ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division
Fort Collins, Colorado

GC/MS Semivolatiles

Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200221017

Work Order Number: 0910287

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 10/28/09.

2. The sample was prepared and analyzed according to SW-846, 3rd Edition procedures. Specifically, the water sample was extracted using continuous liquid-liquid extractors, according to SW-846 Method 3520C utilizing SOP 617 Revision 13.

3. The extracts were analyzed using GC/MS with a DB-5.625 capillary column according to SOP 506 Revision 16 based on SW-846 Method 8270D. All positive results were quantitated against the initial calibration standards using the internal standard technique. The identification of positive results was achieved by a comparison of the retention time and mass spectrum of the sample versus the daily calibration standard.

4. All initial calibration criteria for SPCC's and CCC's were met. If average response factors were used in the initial calibration, %RSD was ≤15%. If linear or higher order regression calibrations were used in the initial calibration, the coefficient of determination (r^2) ≥0.99.

5. All initial calibration standards are verified by comparing a second source standard initial calibration verification (ICV) against the calibration curve. All target compounds in the second source verification had a %D of less than 25%.

6. All SPCC and CCC criteria were met in each of the daily (continuing) calibration verifications.

7. All method blank criteria were met.

8. All laboratory control sample and laboratory control sample duplicate criteria were met with the following exceptions:

Spiked Compound	QC Sample	Direction
Pyridine	LCS/LCSD	RPD High
Aniline	LCSD	Low
Aniline	LCS/LCSD	RPD High

Because of the large number of target analytes reported by this method, the lab allows for sporadic marginal exceedances. No further action was taken.

Since the recoveries for pyridine in the laboratory control sample and laboratory control sample duplicate were within control limits, with only the RPD exceeding acceptance criteria, quantitations of target compounds were not compromised. No further action was taken.

9. Matrix spikes and matrix spike duplicates could not be performed because of insufficient sample. A laboratory control sample and laboratory control sample duplicate were performed instead.

10. The sample was extracted and analyzed within the established holding time.

11. All surrogate recoveries were within acceptance criteria.

12. All internal standard recoveries were within acceptance criteria.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Sharon L. Jobes
Organics Primary Data Reviewer

11-10-09
Date

Organics Final Data Reviewer

November 10, 2009
Date

ALS
Data Qualifier Flags
Chromatography and Mass Spectrometry

U or ND:	**This flag indicates that the compound was analyzed for but not detected.**
J:	**This flag indicates an estimated value. This flag is used as follows: (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the retention time data indicate the presence of a compound that meets the GC identification criteria, and the result is less than the RL but greater than the MDL; and (4) the reported value is estimated.**
B:	**This flag is used when the analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user. This flag shall be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.**
E:	**This flag identifies compounds whose concentration exceeds the upper level of the calibration range.**
A:	**This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.**
X:	**This flag indicates that the analyte was diluted below an accurate quantitation level.**
***:**	**This flag indicates that a spike recovery is equal to or outside the control criteria used.**
+:	**This flag indicates that the relative percent difference (RPD) equals or exceeds the control criteria.**

ALS Laboratory Group -- FC

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0910287
Client Name: Colorado Oil & Gas Conservation Commission
Client Project Name: Complaint 200221017
Client Project Number:
Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Stevens WW	0910287-1		WATER	27-Oct-09	9:36

0910287

ALS Laboratory Group

225 Commerce Drive, Fort Collins, CO 80524
TF: 800-443-1511 PH: 970-490-1511 FX: 970-490-1522

Chain-of-Custody

Date 27Oct09 | Page 1 of 1 | Lab ID

Project Name/No.	
REPORT TO:	Peter Gintautas
PHONE:	719-846-3091
FAX:	719-846-3384
E-MAIL:	peter.gintautas@state.co.us
COMPANY:	Colo. Div. Water Res. Comm.
ADDRESS:	PO Box 109 Trinidad CO 81082

Sampler(s): Gintautas | Turnaround: Standard or Due Mid-Nov | Disposal: By Lab or Return

Provide additional information as needed in Comments below.

Circle Analytical Method Above

Sample ID	Date	Time *	Lab ID	Matrix	Preservative (Type HCl, etc.)	No. of Containers	TPH Methane Ethane Ethene (SW8015B GRO DRO Other)	VOCs	BTEX + MtBE	SVOCs	OC Pesticides	PCBs TOC	Herbicides	Explosives	TCLP Organics SW1311	TCLP Metals SW1311	Total Metals (ICP) or Hg	Dissolved Metals (ICP) or Hg	Total Metals (ICP-MS)	Dissolved Metals (ICP-MS)	Hexavalent Chromium	Inorganic Anions	Solids	pH	Perchlorate	Actinides	Gamma Isotopes	Gross Alpha / Beta	Total Alpha-Emitting Radium	Radium 226	Radium 228	Strontium 90 (Total RadioSr)	Tritium
Complaint 200221017																																	
(1) Stevens WW	27Oct	09:30	1	W	HCl	3		X		X		X						X		X	X	X	X	X	X								
Complaint 200221028					None	6	X			X		X						X		X	X	X	X	X	X								
Ligano WW	27Oct	10:35		W	H_2SO_4 HCl	3		X				X																					
Complaint 200221032	27Oct				None	5	X											X		X	X	X	X	X	X								
Meadows WW	↓	11:14		W	HCl	3		X																									
Complaint 200221031					None	5	X											X		X	X	X	X	X	X								
Bieber WW	27Oct	12:06		W	HCl	3		X				X																					

* Zone (Circle): EST CST (MST) PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analyte list below.

Comments: (Trip Blank + Complaint 200221032) = 8260_25 + tert-butanol / TICs

Anions = Br, Cl, F, NO2, NO3, SO4

Filter + Preserve metals upon receipt

200.7 = B, Ba, Be, Ca, Cr, Co, Cu, Fe, Li, Mg, Mn, Ni, K, Na, Sr, Zn, Si

200.8 = Sb, As, Cd, Pb, Mo, Se, Ag, Tl, U

Originator: Retain pink page or a photocopy!

Form 202r7 (5/19/09)

Relinquished By: (1)	Relinquished By:
Signature	Signature
Printed Name Peter Gintautas	Printed Name
Date 27Oct09 Time 16:20	Date Time
Company CDWR	Company

Received By: (1)	Received By:
Signature Lauren Schmitz	Signature
Printed Name Lauren Schmitz	Printed Name
Date 10-28-09 Time 1015	Date Time
Company ALS	Company

ALS Laboratory Group - Fort Collins

CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCC Workorder No: 0910287

Project Manager: AW Initials: LAS Date: 10/28/2009

1.	Does this project require any **special handling** in addition to standard Paragon procedures?		YES	(NO)
2.	Are custody **seals** on **shipping containers** intact?	NONE	(YES)	NO
3.	Are Custody seals on **sample containers** intact?	(NONE)	YES	NO
4.	Is there a **COC (Chain-of-Custody) present** or other representative documents?		(YES)	NO
5.	Are the **COC and bottle labels complete and legible**?		(YES)	NO
6.	Is the **COC in agreement** with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		(YES)	~~NO~~ * LS 10/28/09
7.	Were **airbills / shipping documents** present and/or removable?	DROP OFF	(YES)	NO
8.	Are all aqueous **samples requiring preservation preserved correctly?** (excluding volatiles)	N/A	~~YES~~ LS 10/29/09	(NO) *
9.	Are all aqueous **non-preserved samples pH 4-9**?	N/A	(YES)	NO
10.	Is there **sufficient sample** for the requested analyses?		(YES)	NO
11.	Were all samples placed in the **proper containers** for the requested analyses?		(YES)	NO
12.	Are all samples within **holding times** for the requested analyses?		(YES)	NO
13.	Were all sample containers received **intact**? (not broken or leaking, etc.)		(YES)	NO
14.	Are all samples requiring **no** headspace (**VOC, GRO, RSK/MEE, Rx CN/S, radon**) headspace free? **Size of bubble**: ___ < green pea ___ > green pea	N/A	(YES)	NO
15.	Do perchlorate LCMS-MS samples **have** headspace? (at least 1/3 of container required)	(N/A)	YES	NO
16.	Were samples checked for and free from the presence of **residual chlorine?** (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	(N/A)	YES	NO
17.	Were the samples **shipped on ice**?		(YES)	NO
18.	Were cooler temperatures measured at 0.1-6.0°C? **IR gun used*:** (#2) #4	RAD ONLY	(YES)	NO

Cooler #:	1	2						
Temperature (°C):	2.7°	3.8°						
No. of custody seals on cooler:	1	1						
DOT Survey/ Acceptance Information — External µR/hr reading:	15	15						
Background µR/hr reading:	13							

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? (YES) NO / NA (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16

* LS 10/28/09

* metals will be filtered and preserved by the lab (prior to analysis)

If applicable, was the client contacted? **YES / NO / NA** Contact: _____ Date/Time: _____

Project Manager Signature / Date: _____ 11/2/09

*IR Gun #2: Oakton, SN 29922500201-0066 *IR Gun #4: Oakton, SN 2372220101-0002

Form 201r22.xls (6/1/09)

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Lab ID: EX091103-1MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 03-Nov-09
Date Analyzed: 06-Nov-09
Prep Method: SW3520 Rev C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1057

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	U	
62-53-3	ANILINE	1	10	10	U	
108-95-2	PHENOL	1	10	10	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	U	
95-57-8	2-CHLOROPHENOL	1	10	10	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	U	
100-51-6	BENZYL ALCOHOL	1	10	10	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	U	
95-48-7	2-METHYLPHENOL	1	10	10	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	U	
67-72-1	HEXACHLOROETHANE	1	10	10	U	
98-95-3	NITROBENZENE	1	10	10	U	
78-59-1	ISOPHORONE	1	10	10	U	
88-75-5	2-NITROPHENOL	1	10	10	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	U	
65-85-0	BENZOIC ACID	1	50	50	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	U	
91-20-3	NAPHTHALENE	1	10	10	U	
106-47-8	4-CHLOROANILINE	1	10	10	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	U	

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Lab ID: EX091103-1MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 03-Nov-09
Date Analyzed: 06-Nov-09
Prep Method: SW3520 Rev C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1057

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

91-57-6	2-METHYLNAPHTHALENE	1	10	10	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	U	
88-74-4	2-NITROANILINE	1	20	20	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	U	
208-96-8	ACENAPHTHYLENE	1	10	10	U	
99-09-2	3-NITROANILINE	1	20	20	U	
83-32-9	ACENAPHTHENE	1	10	10	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	U	
100-02-7	4-NITROPHENOL	1	20	20	U	
132-64-9	DIBENZOFURAN	1	10	10	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	U	
86-73-7	FLUORENE	1	10	10	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	U	
100-01-6	4-NITROANILINE	1	20	20	U	
103-33-3	AZOBENZENE	1	10	10	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	U	
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	U	
85-01-8	PHENANTHRENE	1	10	10	U	
120-12-7	ANTHRACENE	1	10	10	U	

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Lab ID: EX091103-1MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 03-Nov-09
Date Analyzed: 06-Nov-09
Prep Method: SW3520 Rev C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1057

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

86-74-8	CARBAZOLE	1	10	10	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	U	
206-44-0	FLUORANTHENE	1	10	10	U	
129-00-0	PYRENE	1	10	10	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	U	
218-01-9	CHRYSENE	1	10	10	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	U	
50-32-8	BENZO(A)PYRENE	1	10	10	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	51.1		75	68	23 - 100
321-60-8	2-FLUOROBIPHENYL	38.1		50	76	21 - 106
367-12-4	2-FLUOROPHENOL	55.5		75	74	21 - 100
4165-60-0	NITROBENZENE-D5	39.7		50	79	34 - 111
4165-62-2	PHENOL-D5	57.4		75	77	15 - 104
1718-51-0	TERPHENYL-D14	45.2		50	90	33 - 111

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Field ID:

Lab ID: EX091103-1MB

Sample Matrix: WATER
%Moisture: N/A
Date Collected: N/A
Date Extracted: 03-Nov-09
Date Analyzed: 06-Nov-09

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: As Received

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Clean DF: 1
File Name: R1057

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
		NONE DETECTED	1			U

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0910287
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221017

Field ID: Stevens WW
Lab ID: 0910287-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 27-Oct-09
Date Extracted: 03-Nov-09
Date Analyzed: 05-Nov-09
Prep Method: SW3520 Rev C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091105-3
Cleanup: NONE
Basis: As Received
File Name: R1033

Sample Aliquot: 1060 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	9.4	9.4	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	9.4	9.4	U	
62-53-3	ANILINE	1	9.4	9.4	U	
108-95-2	PHENOL	1	9.4	9.4	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	9.4	9.4	U	
95-57-8	2-CHLOROPHENOL	1	9.4	9.4	U	
541-73-1	1,3-DICHLOROBENZENE	1	9.4	9.4	U	
106-46-7	1,4-DICHLOROBENZENE	1	9.4	9.4	U	
95-50-1	1,2-DICHLOROBENZENE	1	9.4	9.4	U	
100-51-6	BENZYL ALCOHOL	1	9.4	9.4	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	9.4	9.4	U	
95-48-7	2-METHYLPHENOL	1	9.4	9.4	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	9.4	9.4	U	
108-39-4	3+4-METHYLPHENOL	1	9.4	9.4	U	
67-72-1	HEXACHLOROETHANE	1	9.4	9.4	U	
98-95-3	NITROBENZENE	1	9.4	9.4	U	
78-59-1	ISOPHORONE	1	9.4	9.4	U	
88-75-5	2-NITROPHENOL	1	9.4	9.4	U	
105-67-9	2,4-DIMETHYLPHENOL	1	9.4	9.4	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	9.4	9.4	U	
120-83-2	2,4-DICHLOROPHENOL	1	9.4	9.4	U	
65-85-0	BENZOIC ACID	1	47	47	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	9.4	9.4	U	
91-20-3	NAPHTHALENE	1	9.4	9.4	U	
106-47-8	4-CHLOROANILINE	1	9.4	9.4	U	
87-68-3	HEXACHLOROBUTADIENE	1	9.4	9.4	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	1	9.4	9.4	U	

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Field ID: Stevens WW
Lab ID: 0910287-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 27-Oct-09
Date Extracted: 03-Nov-09
Date Analyzed: 05-Nov-09
Prep Method: SW3520 Rev C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091105-3
Cleanup: NONE
Basis: As Received
File Name: R1033

Sample Aliquot: 1060 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

91-57-6	2-METHYLNAPHTHALENE	1	9.4	9.4	U	
90-12-0	1-METHYLNAPHTHALENE	1	9.4	9.4	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	9.4	9.4	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	9.4	9.4	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	9.4	9.4	U	
91-58-7	2-CHLORONAPHTHALENE	1	9.4	9.4	U	
88-74-4	2-NITROANILINE	1	19	19	U	
131-11-3	DIMETHYL PHTHALATE	1	9.4	9.4	U	
606-20-2	2,6-DINITROTOLUENE	1	9.4	9.4	U	
208-96-8	ACENAPHTHYLENE	1	9.4	9.4	U	
99-09-2	3-NITROANILINE	1	19	19	U	
83-32-9	ACENAPHTHENE	1	9.4	9.4	U	
51-28-5	2,4-DINITROPHENOL	1	19	19	U	
100-02-7	4-NITROPHENOL	1	19	19	U	
132-64-9	DIBENZOFURAN	1	9.4	9.4	U	
121-14-2	2,4-DINITROTOLUENE	1	9.4	9.4	U	
84-66-2	DIETHYL PHTHALATE	1	9.4	9.4	U	
86-73-7	FLUORENE	1	9.4	9.4	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	9.4	9.4	U	
100-01-6	4-NITROANILINE	1	19	19	U	
103-33-3	AZOBENZENE	1	9.4	9.4	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	19	19	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	9.4	9.4	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	9.4	9.4	U	
118-74-1	HEXACHLOROBENZENE	1	9.4	9.4	U	
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	9.4	9.4	U	
87-86-5	PENTACHLOROPHENOL	1	19	19	U	
85-01-8	PHENANTHRENE	1	9.4	9.4	U	
120-12-7	ANTHRACENE	1	9.4	9.4	U	

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0910287
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221017

Field ID: Stevens WW
Lab ID: 0910287-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 27-Oct-09
Date Extracted: 03-Nov-09
Date Analyzed: 05-Nov-09
Prep Method: SW3520 Rev C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091105-3
Cleanup: NONE
Basis: As Received
File Name: R1033

Sample Aliquot: 1060 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

86-74-8	CARBAZOLE	1	9.4	9.4	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	9.4	9.4	U	
206-44-0	FLUORANTHENE	1	9.4	9.4	U	
129-00-0	PYRENE	1	9.4	9.4	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	9.4	9.4	U	
56-55-3	BENZO(A)ANTHRACENE	1	9.4	9.4	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	9.4	9.4	U	
218-01-9	CHRYSENE	1	9.4	9.4	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	9.4	9.4	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	9.4	9.4	U	
205-99-2	BENZO(B)FLUORANTHENE	1	9.4	9.4	U	
207-08-9	BENZO(K)FLUORANTHENE	1	9.4	9.4	U	
50-32-8	BENZO(A)PYRENE	1	9.4	9.4	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	9.4	9.4	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	9.4	9.4	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	9.4	9.4	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	56.8		70.8	80	23 - 100
321-60-8	2-FLUOROBIPHENYL	38.7		47.2	82	21 - 106
367-12-4	2-FLUOROPHENOL	56.1		70.8	79	21 - 100
4165-60-0	NITROBENZENE-D5	39.9		47.2	85	34 - 111
4165-62-2	PHENOL-D5	56.8		70.8	80	15 - 104
1718-51-0	TERPHENYL-D14	45.1		47.2	96	33 - 111

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Field ID: Stevens WW
Lab ID: 0910287-1

Sample Matrix: WATER
%Moisture: N/A
Date Collected: 27-Oct-09
Date Extracted: 03-Nov-09
Date Analyzed: 05-Nov-09

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091105-3
Cleanup: NONE
Basis: As Received

Sample Aliquot: 1060 ml
Final Volume: 1 ml
Clean DF: 1
File Name: R1033

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
108-88-3	2.88	TOLUENE	1	14	UG/L	J
	10.03	OXYGENATED HYDROCARBON1	1	19	UG/L	J

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Lab ID: EX091103-1LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11/03/2009
Date Analyzed: 11/06/2009
Prep Method: SW3520C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1058

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
110-86-1	PYRIDINE	60	33.2	10		55	10 - 108%
62-75-9	N-NITROSODIMETHYLAMINE	60	56.5	10		94	26 - 110%
62-53-3	ANILINE	60	45.1	10		75	25 - 125%
108-95-2	PHENOL	60	48.8	10		81	49 - 101%
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	47.6	10		79	37 - 110%
95-57-8	2-CHLOROPHENOL	60	49.4	10		82	37 - 106%
541-73-1	1,3-DICHLOROBENZENE	60	37.7	10		63	32 - 98%
106-46-7	1,4-DICHLOROBENZENE	60	39.5	10		66	32 - 98%
95-50-1	1,2-DICHLOROBENZENE	60	41.2	10		69	33 - 102%
100-51-6	BENZYL ALCOHOL	60	47.1	10		78	30 - 112%
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	48.1	10		80	26 - 131%
95-48-7	2-METHYLPHENOL	60	50.7	10		85	38 - 109%
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	51.1	10		85	34 - 128%
108-39-4	3+4-METHYLPHENOL	60	56.8	10		95	32 - 110%
67-72-1	HEXACHLOROETHANE	60	35.2	10		59	28 - 94%
98-95-3	NITROBENZENE	60	45.3	10		75	44 - 109%
78-59-1	ISOPHORONE	60	45.6	10		76	50 - 112%
88-75-5	2-NITROPHENOL	60	44	10		73	39 - 113%
105-67-9	2,4-DIMETHYLPHENOL	60	43.1	10		72	28 - 109%
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	42.5	10		71	46 - 107%
120-83-2	2,4-DICHLOROPHENOL	60	45.7	10		76	48 - 105%
65-85-0	BENZOIC ACID	100	63.5	50		63	10 - 125%
120-82-1	1,2,4-TRICHLOROBENZENE	60	34.8	10		58	37 - 107%
91-20-3	NAPHTHALENE	60	42.1	10		70	39 - 102%
106-47-8	4-CHLOROANILINE	60	42.2	10		70	15 - 109%
87-68-3	HEXACHLOROBUTADIENE	60	32.8	10		55	27 - 103%

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0910287
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221017

Lab ID: EX091103-1LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11/03/2009
Date Analyzed: 11/06/2009
Prep Method: SW3520C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1058

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
59-50-7	4-CHLORO-3-METHYLPHENOL	60	47.6	10		79	47 - 111%
91-57-6	2-METHYLNAPHTHALENE	60	41.6	10		69	46 - 104%
90-12-0	1-METHYLNAPHTHALENE	60	42.2	10		70	46 - 104%
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	25.6	10		43	10 - 125%
88-06-2	2,4,6-TRICHLOROPHENOL	60	58.5	10		97	49 - 113%
95-95-4	2,4,5-TRICHLOROPHENOL	60	55.9	10		93	49 - 111%
91-58-7	2-CHLORONAPHTHALENE	60	49.6	10		83	36 - 137%
88-74-4	2-NITROANILINE	60	53.8	20		90	48 - 115%
131-11-3	DIMETHYL PHTHALATE	60	52.9	10		88	25 - 127%
606-20-2	2,6-DINITROTOLUENE	60	51.5	10		86	49 - 117%
208-96-8	ACENAPHTHYLENE	60	53.4	10		89	50 - 107%
99-09-2	3-NITROANILINE	60	50.7	20		85	19 - 126%
83-32-9	ACENAPHTHENE	60	52.4	10		87	47 - 108%
51-28-5	2,4-DINITROPHENOL	60	56.3	20		94	14 - 138%
100-02-7	4-NITROPHENOL	60	53.9	20		90	21 - 119%
132-64-9	DIBENZOFURAN	60	52.1	10		87	54 - 107%
121-14-2	2,4-DINITROTOLUENE	60	53.2	10		89	51 - 118%
84-66-2	DIETHYL PHTHALATE	60	55.5	10		92	41 - 118%
86-73-7	FLUORENE	60	53.7	10		89	50 - 112%
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	52.7	10		88	50 - 111%
100-01-6	4-NITROANILINE	60	50.5	20		84	36 - 118%
103-33-3	AZOBENZENE	60	53.6	10		89	21 - 137%
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	54.3	20		90	40 - 130%
86-30-6	N-NITROSODIPHENYLAMINE	60	53	10		88	48 - 111%
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	53.3	10		89	52 - 113%
118-74-1	HEXACHLOROBENZENE	60	54.5	10		91	52 - 112%
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	94.2	10		94	23 - 112%

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0910287
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221017

Lab ID: EX091103-1LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11/03/2009
Date Analyzed: 11/06/2009
Prep Method: SW3520C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1058

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
87-86-5	PENTACHLOROPHENOL	60	59.5	20		99	38 - 117%
85-01-8	PHENANTHRENE	60	56.3	10		94	51 - 117%
120-12-7	ANTHRACENE	60	57.1	10		95	54 - 112%
86-74-8	CARBAZOLE	60	52.6	10		88	48 - 117%
84-74-2	DI-N-BUTYL PHTHALATE	60	58.7	10		98	54 - 116%
206-44-0	FLUORANTHENE	60	57.9	10		96	54 - 116%
129-00-0	PYRENE	60	52.6	10		88	49 - 128%
85-68-7	BUTYL BENZYL PHTHALATE	60	53	10		88	46 - 116%
56-55-3	BENZO(A)ANTHRACENE	60	52.2	10		87	56 - 109%
91-94-1	3,3'-DICHLOROBENZIDINE	60	42.9	10		72	19 - 111%
218-01-9	CHRYSENE	60	53	10		88	55 - 109%
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	47.3	10		79	42 - 126%
117-84-0	DI-N-OCTYL PHTHALATE	60	51.8	10		86	37 - 137%
205-99-2	BENZO(B)FLUORANTHENE	60	56.1	10		93	45 - 118%
207-08-9	BENZO(K)FLUORANTHENE	60	56.1	10		93	45 - 124%
50-32-8	BENZO(A)PYRENE	60	54.1	10		90	53 - 110%
193-39-5	INDENO(1,2,3-CD)PYRENE	60	51.9	10		86	43 - 125%
53-70-3	DIBENZO(A,H)ANTHRACENE	60	51.9	10		86	42 - 127%
191-24-2	BENZO(G,H,I)PERYLENE	60	50.1	10		84	38 - 123%

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0910287
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221017

Lab ID: EX091103-1LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11/03/2009
Date Analyzed: 11/06/2009
Prep Method: SW3520C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1059

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
110-86-1	PYRIDINE	60	15.2	10	+	25	20	75
62-75-9	N-NITROSODIMETHYLAMINE	60	53.8	10		90	20	5
62-53-3	ANILINE	60	10.8	10	*+	18	20	123
108-95-2	PHENOL	60	43.8	10		73	20	11
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	45.1	10		75	20	5
95-57-8	2-CHLOROPHENOL	60	46.9	10		78	20	5
541-73-1	1,3-DICHLOROBENZENE	60	33.6	10		56	20	12
106-46-7	1,4-DICHLOROBENZENE	60	35.1	10		59	20	12
95-50-1	1,2-DICHLOROBENZENE	60	37.5	10		63	20	9
100-51-6	BENZYL ALCOHOL	60	46	10		77	20	2
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	46.6	10		78	20	3
95-48-7	2-METHYLPHENOL	60	49.3	10		82	20	3
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	51.6	10		86	20	1
108-39-4	3+4-METHYLPHENOL	60	52.8	10		88	20	7
67-72-1	HEXACHLOROETHANE	60	30.4	10		51	20	15
98-95-3	NITROBENZENE	60	44	10		73	20	3
78-59-1	ISOPHORONE	60	46.3	10		77	20	2
88-75-5	2-NITROPHENOL	60	43.2	10		72	20	2
105-67-9	2,4-DIMETHYLPHENOL	60	43	10		72	20	0
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	42.1	10		70	20	1
120-83-2	2,4-DICHLOROPHENOL	60	44.9	10		75	20	2
65-85-0	BENZOIC ACID	100	62.1	50		62	20	2
120-82-1	1,2,4-TRICHLOROBENZENE	60	32.4	10		54	20	7
91-20-3	NAPHTHALENE	60	40.6	10		68	20	4
106-47-8	4-CHLOROANILINE	60	35.6	10		59	20	17
87-68-3	HEXACHLOROBUTADIENE	60	29.6	10		49	20	10
59-50-7	4-CHLORO-3-METHYLPHENOL	60	49.3	10		82	20	3

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0910287
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221017

Lab ID: EX091103-1LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11/03/2009
Date Analyzed: 11/06/2009
Prep Method: SW3520C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1059

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
91-57-6	2-METHYLNAPHTHALENE	60	40.7	10		68	20	2
90-12-0	1-METHYLNAPHTHALENE	60	42.1	10		70	20	0
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	27.2	10		45	20	6
88-06-2	2,4,6-TRICHLOROPHENOL	60	58.9	10		98	20	1
95-95-4	2,4,5-TRICHLOROPHENOL	60	57	10		95	20	2
91-58-7	2-CHLORONAPHTHALENE	60	49.2	10		82	20	1
88-74-4	2-NITROANILINE	60	54.4	20		91	20	1
131-11-3	DIMETHYL PHTHALATE	60	53.4	10		89	20	1
606-20-2	2,6-DINITROTOLUENE	60	52	10		87	20	1
208-96-8	ACENAPHTHYLENE	60	53	10		88	20	1
99-09-2	3-NITROANILINE	60	50.4	20		84	20	1
83-32-9	ACENAPHTHENE	60	52.8	10		88	20	1
51-28-5	2,4-DINITROPHENOL	60	55.2	20		92	20	2
100-02-7	4-NITROPHENOL	60	50.6	20		84	20	6
132-64-9	DIBENZOFURAN	60	52.1	10		87	20	0
121-14-2	2,4-DINITROTOLUENE	60	52.9	10		88	20	1
84-66-2	DIETHYL PHTHALATE	60	55.5	10		92	20	0
86-73-7	FLUORENE	60	53.4	10		89	20	0
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	52.7	10		88	20	0
100-01-6	4-NITROANILINE	60	48	20		80	20	5
103-33-3	AZOBENZENE	60	52.6	10		88	20	2
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	54.9	20		91	20	1
86-30-6	N-NITROSODIPHENYLAMINE	60	53.9	10		90	20	2
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	54.7	10		91	20	2
118-74-1	HEXACHLOROBENZENE	60	54.5	10		91	20	0
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	93.6	10		94	20	1
87-86-5	PENTACHLOROPHENOL	60	56.6	20		94	20	5

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0910287
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221017

Lab ID: EX091103-1LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11/03/2009
Date Analyzed: 11/06/2009
Prep Method: SW3520C

Prep Batch: EX091103-1
QCBatchID: EX091103-1-3
Run ID: SV091106-3
Cleanup: NONE
Basis: N/A
File Name: R1059

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
85-01-8	PHENANTHRENE	60	56.6	10		94	20	0
120-12-7	ANTHRACENE	60	56.6	10		94	20	1
86-74-8	CARBAZOLE	60	51.6	10		86	20	2
84-74-2	DI-N-BUTYL PHTHALATE	60	58	10		97	20	1
206-44-0	FLUORANTHENE	60	57	10		95	20	2
129-00-0	PYRENE	60	56.5	10		94	20	7
85-68-7	BUTYL BENZYL PHTHALATE	60	55.9	10		93	20	5
56-55-3	BENZO(A)ANTHRACENE	60	53	10		88	20	2
91-94-1	3,3'-DICHLOROBENZIDINE	60	40.4	10		67	20	6
218-01-9	CHRYSENE	60	53.3	10		89	20	1
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	49.6	10		83	20	5
117-84-0	DI-N-OCTYL PHTHALATE	60	53.6	10		89	20	4
205-99-2	BENZO(B)FLUORANTHENE	60	54.5	10		91	20	3
207-08-9	BENZO(K)FLUORANTHENE	60	58.3	10		97	20	4
50-32-8	BENZO(A)PYRENE	60	54.5	10		91	20	1
193-39-5	INDENO(1,2,3-CD)PYRENE	60	55.4	10		92	20	7
53-70-3	DIBENZO(A,H)ANTHRACENE	60	55	10		92	20	6
191-24-2	BENZO(G,H,I)PERYLENE	60	54.2	10		90	20	8

Data Package ID: *SV0910287-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: **ALS Laboratory Group -- FC**

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	75	92		90		23 - 100
321-60-8	2-FLUOROBIPHENYL	50	83		83		21 - 106
367-12-4	2-FLUOROPHENOL	75	78		74		21 - 100
4165-60-0	NITROBENZENE-D5	50	73		70		34 - 111
4165-62-2	PHENOL-D5	75	72		68		15 - 104
1718-51-0	TERPHENYL-D14	50	87		92		33 - 111

Data Package ID: *SV0910287-1*

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110609\R1057.D
Acq On : 6 Nov 2009 12:18 pm
Sample : EX091103-1MB
Misc : WATER EX091103-1
MS Integration Params: LSCINT.P
Quant Time: Nov 6 12:39 2009

Vial: 3
Operator: jk SOP 506 Rev
Inst : HPSV-3
Multiplr: 1.00
Quant Results File: 101109S3.RES

Quant Method : C:\HPCHEM\1\METHODS\101109S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Fri Nov 06 12:14:45 2009
Response via : Initial Calibration
DataAcq Meth : 101109S3

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.68	152	483091	40.00	ng/uL	0.00
25) Naphthalene-d8	6.90	136	1770536	40.00	ng/uL	0.00
42) Acenaphthene-d10	8.45	164	894917	40.00	ng/uL	0.00
69) Phenanthrene-d10	9.73	188	1474678	40.00	ng/uL	0.00
80) Chrysene-d12	11.99	240	1485164	40.00	ng/uL	0.00
91) Perylene-d12	13.29	264	1160417	40.00	ng/uL	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.24	112	814962	55.54	ng/uL	0.00
Spiked Amount 75.000	Range 21 - 100		Recovery = 74.05%			
6) 2-Chlorophenol-d4	5.46	132	826287	56.77	ng/uL	0.00
Spiked Amount 75.000	Range 33 - 110		Recovery = 75.69%			
8) Phenol-d5	5.30	99	1073077	57.44	ng/uL	0.00
Spiked Amount 75.000	Range 15 - 104		Recovery = 76.59%			
15) 1,2-Dichlorobenzene-d4	5.84	152	380789	34.14	ng/uL	0.00
Spiked Amount 50.000	Range 16 - 110		Recovery = 68.28%			
26) Nitrobenzene-d5	6.23	82	602914	39.73	ng/uL	0.00
Spiked Amount 50.000	Range 34 - 111		Recovery = 79.46%			
46) 2-Fluorobiphenyl	7.85	172	1266722	38.09	ng/uL	0.00
Spiked Amount 50.000	Range 21 - 106		Recovery = 76.18%			
68) 2,4,6-Tribromophenol	9.13	330	183579	51.06	ng/uL	0.00
Spiked Amount 75.000	Range 23 - 100		Recovery = 68.08%			
83) p-Terphenyl-d14	11.06	244	1505134	45.16	ng/uL	0.00
Spiked Amount 50.000	Range 33 - 111		Recovery = 90.32%			
Target Compounds						Qvalue
58) 4-Nitrophenol	8.45	109	1462	6.56	ng/uL#	1

(#) = qualifier out of range (m) = manual integration
R1057.D 101109S3.M Fri Nov 06 12:39:05 2009

11-9-09

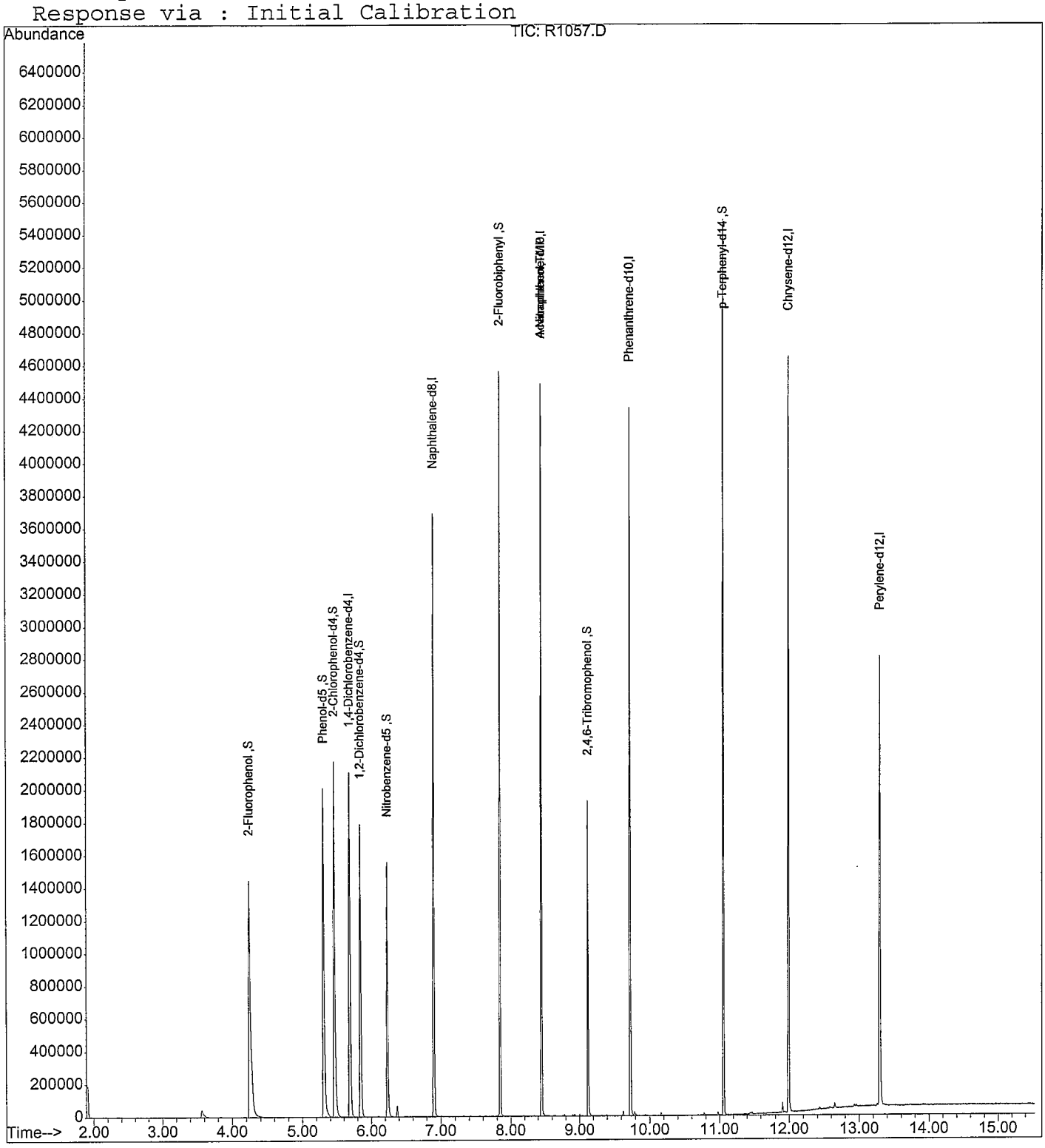
Quantitation Report

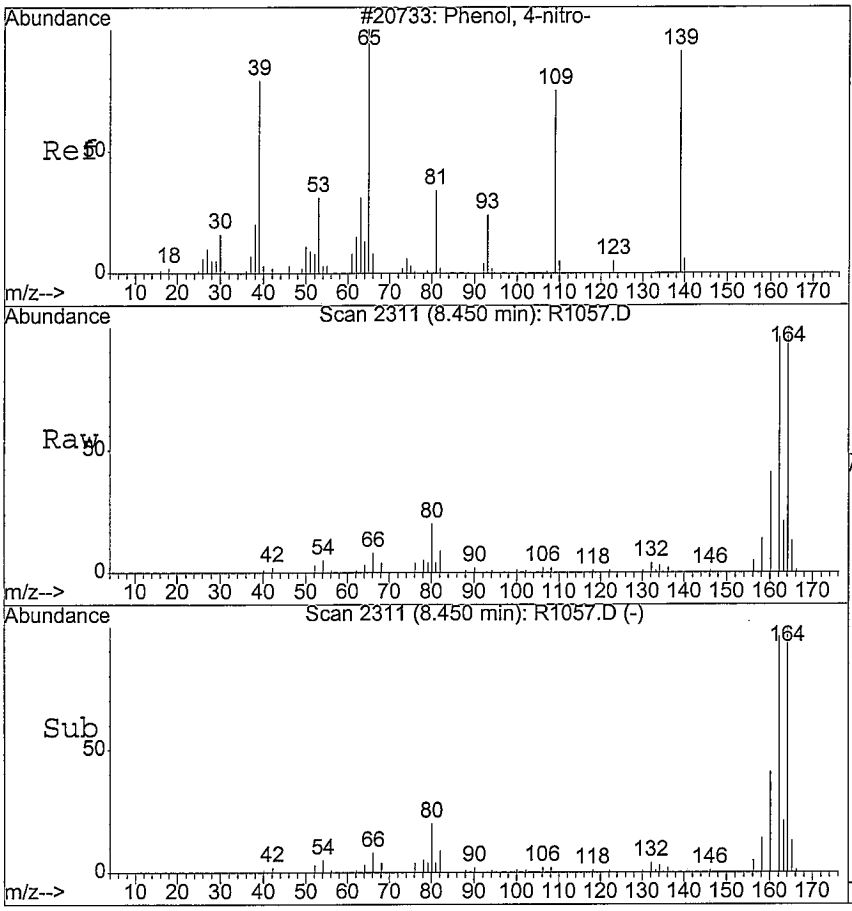
Data File : C:\HPCHEM\1\DATA\110609\R1057.D
Acq On : 6 Nov 2009 12:18 pm
Sample : EX091103-1MB
Misc : WATER EX091103-1
MS Integration Params: LSCINT.P
Quant Time: Nov 6 12:39 2009

Vial: 3
Operator: jk SOP 506
Inst : HPSV-3
Multiplr: 1.00

Quant Results File: 101109S3.RES

Method : C:\HPCHEM\1\METHODS\101109S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Fri Nov 06 12:14:45 2009
Response via : Initial Calibration

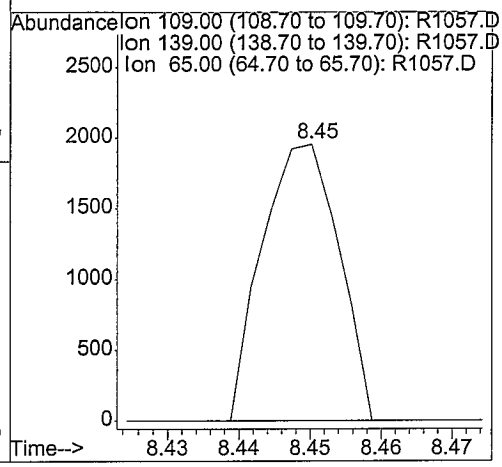




#58
4-Nitrophenol
Concen: 6.56 ng/uL
RT: 8.45 min Scan# 2311
Delta R.T. -0.10 min
Lab File: R1057.D
Acq: 6 Nov 2009 12:18 pm

Tgt Ion:109 Resp: 1462

Ion	Ratio	Lower	Upper
109	100		
139	0.0	114.9	191.5#
65	0.0	96.6	161.0#



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\110609\R1057.D
Acq On : 6 Nov 2009 12:18 pm
Sample : EX091103-1MB
Misc : WATER EX091103-1
MS Integration Params: LSCINT.P
Quant Method : C:\HPCHEM\1\METHODS\101109S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Library : C:\DATABASE\nist98.l

Vial: 3
Operator: jk SOP 506 Rev
Inst : HPSV-3
Multiplr: 1.00

No Library Search Compounds Detected

****
R1057.D 101109S3.M Tue Nov 10 14:32:23 2009

JL 11-10-09

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\110509\R1033.D Vial: 7
Acq On : 5 Nov 2009 1:21 pm Operator: jk SOP 506 Rev
Sample : 0910287-1 Inst : HPSV-3
Misc : WATER EX091103-1 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Nov 5 13:37 2009 Quant Results File: 101109S3.RES

Quant Method : C:\HPCHEM\1\METHODS\101109S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Nov 05 11:57:38 2009
Response via : Initial Calibration
DataAcq Meth : 101109S3

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.69	152	467047	40.00	ng/uL	0.00
25) Naphthalene-d8	6.91	136	1702760	40.00	ng/uL	0.00
42) Acenaphthene-d10	8.45	164	863624	40.00	ng/uL	0.00
69) Phenanthrene-d10	9.73	188	1440376	40.00	ng/uL	0.00
80) Chrysene-d12	12.00	240	1362278	40.00	ng/uL	0.00
91) Perylene-d12	13.31	264	986421	40.00	ng/uL	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.26	112	843296	59.45	ng/uL	0.00
Spiked Amount 75.000	Range 21 - 100		Recovery =	79.27%		
6) 2-Chlorophenol-d4	5.47	132	835214	59.35	ng/uL	0.00
Spiked Amount 75.000	Range 33 - 110		Recovery =	79.13%		
8) Phenol-d5	5.32	99	1088366	60.26	ng/uL	0.00
Spiked Amount 75.000	Range 15 - 104		Recovery =	80.35%		
15) 1,2-Dichlorobenzene-d4	5.85	152	398309	36.94	ng/uL	0.00
Spiked Amount 50.000	Range 16 - 110		Recovery =	73.88%		
26) Nitrobenzene-d5	6.24	82	617070	42.28	ng/uL	0.00
Spiked Amount 50.000	Range 34 - 111		Recovery =	84.56%		
46) 2-Fluorobiphenyl	7.85	172	1317389	41.05	ng/uL	0.00
Spiked Amount 50.000	Range 21 - 106		Recovery =	82.10%		
68) 2,4,6-Tribromophenol	9.13	330	208898	60.21	ng/uL	0.00
Spiked Amount 75.000	Range 23 - 100		Recovery =	80.28%		
83) p-Terphenyl-d14	11.07	244	1462219	47.83	ng/uL	0.00
Spiked Amount 50.000	Range 33 - 111		Recovery =	95.66%		
Target Compounds						Qvalue
34) Benzoic acid	6.70	105	2288	12.76	ng/uL#	NO 60
58) 4-Nitrophenol	8.45	109	1406	6.55	ng/uL#	NO 1

(#) = qualifier out of range (m) = manual integration
R1033.D 101109S3.M Thu Nov 05 13:37:15 2009 Page 1

11-6-09

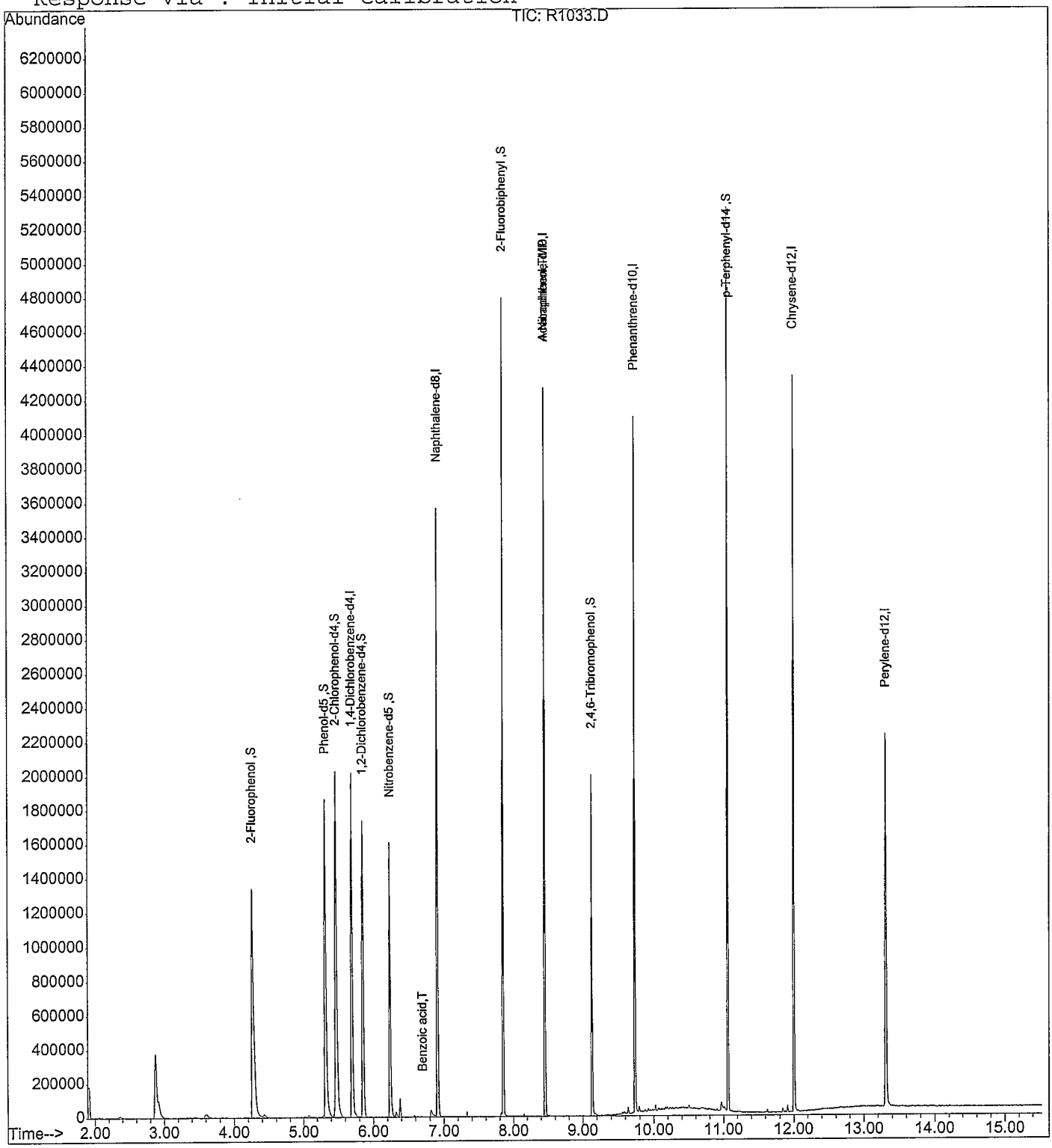
Quantitation Report

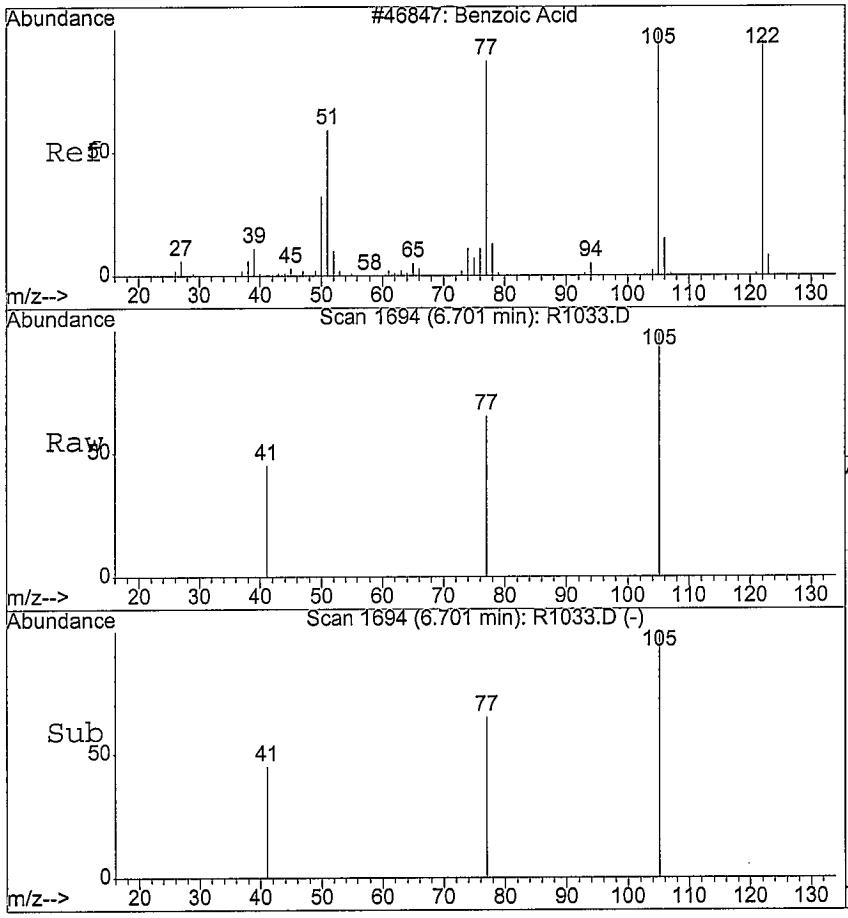
Data File : C:\HPCHEM\1\DATA\110509\R1033.D
Acq On : 5 Nov 2009 1:21 pm
Sample : 0910287-1
Misc : WATER EX091103-1
MS Integration Params: LSCINT.P
Quant Time: Nov 5 13:37 2009

Vial: 7
Operator: jk SOP 506
Inst : HPSV-3
Multiplr: 1.00

Quant Results File: 101109S3.RES

Method : C:\HPCHEM\1\METHODS\101109S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Nov 05 11:57:38 2009
Response via : Initial Calibration

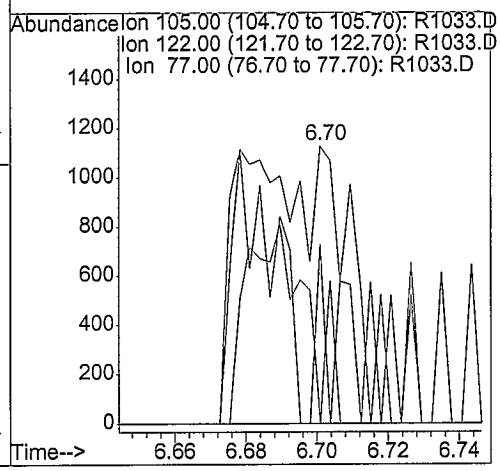




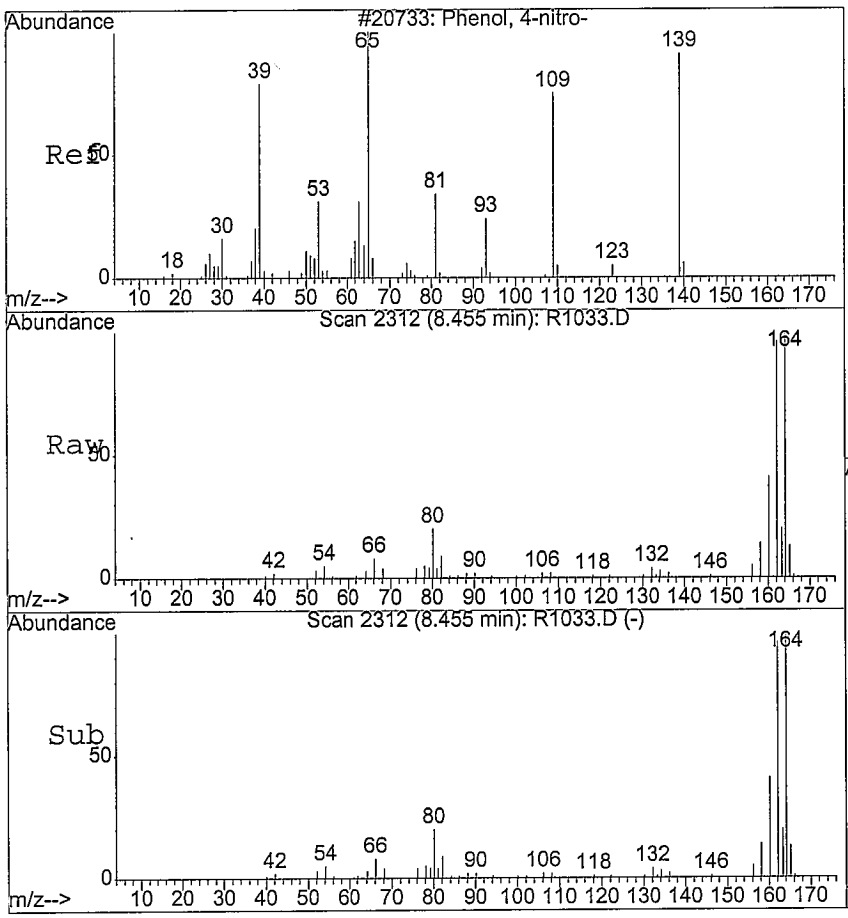
#34
Benzoic acid
Concen: 12.76 ng/uL
RT: 6.70 min Scan# 1694
Delta R.T. -0.01 min
Lab File: R1033.D
Acq: 5 Nov 2009 1:21 pm

Tgt Ion:105 Resp: 2288

Ion	Ratio	Lower	Upper
105	100		
122	41.5	60.5	90.7#
77	40.1	59.8	89.8#



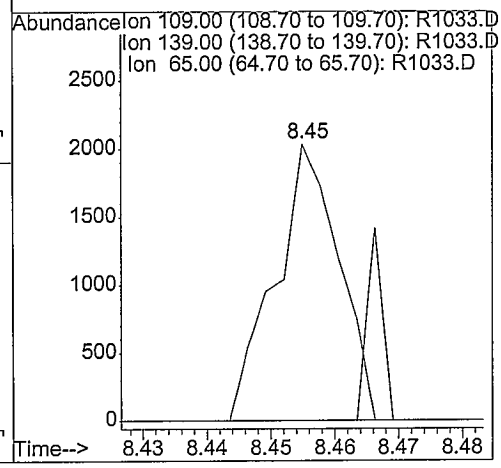
NW



#58
4-Nitrophenol
Concen: 6.55 ng/uL
RT: 8.45 min Scan# 2312
Delta R.T. -0.11 min
Lab File: R1033.D
Acq: 5 Nov 2009 1:21 pm

Tgt Ion:109 Resp: 1406

Ion	Ratio	Lower	Upper
109	100		
139	0.0	114.9	191.5#
65	0.0	96.6	161.0#



NW

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\110509\R1033.D
Acq On : 5 Nov 2009 1:21 pm
Sample : 0910287-1
Misc : WATER EX091103-1
MS Integration Params: LSCINT.P

Vial: 7
Operator: jk SOP 50
Inst : HPSV-3
Multiplr: 1.00

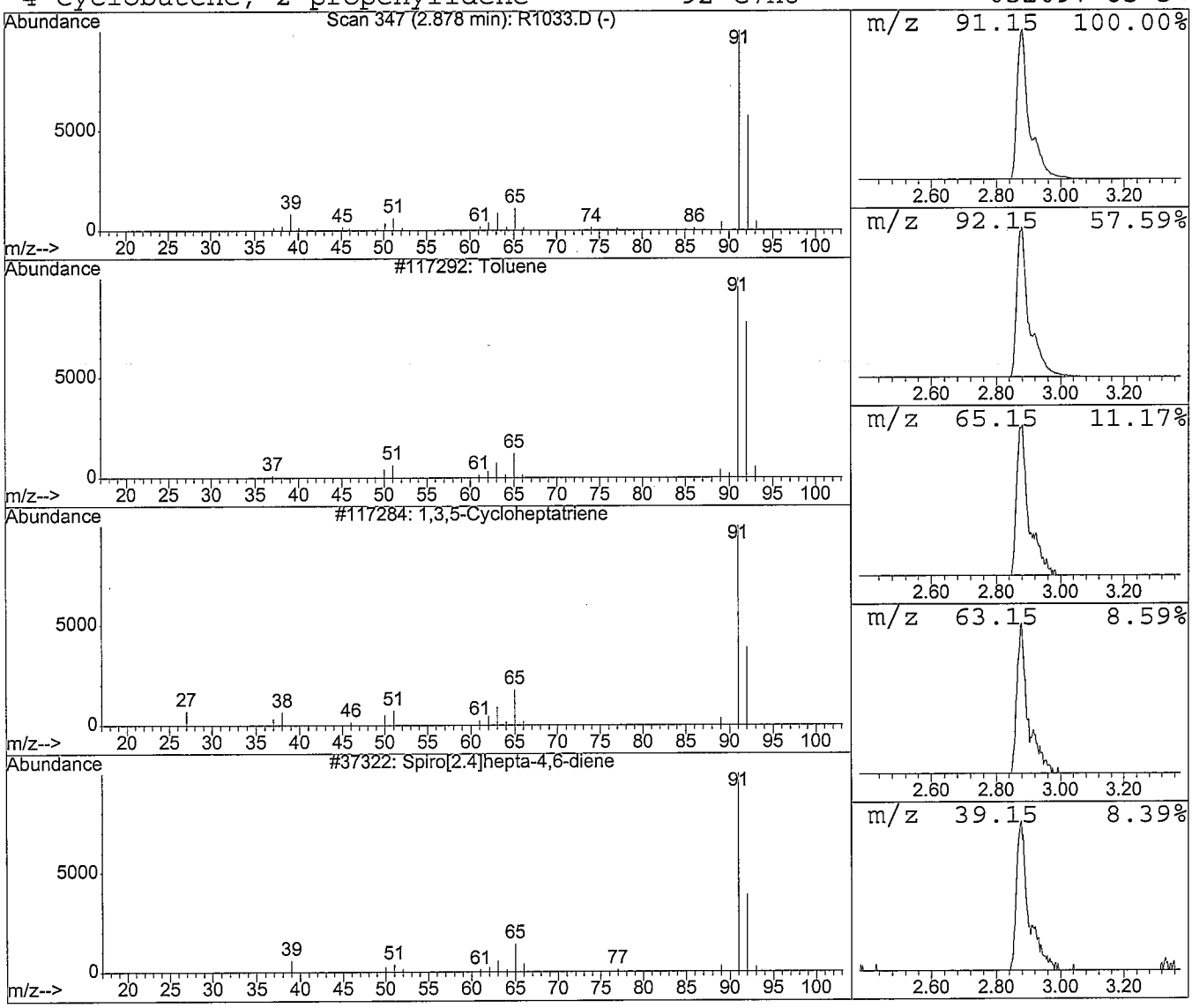
Quant Method : C:\HPCHEM\1\METHODS\101109S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Library : C:\DATABASE\nist98.l

****

Peak Number 1 Toluene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.88	14.67 ng/uL	982466	1,4-Dichlorobenzene-d4	5.69

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Toluene	92	C7H8	000108-88-3	94
2	1,3,5-Cycloheptatriene	92	C7H8	000544-25-2	90
3	Spiro[2.4]hepta-4,6-diene	92	C7H8	000765-46-8	80
4	Cyclobutene, 2-propenylidene-	92	C7H8	052097-85-5	64



Data File : C:\HPCHEM\1\DATA\110509\R1033.D
Acq On : 5 Nov 2009 1:21 pm
Sample : 0910287-1
Misc : WATER EX091103-1
MS Integration Params: LSCINT.P

Vial: 7
Operator: jk SOP 50
Inst : HPSV-3
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\101109S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Library : C:\DATABASE\nist98.l

****

Peak Number 2 Ethanone, 1-(9-anthracenyl)- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.03	20.03 ng/uL	1715210	Phenanthrene-d10	9.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethanone, 1-(9-anthracenyl)-	220	C16H12O	000784-04-3	27
2	Benzene, 1,1'-(1-methyl-2-butynylid	220	C17H16	054372-84-8	25
3	Ethanone, 1-(5,6,7,8-tetrahydro-2,8	220	C14H20O2	071596-88-8	22
4	.alpha.-Cedrene oxide	220	C15H24O	1000159-39-1	18