13.269	264	1753645	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2675091	45.325	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 90.64%			
3) Phenol-d5	3.875	99	2971517	45.833	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 91.66%			
7) Nitrobenzene-d5	4.723	82	1343389	21.897	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 87.60%			
9) 2-Fluorobiphenyl	6.533	172	2389375	21.642	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 86.56%			
11) 2,4,6-Tribromophenol	8.083	330	460219	51.523	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 103.04%			
13) Terphenyl-d14	10.509	244	2437768	27.994	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 111.96%			
Target Compounds						Qvalue
4) cis-MCHM	4.512	55	62498m	1.734	ug/mL	
5) tans-MCHM	4.664	55	42379	0.592	ug/mL	92

Ave 1.163

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

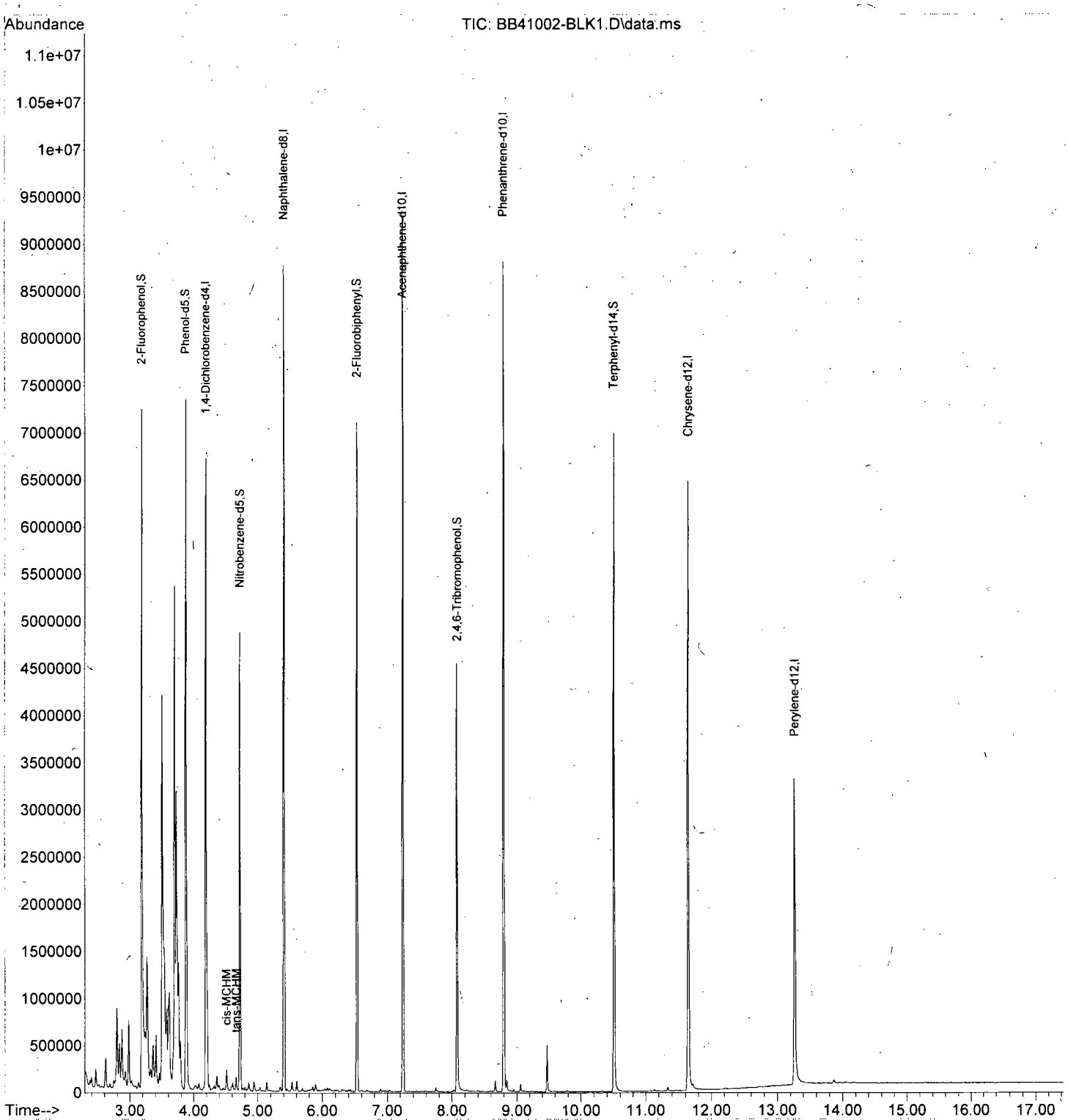
Freedom_0005790_0759

Quantitation Report (QT Reviewed)

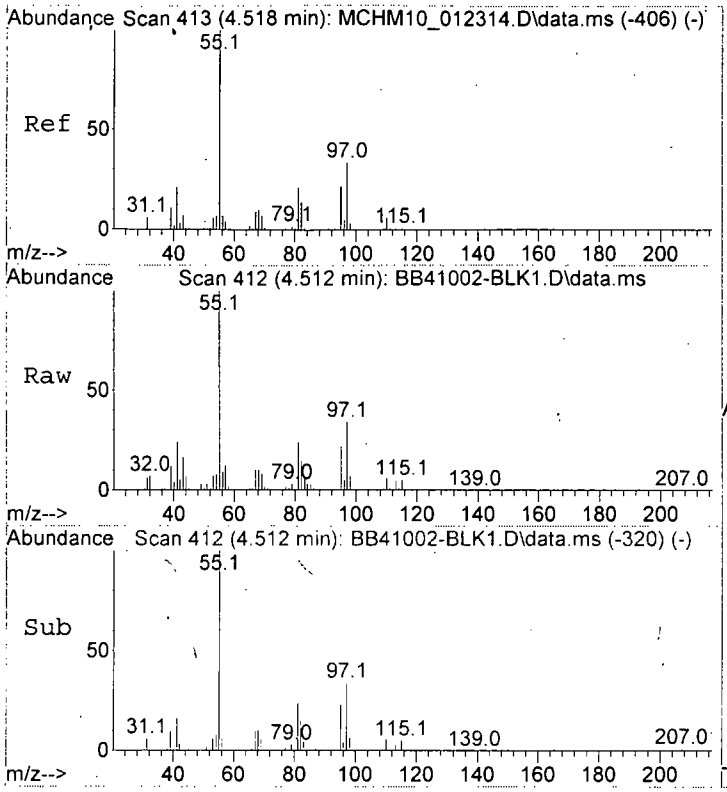
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BLK1.D
Acq On : 21 Feb 2014 2:08 pm
Operator : ERG 96-5975B
Sample : BB41002-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:16:34 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



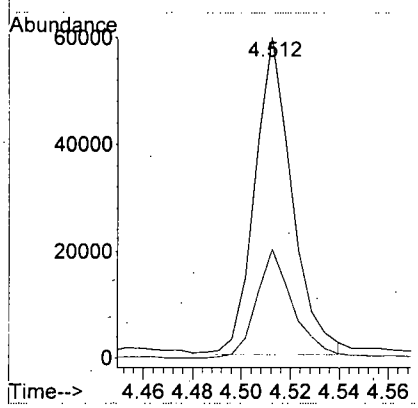
WO: 1401014
Site Name: WV Chem Leak

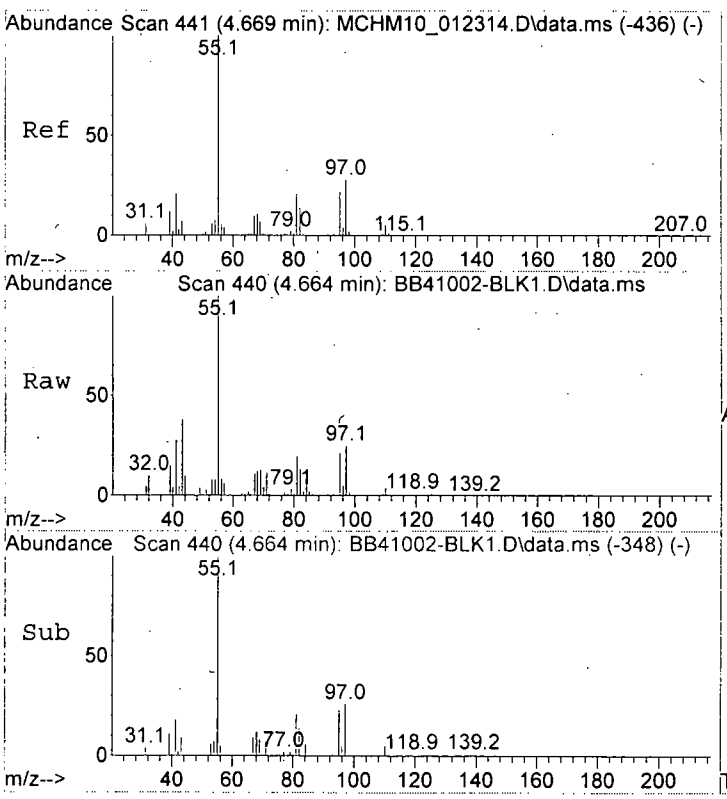


#4
cis-MCHM
Concen: 1.734 ug/mL m
RT: 4.512 min Scan# 412
Delta R.T. -0.006 min
Lab File: BB41002-BLK1.D
Acq: 21 Feb 2014 2:08 pm

Tgt Ion: 55 Resp: 62498

Ion	Ratio	Lower	Upper
55	100		
97	3.7	23.2	34.8#

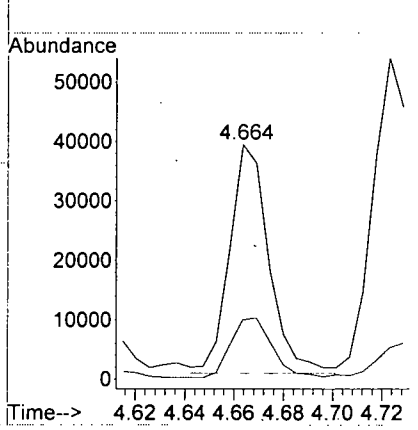




#5
tans-MCHM
Concen: 0.592 ug/mL
RT: 4.664 min Scan# 440
Delta R.T. -0.005 min
Lab File: BB41002-BLK1.D
Acq: 21 Feb 2014 2:08 pm

Tgt Ion: 55 Resp: 42379

Ion	Ratio	Lower	Upper
55	100		
97	29.0	20.0	30.0



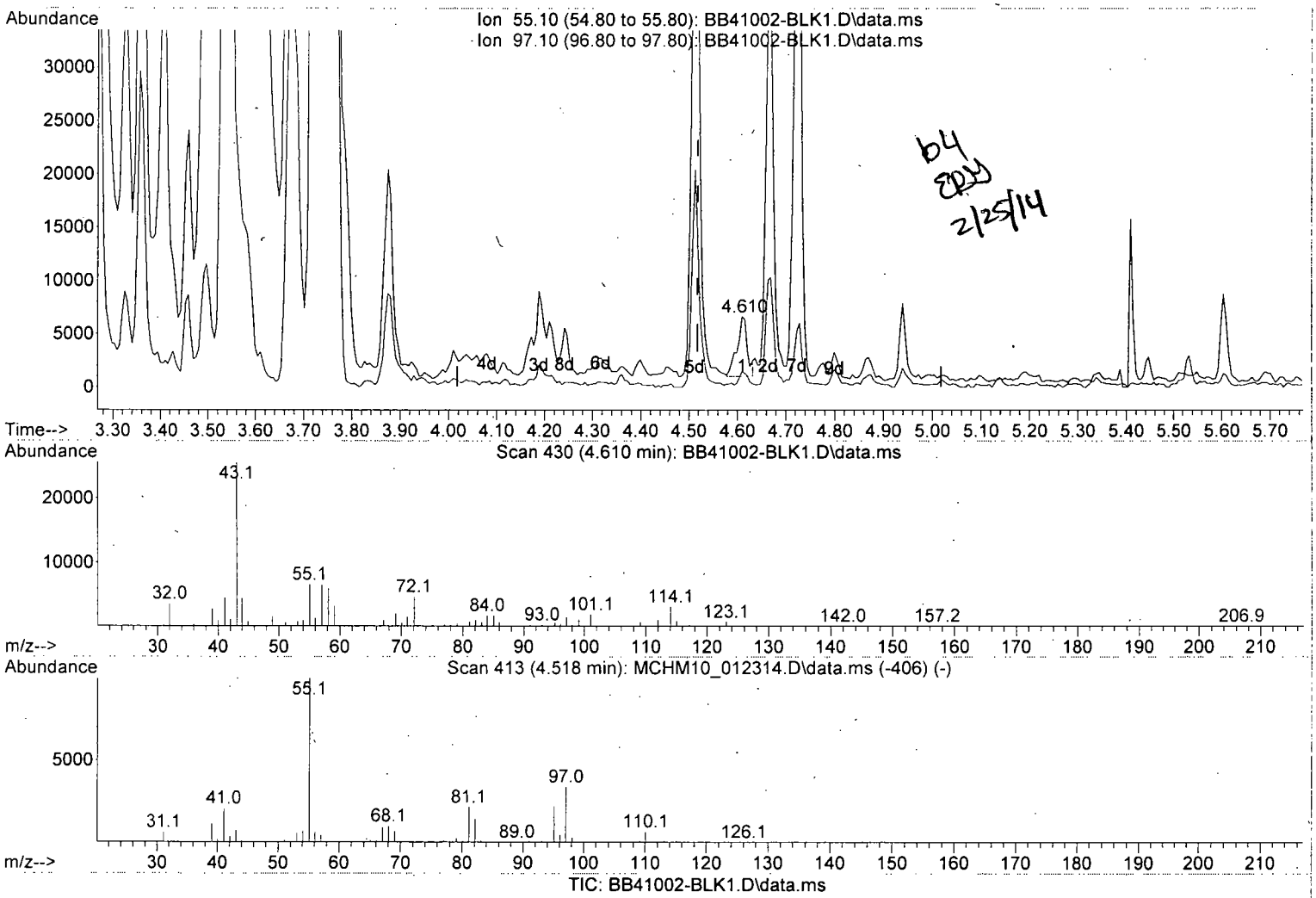
Freedom_0005790_0761

Quantitation Report (Qedit)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BLK1.D
Acq On : 21 Feb 2014 2:08 pm
Operator : ERG 96-5975B
Sample : BB41002-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:15:43 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



b4
EPW
2/25/14

(4) cis-MCHM

4.610min (+0.092) 0.23 ug/mL

response 8314

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	27.74
0.00	0.00	0.00
0.00	0.00	0.00

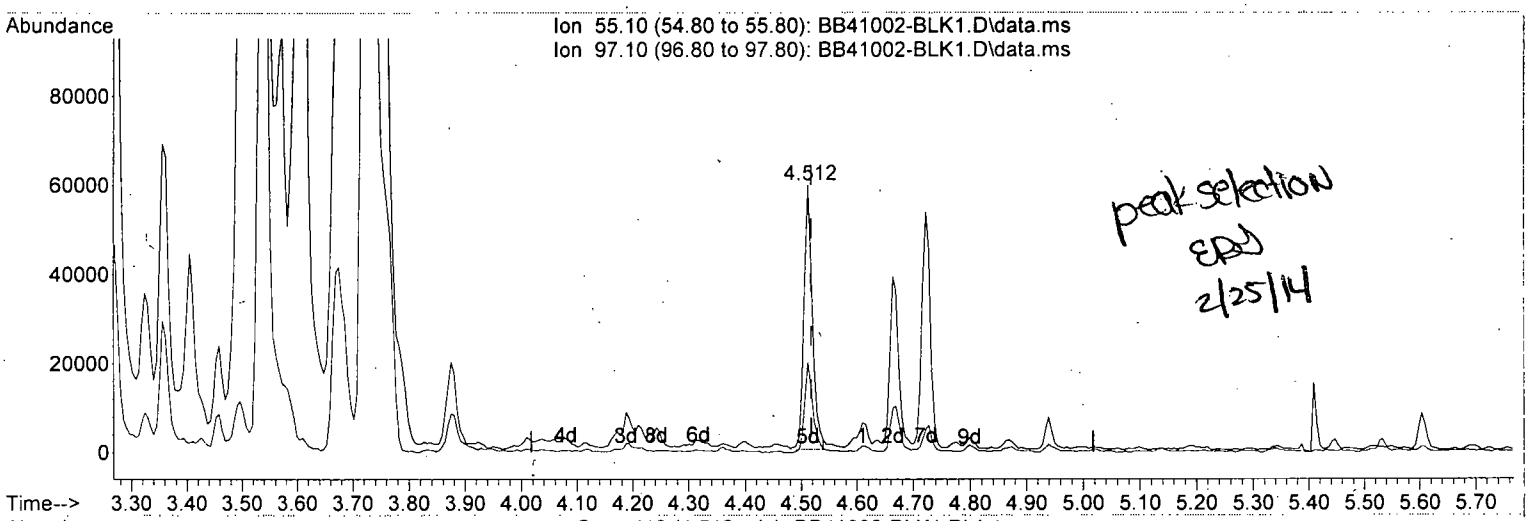
Freedom_0005790_0762

Quantitation Report (Qedit)

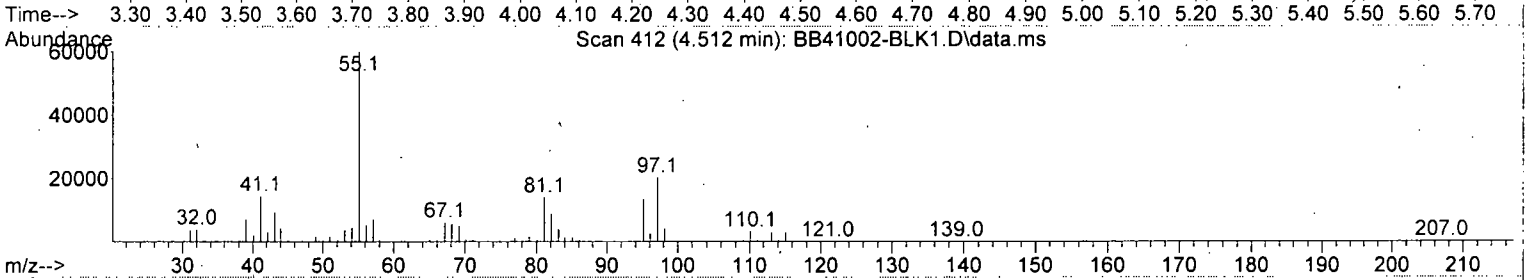
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BLK1.D
Acq On : 21 Feb 2014 2:08 pm
Operator : ERG 96-5975B
Sample : BB41002-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

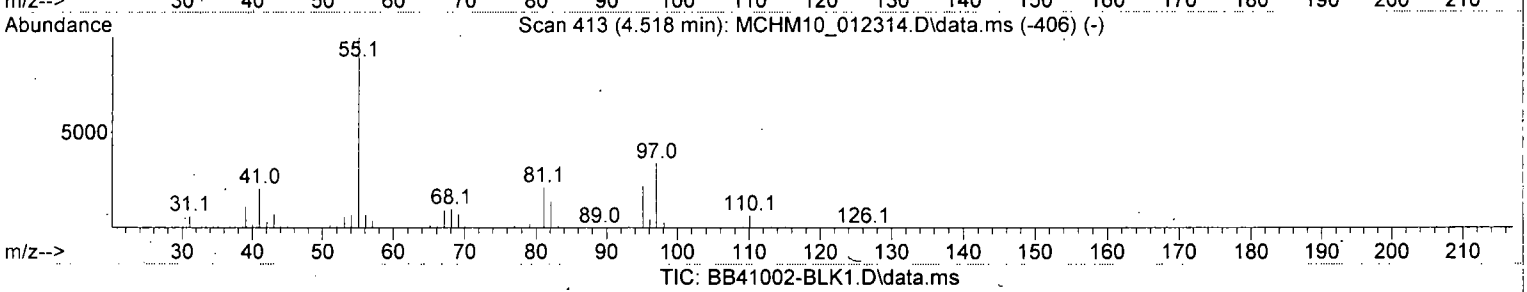
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:15:43 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



peak selection
EPD
2/25/14





TIC: BB41002-BLK1.D\data.ms

(4) cis-MCHM

4.512min (-0.006) 1.73 ug/mL m

response 62498

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	3.69#
0.00	0.00	0.00
0.00	0.00	0.00

Freedom_0005790_0763

Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BS1.D
Acq On : 21 Feb 2014 2:58 pm
Operator : ERG 96-5975B
Sample : BB41002-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 25 13:17:54 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1232361	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4378074	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2550334	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	4422111	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	2963981	20.000	ug/mL	# 0.00
14) Perylene-d12	13.275	264	2072103	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2476236	43.473	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 86.94%			
3) Phenol-d5	3.880	99	2741408	43.814	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 87.62%			
7) Nitrobenzene-d5	4.734	82	1320066	22.066	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 88.28%			
9) 2-Fluorobiphenyl	6.538	172	2600649	22.255	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 89.04%			
11) 2,4,6-Tribromophenol	8.089	330	597533	58.527	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 117.06%			
13) Terphenyl-d14	10.509	244	2411010	26.969	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 107.88%			
Target Compounds						Qvalue
4) cis-MCHM	4.518	55	214639m	6.170	ug/mL	
5) tans-MCHM	4.675	55	336907	4.880	ug/mL	90

Ave 5.525

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

$\frac{5.525}{5} \times 100 = 111\%$

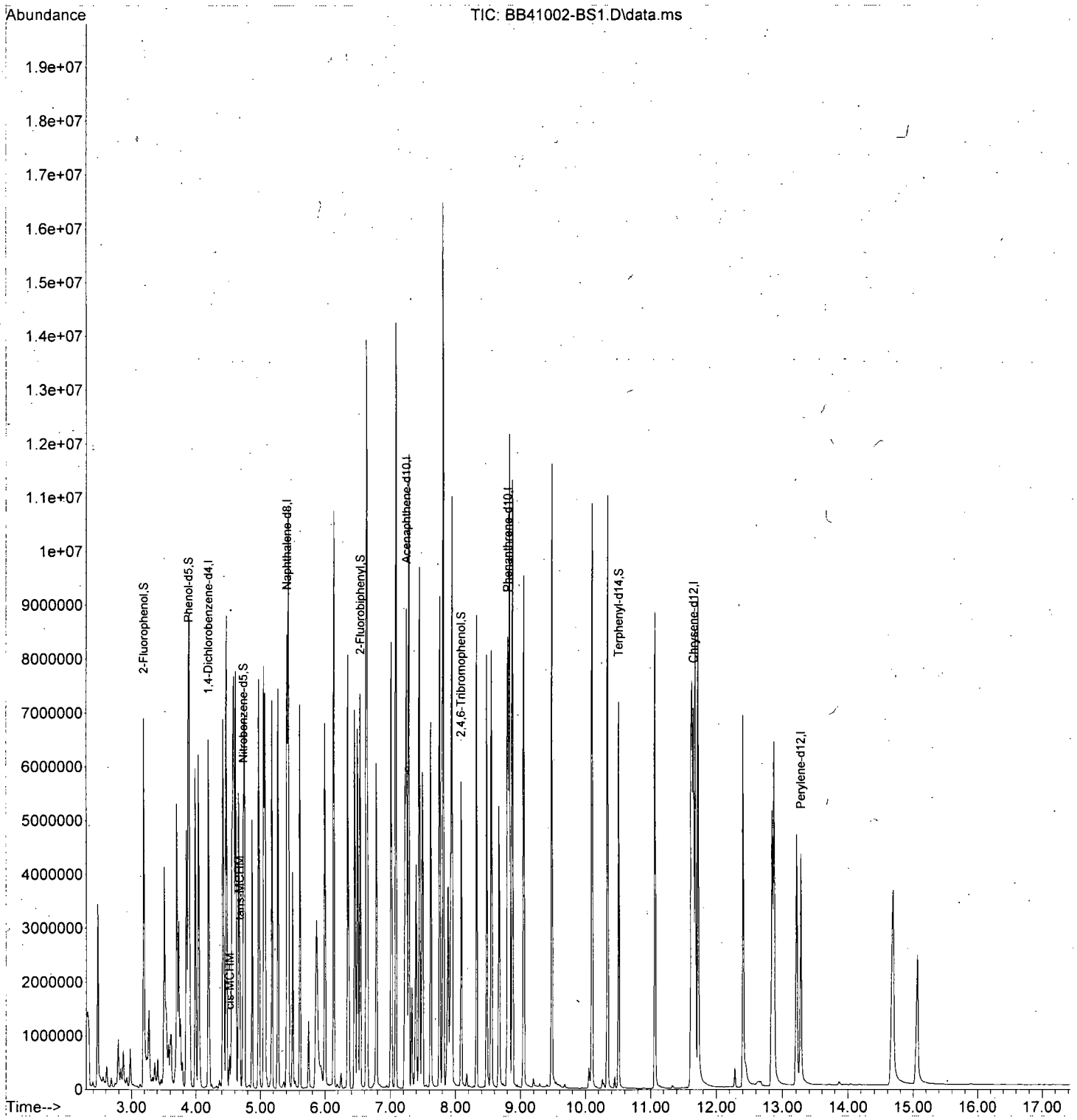
Freedom_0005790_0764

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BS1.D
Acq On : 21 Feb 2014 2:58 pm
Operator : ERG 96-5975B
Sample : BB41002-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:17:54 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

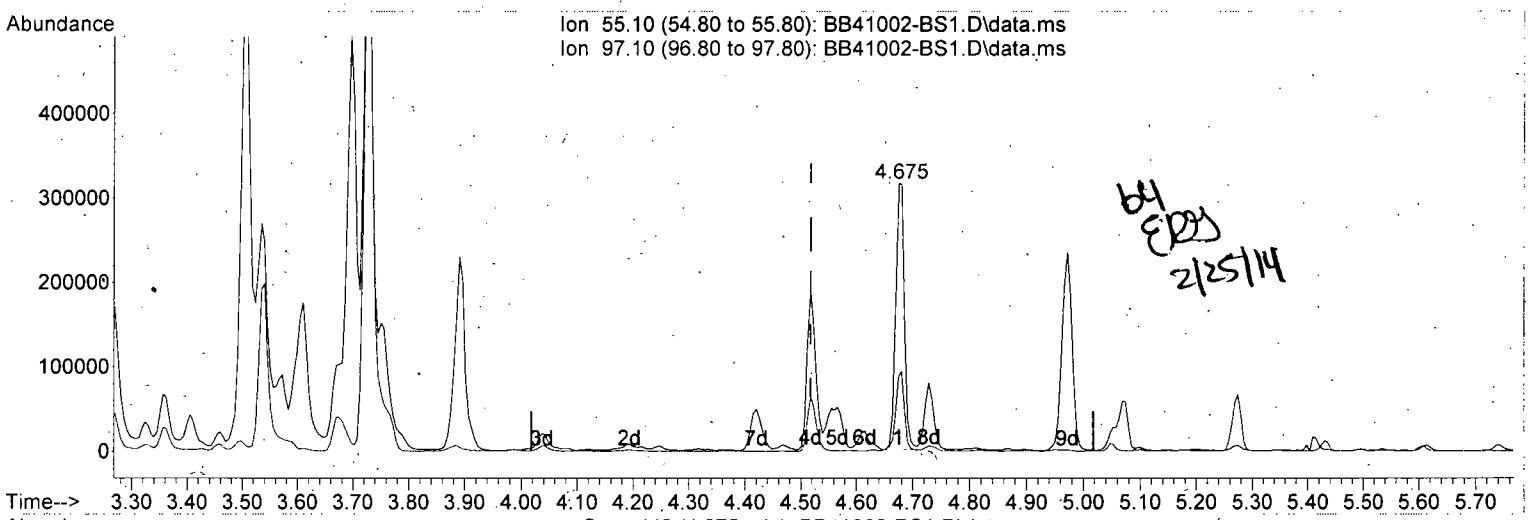


Quantitation Report (Qedit)

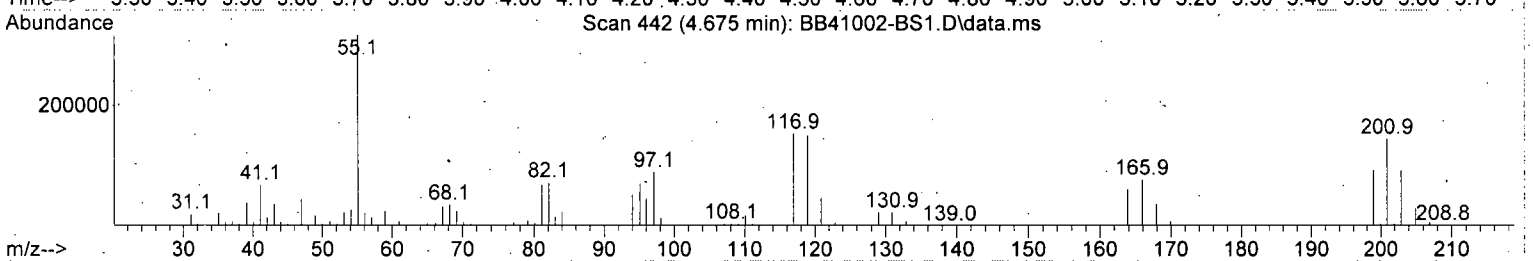
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BS1.D
Acq On : 21 Feb 2014 2:58 pm
Operator : ERG 96-5975B
Sample : BB41002-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

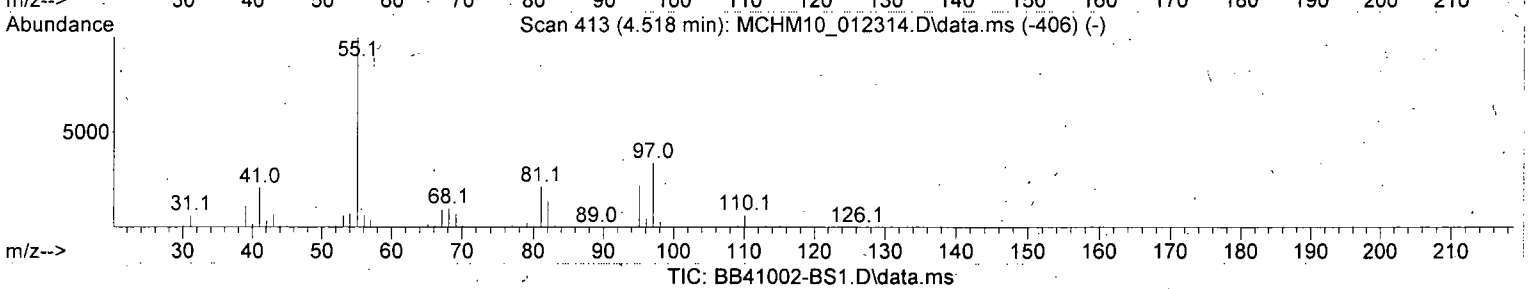
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:17:22 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



bd
EPS
2/25/14





TIC: BB41002-BS1.D\data.ms

(4) cis-MCHM

4.675min (+0.157) 9.68 ug/mL

response 336907

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	29.95
0.00	0.00	0.00
0.00	0.00	0.00

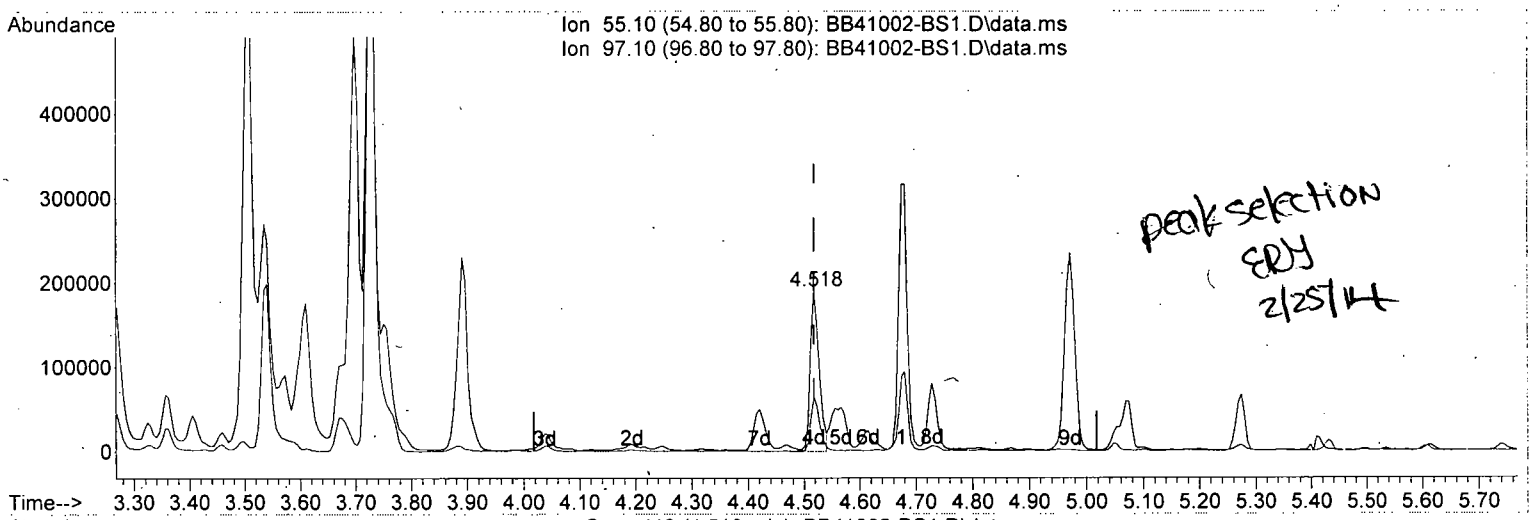
Freedom_0005790_0766

Quantitation Report (Qedit)

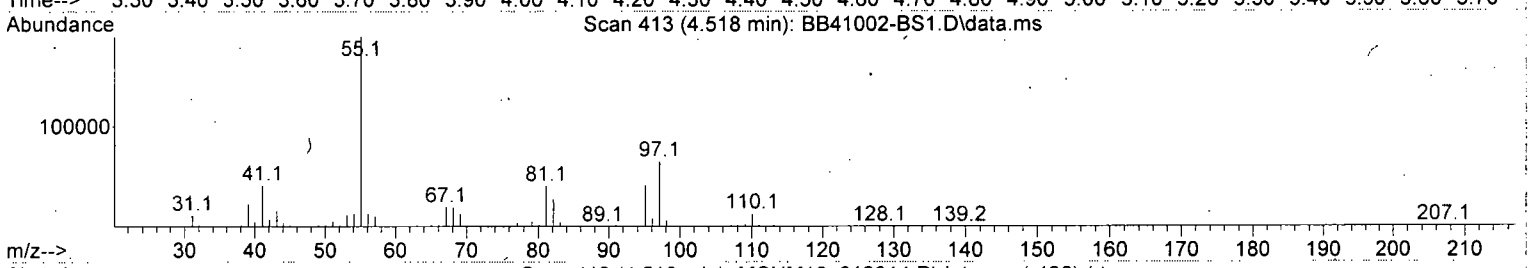
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BS1.D
Acq On : 21 Feb 2014 2:58 pm
Operator : ERG 96-5975B
Sample : BB41002-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

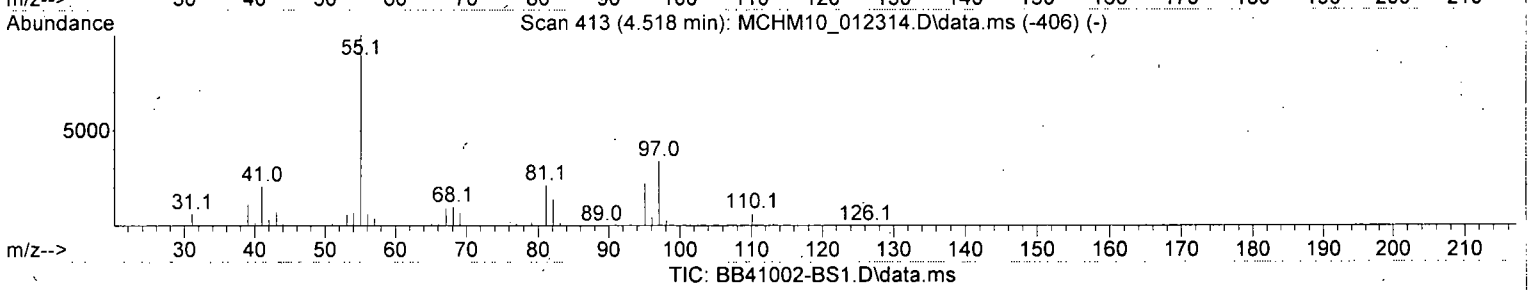
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:17:22 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



peak selection
ERJ
2/25/14





TIC: BB41002-BS1.D\data.ms

(4) cis-MCHM

4.518min (-0.000) 6.17 ug/mL m

response 214639

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	47.00#
0.00	0.00	0.00
0.00	0.00	0.00

Freedom_0005790_0767

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-BLK1.D
Acq On : 21 Feb 2014 4:38 pm
Operator : ERG 96-5975B
Sample : BB41801-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:18:37 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1388139	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4960310	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.241	164	2752903	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	4561529	20.000	ug/mL	0.00
12) Chrysene-d12	11.643	240	3521272	20.000	ug/mL	#-0.01
14) Perylene-d12	13.269	264	2271862	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2303937	35.909	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery =	71.82%		
3) Phenol-d5	3.875	99	2831389	40.174	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery =	80.34%		
7) Nitrobenzene-d5	4.723	82	1296841	19.133	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery =	76.52%		
9) 2-Fluorobiphenyl	6.527	172	2333213	18.497	ug/mL	-0.01
Spiked Amount 25.000	Range 43 - 116		Recovery =	74.00%		
11) 2,4,6-Tribromophenol	8.083	330	490577	46.582	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery =	93.16%		
13) Terphenyl-d14	10.509	244	2511031	23.643	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery =	94.56%		
Target Compounds						Qvalue
4) cis-MCHM	4.513	55	78742	2.009	ug/mL	92
5) tans-MCHM	4.664	55	52596	0.676	ug/mL	95

Avc 1.3425

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

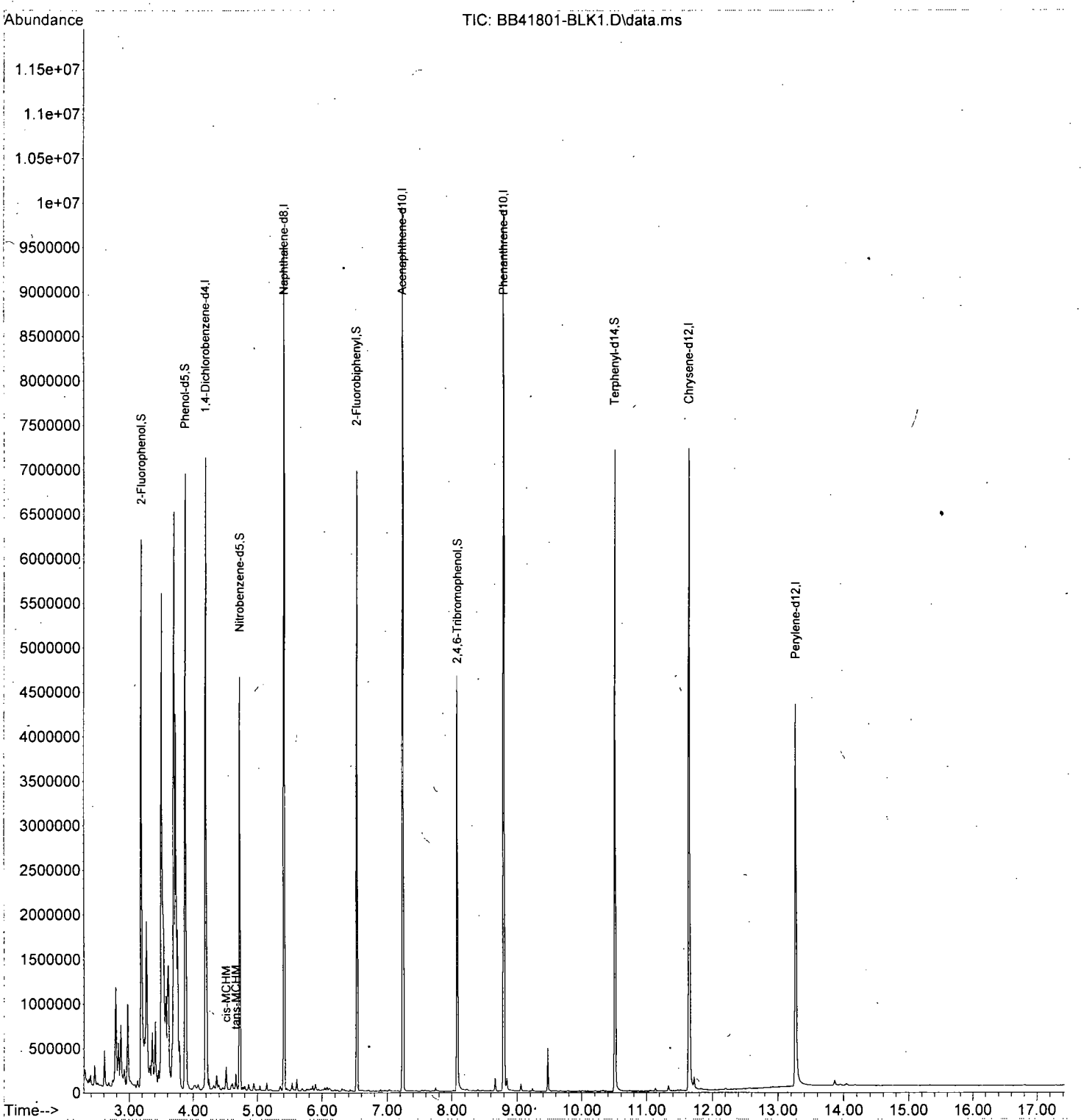
Freedom_0005790_0768

Quantitation Report (QT Reviewed)

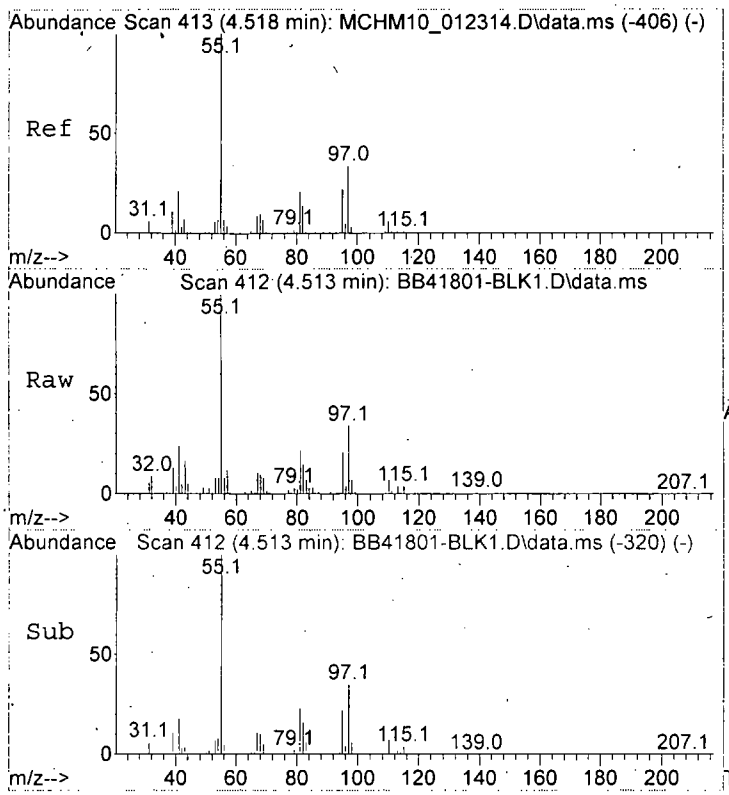
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-BLK1.D
Acq On : 21 Feb 2014 4:38 pm
Operator : ERG 96-5975B
Sample : BB41801-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:18:37 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Freedom_0005790_0769

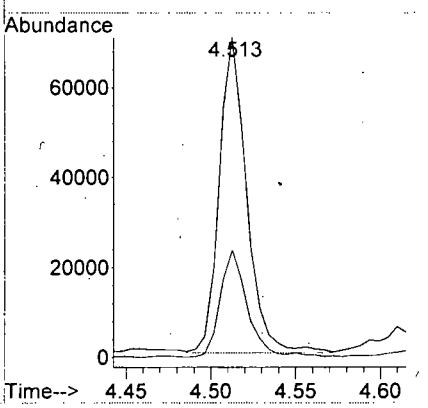


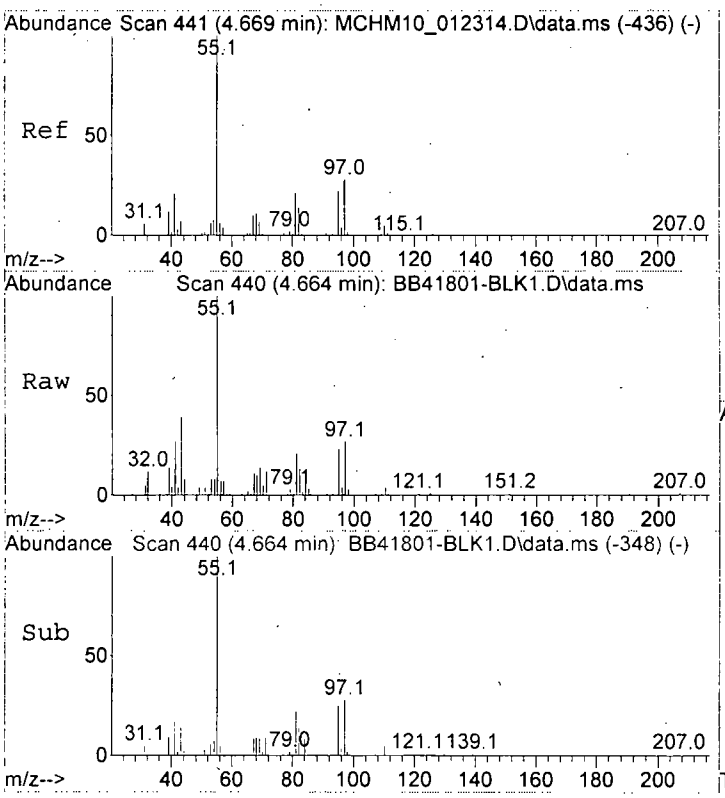
#4
cis-MCHM
Concen: 2.009 ug/mL
RT: 4.513 min Scan# 412
Delta R.T. -0.005 min
Lab File: BB41801-BLK1.D
Acq: 21 Feb 2014 4:38 pm

WO: 1401014
Site Name: WV Chem Leak

Tgt Ion: 55 Resp: 78742

Ion	Ratio	Lower	Upper
55	100		
97	33.5	23.2	34.8

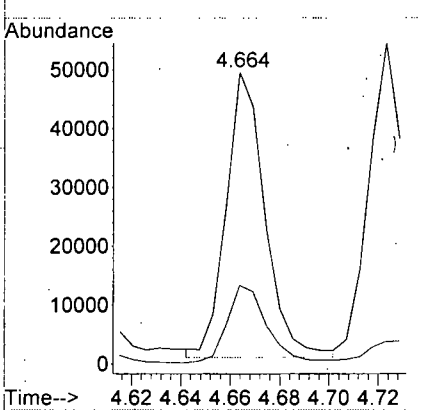




#5
tans-MCHM
Concen: 0.676 ug/mL
RT: 4.664 min Scan# 440
Delta R.T. -0.005 min
Lab File: BB41801-BLK1.D
Acq: 21 Feb 2014 4:38 pm

Tgt Ion: 55 Resp: 52596

Ion	Ratio	Lower	Upper
55	100		
97	27.5	20.0	30.0



Freedom_0005790_0770

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-BS1.D
Acq On : 21 Feb 2014 5:28 pm
Operator : ERG 96-5975B
Sample : BB41801-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:19:12 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1385081	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	4935358	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.251	164	2924944	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	5152143	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	3577442	20.000	ug/mL	# 0.00
14) Perylene-d12	13.275	264	2424586	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2441608	38.139	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 76.28%			
3) Phenol-d5	3.880	99	2770372	39.395	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 78.78%			
7) Nitrobenzene-d5	4.734	82	1326442	19.669	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 78.68%			
9) 2-Fluorobiphenyl	6.538	172	2680902	20.004	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 80.00%			
11) 2,4,6-Tribromophenol	8.094	330	648074	54.483	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 108.96%			
13) Terphenyl-d14	10.509	244	2602424	24.118	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 96.48%			
Target Compounds						Qvalue
4) cis-MCHM	4.518	55	226729	5.798	ug/mL	91
5) tans-MCHM	4.680	55	360021	4.640	ug/mL#	89

Ave 5.219

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

$\frac{5.219}{5} \times 100 = 104\%$

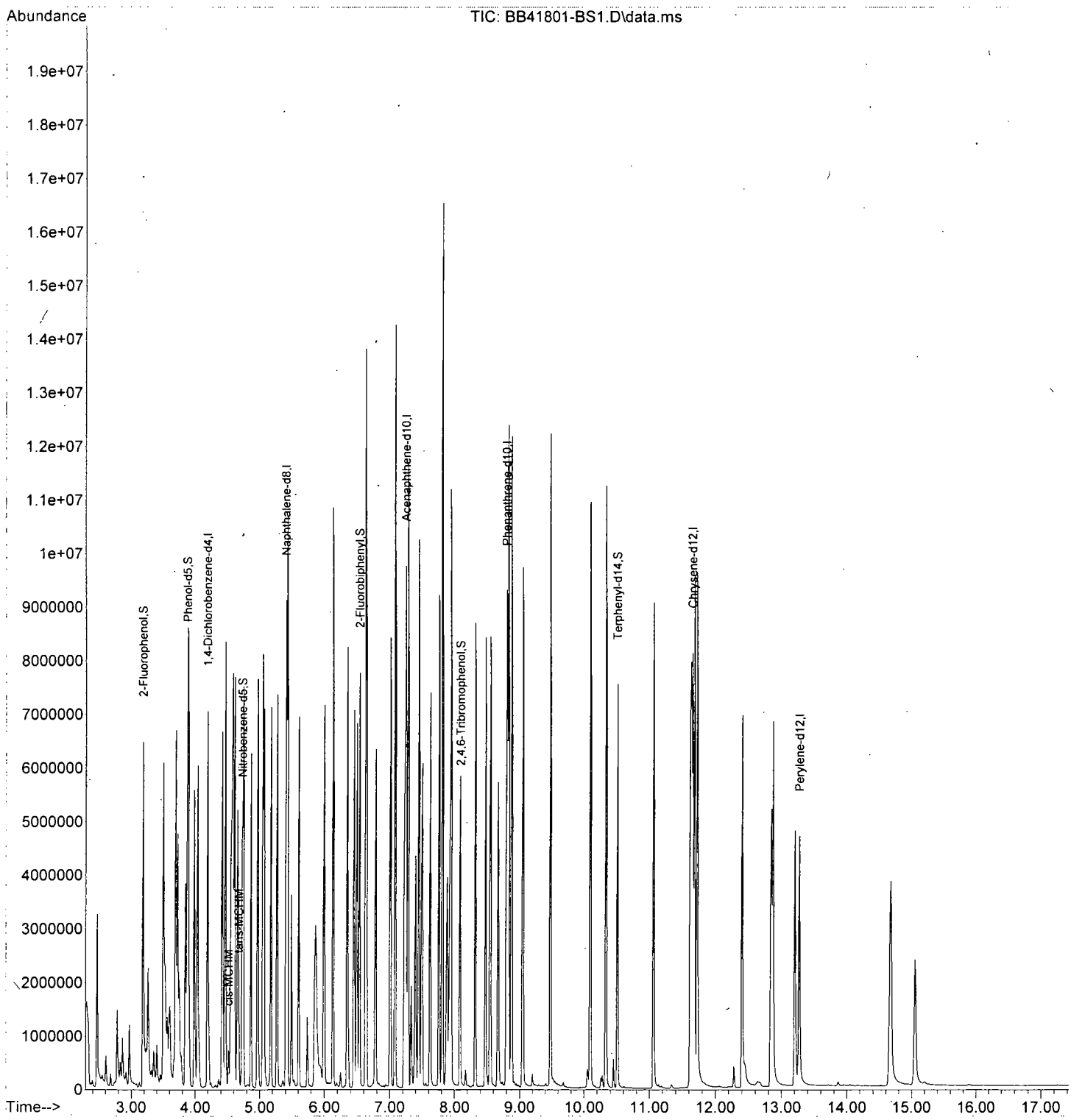
Freedom_0005790_0771

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-BS1.D
Acq On : 21 Feb 2014 5:28 pm
Operator : ERG 96-5975B
Sample : BB41801-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:19:12 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MS1.D
Acq On : 21 Feb 2014 7:08 pm
Operator : ERG 96-5975B
Sample : BB41801-MS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 13:20:49 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	1487779	20.000	ug/mL	0.00
6) Naphthalene-d8	5.415	136	5392210	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.251	164	3312682	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	5062840	20.000	ug/mL	0.00
12) Chrysene-d12	11.659	240	4299425	20.000	ug/mL	# 0.00
14) Perylene-d12	13.280	264	3164713	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.205	112	2479935	36.064	ug/mL	0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 72.12%			
3) Phenol-d5	3.897	99	2958724	39.169	ug/mL	0.02
Spiked Amount 50.000	Range 39 - 106		Recovery = 78.34%			
7) Nitrobenzene-d5	4.734	82	1269866	17.235	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 68.92%			
9) 2-Fluorobiphenyl	6.538	172	2893490	19.063	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 76.24%			
11) 2,4,6-Tribromophenol	8.094	330	718062	61.431	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 122.86%			
13) Terphenyl-d14	10.509	244	2559681	19.739	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 78.96%			
Target Compounds						Qvalue
4) cis-MCHM	4.529	55	294803m	7.019	ug/mL	
5) tans-MCHM	4.685	55	400918m	4.810	ug/mL	

Ave 5.9145

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

$\frac{5.9145}{5} = 118\%$

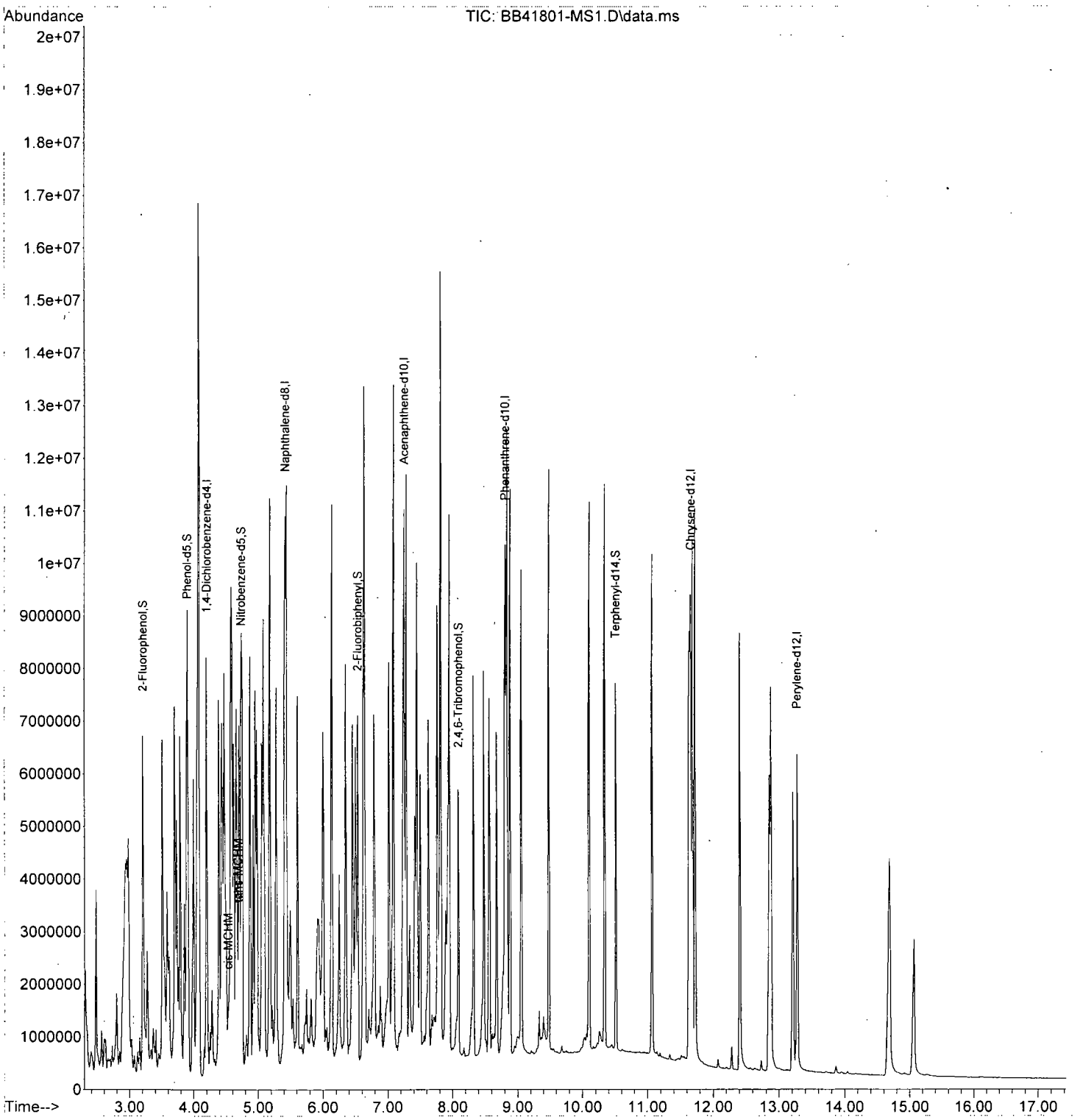
Freedom_0005790_0773

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MS1.D
Acq On : 21 Feb 2014 7:08 pm
Operator : ERG 96-5975B
Sample : BB41801-MS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 10 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:20:49 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

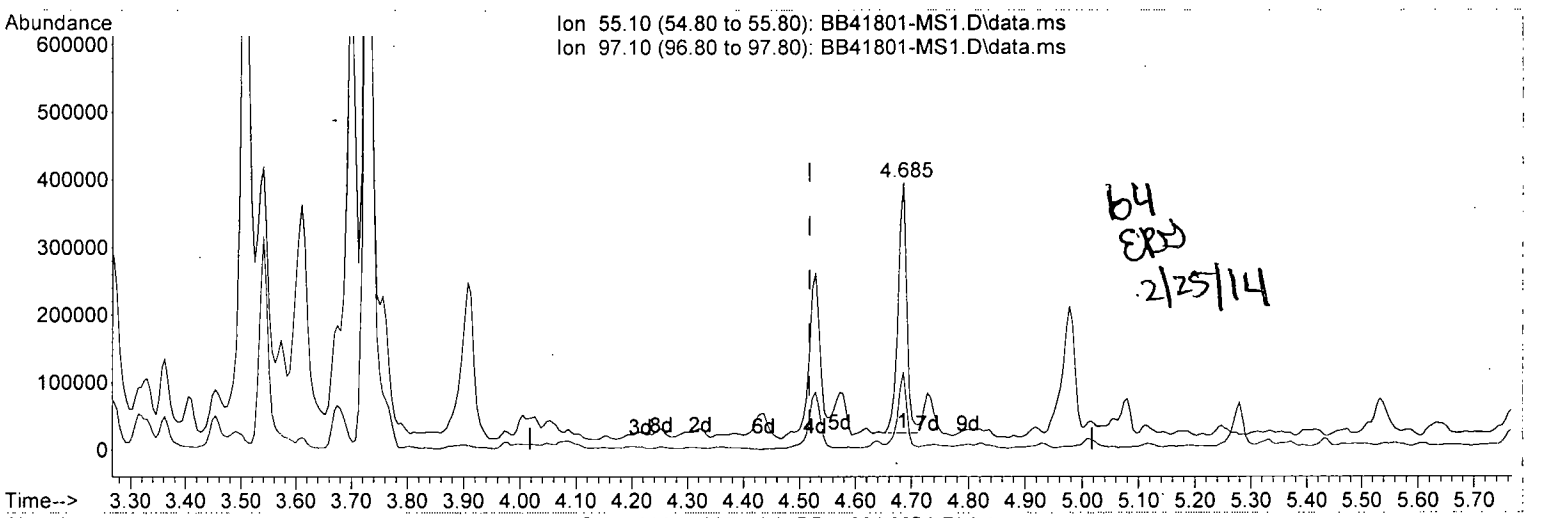


Quantitation Report (Qedit)

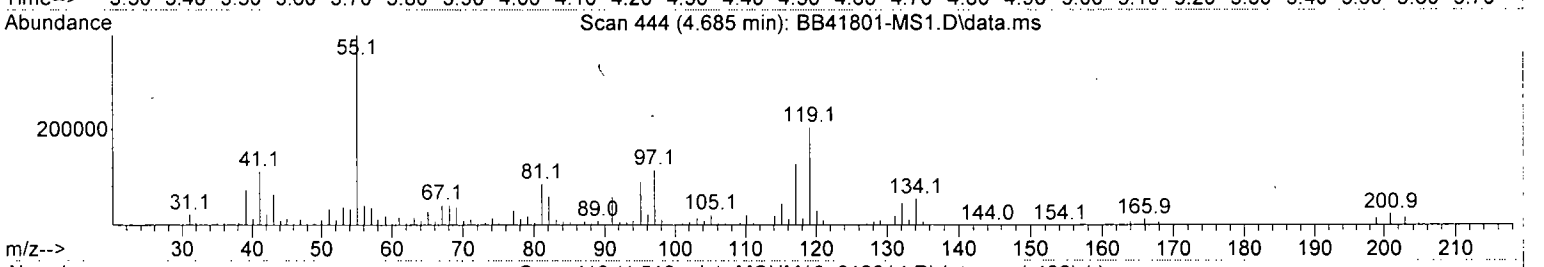
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MS1.D
Acq On : 21 Feb 2014 7:08 pm
Operator : ERG 96-5975B
Sample : BB41801-MS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 10 Sample Multiplier: 1

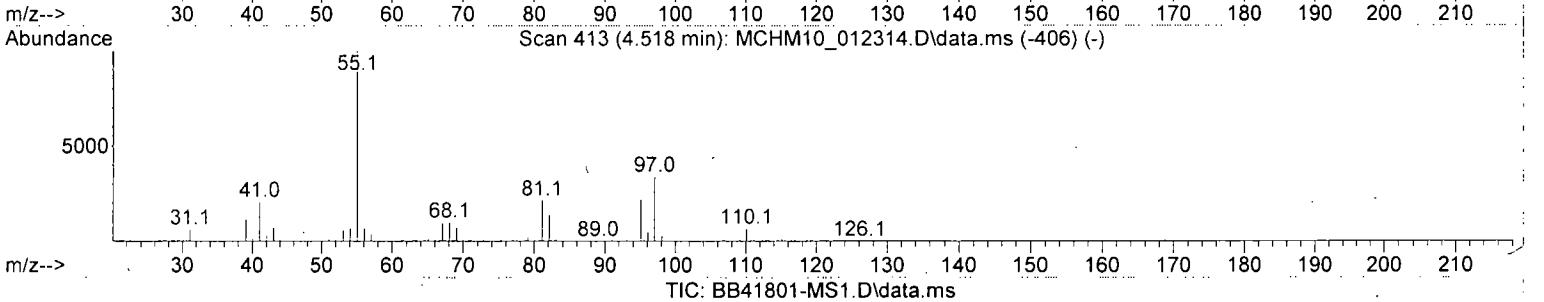
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:19:41 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



b4
EBD
2/25/14





TIC: BB41801-MS1.D\data.ms

(4) cis-MCHM

4.685min (+0.167) 9.58 ug/mL

response 402237

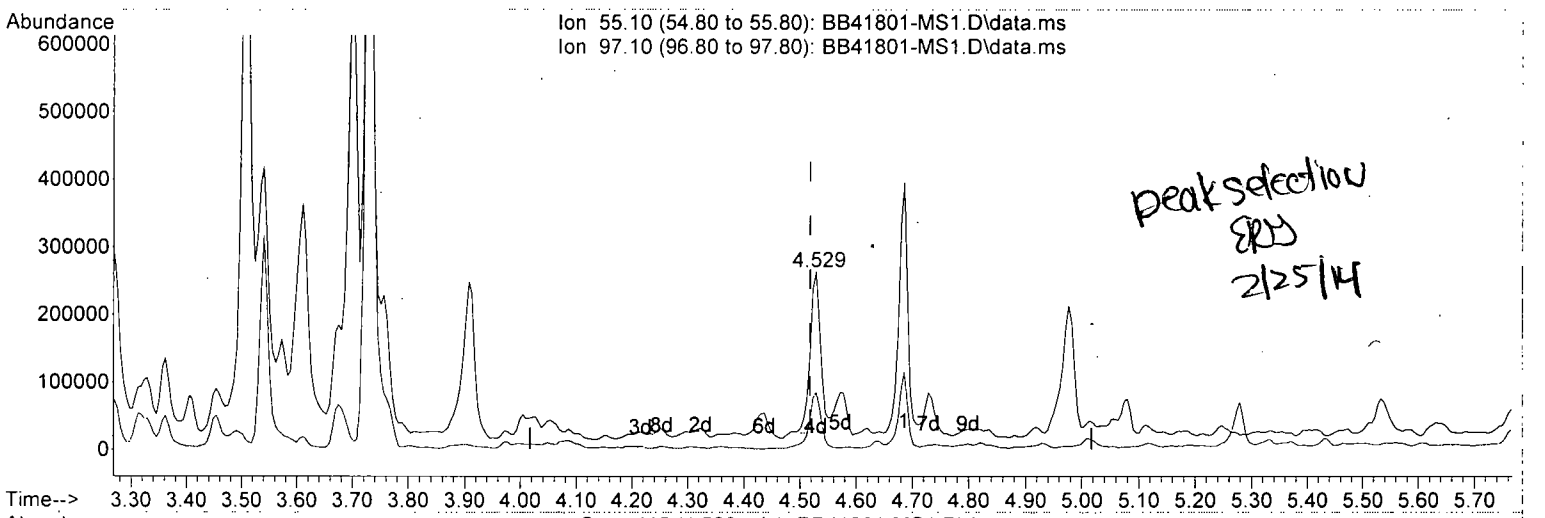
Ion	Exp%	Act%
55.10	100	100
97.10	29.00	30.65
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

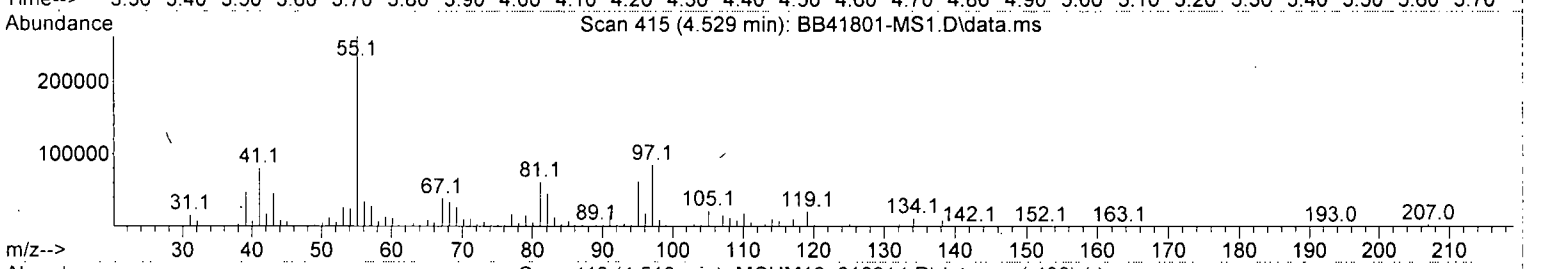
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MS1.D
Acq On : 21 Feb 2014 7:08 pm
Operator : ERG 96-5975B
Sample : BB41801-MS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 10 Sample Multiplier: 1

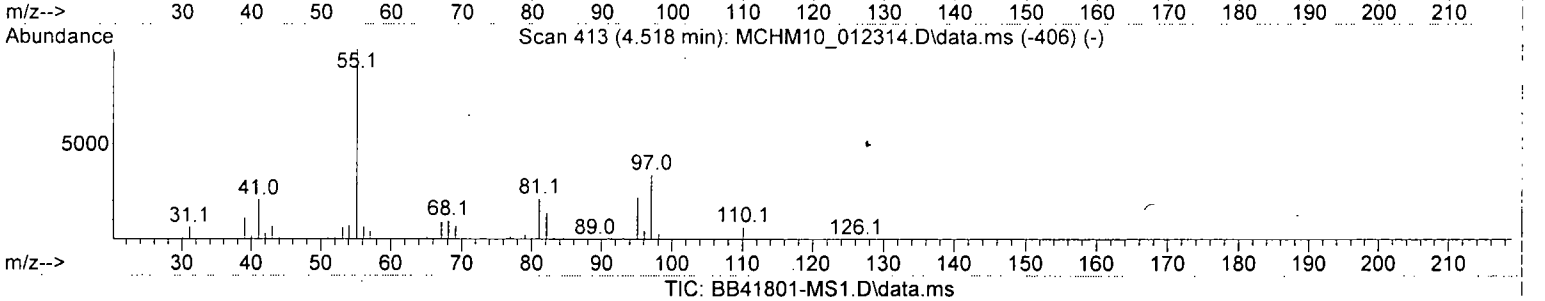
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:19:41 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



peak selection
ERG
2/25/14





TIC: BB41801-MS1.D\data.ms

(4) cis-MCHM

4.529min (+0.011) 7.02 ug/mL m

response 294803

Ion	Exp%	Act%
55.10	100	100
97.10	29.00	41.82#
0.00	0.00	0.00
0.00	0.00	0.00

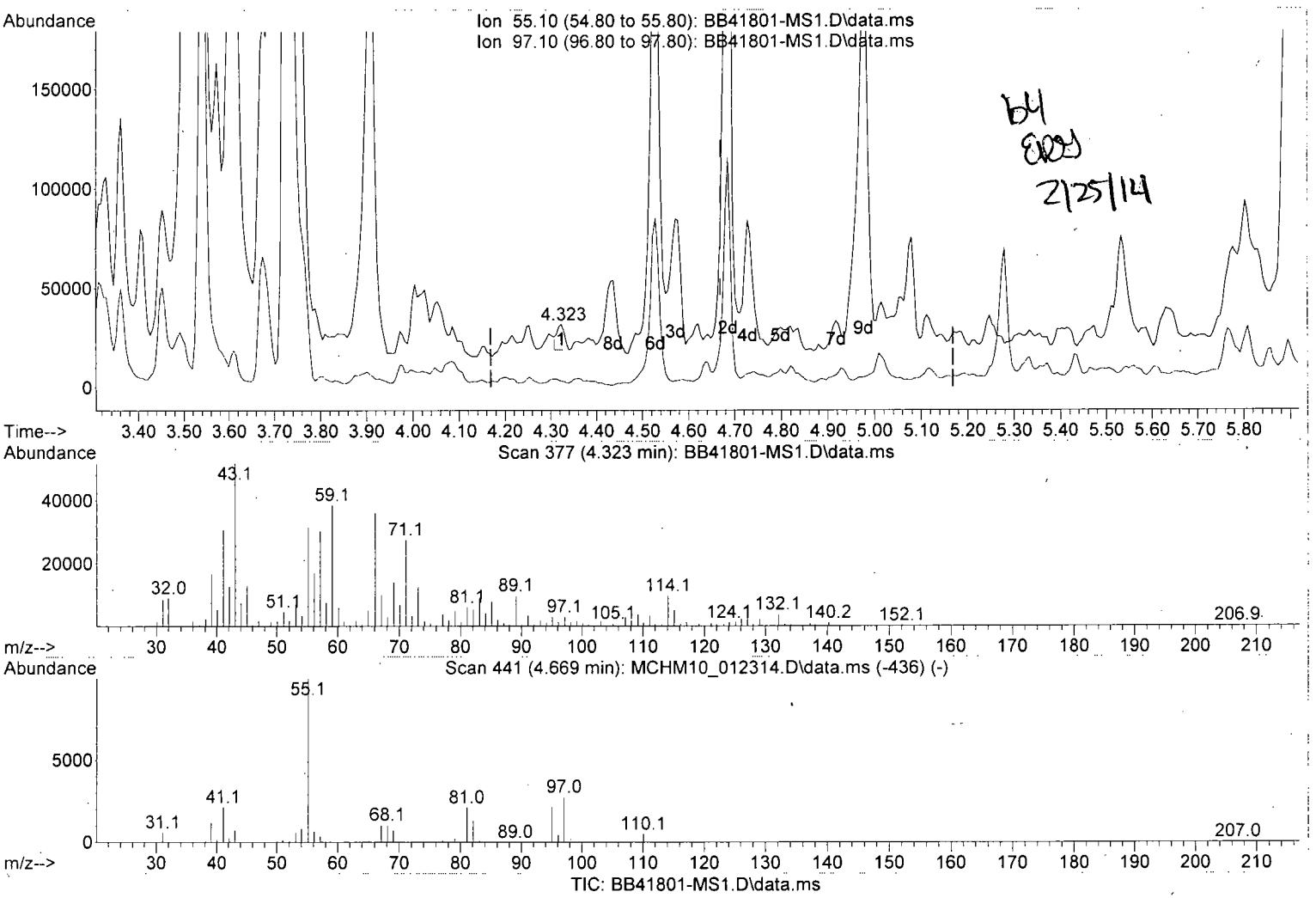
Freedom_0005790_0776

Quantitation Report (Qedit)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MS1.D
Acq On : 21 Feb 2014 7:08 pm
Operator : ERG 96-5975B
Sample : BB41801-MS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 10 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:19:41 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



b4
EDD
2/25/14

(5) tans-MCHM

4.323min (-0.346) 0.18 ug/mL

response 14645

Ion	Exp%	Act%
55.10	100	100
97.10	25.00	27.26
0.00	0.00	0.00
0.00	0.00	0.00

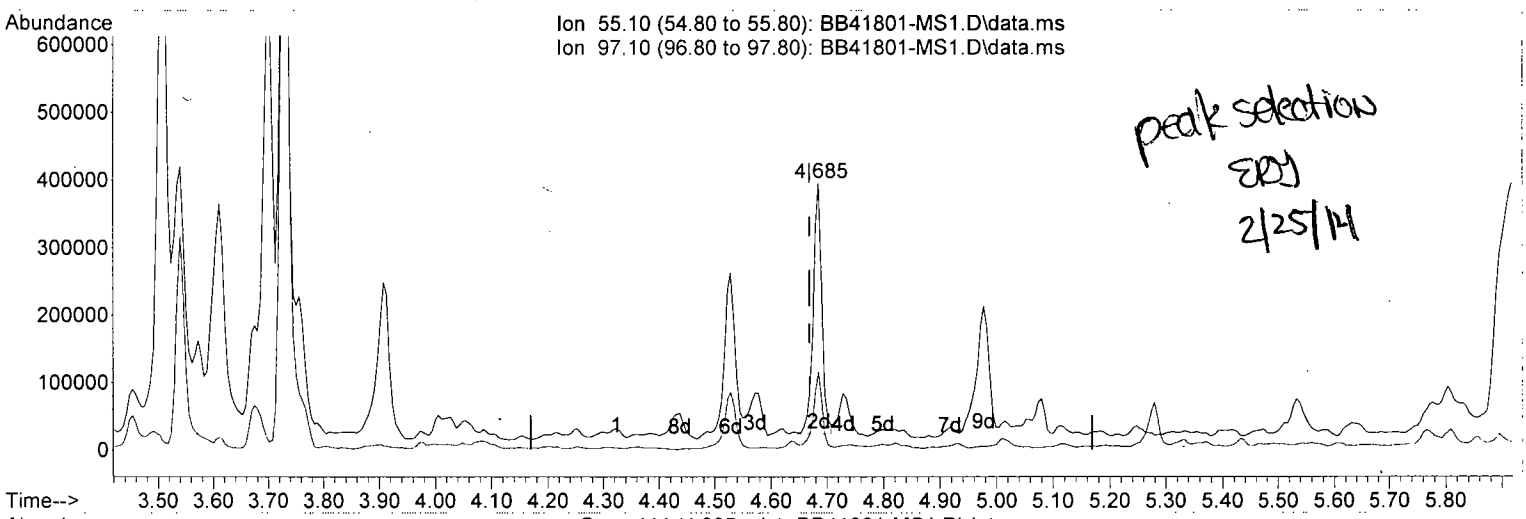
Freedom_0005790_0777

Quantitation Report (Qedit)

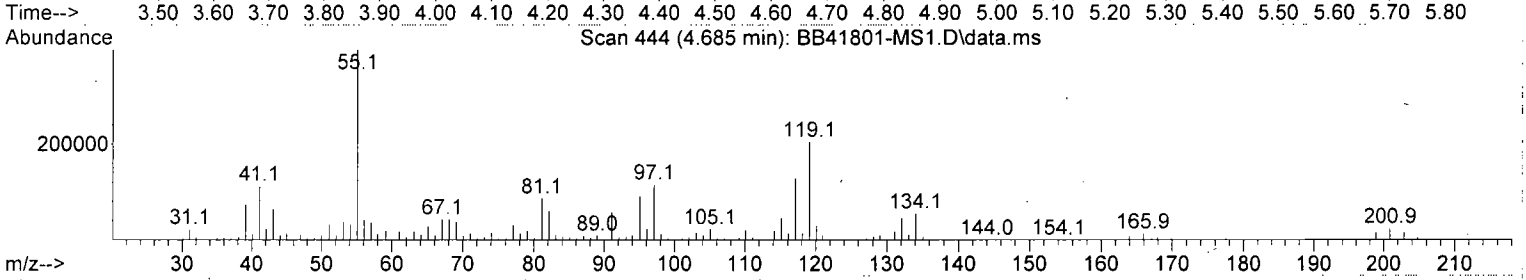
Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MS1.D
Acq On : 21 Feb 2014 7:08 pm
Operator : ERG 96-5975B
Sample : BB41801-MS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 10 Sample Multiplier: 1

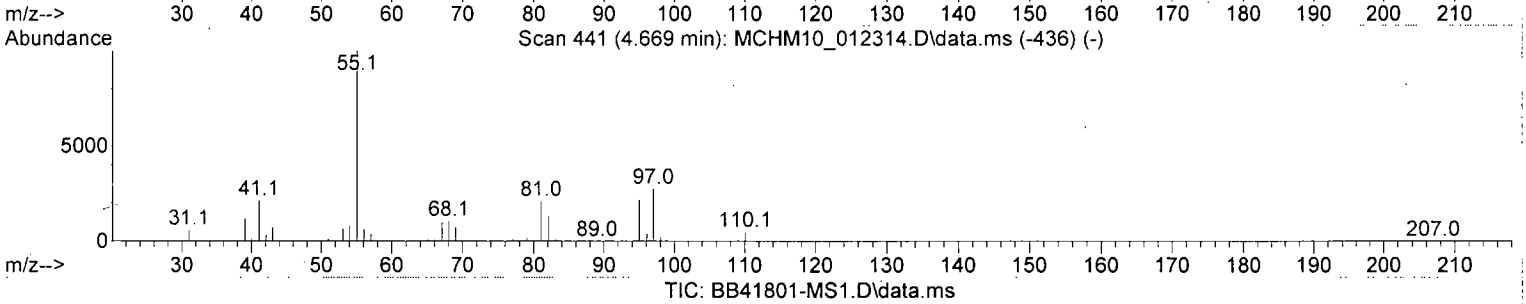
WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:19:41 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



peak selection
EDJ
2/25/14





TIC: BB41801-MS1.D\data.ms

(5) tans-MCHM

4.685min (+0.016) 4.81 ug/mL m

response 400918

Ion	Exp%	Act%
55.10	100	100
97.10	25.00	1.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MSD1.D
Acq On : 21 Feb 2014 7:58 pm
Operator : ERG 96-5975B
Sample : BB41801-MSD1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 11 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:21:36 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	1541334	20.000	ug/mL	0.00
6) Naphthalene-d8	5.415	136	5730090	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	3607250	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.807	188	6405205	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	4670868	20.000	ug/mL	# 0.00
14) Perylene-d12	13.274	264	3131528	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.211	112	3042903	42.713	ug/mL	0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 85.42%			
3) Phenol-d5	3.897	99	3489200	44.586	ug/mL	0.02
Spiked Amount 50.000	Range 39 - 106		Recovery = 89.18%			
7) Nitrobenzene-d5	4.734	82	1515516	19.356	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 77.44%			
9) 2-Fluorobiphenyl	6.533	172	3312020	20.038	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 80.16%			
11) 2,4,6-Tribromophenol	8.088	330	829417	56.087	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 112.18%			
13) Terphenyl-d14	10.509	244	2863659	20.327	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 81.32%			
Target Compounds						Qvalue
4) cis-MCHM	4.523	55	393589	9.045	ug/mL	89
5) tans-MCHM	4.680	55	512761	5.939	ug/mL	92

Ave 7.492

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

$\frac{7.492}{5} \times 100 = 150\%$

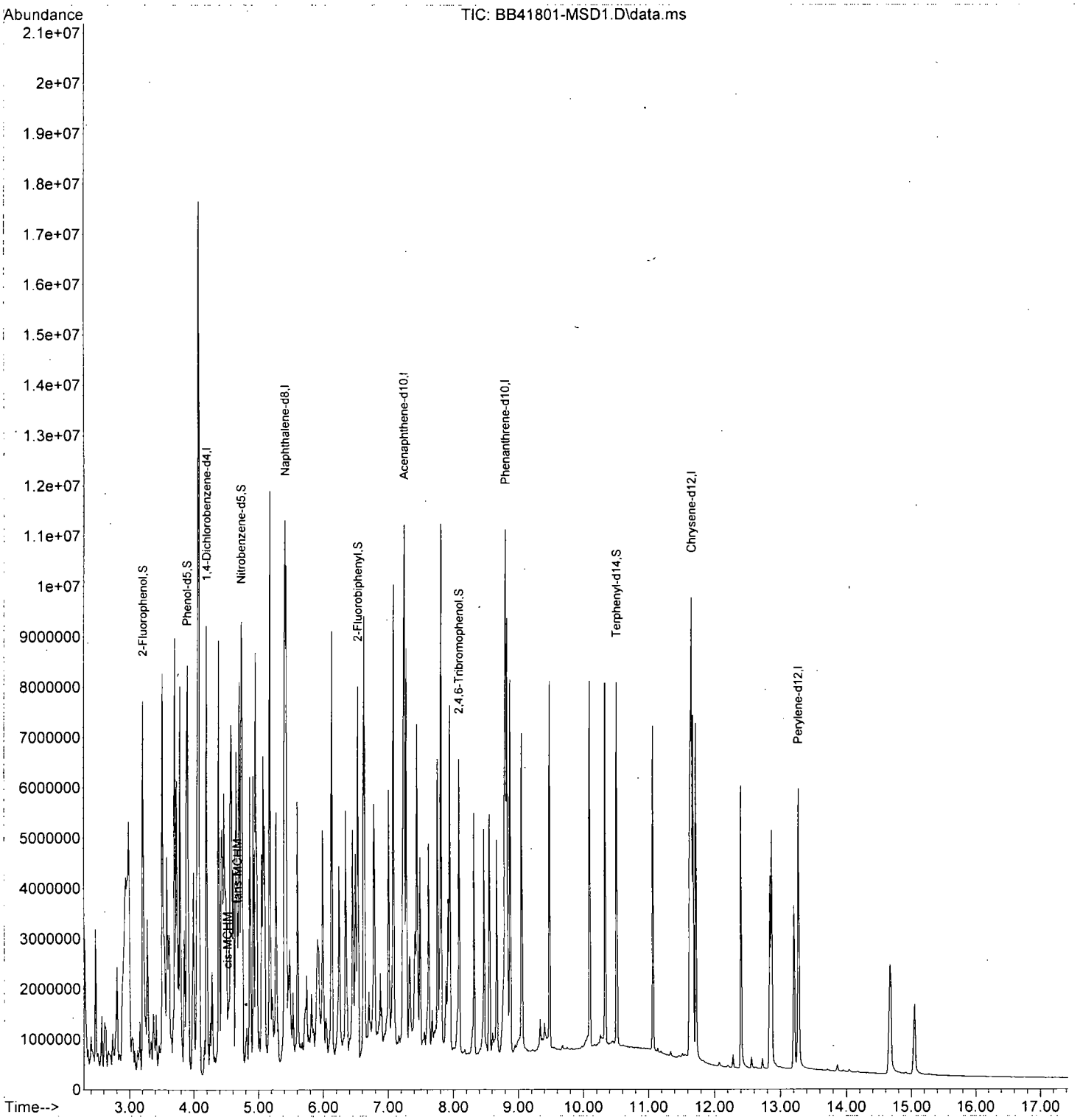
Freedom_0005790_0779

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MSD1.D
Acq On : 21 Feb 2014 7:58 pm
Operator : ERG 96-5975B
Sample : BB41801-MSD1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 11 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:21:36 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM022014B.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:54:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BLK1.D
Acq On : 5 Feb 2014 5:04 pm
Operator : ERG 96-5975B
Sample : BB40301-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 25 13:36:48 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1222203	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4409776	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2432107	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	3873638	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	3638387	20.000	ug/mL	# 0.00
13) Perylene-d12	13.280	264	2793173	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3125821	33.655	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 67.30%			
3) Phenol-d5	3.875	99	3669853	35.736	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 71.48%			
6) Nitrobenzene-d5	4.729	82	1607505	10.388	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 41.56%#			
8) 2-Fluorobiphenyl	6.538	172	3193947	11.080	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 44.32%			
10) 2,4,6-Tribromophenol	8.089	330	628509	38.372	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 76.74%			
12) Terphenyl-d14	10.520	244	3546020	10.490	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 41.96%			

Target Compounds Qvalue

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

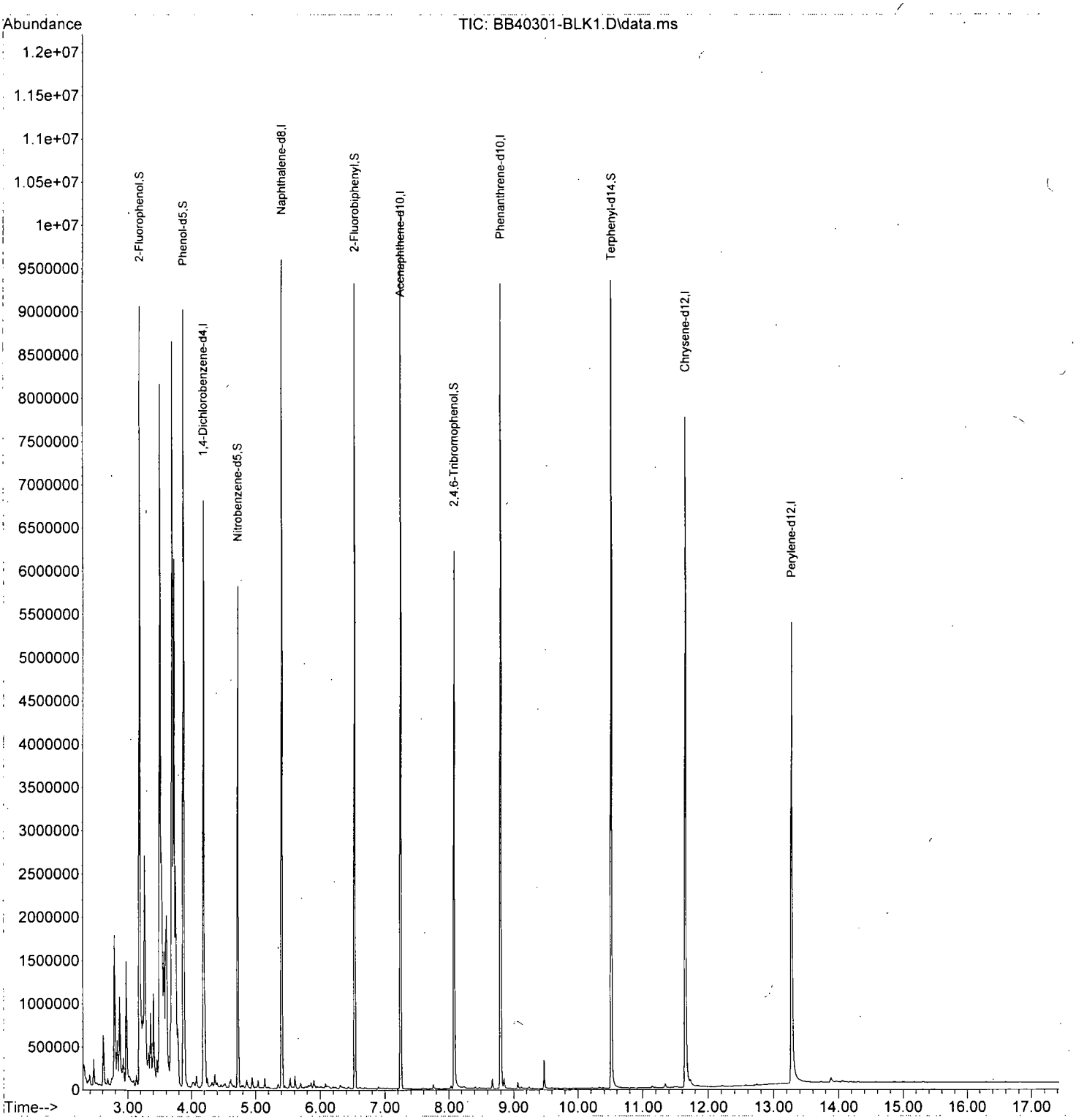
Freedom_0005790_0781

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BLK1.D
Acq On : 5 Feb 2014 5:04 pm
Operator : ERG 96-5975B
Sample : BB40301-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:36:48 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BS1.D
Acq On : 5 Feb 2014 5:55 pm
Operator : ERG 96-5975B
Sample : BB40301-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 25 13:37:20 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1131924	20.000	ug/mL	0.00
4) Naphthalene-d8	5.415	136	4157146	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.251	164	2419731	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.812	188	4263517	20.000	ug/mL	0.00
11) Chrysene-d12	11.665	240	3649308	20.000	ug/mL	# 0.01
13) Perylene-d12	13.291	264	3108249	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2852064	33.156	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery	=	66.32%	
3) Phenol-d5	3.880	99	3240576	34.073	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery	=	68.14%	
6) Nitrobenzene-d5	4.734	82	1479404	10.141	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery	=	40.56%#	
8) 2-Fluorobiphenyl	6.538	172	3253039	11.342	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery	=	45.36%	
10) 2,4,6-Tribromophenol	8.094	330	754806	41.869	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery	=	83.74%	
12) Terphenyl-d14	10.519	244	3510656	10.354	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery	=	41.40%	
Target Compounds						Qvalue
5) PPH	5.744	94	431801	4.654	ug/mL	98

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

$\frac{4.654}{5} \times 100 = 93\%$

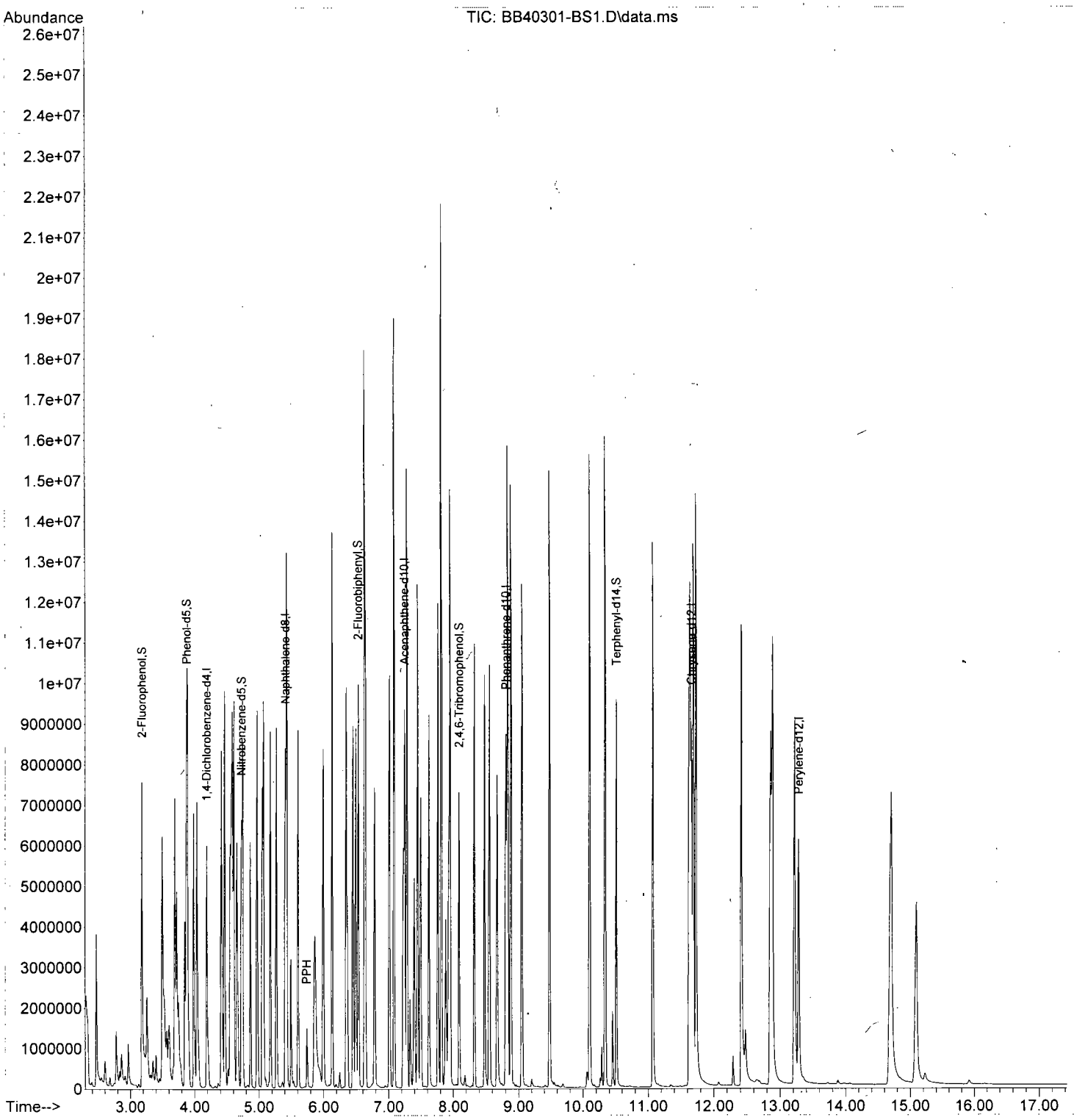
Freedom_0005790_0783

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020514\
Data File : BB40301-BS1.D
Acq On : 5 Feb 2014 5:55 pm
Operator : ERG 96-5975B
Sample : BB40301-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:37:20 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : BB40502-BLK1.D
Acq On : 7 Feb 2014 12:51 pm
Operator : ERG 96-5975B
Sample : BB40502-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 25 13:40:33 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1173970	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4286493	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.241	164	2364754	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	3853241	20.000	ug/mL	0.00
11) Chrysene-d12	11.649	240	3670726	20.000	ug/mL	# 0.00
13) Perylene-d12	13.275	264	2948357	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2972713	33.321	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 66.64%			
3) Phenol-d5	3.875	99	3542887	35.917	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 71.84%			
6) Nitrobenzene-d5	4.723	82	1555730	10.343	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 41.36%#			
8) 2-Fluorobiphenyl	6.533	172	3049548	10.880	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 43.52%			
10) 2,4,6-Tribromophenol	8.083	330	600287	36.843	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 73.68%			
12) Terphenyl-d14	10.514	244	3368368	9.876	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 39.52%			

Target Compounds Qvalue

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

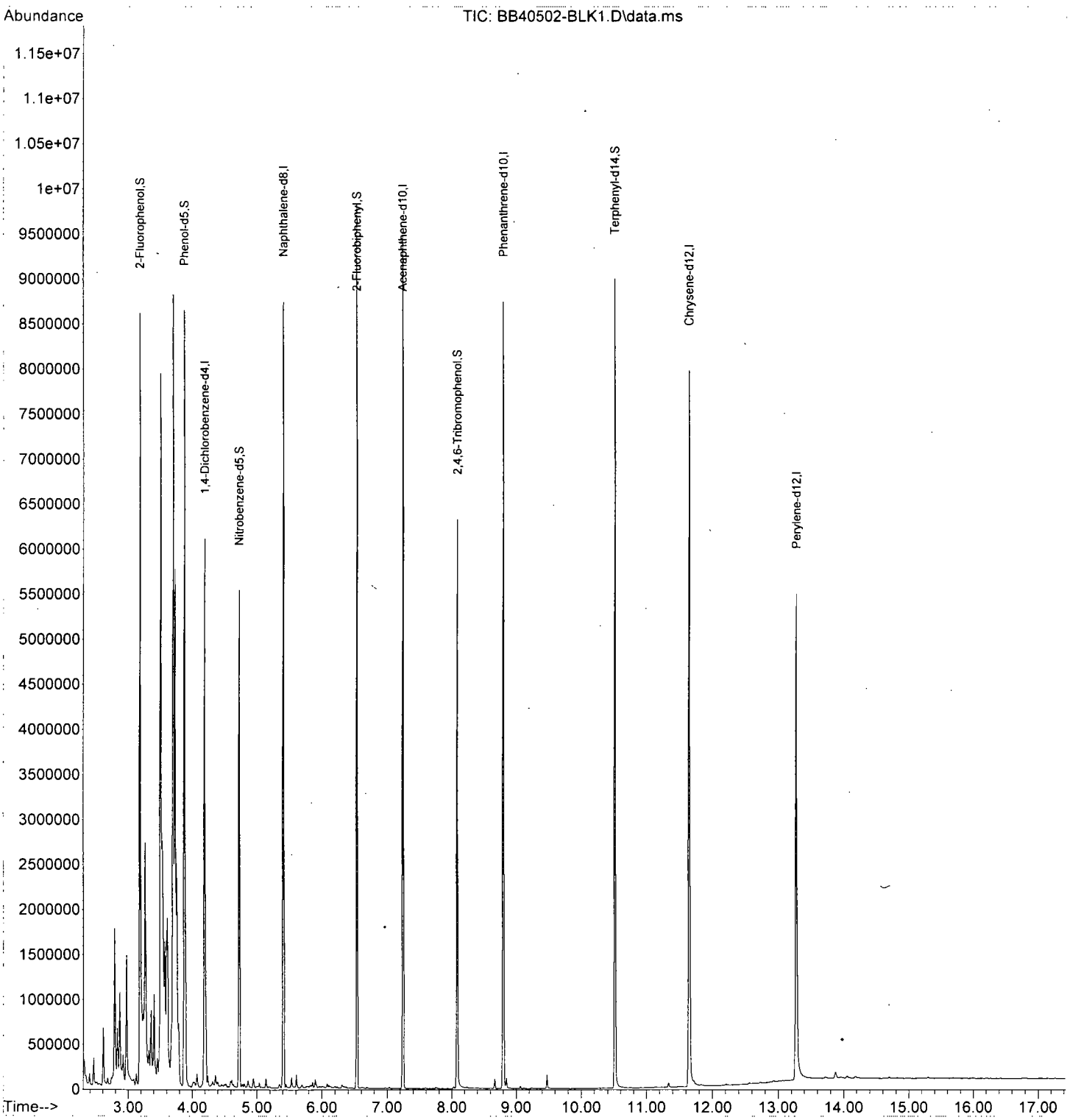
Freedom_0005790_0785

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : BB40502-BLK1.D
Acq On : 7 Feb 2014 12:51 pm
Operator : ERG 96-5975B
Sample : BB40502-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:40:33 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : BB40502-BS1.D
Acq On : 7 Feb 2014 1:42 pm
Operator : ERG 96-5975B
Sample : BB40502-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:41:04 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1401006	20.000	ug/mL	0.00
4) Naphthalene-d8	5.415	136	5113043	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.251	164	2891768	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.807	188	5061971	20.000	ug/mL	0.00
11) Chrysene-d12	11.659	240	4277560	20.000	ug/mL	# 0.00
13) Perylene-d12	13.285	264	3392560	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3230100	30.339	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 60.68%			
3) Phenol-d5	3.880	99	3725462	31.648	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 63.30%			
6) Nitrobenzene-d5	4.734	82	1768929	9.859	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 39.44%#			
8) 2-Fluorobiphenyl	6.538	172	3634175	10.603	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 42.40%#			
10) 2,4,6-Tribromophenol	8.094	330	829911	38.773	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 77.54%			
12) Terphenyl-d14	10.514	244	3878556	9.759	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 39.04%			
Target Compounds						Qvalue
5) PPH	5.744	94	526142	4.610	ug/mL	98

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

$\frac{4.610}{5} \times 100 = 92\%$

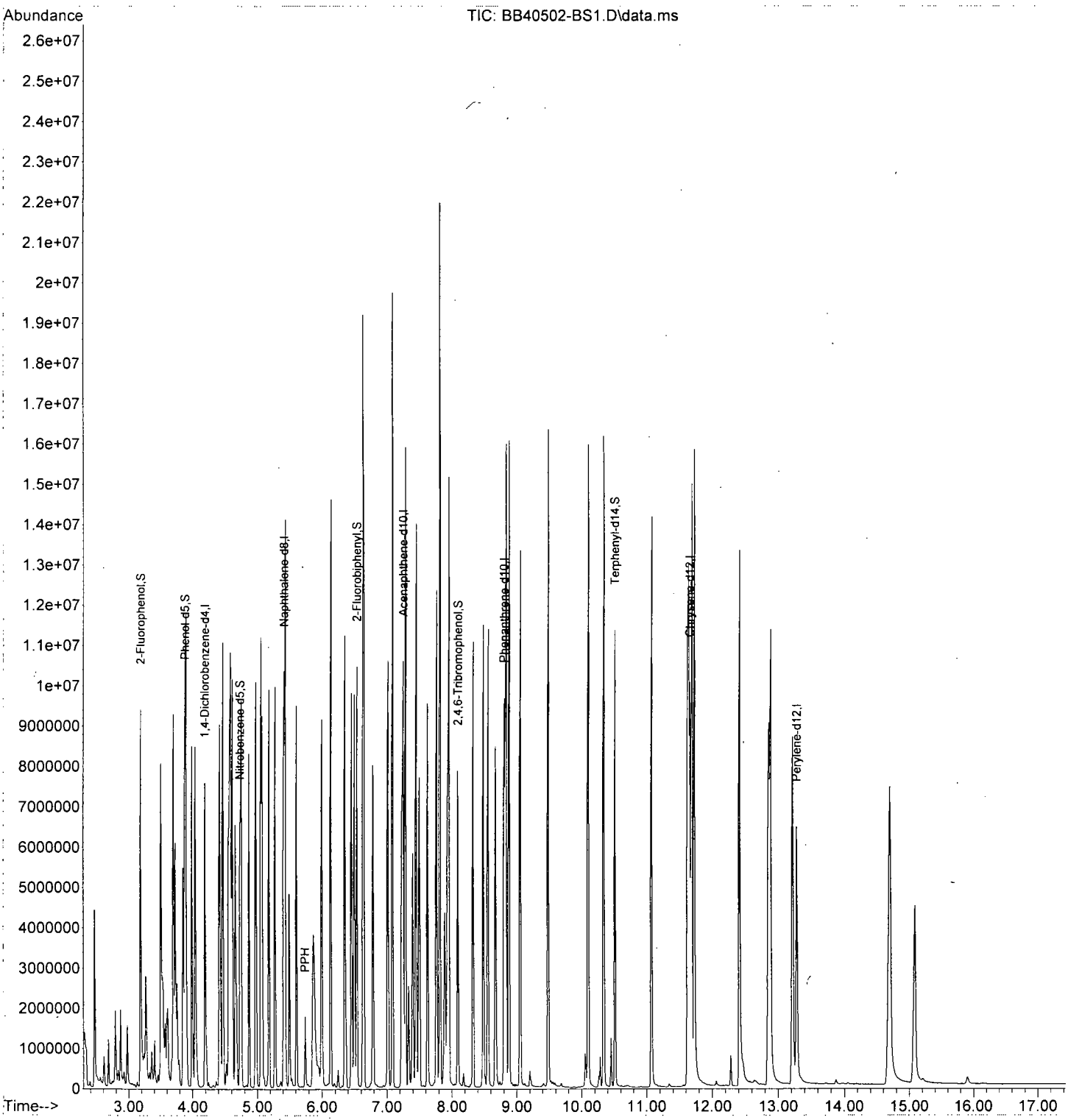
Freedom_0005790_0787

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\020714\
Data File : BB40502-BS1.D
Acq On : 7 Feb 2014 1:42 pm
Operator : ERG 96-5975B
Sample : BB40502-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 25 13:41:04 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH012814.M
Quant Title : Calibration
QLast Update : Tue Feb 25 13:31:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BLK1.D
Acq On : 21 Feb 2014 2:08 pm
Operator : ERG 96-5975B
Sample : BB41002-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 24 08:46:37 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1276946	20.000	ug/mL	0.00
4) Naphthalene-d8	5.404	136	4489842	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.240	164	2409482	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.796	188	3868908	20.000	ug/mL	-0.01
11) Chrysene-d12	11.643	240	2887129	20.000	ug/mL	-0.01
13) Perylene-d12	13.269	264	1753645	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2675091	29.147	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 58.30%			
3) Phenol-d5	3.875	99	2971517	29.452	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 58.90%			
6) Nitrobenzene-d5	4.723	82	1343389	15.284	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 61.12%			
8) 2-Fluorobiphenyl	6.533	172	2389375	14.874	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 59.48%			
10) 2,4,6-Tribromophenol	8.083	330	460219	31.410	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 62.82%			
12) Terphenyl-d14	10.509	244	2437768	16.269	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 65.08%			

Target Compounds Qvalue

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

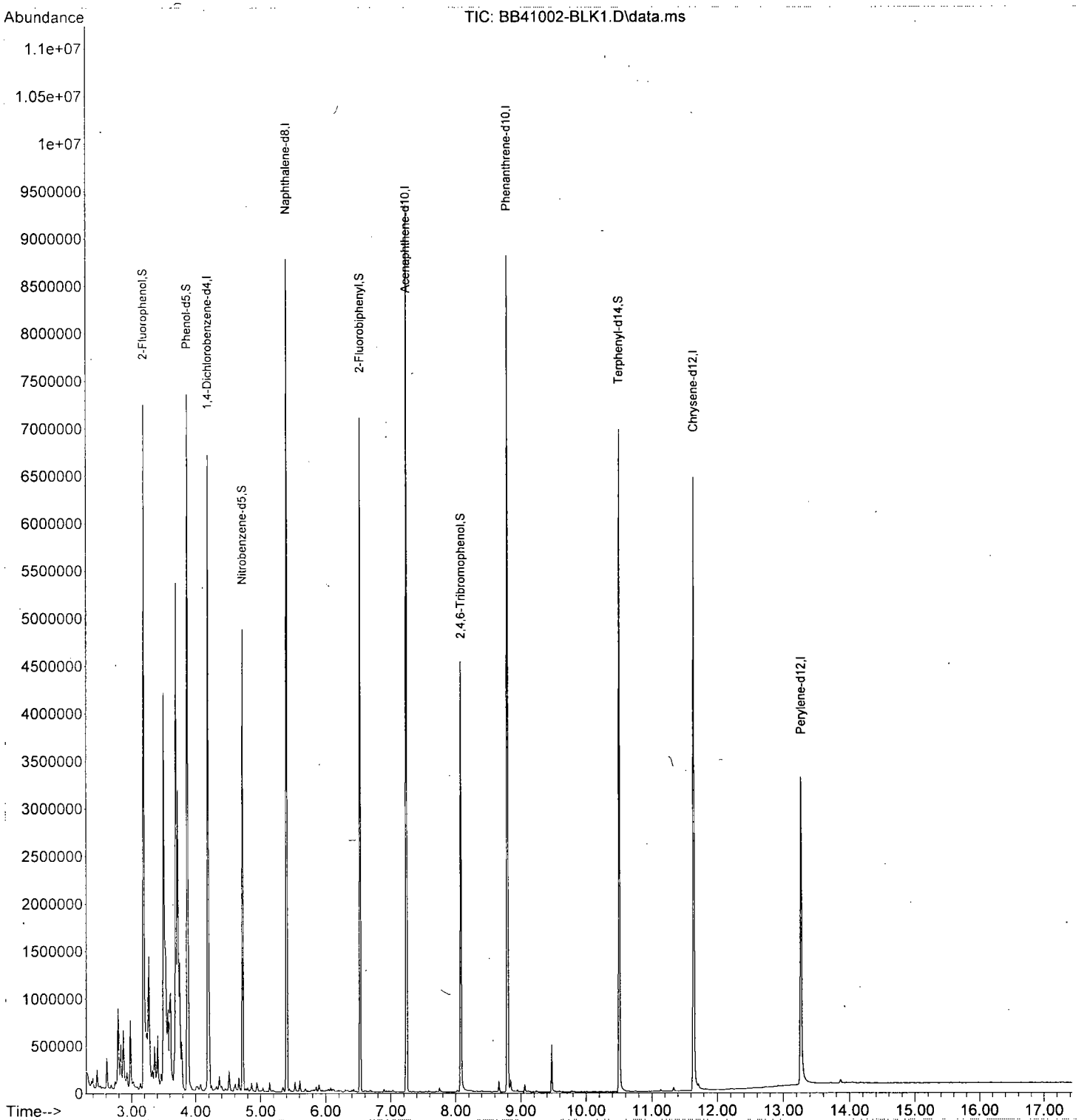
Freedom_0005790_0789

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BLK1.D
Acq On : 21 Feb 2014 2:08 pm
Operator : ERG 96-5975B
Sample : BB41002-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 4 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:46:37 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BS1.D
Acq On : 21 Feb 2014 2:58 pm
Operator : ERG 96-5975B
Sample : BB41002-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:48:13 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1232361	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4378074	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	2550334	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.807	188	4422111	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	2963981	20.000	ug/mL	# 0.00
13) Perylene-d12	13.275	264	2072103	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2476236	27.956	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 55.92%			
3) Phenol-d5	3.880	99	2741408	28.155	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 56.30%			
6) Nitrobenzene-d5	4.734	82	1320066	15.403	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 61.60%			
8) 2-Fluorobiphenyl	6.538	172	2600649	15.295	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 61.16%			
10) 2,4,6-Tribromophenol	8.089	330	597533	35.680	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 71.36%			
12) Terphenyl-d14	10.509	244	2411010	15.673	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 62.68%			
Target Compounds						Qvalue
5) PPH	5.739	94	396090	3.879	ug/mL	97

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

$\frac{3.879}{5} = 76\%$

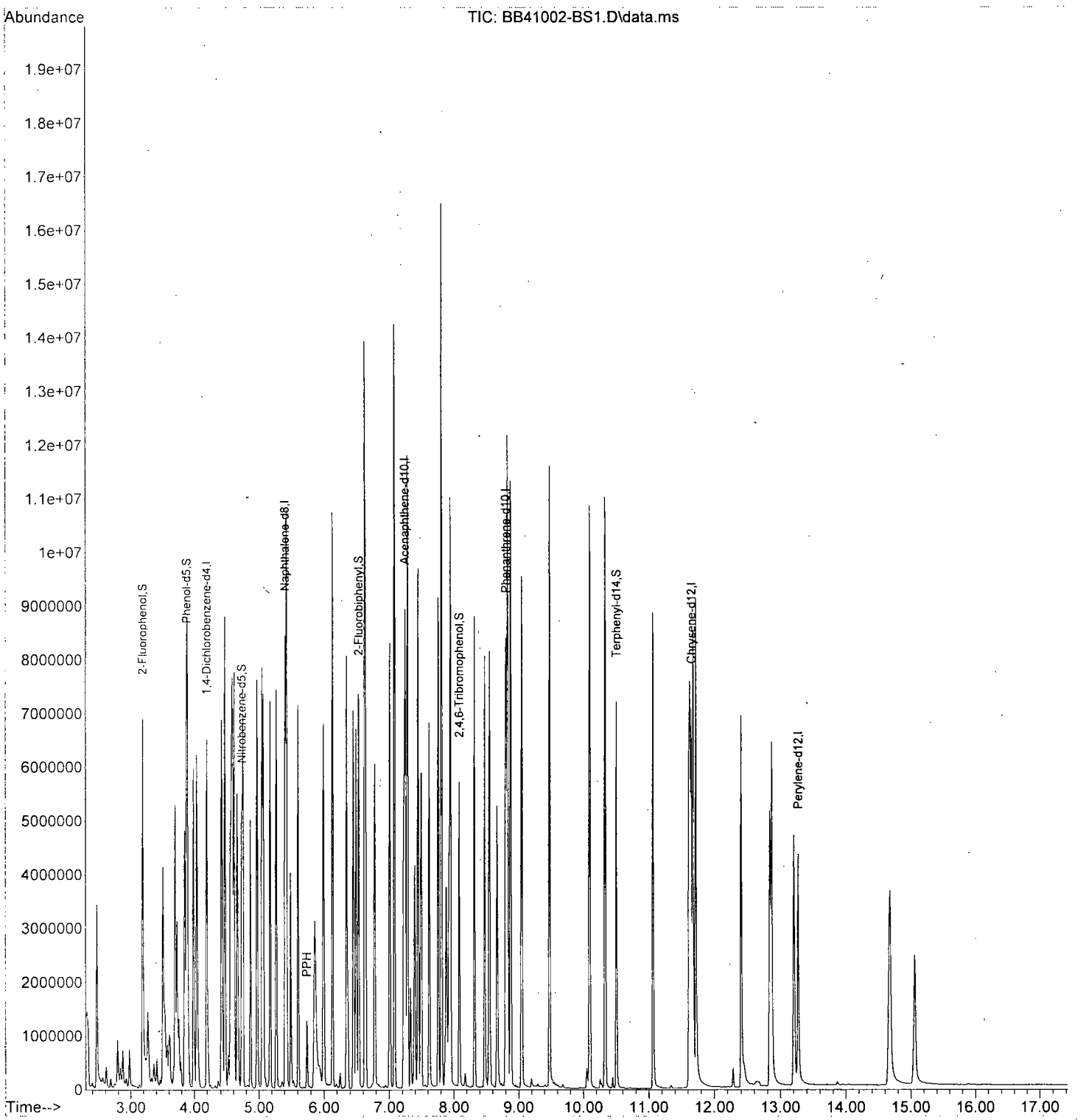
Freedom_0005790_0791

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41002-BS1.D
Acq On : 21 Feb 2014 2:58 pm
Operator : ERG 96-5975B
Sample : BB41002-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:48:13 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-BLK1.D
Acq On : 21 Feb 2014 4:38 pm
Operator : ERG 96-5975B
Sample : BB41801-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:47:11 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1388139	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4960310	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.241	164	2752903	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.802	188	4561529	20.000	ug/mL	0.00
11) Chrysene-d12	11.643	240	3521272	20.000	ug/mL	#-0.01
13) Perylene-d12	13.269	264	2271862	20.000	ug/mL	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	2303937	23.092	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 46.18%			
3) Phenol-d5	3.875	99	2831389	25.816	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 51.64%			
6) Nitrobenzene-d5	4.723	82	1296841	13.355	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 53.44%			
8) 2-Fluorobiphenyl	6.527	172	2333213	12.712	ug/mL	-0.01
Spiked Amount 25.000	Range 43 - 116		Recovery = 50.84%			
10) 2,4,6-Tribromophenol	8.083	330	490577	28.398	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 56.80%			
12) Terphenyl-d14	10.509	244	2511031	13.740	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 54.96%			

Target Compounds Qvalue

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

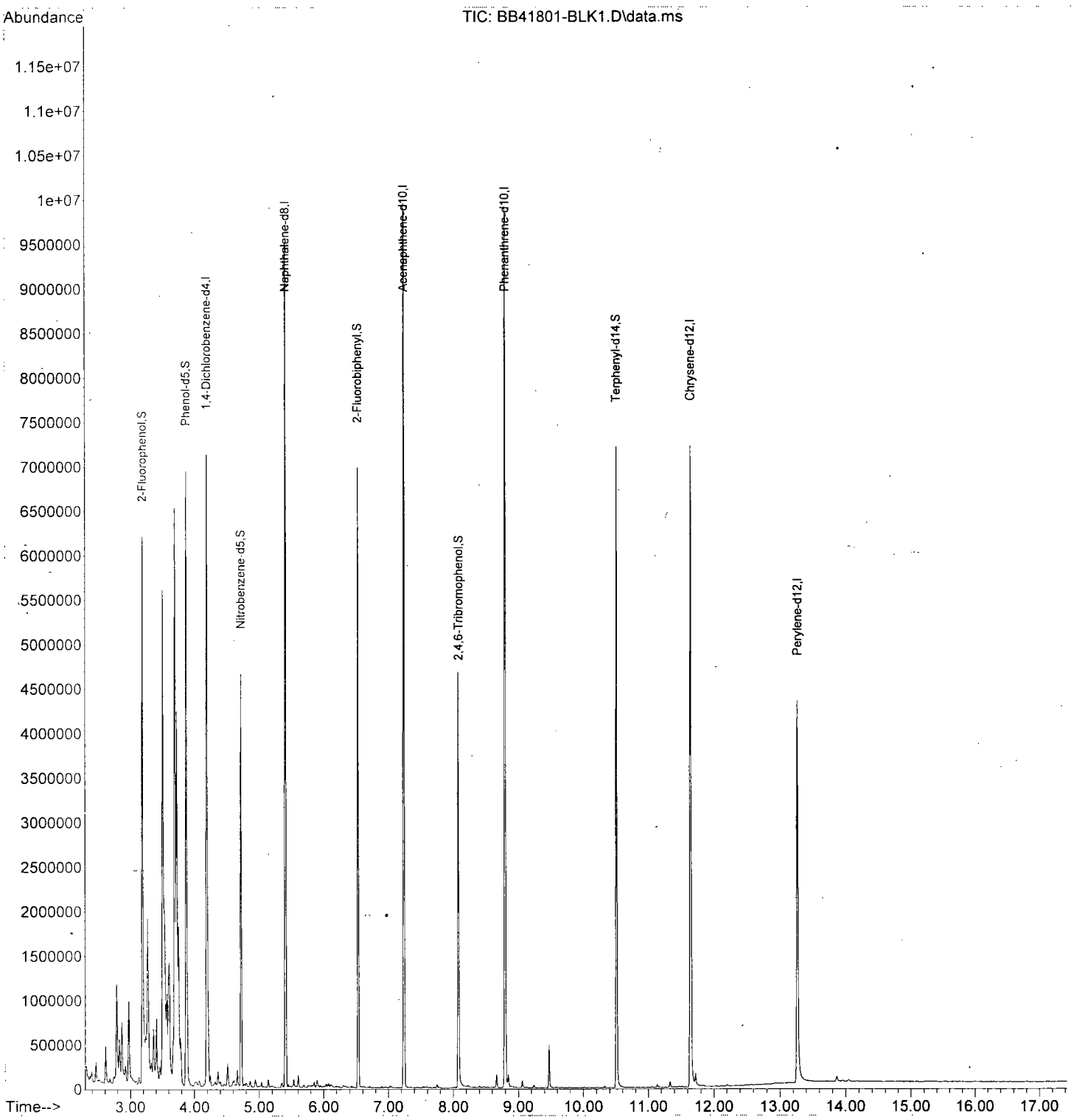
Freedom_0005790_0793

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-BLK1.D
Acq On : 21 Feb 2014 4:38 pm
Operator : ERG 96-5975B
Sample : BB41801-BLK1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 7 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:47:11 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-BS1.D
Acq On : 21 Feb 2014 5:28 pm
Operator : ERG 96-5975B
Sample : BB41801-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:48:48 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1385081	20.000	ug/mL	0.00
4) Naphthalene-d8	5.409	136	4935358	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.251	164	2924944	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.807	188	5152143	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	3577442	20.000	ug/mL	# 0.00
13) Perylene-d12	13.275	264	2424586	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.184	112	2441608	24.526	ug/mL	-0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 49.06%			
3) Phenol-d5	3.880	99	2770372	25.315	ug/mL	0.00
Spiked Amount 50.000	Range 39 - 106		Recovery = 50.62%			
6) Nitrobenzene-d5	4.734	82	1326442	13.729	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 54.92%			
8) 2-Fluorobiphenyl	6.538	172	2680902	13.747	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 55.00%			
10) 2,4,6-Tribromophenol	8.094	330	648074	33.215	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 66.42%			
12) Terphenyl-d14	10.509	244	2602424	14.016	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 56.08%			
Target Compounds						Qvalue
5) PPH	5.739	94	421550	3.662	ug/mL	97

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

$\frac{3.662}{5} = 73\%$

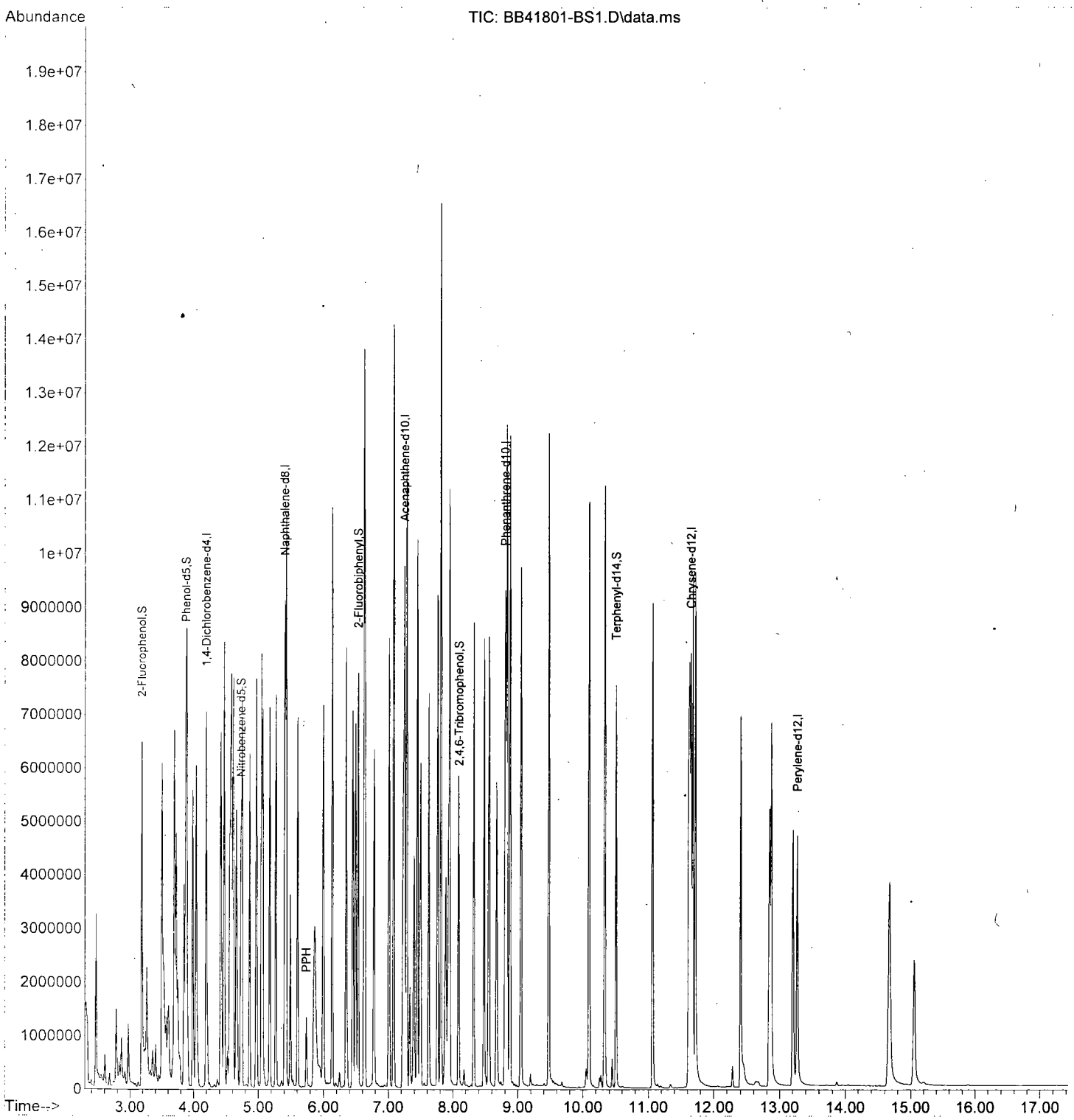
Freedom_0005790_0795

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-BS1.D
Acq On : 21 Feb 2014 5:28 pm
Operator : ERG 96-5975B
Sample : BB41801-BS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 8 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:48:48 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MS1.D
Acq On : 21 Feb 2014 7:08 pm
Operator : ERG 96-5975B
Sample : BB41801-MS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 10 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:49:23 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	1487779	20.000	ug/mL	0.00
4) Naphthalene-d8	5.415	136	5392210	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.251	164	3312682	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.807	188	5062840	20.000	ug/mL	0.00
11) Chrysene-d12	11.659	240	4299425	20.000	ug/mL	# 0.00
13) Perylene-d12	13.280	264	3164713	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.205	112	2479935	23.191	ug/mL	0.01
Spiked Amount 50.000	Range 21 - 110		Recovery = 46.38%			
3) Phenol-d5	3.897	99	2958724	25.170	ug/mL	0.02
Spiked Amount 50.000	Range 39 - 106		Recovery = 50.34%			
6) Nitrobenzene-d5	4.734	82	1269866	12.030	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 48.12%			
8) 2-Fluorobiphenyl	6.538	172	2893490	13.101	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 52.40%			
10) 2,4,6-Tribromophenol	8.094	330	718062	37.451	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 74.90%			
12) Terphenyl-d14	10.509	244	2559681	11.471	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 45.88%			
Target Compounds						Qvalue
5) PPH	5.744	94	507208	4.033	ug/mL	99

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

$\frac{4.033}{5} = 81\%$

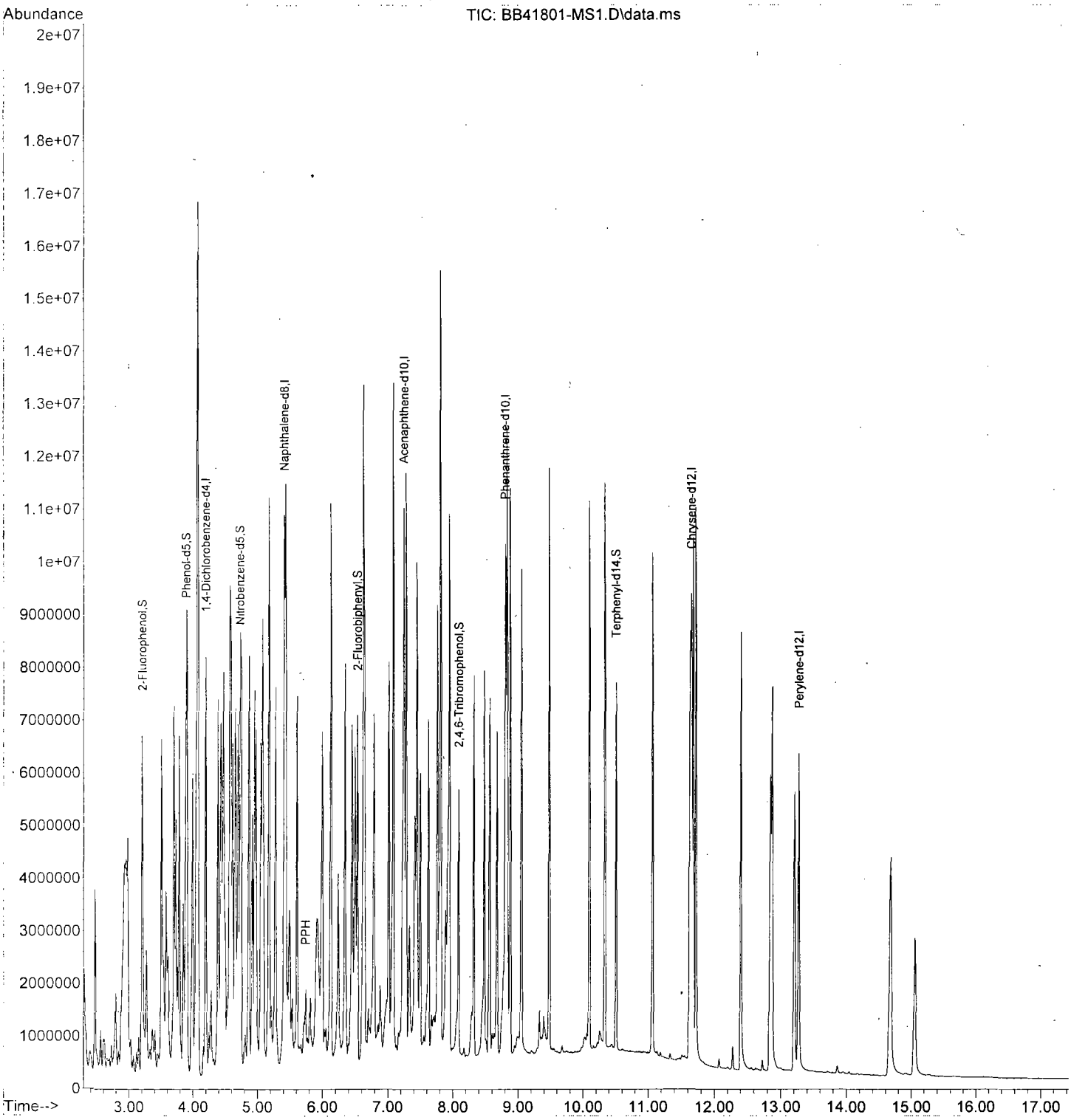
Freedom_0005790_0797

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MS1.D
Acq On : 21 Feb 2014 7:08 pm
Operator : ERG 96-5975B
Sample : BB41801-MS1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 10 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:49:23 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MSD1.D
Acq On : 21 Feb 2014 7:58 pm
Operator : ERG 96-5975B
Sample : BB41801-MSD1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 11 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:49:57 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.199	152	1541334	20.000	ug/mL	0.00
4) Naphthalene-d8	5.415	136	5730090	20.000	ug/mL	0.00
7) Acenaphthene-d10	7.246	164	3607250	20.000	ug/mL	0.00
9) Phenanthrene-d10	8.807	188	6405205	20.000	ug/mL	0.00
11) Chrysene-d12	11.654	240	4670868	20.000	ug/mL	# 0.00
13) Perylene-d12	13.274	264	3131528	20.000	ug/mL	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol	3.211	112	3042903	27.467	ug/mL	0.02
Spiked Amount 50.000	Range 21 - 110		Recovery = 54.94%			
3) Phenol-d5	3.897	99	3489200	28.651	ug/mL	0.02
Spiked Amount 50.000	Range 39 - 106		Recovery = 57.30%			
6) Nitrobenzene-d5	4.734	82	1515516	13.511	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 54.04%			
8) 2-Fluorobiphenyl	6.533	172	3312020	13.771	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 55.08%			
10) 2,4,6-Tribromophenol	8.088	330	829417	34.193	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 68.38%			
12) Terphenyl-d14	10.509	244	2863659	11.813	ug/mL	-0.01
Spiked Amount 25.000	Range 33 - 141		Recovery = 47.24%			
Target Compounds						Qvalue
5) PPH	5.744	94	590944	4.422	ug/mL	99

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

$\frac{4.422}{5} = 88\%$

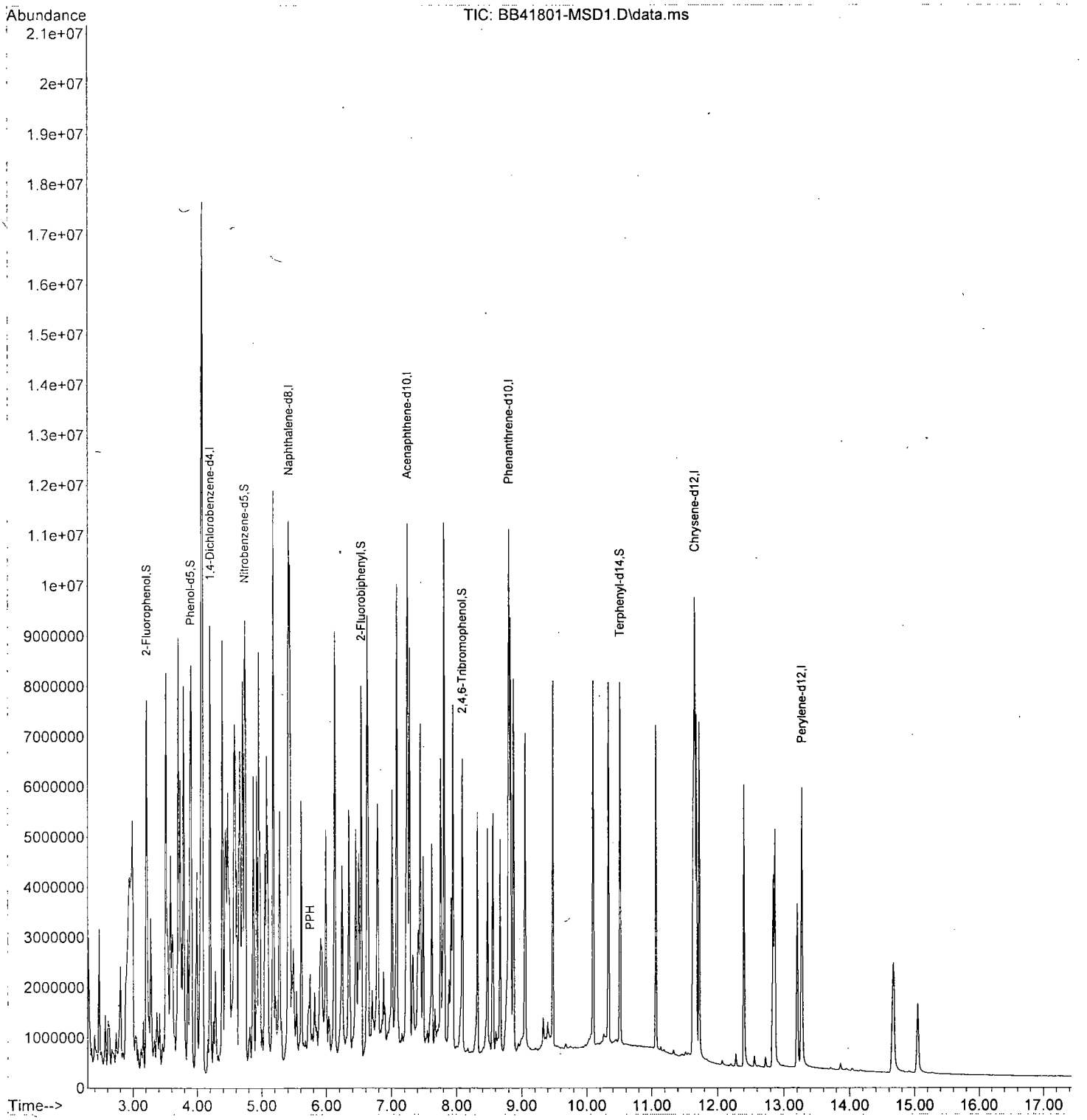
Freedom_0005790_0799

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\SVOC\2014\02 Feb\022114\
Data File : BB41801-MSD1.D
Acq On : 21 Feb 2014 7:58 pm
Operator : ERG 96-5975B
Sample : BB41801-MSD1
Misc : WO#1401014 Site:WV Chem Leak
ALS Vial : 11 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 24 08:49:57 2014
Quant Method : D:\DATA\SVOC\calibrations\PPH022014.M
Quant Title : Calibration
QLast Update : Fri Feb 21 11:56:38 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

WO: 1401014
Site Name: WV Chem Leak

Data Path : D:\DATA\SVOC\2014\01 JAN\012914\
Data File : MCHM1.D
Acq On : 29 Jan 2014 12:38 pm
Operator : ERG 96-5975B
Sample : MCHM1
Misc : MCHM and PPH at neutral pH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 07:03:00 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:36:39 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.194	152	1040622	20.000	ug/mL	0.00
6) Naphthalene-d8	5.409	136	3774877	20.000	ug/mL	0.00
8) Acenaphthene-d10	7.246	164	2071491	20.000	ug/mL	0.00
10) Phenanthrene-d10	8.802	188	3293733	20.000	ug/mL	0.00
12) Chrysene-d12	11.654	240	3177914	20.000	ug/mL	0.00
14) Perylene-d12	13.280	264	2605680	20.000	ug/mL	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	3.189	112	3029515	51.342	ug/mL	0.00
Spiked Amount 50.000	Range 21 - 110		Recovery = 102.68%			
3) Phenol-d5	4.729	99	26325m	0.406	ug/mL	0.85
Spiked Amount 50.000	Range 39 - 106		Recovery = 0.82%#			
7) Nitrobenzene-d5	4.729	82	1506795	19.060	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 108		Recovery = 76.24%			
9) 2-Fluorobiphenyl	6.538	172	3024132	20.511	ug/mL	0.00
Spiked Amount 25.000	Range 43 - 116		Recovery = 82.04%			
11) 2,4,6-Tribromophenol	8.089	330	548655	54.148	ug/mL	0.00
Spiked Amount 50.000	Range 10 - 123		Recovery = 108.30%			
13) Terphenyl-d14	10.520	244	3333909	20.828	ug/mL	0.00
Spiked Amount 25.000	Range 33 - 141		Recovery = 83.32%			
Target Compounds						Qvalue
4) cis-MCHM	3.881	55	34947m	1.128	ug/mL	
5) tans-MCHM	4.669	55	355548	5.698	ug/mL	91

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

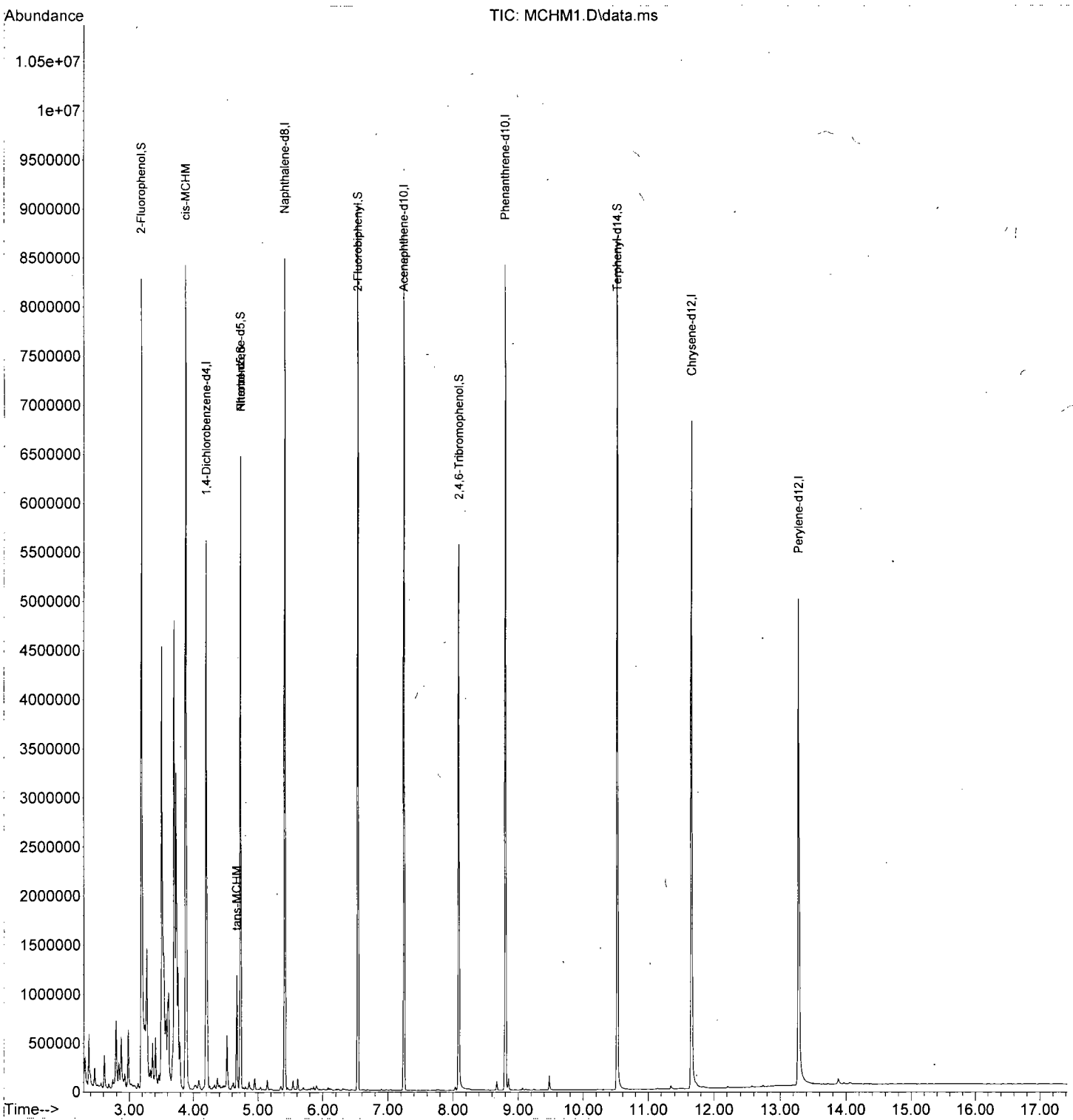
Freedom_0005790_0801

Quantitation Report (QT Reviewed)

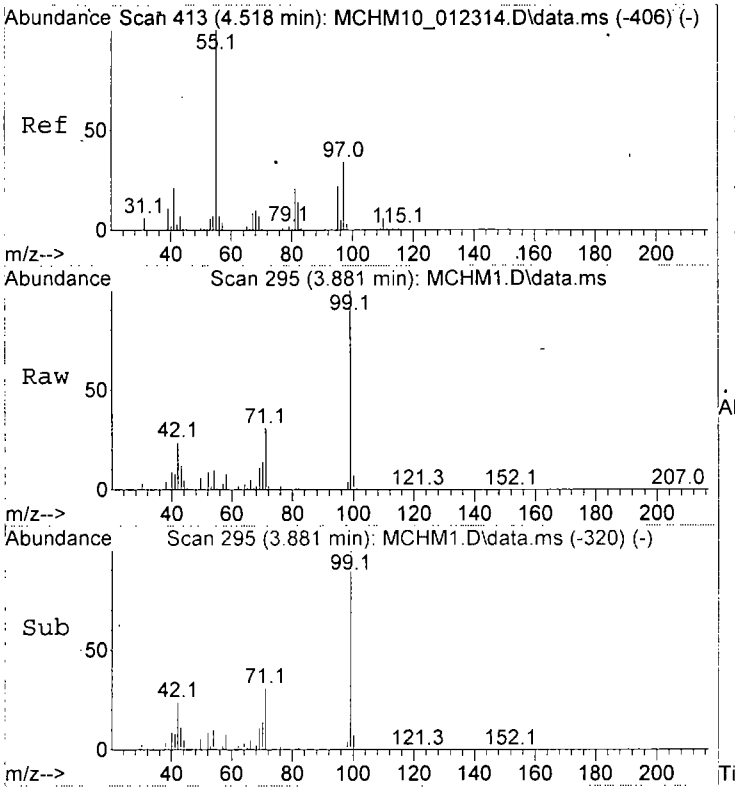
Data Path : D:\DATA\SVOC\2014\01 JAN\012914\
Data File : MCHM1.D
Acq On : 29 Jan 2014 12:38 pm
Operator : ERG 96-5975B
Sample : MCHM1
Misc : MCHM and PPH at neutral pH
ALS Vial : 5 Sample Multiplier: 1

WO: 1401014
Site Name: WV Chem Leak

Quant Time: Feb 26 07:03:00 2014
Quant Method : D:\DATA\SVOC\calibrations\MCHM012814.M
Quant Title : Calibration
QLast Update : Thu Jan 30 08:36:39 2014
Response via : Initial Calibration



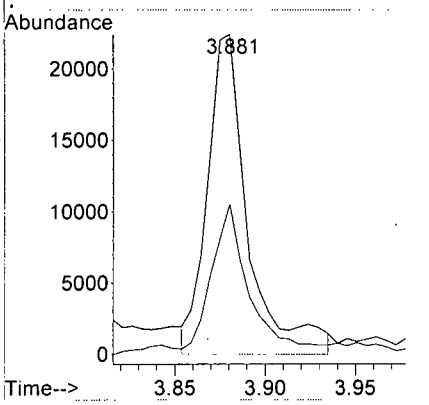
WO: 1401014
Site Name: WV Chem Leak

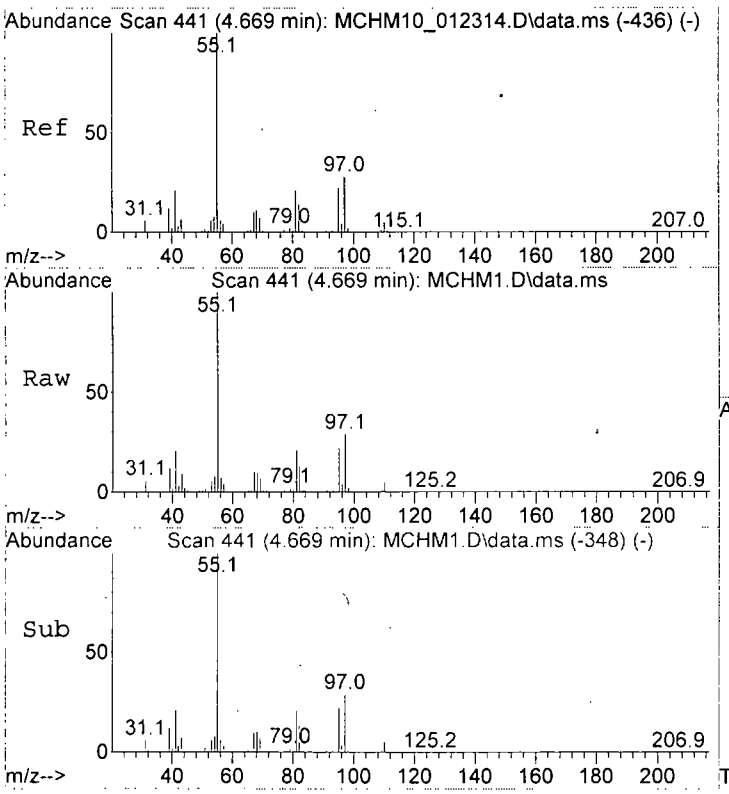


#4
cis-MCHM
Concen: 1.128 ug/mL m
RT: 3.881 min Scan# 295
Delta R.T. -0.637 min
Lab File: MCHM1.D
Acq: 29 Jan 2014 12:38 pm

Tgt Ion: 55 Resp: 34947

Ion	Ratio	Lower	Upper
55	100		
97	158.1	23.2	34.8#

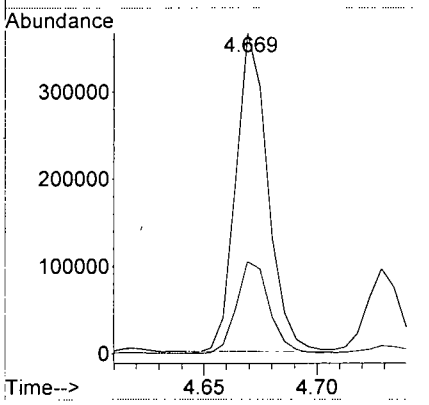




#5
tans-MCHM
Concen: 5.698 ug/mL
RT: 4.669 min Scan# 441
Delta R.T. 0.000 min
Lab File: MCHM1.D
Acq: 29 Jan 2014 12:38 pm

Tgt Ion: 55 Resp: 355548

Ion	Ratio	Lower	Upper
55	100		
97	29.7	20.0	30.0



Case File Contents

Semivolatile Organic Compounds

SVOCs by SW846 8270D

WO 1401014

West Virginia Chemical Leak

DAS R34317

Log Book Copies, Run Logs

EPA REGION 3 - OASQA - LLE SAMPLE/REAGENT PREPARATION LOG

BB40301 **bch_LLE.rpt**

Project: DAS R34317
Work Order No: 1401014
Site Name: West Virginia Chemical Leak

Location: Analyst
Client: OSWER - Emergency Response

Analysis: SVOCs by SW846 8270D
Matrix: Water
Preparer: ERD date 2/3/14

Account#: 2014T03N303DC6A3XKRS00
Method/SOP: EPA 8270D/R3QA201
Analyst: ERD date 2/5/14 / 2/6/14

Extraction Solvent	Barcode #	Quantity Used For Each Sample mL	Pest/PCB DRO SVOC (circle one) Neutral	SVOC ~~Base/Neutral~~ Acid	Concentration Solvent	Barcode #
$MeCl_2$	13655	250mL	Start 2/3/14 Date/Time 0820	Start 2/4/14 Date/Time 0920	$MeCl_2$	13655
$MeCl_2$	13655	50mL	Stop 2/4/14 Date/Time 0730	Stop 2/5/14 Date/Time 0745		

ERD 2/3/14 KP 2/5/14

QC Info	Standard ID#	Conc µg/mL	Volume Added mL	Reagent	Barcode # or Standard ID#	Reagent	Barcode # or Standard ID#	Concentration Date: 2/6/14	
Surrogate Spike	1300389	100/50	0.5	10N NaOH	N/A	$Na_2S_2O_3$	N/A	S-EVAP Temp	N-EVAP Temp
Matrix Spike/ Blank Spike	MCHM * 1300459/PPH **	40/5/5	1.0	18N H_2SO_4	1345	Reagent Purity Check: ✓		70°C	30°C
Internal Standard	1400053	2000	0.01	6N HCl	N/A	DI Water Pass: ✓			

* BSMCHM05_012314
** BSPPH05 012614

EPA REGION 3 - OASQA - LLE SAMPLE/REAGENT PREPARATION LOG

BB40301 **bch_LLE.rpt**

LabNumber	Container ID	Collection Date	Initial (mL)	Initial Final pH	Initial Final Cl-	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	ExtractionComments
1401014-01	D	01/29/14 14:00	~~1000~~ 1050	7, 2	0	1				500	
1401014-02	D	01/29/14 14:55	~~1000~~ 1050	7, 2	0	1				500	
1401014-03	D	01/29/14 15:05	~~1000~~ 1050	7, 2	0	1				500	went dry?
1401014-04	D	01/29/14 14:30	~~1000~~ 1050	7, 2	0	1				500	went dry?
BB40301-BLK1		02/03/14 07:30	1000	7, 2	0	1				500	
BB40301-BS1		02/03/14 07:30	1000	7, 2	0	1	1300459		1000	500	went dry?

Surrogate used: 1300389

EPA REGION 3 - OASQA - LLE SAMPLE/REAGENT PREPARATION LOG

BB40502 **bch_LLE.rpt**

Project: DAS R34317

Work Order No: 1401014

Site Name: West Virginia Chemical Leak

Location: Analyst

Client: OSWER - Emergency Response

Analysis: SVOCs by SW846 8270D

Matrix: Water

Account#: 2014T03N303DC6A3XKRS00

Method/SOP: EPA 8270D/R3QA201

Preparer: EW **date** 2/5/14

Analyst: EW KP **date** 2/7/14 + 2/10/14 2/11/14

Extraction Solvent	Barcode #	Quantity Used For Each Sample mL	Pest/PCB DRO SVOC (circle one)	SVOC ~~Base/Neutral~~ Acid EW 2/27/14	Concentration Solvent	Barcode #
$MeCl_2$	13655	250mL	Start 2/5/14 Date/Time 1345	Start 2/6/14 Date/Time 1140	$MeCl_2$	13655
$MeCl_2$	13655	50mL	Stop 2/6/14 Date/Time 1030	Stop 2/7/14 Date/Time 0750		

QC Info	Standard ID#	Conc µg/mL	Volume Added mL	Reagent	Barcode # or Standard ID#	Reagent	Barcode # or Standard ID#	Concentration Date: 2/7/14	
Surrogate Spike	1300389	100/50	0.5	10N NaOH	N/A	$Na_2S_2O_3$	N/A	S-EVAP Temp	N-EVAP Temp
Matrix Spike/ Blank Spike	* MCHM/ ** PPH/1300450	50/50/40	0.1/0.1/1.0	18N H_2SO_4	13745	Reagent Purity Check: ✓		70°C	30°C
Internal Standard	1400053	2000	0.01	6N HCl	N/A	DI Water Pass: ✓			

* BSMCHM50_012314

** BSPPH50_012314

EPA REGION 3 - OASQA - LLE SAMPLE/REAGENT PREPARATION LOG

BB40502 **bch_LLE.rpt**

LabNumber	Container ID	Collection Date	Initial (mL)	Initial Final pH	Initial Final Cl-	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	ExtractionComments
1401014-06	D	01/31/14 12:45	1050 ~~1000~~	7.2	0	1				500	extractor cracked start "E"
1401014-07	D	02/01/14 11:45	1050 ~~1000~~	7.2	0	1				500	
BB40502-BLK1		02/05/14 13:07	1000	7.2	0	1				500	
BB40502-BS1		02/05/14 13:07	1000	7.2	0	1	1300459		1000	500	

Surrogate used: 1300389

EPA REGION 3 - OASQA - LLE SAMPLE/REAGENT PREPARATION LOG

BB41002 bch_LLE.rpt

Project: DAS R34317
Work Order No: 1401014
Site Name: West Virginia Chemical Leak

Location: Analyst
Client: OSWER - Emergency Response

Analysis: SVOCs by SW846 8270D
Matrix: Water
Preparer: EDW date 2/10/14

Account#: 2014T03N303DC6A3XKRS00
Method/SOP: EPA 8270D/R3QA201
Analyst: EDW date 2/21/14

Extraction Solvent	Barcode #	Quantity Used For Each Sample mL	Pest/PCB DRO SVOC (circle one)	SVOC ~~Base/Neutral~~ Acid	Concentration Solvent	Barcode #
$MeCl_2$	13656	250	Start 2/10/14 Date/Time 1040	Start 2/11/14 Date/Time 0825	$MeCl_2$	13656
$MeCl_2$	13656	50	Stop 2/11/14 Date/Time 0650	Stop 2/12/14 Date/Time 0800		

KP 2/24/14

QC Info	Standard ID#	Conc µg/mL	Volume Added mL	Reagent	Barcode # or Standard ID#	Reagent	Barcode # or Standard ID#	Concentration Date: 2/13/14	
Surrogate Spike	1300389	100/50	0.5	10N NaOH	N/A	$Na_2S_2O_3$	N/A	S-EVAP Temp	N-EVAP Temp
Matrix Spike/ Blank Spike	1300459/PPH/MCHM 40/50/50		10/0.1/0.1	18N H_2SO_4	137415	Reagent Purity Check: ✓		70°C	30°C
Internal Standard	1400053	2000	0.01	6N HCl	N/A	DI Water Pass: ✓			

LabNumber	Container ID	Collection Date	Initial (mL)	Initial Final pH	Initial Final Cl-	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	ExtractionComments
1401014-09	D	02/06/14 18:16	1000	7, 2	0	1				500	brown
BB41002-BLK1		02/10/14 10:14	1000	7, 2	0	1				500	double added ISTD
BB41002-BS1		02/10/14 10:14	1000	7, 2	0	1	1300459		1000	500	

** BSMCHM50_012514
* BS PPH50_012614

EPA REGION 3 - OASQA - LLE SAMPLE/REAGENT PREPARATION LOG

BB41002 bch_LLE.rpt

Surrogate used: 1300389

EPA REGION 3 - OASQA - LLE SAMPLE/REAGENT PREPARATION LOG

BB41801 bch_LLE.rpt

Project: DAS R34317

Work Order No: 1401014

Site Name: West Virginia Chemical Leak

Location: Analyst

Client: OSWER - Emergency Response

Analysis: SVOCs by SW846 8270D

Matrix: Water

Account#: 2014T03N303DC6A3XKRS00

Method/SOP: EPA 8270D/R3QA201

Preparer: ERY date 2/18/14

Analyst: ERY date 2/21/14

ERY 2/27/14 KP 2/24/14

Extraction Solvent	Barcode #	Quantity Used For Each Sample mL	Pest/PCB DRO SVOC (circle one)	SVOC ~~Base/Neutral~~ Acid	Concentration Solvent	Barcode #
$MeCl_2$	13657	250	Start 2/18/14 Date/Time 0935	Start 2/19/14 Date/Time 0905	$MeCl_2$	13657
$MeCl_2$	13657	75	Stop 2/19/14 Date/Time 0730	Stop 2/20/14 Date/Time 0705		

QC Info	Standard ID#	Conc µg/mL	Volume Added mL	Reagent	Barcode # or Standard ID#	Reagent	Barcode # or Standard ID#	Concentration Date: 2/20/14	
Surrogate Spike	13000389	100/50	0.5	10N NaOH	N/A	$Na_2S_2O_3$	N/A	S-EVAP Temp	N-EVAP Temp
Matrix Spike/ Blank Spike	130451 PPHMCHM	* 40/50/60 **	10/0.1/0	18N H_2SO_4	137415	Reagent Purity Check: ✓		70°C	30°C
Internal Standard	1400033	2000	0.01	6N HCl	N/A	DI Water Pass: ✓			

* BSPPH50_012614

** BSMCHM50_012314

EPA REGION 3 - OASQA - LLE SAMPLE/REAGENT PREPARATION LOG

BB41801 **bch_LLE.rpt**

LabNumber	Container ID	Collection Date	Initial (mL)	Initial Final pH	Initial Final Cl-	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	ExtractionComments
1401014-12	G	02/07/14 12:16	1000	7.2	0	1				500	
1401014-13	D	02/07/14 15:00	1000	7.2	0	1				500	
1401014-14	D	02/08/14 10:55	1000	7.2	0	1				500	
1401014-15	D	02/08/14 09:10	1000	7.2	0	1				500	
1401014-16	D	02/08/14 10:18	1000	7.2	0	1				500	
BB41801-BLK1		02/18/14 07:52	1000	7.2	0	1				500	
BB41801-BS1		02/18/14 07:52	1000	7.2	0	1	1300459		1000	500	
BB41801-MS1		02/07/14 12:16	1000	7.2	0	1	1300459	1401014-12	1000	500	
BB41801-MSD1		02/07/14 12:16	1000	7.2	0	1	1300459	1401014-12	~~1000~~ 500	500	

Surrogate used: 1400090

Sequence Name: C:\msdchem\1\sequence\SVOCs\ERG012814A.S
Comment: DFTPP Testing
Operator: ERG 96-5975B
Data Path: D:\DATA\SVOC\2014\01 JAN\012814\ ERG

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

I ument Control Post-Seq Cmd:
D Analysis Post-Seq Cmd:

Method Sections To Run	On A Barcode Mismatch
(X) Full Method	(X) Inject Anyway
( ) Reprocessing Only	( ) Don't Inject

Line	Sample Name/Misc Info
1) MCHM	- DFTPP Testing
2) MCHM	- DFTPP Testing
3) Sample 1	DFTPPQ1013
Datafile	DFTPPQ1013
Method	MCHM

Freedom_0005790_0813

Sequence Name: C:\msdchem\1\sequence\SVOCs\ERG012814B.S
Comment: Initial Calibration on 012814
Operator: ERG 96-5975B
Data Path: D:\DATA\SVOC\2014\01 JAN\012814\ (COPY)
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)	MCHM		- Initial Calibration on 012814
2)	MCHM		- Cali will be MCHM012814 & PPH012814
3)	Sample	2	PPHLow5_012514
	Datafile		PPHLow5_012514
	Method		MCHM
4)	Sample	99	MECL2BLK1
	Datafile		MECL2BLK1
	Method		MCHM
5)	Sample	3	PPH05_012514
	Datafile		PPH05_012514
	Method		MCHM
6)	Sample	99	MECL2BLK2
	Datafile		MECL2BLK2
	Method		MCHM
7)	Sample	4	PPH10_012514
	Datafile		PPH10_012514
	Method		MCHM
8)	Sample	99	MECL2BLK3
	Datafile		MECL2BLK3
	Method		MCHM
	Sample	5	PPH20_012514
	Datafile		PPH20_012514
	Method		MCHM
10)	Sample	99	MECL2BLK4
	Datafile		MECL2BLK4
	Method		MCHM
11)	Sample	6	PPH50_012514
	Datafile		PPH50_012514
	Method		MCHM
12)	Sample	99	MECL2BLK5
	Datafile		MECL2BLK5
	Method		MCHM
13)	Sample	7	MCHMLow5_012314
	Datafile		MCHMLow5_012314
	Method		MCHM
14)	Sample	99	MECL2BLK6
	Datafile		MECL2BLK6
	Method		MCHM
15)	Sample	8	MCHM05_012314
	Datafile		MCHM05_012314
	Method		MCHM
16)	Sample	99	MECL2BLK7
	Datafile		MECL2BLK7
	Method		MCHM
17)	Sample	9	MCHM10_012314
	Datafile		MCHM10_012314
	Method		MCHM
18)	Sample	99	MECL2BLK8
	Datafile		MECL2BLK8
	Method		MCHM
19)	Sample	10	MCHM20_012314
	Datafile		MCHM20_012314
	Method		MCHM
20)	Sample	99	MECL2BLK9

Freedom_0005790_0814

```
    Datafile          MECL2BLK9
    Method            MCHM
21) Sample        11  MCHM50_012314
    Datafile          MCHM50_012314
    Method            MCHM
22) Sample        99  MECL2BLK10
    Datafile          MECL2BLK10
    Method            MCHM
```


Freedom_0005790_0815

Sequence Name: C:\msdchem\1\sequence\SVOCs\ERG020514B.S
Comment: WO#1401014 Site:WV Chem Leak
Operator: ERG 96-5975B
Data Path: D:\DATA\SVOC\2014\02 FEB\020514 ERY

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)	MCHM		- Initial Calibration on 012814
2)	MCHM		- Cali Files are MCHM012814 & PPH012814
3)	Sample	1	DFTPPU1013
	Datafile		DFTPPU1013
	Method		MCHM
4)	Sample	2	PPH05_012514
	Datafile		PPH05_012514
	Method		MCHM
5)	Sample	3	MCHM05_012314
	Datafile		MCHM05_012314
	Method		MCHM
6)	Sample	99	MECL2BLK6
	Datafile		MECL2BLK6
	Method		MCHM
7)	Sample	4	BB40301-BLK1
	Datafile		BB40301-BLK1
	Method		MCHM
8)	Sample	99	MECL2BLK7
	Datafile		MECL2BLK7
	Method		MCHM
9)	Sample	5	BB40301-BS1
	Datafile		BB40301-BS1
	Method		MCHM
10)	Sample	99	MECL2BLK8
	Datafile		MECL2BLK8
	Method		MCHM
11)	Sample	6	1401014-01
	Datafile		1401014-01
	Method		MCHM
12)	Sample	99	MECL2BLK9
	Datafile		MECL2BLK9
	Method		MCHM
13)	Sample	7	1401014-02
	Datafile		1401014-02
	Method		MCHM
14)	Sample	99	MECL2BLK10
	Datafile		MECL2BLK10
	Method		MCHM
15)	Sample	8	1401014-03
	Datafile		1401014-03
	Method		MCHM
16)	Sample	99	MECL2BLK11
	Datafile		MECL2BLK11
	Method		MCHM
17)	Sample	9	1401014-04
	Datafile		1401014-04
	Method		MCHM
18)	Sample	99	MECL2BLK12
	Datafile		MECL2BLK12
	Method		MCHM

Sequence Name: C:\msdchem\1\sequence\SVOCs\ERG020614.S
Comment: WO#1401014 Site:WV Chem Leak
Operator: ERG 96-5975B
Data Path: D:\DATA\SVOC\2014\02 FEB\020614\ ERG

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)	MCHM		- Initial Calibration on 012814
2)	MCHM		- Cali Files are MCHM012814 & PPH012814
3)	Sample	1	DFTPPV1013
	Datafile		DFTPPV1013
	Method		MCHM
4)	Sample	2	PPH05_012514
	Datafile		PPH05_012514
	Method		MCHM
5)	Sample	3	MCHM05_012314
	Datafile		MCHM05_012314
	Method		MCHM
6)	Sample	99	MECL2BLK6
	Datafile		MECL2BLK6
	Method		MCHM
7)	Sample	4	1401014-01 10X
	Datafile		1401014-01
	Method		MCHM
8)	Sample	99	MECL2BLK9
	Datafile		MECL2BLK9
	Method		MCHM
	Sample	5	1401014-02 10X
	Datafile		1401014-02
	Method		MCHM
10)	Sample	99	MECL2BLK10
	Datafile		MECL2BLK10
	Method		MCHM
11)	Sample	6	1401014-03 10X
	Datafile		1401014-03
	Method		MCHM
12)	Sample	99	MECL2BLK11
	Datafile		MECL2BLK11
	Method		MCHM

Freedom_0005790_0817

Sequence Name: C:\msdchem\1\sequence\SVOCs\ERG020714.S
Comment: WO#1401014 Site:WV Chem Leak
Operator: ERG 96-5975B
Data Path: D:\DATA\SVOC\2014\02 FEB\020714\ERY
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)	MCHM	- Initial Calibration on 012814
2)	MCHM	- Cali Files are MCHM012814 & PPH012814
3)	Sample	1 DFTPPW1013
	Datafile	DFTPPW1013
	Method	MCHM
4)	Sample	2 PPH05_012514
	Datafile	PPH05_012514
	Method	MCHM
5)	Sample	3 MCHM05_012314
	Datafile	MCHM05_012314
	Method	MCHM
6)	Sample	99 MECL2BLK6
	Datafile	MECL2BLK6
	Method	MCHM
7)	Sample	4 BB40502-BLK1
	Datafile	BB40502-BLK1
	Method	MCHM
8)	Sample	99 MECL2BLK9
	Datafile	MECL2BLK9
	Method	MCHM
9)	Sample	5 BB40502-BS1
	Datafile	BB40502-BS1
	Method	MCHM
10)	Sample	99 MECL2BLK10
	Datafile	MECL2BLK10
	Method	MCHM
11)	Sample	6 1401014-06
	Datafile	1401014-06
	Method	MCHM
12)	Sample	99 MECL2BLK11
	Datafile	MECL2BLK11
	Method	MCHM
13)	Sample	7 1401014-07
	Datafile	1401014-07
	Method	MCHM
14)	Sample	99 MECL2BLK12
	Datafile	MECL2BLK12
	Method	MCHM
15)	Sample	8 1401014-06 10X
	Datafile	1401014-06 10X
	Method	MCHM
16)	Sample	99 MECL2BLK13
	Datafile	MECL2BLK13
	Method	MCHM
17)	Sample	9 1401014-07 10X
	Datafile	1401014-07 10X
	Method	MCHM
18)	Sample	99 MECL2BLK14
	Datafile	MECL2BLK14
	Method	MCHM

Freedom_0005790_0818

Sequence Name: C:\msdchem\1\sequence\SVOCs\ERG021014A.S
Comment: WO#1401014 Site:WV Chem Leak
Operator: ERG 96-5975B
Data Path: D:\DATA\SVOC\2014\02 FEB\021014 ERG

WO: 1401014
Site Name: WV Chem Leak

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)	MCHM		- Initial Calibration on 012814
2)	MCHM		- Cali Files are MCHM012814 & PPH012814
3)	Sample	1	DFTPPX1013
	Datafile		DFTPPX1013
	Method		MCHM
4)	Sample	2	PPH05_012514
	Datafile		PPH05_012514
	Method		MCHM
5)	Sample	3	MCHM05_012314
	Datafile		MCHM05_012314
	Method		MCHM
6)	Sample	99	MECL2BLK6
	Datafile		MECL2BLK6
	Method		MCHM
7)	Sample	6	1401014-06 1000X Not used ERG 2/27/14
	Datafile		~~1401014-06~~
	Method		MCHM
8)	Sample	99	MECL2BLK11
	Datafile		MECL2BLK11
	Method		MCHM
9)	Sample	7	1401014-07
	Datafile		1401014-07
	Method		MCHM
10)	Sample	99	MECL2BLK12
	Datafile		MECL2BLK12
	Method		MCHM
11)	Sample	8	1401014-06 10000X
	Datafile		1401014-06 10000X
	Method		MCHM
12)	Sample	99	MECL2BLK13
	Datafile		MECL2BLK13
	Method		MCHM

Freedom_0005790_0819

Sequence Name: C:\msdchem\1\sequence\SVOCs\ERG022014B.S
Comment: Initial Calibration on 022014
Operator: ERG 96-5975B
Data Path: D:\DATA\SVOC\2014\02 FEB\022014B\ERG

WO: 1401014
Site Name: WV Chem Leak

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

ument Control Post-Seq Cmd:
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)	MCHM		- Initial Calibration on 022014
2)	MCHM		- Cali will be MCHM022014 & PPH022014
3)	Sample	1	DFTPPAA1013
	Datafile		DFTPPAA1013
	Method		MCHM
4)	Sample	2	MCHMLow5_021814
	Datafile		MCHMLow5_021814
	Method		MCHM
5)	Sample	99	MECL2BLK1
	Datafile		MECL2BLK6
	Method		MCHM
6)	Sample	3	MCHM05_021814
	Datafile		MCHM05_021814
	Method		MCHM
7)	Sample	99	MECL2BLK2
	Datafile		MECL2BLK7
	Method		MCHM
8)	Sample	4	MCHM10_021814
	Datafile		MCHM10_021814
	Method		MCHM
	ample	99	MECL2BLK3
	Datafile		MECL2BLK8
	Method		MCHM
10)	Sample	5	MCHM20_021814
	Datafile		MCHM20_021814
	Method		MCHM
11)	Sample	99	MECL2BLK4
	Datafile		MECL2BLK9
	Method		MCHM
12)	Sample	6	MCHM50_021814
	Datafile		MCHM50_021814
	Method		MCHM
13)	Sample	99	MECL2BLK5
	Datafile		MECL2BLK10
	Method		MCHM
14)	Sample	7	PPHLow5_021914
	Datafile		PPHLow5_021914
	Method		MCHM
15)	Sample	99	MECL2BLK6
	Datafile		MECL2BLK1
	Method		MCHM
16)	Sample	8	PPH05_021914
	Datafile		PPH05_021914
	Method		MCHM
17)	Sample	99	MECL2BLK7
	Datafile		MECL2BLK2
	Method		MCHM
18)	Sample	9	PPH10_021914
	Datafile		PPH10_021914
	Method		MCHM
19)	Sample	99	MECL2BLK8
	Datafile		MECL2BLK3
	Method		MCHM
20)	Sample	10	PPH20_021914

Freedom_0005790_0820

```
     Datafile          PPH20_021914
     Method            MCHM
21)  Sample        99  MECL2BLK9
     Datafile          MECL2BLK4
     Method            MCHM
22)  Sample        11  PPH50_021914
     Datafile          PPH50_021914
     Method            MCHM
```

WO: 1401014
Site Name: WV Chem Leak

Freedom_0005790_0821

Sequence Name: C:\msdchem\1\sequence\SVOCs\ERG022114.S
Comment: WO#1401014 Site:WV Chem Leak
Operator: ERG 96-5975B
Data Path: D:\DATA\SVOC\2014\02 FEB\022114\ ERG

WO: 1401014
Site Name: WV Chem Leak

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

rument Control Post-Seq Cmd:
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)	MCHM		- Initial Calibration on 022014
2)	MCHM		- Cali will be MCHM022014 & PPH022014
3)	Sample	1	DFTPPAB1013
	Datafile		DFTPPAB1013
	Method		MCHM
4)	Sample	2	MCHM05_021814
	Datafile		MCHM05_021814
	Method		MCHM
5)	Sample	3	PPH05_021914
	Datafile		PPH05_021914
	Method		MCHM
6)	Sample	99	MECL2BLK1
	Datafile		MECL2BLK1
	Method		MCHM
7)	Sample	4	BB41002-BLK1
	Datafile		BB41002-BLK1
	Method		MCHM
8)	Sample	99	MECL2BLK2
	Datafile		MECL2BLK2
	Method		MCHM
	Sample	5	BB41002-BS1
	Datafile		BB41002-BS1
	Method		MCHM
10)	Sample	99	MECL2BLK3
	Datafile		MECL2BLK3
	Method		MCHM
11)	Sample	6	1401014-09
	Datafile		1401014-09
	Method		MCHM
12)	Sample	99	MECL2BLK4
	Datafile		MECL2BLK4
	Method		MCHM
13)	Sample	7	BB41801-BLK1
	Datafile		BB41801-BLK1
	Method		MCHM
14)	Sample	99	MECL2BLK5
	Datafile		MECL2BLK5
	Method		MCHM
15)	Sample	8	BB41801-BS1
	Datafile		BB41801-BS1
	Method		MCHM
16)	Sample	99	MECL2BLK6
	Datafile		MECL2BLK6
	Method		MCHM
17)	Sample	9	1401014-12
	Datafile		1401014-12
	Method		MCHM
18)	Sample	99	MECL2BLK7
	Datafile		MECL2BLK7
	Method		MCHM
19)	Sample	10	BB41801-MS1
	Datafile		BB41801-MS1
	Method		MCHM
20)	Sample	99	MECL2BLK8

Freedom_0005790_0822

WO: 1401014
Site Name: WV Chem Leak

```
    Datatile          MECL2BLK8
    Method            MCHM
21) Sample        11  BB41801-MSD1
    Datafile          BB41801-MSD1
    Method            MCHM
22) Sample        99  MECL2BLK9
    Datafile          MECL2BLK9
    Method            MCHM
    Sample        12  1401014-13
    Datafile          1401014-13
    Method            MCHM
24) Sample        99  MECL2BLK10
    Datafile          MECL2BLK10
    Method            MCHM
25) Sample        13  1401014-14
    Datafile          1401014-14
    Method            MCHM
26) Sample        99  MECL2BLK11
    Datafile          MECL2BLK11
    Method            MCHM
27) Sample        14  1401014-15
    Datafile          1401014-15
    Method            MCHM
28) Sample        99  MECL2BLK12
    Datafile          MECL2BLK12
    Method            MCHM
29) Sample        15  1401014-16
    Datafile          1401014-16
    Method            MCHM
30) Sample        99  MECL2BLK13
    Datafile          MECL2BLK13
    Method            MCHM
```


Freedom_0005790_0823

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1300389

std_Org_analytical.rpt

Description:	ERG SURR 102513	Expires:	11/26/2013
Standard Type:	Surrogate Spike	Prepared:	10/25/2013
Department:	ORGANIC-GCMS	Prepared By:	Eric Graybill
Solvent:	MeOH/ 10707	Vendor:	Restek
Final Volume (mls):	50	Vendor Lot:	see below
Vials:	1		
Reagent Purity Checked	ERG		

Analyte	CAS Number	Concentration	Units
2,4,6-Tribromophenol	118-79-6	100	ug/mL
2-Fluorobiphenyl	321-60-8	50	ug/mL
2-Fluorophenol	367-12-4	100	ug/mL
Nitrobenzene-d5	NA	50	ug/mL
Phenol-d5	NA	100	ug/mL
Terphenyl-d14	NA	50	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Expires	Prepared By	Vendor	Vendor Lot	Conc.	(mls)
1300374	ERG Acid Surrogate Standard Mix	10/25/2013	04/23/2014	** Vendor **	Restek	A089449	10000	0.5
1300375	ERG B/N Surrogate Mix	10/25/2013	04/23/2014	** Vendor **	Restek	A088330	5000	0.5

Freedom_0005790_0824

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1300459

std_Org_analytical.rpt

Description:	ERG BSHI 121713	Expires:	06/15/2014
Standard Type:	Analyte Spike	Prepared:	12/17/2013
Department:	ORGANIC-GCMS	Prepared By:	Eric Graybill
Solvent:	MeOH/10707	Vendor:	Restek
Final Volume (mls):	10	Vendor Lot:	See Below
Vials:	1		

Reagent Purity Checked ERG

Analyte	CAS Number	Concentration	Units
1,1-Biphenyl	92-52-4	40	ug/mL
1,2,4,5-Tetrachlorobenzene	95-94-3	40	ug/mL
2,3,4,6-Tetrachlorophenol	58-90-2	40	ug/mL
2,4,5-Trichlorophenol	95-95-4	40	ug/mL
2,4,6-Trichlorophenol	88-06-2	40	ug/mL
2,4-Dichlorophenol	120-83-2	40	ug/mL
2,4-Dimethylphenol	105-67-9	40	ug/mL
2,4-Dinitrophenol	51-28-5	40	ug/mL
2,4-Dinitrotoluene	121-14-2	40	ug/mL
2,6-Dinitrotoluene	606-20-2	40	ug/mL
2-Chloronaphthalene	91-58-7	40	ug/mL
2-Chlorophenol	95-57-8	40	ug/mL
2-Methylnaphthalene	91-57-6	40	ug/mL
2-Methylphenol	95-48-7	40	ug/mL
2-Nitroaniline	88-74-4	40	ug/mL
2-Nitrophenol	88-75-5	40	ug/mL
3,3'-Dichlorobenzidine	91-94-1	40	ug/mL
3-Nitroaniline	99-09-2	40	ug/mL
4,6-Dinitro-2-methylphenol	534-52-1	40	ug/mL
4-Bromophenyl phenyl ether	101-55-3	40	ug/mL
4-Chloro-3-methylphenol	59-50-7	40	ug/mL
4-Chloroaniline	106-47-8	40	ug/mL
4-Chlorophenyl phenyl ether	7005-72-3	40	ug/mL
4-Methylphenol	106-44-5	40	ug/mL
4-Nitroaniline	100-01-6	40	ug/mL
4-Nitrophenol	100-02-7	40	ug/mL
Acenaphthene	83-32-9	40	ug/mL
Acenaphthylene	208-96-8	40	ug/mL
Acetophenone	98-86-2	40	ug/mL
Anthracene	120-12-7	40	ug/mL

Freedom_0005790_0825

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

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Atrazine	1912-24-9	40	ug/mL
Benzaldehyde	100-52-7	40	ug/mL
Benzo(a)anthracene	56-55-3	40	ug/mL
Benzo(a)pyrene	50-32-8	40	ug/mL
Benzo(b)fluoranthene	205-99-2	40	ug/mL
Benzo(ghi)perylene	191-24-2	40	ug/mL
Benzo(k)fluoranthene	207-08-9	40	ug/mL
Benzyl butyl phthalate	85-68-7	40	ug/mL
Bis(2-chloroethoxy)methane	111-91-1	40	ug/mL
Bis(2-chloroethyl)ether	111-44-4	40	ug/mL
Bis(2-chloroisopropyl)ether	39638-32-9	40	ug/mL
Bis(2-ethylhexyl)phthalate	117-81-7	40	ug/mL
Butyl benzyl phthalate	85-68-7	40	ug/mL
Caprolactam	105-60-2	40	ug/mL
Carbazole	86-74-8	40	ug/mL
Chrysene	218-01-9	40	ug/mL
Dibenz(a,h)anthracene	53-70-3	40	ug/mL
Dibenzofuran	132-64-9	40	ug/mL
Diethyl phthalate	84-66-2	40	ug/mL
Dimethyl phthalate	131-11-3	40	ug/mL
Di-n-butyl phthalate	84-74-2	40	ug/mL
Di-n-octyl phthalate	117-84-0	40	ug/mL
Fluoranthene	206-44-0	40	ug/mL
Fluorene	86-73-7	40	ug/mL
Hexachlorobenzene	118-74-1	40	ug/mL
Hexachlorobutadiene	87-68-3	40	ug/mL
Hexachlorocyclopentadiene	77-47-4	40	ug/mL
Hexachloroethane	67-72-1	40	ug/mL
Indeno(1,2,3-cd)pyrene	193-39-5	40	ug/mL
Isophorone	78-59-1	40	ug/mL
Naphthalene	91-20-3	40	ug/mL
Nitrobenzene	98-95-3	40	ug/mL
N-Nitrosodimethylamine	62-75-9	40	ug/mL
N-Nitroso-di-n-propylamine	621-64-7	40	ug/mL
N-Nitrosodiphenylamine	86-30-6	40	ug/mL
Pentachlorophenol	87-86-5	40	ug/mL
Phenanthrene	85-01-8	40	ug/mL
Phenol	108-95-2	40	ug/mL
Pyrene	129-00-0	40	ug/mL

Freedom_0005790_0826

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1300459

std_Org_analytical.rpt

Parent Standards used in this standard:

Standard	Description	Prepared	Expires	Prepared By	Vendor	Vendor Lot	Conc.	(mls)
1300456	ERG OLM 01.1 Revised SV Mega Mix	12/17/2013	06/15/2014	** Vendor **	Restek	A095582	1000	0.4
1300457	ERG Additions Standards	12/17/2013	06/15/2014	** Vendor **	Restek	A096384	1000	0.4
1300458	ERG N-Nitrosodimethylamine	12/17/2013	06/15/2014	** Vendor **	Restek	A098482	1000	0.4

Freedom_0005790_0827

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1400053

std_Org_analytical.rpt

Description:	ERG ISTD	Expires:	07/25/2014
Standard Type:	Internal Std	Prepared:	01/26/2014
Department:	ORGANIC-GCMS	Prepared By:	** Vendor **
Solvent:	Methylene Chloride	Vendor:	Restek
Final Volume (mls):	1	Vendor Lot:	A089208
Vials:	1	Received:	01/09/2013
Reagent Purity Checked	ERM	Mfgr Expiration:	05/31/2018

Analyte	CAS Number	Concentration	Units
1,4-Dichlorobenzene-d4	3855-82-1	2000	ug/mL
Acenaphthene-d10	NA	2000	ug/mL
Chrysene-d12	NA	2000	ug/mL
Naphthalene-d8	NA	2000	ug/mL
Perylene-d12	NA	2000	ug/mL
Phenanthrene-d10	NA	2000	ug/mL

RESTEK
110 Benner Circle
Bellefonte, PA 16823
Made in USA
Cataloq # 31206
Sonicate prior to use.
SV Internal Standard Mix 2mg/ml
Rec 1/9/13 ms
2000 ug/mL each in Methylene Chloride
Lot# A089208 Exp Date: 05/2018 Store 10°C or colder

Freedom_0005790_0828

Misc. FID Standards

FID Methods Standard Preparation Logbook

PNB - 220

Standard ID	Volume Used (uL)	Initial Conc. (PPM)	Component ID	Final Volume (mL)	Final Conc. (PPM)	Final solvent/ID	Expiration Date	Reagent Purity Check	
KeroCal4-130326-ACM	40	50,000	A090946-130313	2	1000	DCM 13792	9-13-13	Ok, ACM	
	30	5000	21104154-130326	2	75				
	-	-	-	-	-				
KeroCal5-130326-ACM	120	50,000	A090946-130313	2	3000				
	40	5000	21104154-130326	2	100				
	-	-	-	-	-				
KeroCal6-130326-ACM	200	50,000	A090946-130313	2	5000				
	50	5000	21104154-130326	2	125				
	-	-	-	-	-				
MCHMInt-140121-ACM	100	1,000,000	RCGNAHN-140121 (Neat)	10	10,000	DCM 13597	7-21-14	ok, ACM	
	-	-	-	-	-				
	-	-	-	-	-				
MCHMInt-140121A-ACM	100	1,000,000	RCGNAHN-140121 (Neat)	10	10,000	H_2O 18MΩ			*1
	-	-	-	-	-				
	-	-	-	-	-				
CrudeMCHMInt-140127-ACM	100	1,000,000	TP11042986 (Neat Crude MCHM) *2	10	10,000	DCM 13597	7-27-14	ok, ACM	*2
	-	-	-	-	-				
	-	-	-	-	-				
PPHInt-140127-ACM	100mg	1,000,000	GFRQO-MK-140124 (neat)	10	10,000		7-27-14	ok, ACM	*3
	-	-		-	-				
	-	-		-	-				
PPH/MCHM Sludge Int-140127-ACM	100	1,000,000	PPH/MCHM Sludge Sample (neat) Rec'd 1/24/14	10	10,000				*4
	-	-		-	-				
	-	-		-	-				
MCHMInt-140129-ACM	100mg	1,000,000	RCGNAHN-140121 (Neat)	10	10,000	Hexane 13482	7-29-14	ok, ACM	*5
	-	-	-	-	-				
	-	-	-	-	-				
crude MCHMInt-140129-ACM	100 mg	1,000,000	TP11042986 (Neat crude MCHM)	10	10,000				*5
	-	-	-	-	-				
	-	-	-	-	-				

Analyst Signature _____ Date 1-29-14

Prepared By: ERY
Prepared Date: 1/23/14
Expiration Date: 7/21/14
SNB364 Certificate of Analysis

Solvent/Barcode: MeCl2 | 13549
Reagent Purity: ERY
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)	Conc. of prepared solution (µg/mL)	Final volume of prepared solution (mL)	Prepared Solution ID
MCHMINT-140121-ACM	1000	1000	10	MCHM1000_012314
MCHM 1000_012314	100	100	1.0	MCHM100_012314

Comments: _____

Prepared By: ERY
Prepared Date: 1/23/14
Expiration Date: 7/21/14
SNB364 Certificate of Analysis

Solvent/Barcode: MeOH/10707
Reagent Purity: ERY
Storage Location (4 +/- 2 C): 0202

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)	Conc. of prepared solution (µg/mL)	Final volume of prepared solution (mL)	Prepared Solution ID
MCHM1000_012314	500	50	10	BSMCHM50_012314
MCHM1000_012314	50	5	10	BSMCHM5_012314
MCHM1000_012314	5	0.5	10	BSMCHM0.5_012314

Comments: _____

Prepared By: EDD
Prepared Date: 1/23/14
Expiration Date: 7/21/14
SNB364 Certificate of Analysis

Solvent/Barcode: $MeCl_2$/13549
Reagent Purity: EDD
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)					Conc. of prepared solution (µg/mL)				Final volume of prepared solution (mL)	Prepared Solution ID
	MCHM 1000-012314	MCHM 100-012314	1300374	1300375	1300376	MCHM	Acid Surr	BN Surr	ISTD		
see below	50	-	5	5	10	50	50	25	20	1.0	MCHM50_012314
	20	-	5	5	10	20	50	25	20	1.0	MCHM20_012314
	10	-	5	5	10	10	50	25	20	1.0	MCHM10_012314
	5	-	5	5	10	5	50	25	20	1.0	MCHM5_012314
	-	5	5	5	10	0.5	50	25	20	1.0	MCHM0.5_012314

Comments: MCHM 1000_012314
MCHM 100_012314
1300374 Acid Surr
1300375 BN Surr
1300376 ISTD

Prepared By: ERY
Prepared Date: 1/25/14
Expiration Date: 7/23/14
SNB364 Certificate of Analysis

Solvent/Barcode: MeCl2 / 13549
Reagent Purity: ERY
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)					Conc. of prepared solution (µg/mL)				Final volume of prepared solution (mL)	Prepared Solution ID
	PPH 1000_012514	PPH100_012514	1300374	1300375	1300376	PPH	Acid Surr	B/N Surr	ISTD		
See below	50	-	5	5	10	50	50	25	20	1.0	PPH50_012514
	20	-	5	5	10	20	50	25	20	1.0	PPH20_012514
	10	-	5	5	10	10	50	25	20	1.0	PPH10_012514
	5	-	5	5	10	5	50	25	20	1.0	PPH05_012514
	-	5	5	5	10	0.5	50	25	20	1.0	PPHLowS_012514

Comments: PPH 1000_012514
PPH 100_012514
~~13000~~ 1300374 - Acid Surr
1300375 - B/N Surr
1300376 - ISTD

Prepared By: EDW
Prepared Date: 1/25/14
Expiration Date: 7/23/14
SNB364 Certificate of Analysis

Solvent/Barcode: MeCl2/13549
Reagent Purity: EDW
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)	Conc. of prepared solution (µg/mL)	Final volume of prepared solution (mL)	Prepared Solution ID
TCI, Lot# GFRQO-MK, Part# P0118	0.1g	10,000	10	PPH10,000_012514
PPH10,000_012514	100	1000	1.0	PPH1000_012514
PPH1000_012514	100	100	1.0	PPH100_012514

Comments: _____

Prepared By: ERD
Prepared Date: 1/26/14
Expiration Date: 7/23/14
SNB364 Certificate of Analysis

Solvent/Barcode: MeOH/10707
Reagent Purity: ERD
Storage Location (4 +/- 2 C): G202

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)	Conc. of prepared solution (µg/mL)	Final volume of prepared solution (mL)	Prepared Solution ID
PPH1000_012514	500	50	10	BSPPH50_012614
PPH1000_012514	50	5	10	BSPPH05_012614
PPH1000_012514	5	0.5	10	BSPPH0.5_012614

Comments: _____

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1400088

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Description:	ERG Acid Surrogate Standard Mix	Expires:	08/17/2014
Standard Type:	Surrogate Spike	Prepared:	02/18/2014
Department:	ORGANIC-GCMS	Prepared By:	** Vendor **
Solvent:	Methanol	Vendor:	Restek
Final Volume (mls):	1	Vendor Lot:	A093841
Vials:	1	Received:	12/05/2013
Reagent Purity Checked	ERY	Mfgr Expiration:	03/31/2021

Analyte	CAS Number	Concentration	Units
2,4,6-Tribromophenol	118-79-6	10000	ug/mL
2-Fluorophenol	367-12-4	10000	ug/mL
Phenol-d5	NA	10000	ug/mL

RESTEK 110 Benner Circle Bellefonte, PA 16823 Made in USA

Catalog# 31063 Rec 12/5/13

Acid Surrogate Standard Mix (4/89) ERY

10000 ug/mL each in Methanol

Lot# A093841 Exp. Date: 03/2021 Store: 10°C or colder

Freedom_0005790_0836

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1400089

std_Org_analytical.rpt

Description:	ERG B/N Surrogate Mix	Expires:	08/17/2014
Standard Type:	Surrogate Spike	Prepared:	02/18/2014
Department:	ORGANIC-GCMS	Prepared By:	** Vendor **
Solvent:	MethyleneChloride	Vendor:	Restek
Final Volume (mls):	1	Vendor Lot:	A098468
Vials:	1	Received:	12/05/2013
Reagent Purity Checked	EDY	Mfgr Expiration:	09/30/2019

Analyte	CAS Number	Concentration	Units
2-Fluorobiphenyl	321-60-8	5000	ug/mL
Nitrobenzene-d5	NA	5000	ug/mL
Terphenyl-d14	NA	5000	ug/mL

RESTEK 110 Benner Circle Bellefonte, PA 16823 Made in USA

Catalog# 31062 Rec 12/5/13

Sonicate prior to use.

B/N Surrogate Mix (4/89 SOW) EDY

5000 ug/mL each in Methylene Chloride

Lot# A098468 Exp Date 09/2019 Store. 10°C or colder

Freedom_0005790_0837

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1400090

std_Org_analytical.rpt

Description:	ERG SURR 021814	Expires:	08/17/2014
Standard Type:	Surrogate Spike	Prepared:	02/18/2014
Department:	ORGANIC-GCMS	Prepared By:	Eric Graybill
Solvent:	MeOH/10707	Vendor:	Restek
Final Volume (mls):	50	Vendor Lot:	see below
Vials:	1		
Reagent Purity Checked	ERG		

Analyte	CAS Number	Concentration	Units
2,4,6-Tribromophenol	118-79-6	100	ug/mL
2-Fluorobiphenyl	321-60-8	50	ug/mL
2-Fluorophenol	367-12-4	100	ug/mL
Nitrobenzene-d5	NA	50	ug/mL
Phenol-d5	NA	100	ug/mL
Terphenyl-d14	NA	50	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Expires	Prepared By	Vendor	Vendor Lot	Conc.	(mls)
1400088	ERG Acid Surrogate Standard Mix	02/18/2014	08/17/2014	** Vendor **	Restek	A093841	10000	0.5
1400089	ERG B/N Surrogate Mix	02/18/2014	08/17/2014	** Vendor **	Restek	A098468	5000	0.5

Prepared By: ERD | Gerstel
Prepared Date: 2/18/14
Expiration Date: 7/21/14
SNB364 Certificate of Analysis

Solvent/Barcode: $MeCl_2$ / 135491
Reagent Purity: ERD
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)						Conc. of prepared solution (µg/mL)				Final volume of prepared solution (mL)	Prepared Solution ID
	MCHM 1000_012314	MCHM 100_021814	14000088	14000089	14000053		MCHM	Acid Surr	B/N Surr	ISTD		
See below	50	-	5	5	10		50	50	25	20	1.0	MCHM50_021814
	20	-	5	5	10		20	50	25	20	1.0	MCHM20_021814
	10	-	5	5	10		10	50	25	20	1.0	MCHM10_021814
	5	-	5	5	10		5	50	25	20	1.0	MCHM05_021814
	-	5	5	5	10		0.5	50	25	20	1.0	MCHMlow5_021814

Comments: MCHM 1000_012314
MCHM 100_021814
14000088 Acid Surr
14000089 B/N Surr
14000053 ISTD

Prepared By: ERY
Prepared Date: 2/8/14
Expiration Date: 7/21/14
SNB364 Certificate of Analysis

Solvent/Barcode: $MeCl_2$ / 13549
Reagent Purity: ERY
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)	Conc. of prepared solution (µg/mL)	Final volume of prepared solution (mL)	Prepared Solution ID
MCHM 1000_012314	100	100	1.0	MCHM100_020814

Comments: _____

Prepared By: ERY
Prepared Date: 2/18/14
Expiration Date: 7/23/14
SNB364 Certificate of Analysis

Solvent/Barcode: $MeCl_2$ / 13549
Reagent Purity: ERY
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)	Conc. of prepared solution (µg/mL)	Final volume of prepared solution (mL)	Prepared Solution ID
PPH10,000_012514	100	1000	1.0	PPH1000_021814
PPH1000_021814	100	100	1.0	PPH100_021814

Comments: _____

Prepared By: ERJ/Gerstel
Prepared Date: 2/18/14
Expiration Date: 7/23/14
SNB364 Certificate of Analysis

Solvent/Barcode: MeCl2/ 134 13549
Reagent Purity: ERJ
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)					Conc. of prepared solution (µg/mL)				Final volume of prepared solution (mL)	Prepared Solution ID
	PPH1000_021814	PPH100_021814	1400088	1400089	1400053	PPH	Acid Surr	BN Surr	ISTD		
See below	50	–	5	5	10	50	50	25	20	1.0	PPH50_021814
	20	–	5	5	10	20	50	25	20	1.0	PPH20_021814
	10	–	5	5	10	10	50	25	20	1.0	PPH10_021814
	5	–	5	5	10	5	50	25	20	1.0	PPH05_021814
	–	5	5	5	10	0.5	50	25	20	1.0	PPH LOWS_021814

Comments: PPH1000_021814
PPH100_021814
1400088 Acid Surr
1400089 BN Surr
1400053 ISTD

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1400091

std_Org_analytical.rpt

Description:	ERG Revised ISTD	Expires:	08/19/2014
Standard Type:	Internal Std	Prepared:	02/19/2014
Department:	ORGANIC-GCMS	Prepared By:	** Vendor **
Solvent:	Methylene Chloride	Vendor:	Restek
Final Volume (mls):	1	Vendor Lot:	A096614
Vials:	1	Received:	06/26/2013
Reagent Purity Checked:	ERY	Mfgr Expiration:	06/30/2019

Analyte	CAS Number	Concentration	Units
1,4-Dichlorobenzene-d4	3855-82-1	2000	ug/mL
1,4-dioxane-d8	17647-74-4	2000	ug/mL
Acenaphthene-d10	NA	2000	ug/mL
Chrysene-d12	NA	2000	ug/mL
Naphthalene-d8	NA	2000	ug/mL
Perylene-d12	NA	2000	ug/mL
Phenanthrene-d10	NA	2000	ug/mL

RESTEK 110 Benner Circle Bellefonte, PA 16823 Made in USA

Catalog# 31895 Rec 6/26/13

Sonicate prior to use.

Revised SV Internal Standard Mix ERY

2000 ug/mL each in Methylene Chloride

Lot# A096614 Exp. Date: 06/2019 Store 10°C or colder

Freedom_0005790_0843

Prepared By: EPY
Prepared Date: 2/19/14
Expiration Date: 7/23/14
SNB364 Certificate of Analysis

Solvent/Barcode: MeCl2/13549
Reagent Purity: EPY
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)					Conc. of prepared solution (µg/mL)				Final volume of prepared solution (mL)	Prepared Solution ID
	PPH1000_021914	PPH100_021914	1400088	1400089	1400091	PPH	Acid Surr	B/N Surr	ISTD		
see below	50	-	5	5	10	50	50	25	20	1.0	PPH50_021914
	20	-	5	5	10	20	50	25	20	1.0	PPH20_021914
	10	-	5	5	10	10	50	25	20	1.0	PPH10_021914
	5	-	5	5	10	5	50	25	20	1.0	PPH05_021914
	-	5	5	5	10	0.5	50	25	20	1.0	PPHLow5_021914

Comments: ~~PPH_021914~~ EPY 02/19/14 1400091 Rev ISTD
PPH1000_021914
PPH100_021914
1400088 Acid Surr
1400089 B/N Surr

Prepared By: EKD
Prepared Date: 2/19/14
Expiration Date: 7/23/14
SNB364 Certificate of Analysis

Solvent/Barcode: MeCl2/13549
Reagent Purity: EKD
Storage Location (4 +/- 2 C): F204

Stds Prep Log

Source Solution ID or Vial #	Volume of source solution (uL)	Conc. of prepared solution (µg/mL)	Final volume of prepared solution (mL)	Prepared Solution ID
PPH1000_012514	100	1000	1.0	PPH1000_021914
PPH1000_021914	100	100	1.0	PPH100_021914

Comments: _____

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1300400

std_Org_analytical.rpt

Description:	ERG SV Tuning Compound Standard	Expires:	04/26/2014
Standard Type:	MS Tune	Prepared:	10/28/2013
Department:	ORGANIC-GCMS	Prepared By:	** Vendor **
Solvent:	Methylene Chloride	Vendor:	Restek
Final Volume (mls):	1	Vendor Lot:	A091235
Vials:	1	Received:	02/06/2013
Reagent Purity Checked	EBS	Mfgr Expiration:	~~10/30/2015~~ EBS 1/6/14 10/31/2015

Analyte	CAS Number	Concentration	Units
Decafluorotriphenylphosphine	NA	2500	ug/mL

RESTEK
110 Benner Circle
Bellefonte, PA 16823
Made in USA
Catalog # 31001 Rec??? 0 1
SV Tuning Compound Standard
Rec 2/6/13
2500 ug/mL each in Methylene Chloride
Lot# A091235 Exp. Date. 10/2015 Store: 10°C or colder

Freedom_0005790_0846

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1300401

std_Org_analytical.rpt

Description:	ERG DFTPP1013	Expires:	04/26/2014
Standard Type:	MS Tune	Prepared:	10/28/2013
Department:	ORGANIC-GCMS	Prepared By:	Eric Graybill
Solvent:	MeCl2/13549	Vendor:	Restek
Final Volume (mls):	10	Vendor Lot:	see below
Vials:	1		
Reagent Purity Checked	EDY		

Analyte	CAS Number	Concentration	Units
Decafluorotriphenylphosphine	NA	37.5	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Expires	Prepared By	Vendor	Vendor Lot	Conc.	(mls)
1300400	ERG SV Tuning Compound Standard	10/28/2013	04/26/2014	** Vendor **	Restek	A091235	2500	0.15

Freedom_0005790_0847

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1400094

std_Org_analytical.rpt

Description:	Pseudo MCHM and PPH BS05	Expires:	08/25/2014
Standard Type:	Analyte Spike	Prepared:	02/26/2014
Department:	ORGANIC-GCMS	Prepared By:	Eric Graybill
Solvent:	MeOH/10707	Vendor:	TCI
Final Volume (mls):	1	Vendor Lot:	GFRQ0-MK
Vials:	1		
Reagent Purity Checked	ERG		

Analyte	CAS Number	Concentration	Units
MCHM	34885-03-5	5	ug/mL
PPH	770-35-4	5	ug/mL

Freedom_0005790_0848

EPA REGION 3 OASQA STANDARD/REAGENT PREPARATION LOG

1400093

std_Org_analytical.rpt

Description:	Pseudo MCHM and PPH BS50	Expires:	08/25/2014
Standard Type:	Analyte Spike	Prepared:	01/23/2014
Department:	ORGANIC-GCMS	Prepared By:	Eric Graybill
Solvent:	MeOH/10707	Vendor:	TCI
Final Volume (mls):	1	Vendor Lot:	GFRQ0-MK
Vials:	1		
Reagent Purity Checked	ERG		

Analyte	CAS Number	Concentration	Units
MCHM	34885-03-5	50	ug/mL
PPH	770-35-4	50	ug/mL

Freedom_0005790_0849