ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division
Fort Collins, Colorado

GC/MS Semivolatiles

Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200209993

Work Order Number: 0905095

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 05/13/09.

2. The sample was prepared and analyzed according to SW-846, 3rd Edition protocol utilizing SOP. 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 15 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
Aniline	LCS	Low
Aniline	LCS/LCSD	RPD High
3,3'-Dichlorobenzidine	LCS	Low
3,3'-Dichlorobenzidine	LCS/LCSD	RPD High
Pyridine	LCS/LCSD	RPD High

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.

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

9. Since a sample from this order number was not the selected quality control (QC) sample, matrix specific QC results are not included in this report.

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

5-26-09
Date

Eric Bayless
Organics Final Data Reviewer

5/26/09
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: 0905095
Client Name: Colorado Oil & Gas Conservation Commission
Client Project Name: Complaint 200209993
Client Project Number:
Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Williams WW	0905095-1		WATER	12-May-09	8:36
Trip Blank	0905095-2		WATER	12-May-09	8:30

Paragon Analytics
A Division of DataChem Laboratories, Inc.

225 Commerce Drive Fort Collins, CO 80524
800-443-1511 or (970) 490-1511 (970) 490-1522 Fax

Accession Number (LAB ID) 0905095

Chain-of-Custody Date 12My09 Page 1 of 1

Originator: Retain pink copy!

Project Name/No.: ______ Sampler(s): Gintautas Turnaround (circle one) (**Standard**) or **Rush** (Due 14 dy) (Dispose:) **Date** 30 dys or **Return to Client**

Report To: Peter Gintautas
Phone: 719-846-3091
Fax:
E-mail: peter.gintautas@state.co.us
Company: Colo. Oil + Gas Cons. Comm.
Address:

Circle method (right); provide additional information as needed (comments).

Test columns: VOCs SW8260B (8260-25 + TICs Full); ~~BTEX (only)~~ SW8021B (Methane Ethane); SVOCs SW8270C (8270-Full + TICs); OC Pesticides SW8081A; ~~PCBs~~ SW8082 (TOC); Herbicides SW8151A; Explosives SW8330; TCLP Organics SW1311 SW8260B 8270C 8081A 8151A; TCLP Metals SW1311 Hg SW6010B 7470; Total Metals by ICP Hg SW6010B 7470 7471 E200.7; (Dissolved Metals by ICP Hg) SW6010B 7470 (E200.7); Total Metals by ICP/MS SW6020A E200.8; (Dissolved Metals by ICP/MS) SW6020A (E200.8); ~~Hexavalent Chromium~~ SW7196A Alkaline Digest Y / N (Alkalinity, Total, HCO3, CO3); Inorganic Anions SW9056 (E300.0) (specify in comments); Solids: Total E160.3 (TDS E160.1) TSS E160.2; (pH) SW9040B SW9045C; ~~TPH SW8015B GRO DRO (circle one or both)~~ (Conductivity); Gross Alpha / Beta SW9310 E900.0; Actinides by Paragon SOP Pu / U / Am / Th / Cm / ___; Tritium E906.0; Total Alpha-Emitting Radium SW9315 E903.0; Radium 226 E903.1; Radium 228 SW9320 E904.0; Strontium 90 (Total RadioSr) D5811-00; Gamma Isotopes E901.1; Radon 222 SM7510Rn; SAR calc.; Cation Anion Balance

Sample ID (Complaint 200209993)	Date	Time *	Lab ID	Matrix	Preservative (indicate type… HCl, etc.)	No. of Containers	VOCs	BTEX (Methane Ethane)	SVOCs	OC Pesticides	PCBs (TOC)	Herbicides	Explosives	TCLP Organics	TCLP Metals	Total Metals ICP	Dissolved Metals ICP	Total Metals ICP/MS	Dissolved Metals ICP/MS	Hex. Chromium (Alkalinity)	Inorganic Anions	Solids	pH	TPH (Conductivity)	Gross Alpha/Beta	Actinides	Tritium	Total Alpha Radium	Radium 226	Radium 228	Strontium 90	Gamma Isotopes	Radon 222	SAR calc.	Cation Anion Balance
Williams WW	12My09	08:30	①	W	none	5		X	X								X		X	X	X	X	X	X										X	X
↓			↓	W	HCl	3	X																												
↓			↓	W	H2SO4	1					X																								
Trip Blank	12My09	08:30	②	W	HCl	3	X																												

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

Comments:
Anions = Br, Cl, F, NO2, NO3, SO4
Filter + preserve metals upon receipt.
200.7 = Ba, Be, B, Ca, Cr, Co, Cu, Fe, Li, Mg, Mn, Na, Ni, K, Sr, Zn
200.8 = Sb, As, Cd, Pb, Mo, Se, Ag, Tl, U

	(1)	(2)
Relinquished By: Signature	[signature]	
Printed Name	Peter Gintautas	
Date / Time	12My09 / 13:30	
Company	COGCC	
Received By: Signature	Cheryl Trimble	
Printed Name	Cheryl Trimble	
Date / Time	5-13-09 / 0945	
Company	ALS	

Form 202r6.xls (6/16/06)

CONDITION OF SAMPLE UPON RECEIPT FORM **Paragon Analytics**

Client: COGCC Workorder No: 0905095

Project Manager: AW Initials: CDT Date: 5-13-09

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
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)	(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								
Temperature (°C):	5.6								
No. of custody seals on cooler:	1								
DOT Survey/ Acceptance Information — External µR/hr reading:	13								
Background µR/hr reading:	11								

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.

Headspace 0905095-1-1 < green pea
Metals will be filtered and preserved in house. 5/13/09

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

Project Manager Signature / Date: 5/13/09

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

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0905095

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200209993

Lab ID: EX090516-3MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 16-May-09
Date Analyzed: 19-May-09
Prep Method: SW3520 Rev C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6090

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: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0905095

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200209993

Lab ID: EX090516-3MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 16-May-09
Date Analyzed: 19-May-09
Prep Method: SW3520 Rev C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6090

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: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0905095

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200209993

Lab ID: EX090516-3MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 16-May-09
Date Analyzed: 19-May-09
Prep Method: SW3520 Rev C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6090

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	49.9		75	67	23 - 100
321-60-8	2-FLUOROBIPHENYL	42.9		50	86	21 - 106
367-12-4	2-FLUOROPHENOL	64.3		75	86	21 - 100
4165-60-0	NITROBENZENE-D5	41.8		50	84	34 - 111
4165-62-2	PHENOL-D5	65.2		75	87	15 - 104
1718-51-0	TERPHENYL-D14	52.9		50	106	33 - 111

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0905095

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200209993

Field ID:

Lab ID: EX090516-3MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 16-May-09
Date Analyzed: 19-May-09

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: As Received

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Clean DF: 1
File Name: N6090

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
	3.60	OXYGENTATED HYDROCARBON	1	5.2	UG/L	J

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0905095

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200209993

Field ID: Williams WW
Lab ID: 0905095-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 12-May-09
Date Extracted: 16-May-09
Date Analyzed: 19-May-09
Prep Method: SW3520 Rev C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: As Received
File Name: N6094

Sample Aliquot: 1070 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	9.3	9.3	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	9.3	9.3	U	
62-53-3	ANILINE	1	9.3	9.3	U	
108-95-2	PHENOL	1	9.3	9.3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	9.3	9.3	U	
95-57-8	2-CHLOROPHENOL	1	9.3	9.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	9.3	9.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	9.3	9.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	9.3	9.3	U	
100-51-6	BENZYL ALCOHOL	1	9.3	9.3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	9.3	9.3	U	
95-48-7	2-METHYLPHENOL	1	9.3	9.3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	9.3	9.3	U	
108-39-4	3+4-METHYLPHENOL	1	9.3	9.3	U	
67-72-1	HEXACHLOROETHANE	1	9.3	9.3	U	
98-95-3	NITROBENZENE	1	9.3	9.3	U	
78-59-1	ISOPHORONE	1	9.3	9.3	U	
88-75-5	2-NITROPHENOL	1	9.3	9.3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	9.3	9.3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	9.3	9.3	U	
120-83-2	2,4-DICHLOROPHENOL	1	9.3	9.3	U	
65-85-0	BENZOIC ACID	1	47	47	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	9.3	9.3	U	
91-20-3	NAPHTHALENE	1	9.3	9.3	U	
106-47-8	4-CHLOROANILINE	1	9.3	9.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	9.3	9.3	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	1	9.3	9.3	U	

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0905095

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200209993

Field ID: Williams WW
Lab ID: 0905095-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 12-May-09
Date Extracted: 16-May-09
Date Analyzed: 19-May-09
Prep Method: SW3520 Rev C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: As Received
File Name: N6094

Sample Aliquot: 1070 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

91-57-6	2-METHYLNAPHTHALENE	1	9.3	9.3	U	
90-12-0	1-METHYLNAPHTHALENE	1	9.3	9.3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	9.3	9.3	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	9.3	9.3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	9.3	9.3	U	
91-58-7	2-CHLORONAPHTHALENE	1	9.3	9.3	U	
88-74-4	2-NITROANILINE	1	19	19	U	
131-11-3	DIMETHYL PHTHALATE	1	9.3	9.3	U	
606-20-2	2,6-DINITROTOLUENE	1	9.3	9.3	U	
208-96-8	ACENAPHTHYLENE	1	9.3	9.3	U	
99-09-2	3-NITROANILINE	1	19	19	U	
83-32-9	ACENAPHTHENE	1	9.3	9.3	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	9.3	9.3	U	
121-14-2	2,4-DINITROTOLUENE	1	9.3	9.3	U	
84-66-2	DIETHYL PHTHALATE	1	9.3	9.3	U	
86-73-7	FLUORENE	1	9.3	9.3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	9.3	9.3	U	
100-01-6	4-NITROANILINE	1	19	19	U	
103-33-3	AZOBENZENE	1	9.3	9.3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	19	19	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	9.3	9.3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	9.3	9.3	U	
118-74-1	HEXACHLOROBENZENE	1	9.3	9.3	U	
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	9.3	9.3	U	
87-86-5	PENTACHLOROPHENOL	1	19	19	U	
85-01-8	PHENANTHRENE	1	9.3	9.3	U	
120-12-7	ANTHRACENE	1	9.3	9.3	U	

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0905095
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200209993

Field ID: Williams WW
Lab ID: 0905095-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 12-May-09
Date Extracted: 16-May-09
Date Analyzed: 19-May-09
Prep Method: SW3520 Rev C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: As Received
File Name: N6094

Sample Aliquot: 1070 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

86-74-8	CARBAZOLE	1	9.3	9.3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	9.3	9.3	U	
206-44-0	FLUORANTHENE	1	9.3	9.3	U	
129-00-0	PYRENE	1	9.3	9.3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	9.3	9.3	U	
56-55-3	BENZO(A)ANTHRACENE	1	9.3	9.3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	9.3	9.3	U	
218-01-9	CHRYSENE	1	9.3	9.3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	9.3	9.3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	9.3	9.3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	9.3	9.3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	9.3	9.3	U	
50-32-8	BENZO(A)PYRENE	1	9.3	9.3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	9.3	9.3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	9.3	9.3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	9.3	9.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	42.5		70.1	61	23 - 100
321-60-8	2-FLUOROBIPHENYL	33.2		46.7	71	21 - 106
367-12-4	2-FLUOROPHENOL	49.8		70.1	71	21 - 100
4165-60-0	NITROBENZENE-D5	32.8		46.7	70	34 - 111
4165-62-2	PHENOL-D5	50.7		70.1	72	15 - 104
1718-51-0	TERPHENYL-D14	39.5		46.7	84	33 - 111

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0905095

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200209993

Field ID: Williams WW
Lab ID: 0905095-1

Sample Matrix: WATER
%Moisture: N/A
Date Collected: 12-May-09
Date Extracted: 16-May-09
Date Analyzed: 19-May-09

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: As Received

Sample Aliquot: 1070 ml
Final Volume: 1 ml
Clean DF: 1
File Name: N6094

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
	3.58	OXYGENATED HYDROCARBON1	1	3.8	UG/L	J,B

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0905095

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200209993

Lab ID: EX090516-3LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 05/16/2009
Date Analyzed: 05/19/2009
Prep Method: SW3520C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6091

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	14.7	10		24	10 - 108%
62-75-9	N-NITROSODIMETHYLAMINE	60	58.8	10		98	26 - 110%
62-53-3	ANILINE	60	10	10	U*	0	25 - 125%
108-95-2	PHENOL	60	56.4	10		94	49 - 101%
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	51.4	10		86	37 - 110%
95-57-8	2-CHLOROPHENOL	60	54.5	10		91	37 - 106%
541-73-1	1,3-DICHLOROBENZENE	60	47.3	10		79	32 - 98%
106-46-7	1,4-DICHLOROBENZENE	60	48	10		80	32 - 98%
95-50-1	1,2-DICHLOROBENZENE	60	48.5	10		81	33 - 102%
100-51-6	BENZYL ALCOHOL	60	55.6	10		93	30 - 112%
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	50.3	10		84	26 - 131%
95-48-7	2-METHYLPHENOL	60	55	10		92	38 - 109%
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	54.3	10		90	34 - 128%
108-39-4	3+4-METHYLPHENOL	60	50.3	10		84	32 - 110%
67-72-1	HEXACHLOROETHANE	60	45.9	10		77	28 - 94%
98-95-3	NITROBENZENE	60	31.3	10		52	44 - 109%
78-59-1	ISOPHORONE	60	46.6	10		78	50 - 112%
88-75-5	2-NITROPHENOL	60	49.3	10		82	39 - 113%
105-67-9	2,4-DIMETHYLPHENOL	60	41.5	10		69	28 - 109%
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	46.5	10		77	46 - 107%
120-83-2	2,4-DICHLOROPHENOL	60	46.9	10		78	48 - 105%
65-85-0	BENZOIC ACID	100	57.5	50		57	10 - 125%
120-82-1	1,2,4-TRICHLOROBENZENE	60	38.9	10		65	37 - 107%
91-20-3	NAPHTHALENE	60	44.9	10		75	39 - 102%
106-47-8	4-CHLOROANILINE	60	37.7	10		63	15 - 109%
87-68-3	HEXACHLOROBUTADIENE	60	38	10		63	27 - 103%

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0905095
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200209993

Lab ID: EX090516-3LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 05/16/2009
Date Analyzed: 05/19/2009
Prep Method: SW3520C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6091

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	50	10		83	47 - 111%
91-57-6	2-METHYLNAPHTHALENE	60	46.5	10		78	46 - 104%
90-12-0	1-METHYLNAPHTHALENE	60	52.3	10		87	46 - 104%
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	20.2	10		34	10 - 125%
88-06-2	2,4,6-TRICHLOROPHENOL	60	55.6	10		93	49 - 113%
95-95-4	2,4,5-TRICHLOROPHENOL	60	56.2	10		94	49 - 111%
91-58-7	2-CHLORONAPHTHALENE	60	53.1	10		89	36 - 137%
88-74-4	2-NITROANILINE	60	56	20		93	48 - 115%
131-11-3	DIMETHYL PHTHALATE	60	55.9	10		93	25 - 127%
606-20-2	2,6-DINITROTOLUENE	60	57	10		95	49 - 117%
208-96-8	ACENAPHTHYLENE	60	55.9	10		93	50 - 107%
99-09-2	3-NITROANILINE	60	61.8	20		103	19 - 126%
83-32-9	ACENAPHTHENE	60	56.4	10		94	47 - 108%
51-28-5	2,4-DINITROPHENOL	60	54.3	20		91	14 - 138%
100-02-7	4-NITROPHENOL	60	49.1	20		82	21 - 119%
132-64-9	DIBENZOFURAN	60	56.4	10		94	54 - 107%
121-14-2	2,4-DINITROTOLUENE	60	56.6	10		94	51 - 118%
84-66-2	DIETHYL PHTHALATE	60	57.9	10		97	41 - 118%
86-73-7	FLUORENE	60	55.8	10		93	50 - 112%
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	54.7	10		91	50 - 111%
100-01-6	4-NITROANILINE	60	58.1	20		97	36 - 118%
103-33-3	AZOBENZENE	60	55.3	10		92	21 - 137%
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	62.1	20		103	40 - 130%
86-30-6	N-NITROSODIPHENYLAMINE	60	53.8	10		90	48 - 111%
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	56.1	10		93	52 - 113%
118-74-1	HEXACHLOROBENZENE	60	56.7	10		94	52 - 112%
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	96.5	10		96	23 - 112%

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0905095
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200209993

Lab ID: EX090516-3LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 05/16/2009
Date Analyzed: 05/19/2009
Prep Method: SW3520C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6091

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	51.1	20		85	38 - 117%
85-01-8	PHENANTHRENE	60	57.6	10		96	51 - 117%
120-12-7	ANTHRACENE	60	57.3	10		96	54 - 112%
86-74-8	CARBAZOLE	60	56.3	10		94	48 - 117%
84-74-2	DI-N-BUTYL PHTHALATE	60	57.5	10		96	54 - 116%
206-44-0	FLUORANTHENE	60	56.4	10		94	54 - 116%
129-00-0	PYRENE	60	56.3	10		94	49 - 128%
85-68-7	BUTYL BENZYL PHTHALATE	60	55	10		92	46 - 116%
56-55-3	BENZO(A)ANTHRACENE	60	55.2	10		92	56 - 109%
91-94-1	3,3'-DICHLOROBENZIDINE	60	3.26	10	J*	5	19 - 111%
218-01-9	CHRYSENE	60	57.7	10		96	55 - 109%
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	51.9	10		86	42 - 126%
117-84-0	DI-N-OCTYL PHTHALATE	60	50.5	10		84	37 - 137%
205-99-2	BENZO(B)FLUORANTHENE	60	59.5	10		99	45 - 118%
207-08-9	BENZO(K)FLUORANTHENE	60	56.5	10		94	45 - 124%
50-32-8	BENZO(A)PYRENE	60	52.9	10		88	53 - 110%
193-39-5	INDENO(1,2,3-CD)PYRENE	60	57.1	10		95	43 - 125%
53-70-3	DIBENZO(A,H)ANTHRACENE	60	58.6	10		98	42 - 127%
191-24-2	BENZO(G,H,I)PERYLENE	60	55.9	10		93	38 - 123%

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0905095
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200209993

Lab ID: EX090516-3LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 05/16/2009
Date Analyzed: 05/19/2009
Prep Method: SW3520C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6092

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	30	10	+	50	20	69
62-75-9	N-NITROSODIMETHYLAMINE	60	56.3	10		94	20	4
62-53-3	ANILINE	60	38.5	10	+	64	20	200
108-95-2	PHENOL	60	56.2	10		94	20	0
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	51.3	10		85	20	0
95-57-8	2-CHLOROPHENOL	60	51.8	10		86	20	5
541-73-1	1,3-DICHLOROBENZENE	60	45.6	10		76	20	4
106-46-7	1,4-DICHLOROBENZENE	60	46.2	10		77	20	4
95-50-1	1,2-DICHLOROBENZENE	60	47	10		78	20	3
100-51-6	BENZYL ALCOHOL	60	51.3	10		86	20	8
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	47.2	10		79	20	6
95-48-7	2-METHYLPHENOL	60	51.7	10		86	20	6
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	51.1	10		85	20	6
108-39-4	3+4-METHYLPHENOL	60	47.1	10		78	20	6
67-72-1	HEXACHLOROETHANE	60	43.6	10		73	20	5
98-95-3	NITROBENZENE	60	29.2	10		49	20	7
78-59-1	ISOPHORONE	60	43.7	10		73	20	6
88-75-5	2-NITROPHENOL	60	46.8	10		78	20	5
105-67-9	2,4-DIMETHYLPHENOL	60	38.3	10		64	20	8
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	43.9	10		73	20	6
120-83-2	2,4-DICHLOROPHENOL	60	44.1	10		74	20	6
65-85-0	BENZOIC ACID	100	47.4	50	J	47	20	19
120-82-1	1,2,4-TRICHLOROBENZENE	60	37.5	10		62	20	4
91-20-3	NAPHTHALENE	60	43.3	10		72	20	4
106-47-8	4-CHLOROANILINE	60	35.1	10		58	20	7
87-68-3	HEXACHLOROBUTADIENE	60	36.7	10		61	20	3
59-50-7	4-CHLORO-3-METHYLPHENOL	60	46.6	10		78	20	7

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0905095
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200209993

Lab ID: EX090516-3LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 05/16/2009
Date Analyzed: 05/19/2009
Prep Method: SW3520C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6092

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	43.8	10		73	20	6
90-12-0	1-METHYLNAPHTHALENE	60	49.4	10		82	20	6
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	19.9	10		33	20	1
88-06-2	2,4,6-TRICHLOROPHENOL	60	52.4	10		87	20	6
95-95-4	2,4,5-TRICHLOROPHENOL	60	51.7	10		86	20	8
91-58-7	2-CHLORONAPHTHALENE	60	49.5	10		83	20	7
88-74-4	2-NITROANILINE	60	52.2	20		87	20	7
131-11-3	DIMETHYL PHTHALATE	60	53.9	10		90	20	4
606-20-2	2,6-DINITROTOLUENE	60	54.6	10		91	20	4
208-96-8	ACENAPHTHYLENE	60	52.7	10		88	20	6
99-09-2	3-NITROANILINE	60	56.6	20		94	20	9
83-32-9	ACENAPHTHENE	60	52.3	10		87	20	8
51-28-5	2,4-DINITROPHENOL	60	51.2	20		85	20	6
100-02-7	4-NITROPHENOL	60	43.6	20		73	20	12
132-64-9	DIBENZOFURAN	60	53.6	10		89	20	5
121-14-2	2,4-DINITROTOLUENE	60	54.4	10		91	20	4
84-66-2	DIETHYL PHTHALATE	60	56	10		93	20	3
86-73-7	FLUORENE	60	53.4	10		89	20	4
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	52.9	10		88	20	3
100-01-6	4-NITROANILINE	60	53.8	20		90	20	8
103-33-3	AZOBENZENE	60	52.6	10		88	20	5
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	56.8	20		95	20	9
86-30-6	N-NITROSODIPHENYLAMINE	60	51.1	10		85	20	5
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	53.8	10		90	20	4
118-74-1	HEXACHLOROBENZENE	60	54.2	10		90	20	4
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	91.6	10		92	20	5
87-86-5	PENTACHLOROPHENOL	60	47.2	20		79	20	8

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0905095
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200209993

Lab ID: EX090516-3LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 05/16/2009
Date Analyzed: 05/19/2009
Prep Method: SW3520C

Prep Batch: EX090516-3
QCBatchID: EX090516-3-1
Run ID: SV090519-1
Cleanup: NONE
Basis: N/A
File Name: N6092

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	54.8	10		91	20	5
120-12-7	ANTHRACENE	60	53.9	10		90	20	6
86-74-8	CARBAZOLE	60	52.3	10		87	20	7
84-74-2	DI-N-BUTYL PHTHALATE	60	54	10		90	20	6
206-44-0	FLUORANTHENE	60	51.5	10		86	20	9
129-00-0	PYRENE	60	58.8	10		98	20	4
85-68-7	BUTYL BENZYL PHTHALATE	60	54.5	10		91	20	1
56-55-3	BENZO(A)ANTHRACENE	60	53.5	10		89	20	3
91-94-1	3,3'-DICHLOROBENZIDINE	60	16.8	10	+	28	20	135
218-01-9	CHRYSENE	60	56.2	10		94	20	3
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	48.2	10		80	20	7
117-84-0	DI-N-OCTYL PHTHALATE	60	47	10		78	20	7
205-99-2	BENZO(B)FLUORANTHENE	60	55.8	10		93	20	6
207-08-9	BENZO(K)FLUORANTHENE	60	54.5	10		91	20	4
50-32-8	BENZO(A)PYRENE	60	51.1	10		85	20	3
193-39-5	INDENO(1,2,3-CD)PYRENE	60	58.1	10		97	20	2
53-70-3	DIBENZO(A,H)ANTHRACENE	60	60.2	10		100	20	3
191-24-2	BENZO(G,H,I)PERYLENE	60	58.9	10		98	20	5

Data Package ID: *SV0905095-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: **ALS Laboratory Group -- FC**
Work Order Number: 0905095
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200209993

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	96		90		23 - 100
321-60-8	2-FLUOROBIPHENYL	50	89		82		21 - 106
367-12-4	2-FLUOROPHENOL	75	84		81		21 - 100
4165-60-0	NITROBENZENE-D5	50	75		70		34 - 111
4165-62-2	PHENOL-D5	75	90		85		15 - 104
1718-51-0	TERPHENYL-D14	50	92		93		33 - 111

Data Package ID: *SV0905095-1*

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\051909\N6090.D Vial: 3
Acq On : 19 May 2009 1:40 pm Operator: JK SOP 506 Rev
Sample : EX090516-3MB Inst : GC/MS Ins
Misc : WATER EX090516-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 19 14:06 2009 Quant Results File: 042909S1.RES

Quant Method : D:\HPCHEM\1\METHODS\042909S1.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue May 19 13:51:03 2009
Response via : Initial Calibration
DataAcq Meth : 042909S1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.70	152	369108	40.00	ng/uL	0.00
24) Naphthalene-d8	6.92	136	1450648	40.00	ng/uL	0.00
41) Acenaphthene-d10	8.47	164	670762	40.00	ng/uL	0.00
69) Phenanthrene-d10	9.75	188	891645	40.00	ng/uL	0.00
80) Chrysene-d12	12.03	240	803216	40.00	ng/uL	0.00
91) Perylene-d12	13.42	264	504792	40.00	ng/uL	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	4.27	112	730429	64.28	ng/uL	0.00
Spiked Amount 75.000	Range 21 - 100		Recovery = 85.71%			
6) 2-Chlorophenol-d4	5.48	132	786437	65.07	ng/uL	0.00
Spiked Amount 75.000	Range 33 - 110		Recovery = 86.76%			
8) Phenol-d5	5.30	99	904958	65.17	ng/uL	0.00
Spiked Amount 75.000	Range 15 - 104		Recovery = 86.89%			
15) 1,2-Dichlorobenzene-d4	5.86	152	351471	40.95	ng/uL	0.00
Spiked Amount 50.000	Range 16 - 110		Recovery = 81.90%			
25) Nitrobenzene-d5	6.24	82	514147	41.75	ng/uL	0.00
Spiked Amount 50.000	Range 34 - 111		Recovery = 83.50%			
46) 2-Fluorobiphenyl	7.86	172	1035378	42.91	ng/uL	0.00
Spiked Amount 50.000	Range 21 - 106		Recovery = 85.82%			
68) 2,4,6-Tribromophenol	9.14	330	126272	49.88	ng/uL	0.00
Spiked Amount 75.000	Range 23 - 100		Recovery = 66.51%			
83) p-Terphenyl-d14	11.07	244	922094	52.86	ng/uL	0.00
Spiked Amount 50.000	Range 33 - 111		Recovery = 105.72%			

Target Compounds Qvalue

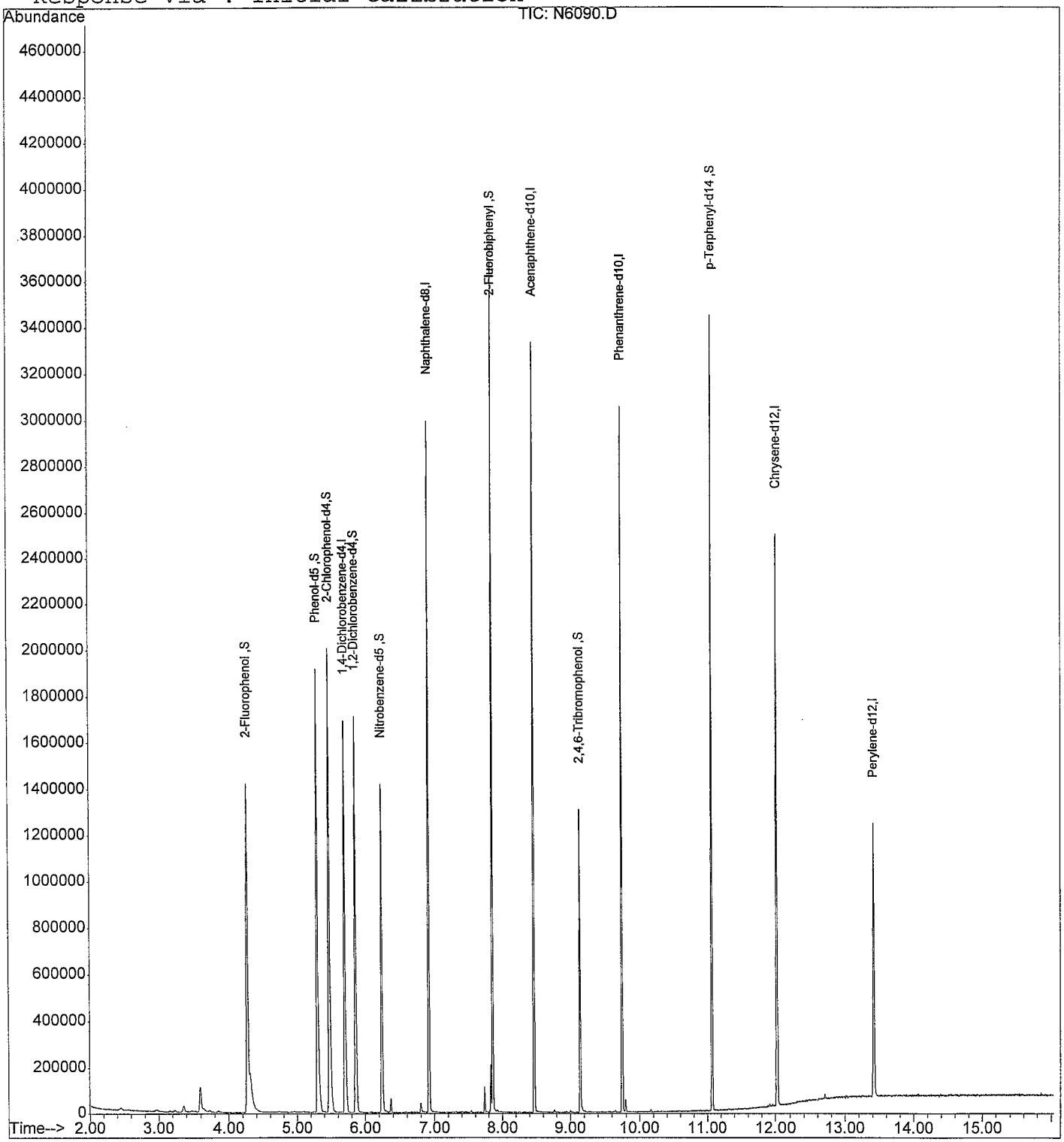
(#) = qualifier out of range (m) = manual integration
N6090.D 042909S1.M Tue May 19 14:06:33 2009 Page 1

5-20-09

Quantitation Report

Data File : D:\HPCHEM\1\DATA\051909\N6090.D Vial: 3
Acq On : 19 May 2009 1:40 pm Operator: JK SOP 506
Sample : EX090516-3MB Inst : GC/MS Ins
Misc : WATER EX090516-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 19 14:06 2009 Quant Results File: 042909S1.RES

Method : D:\HPCHEM\1\METHODS\042909S1.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue May 19 13:51:03 2009
Response via : Initial Calibration



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\051909\N6090.D
Acq On : 19 May 2009 1:40 pm
Sample : EX090516-3MB
Misc : WATER EX090516-3
MS Integration Params: LSCINT.P

Vial: 3
Operator: JK SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : D:\HPCHEM\1\METHODS\042909S1.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Library : D:\DATABASE\NIST98.L

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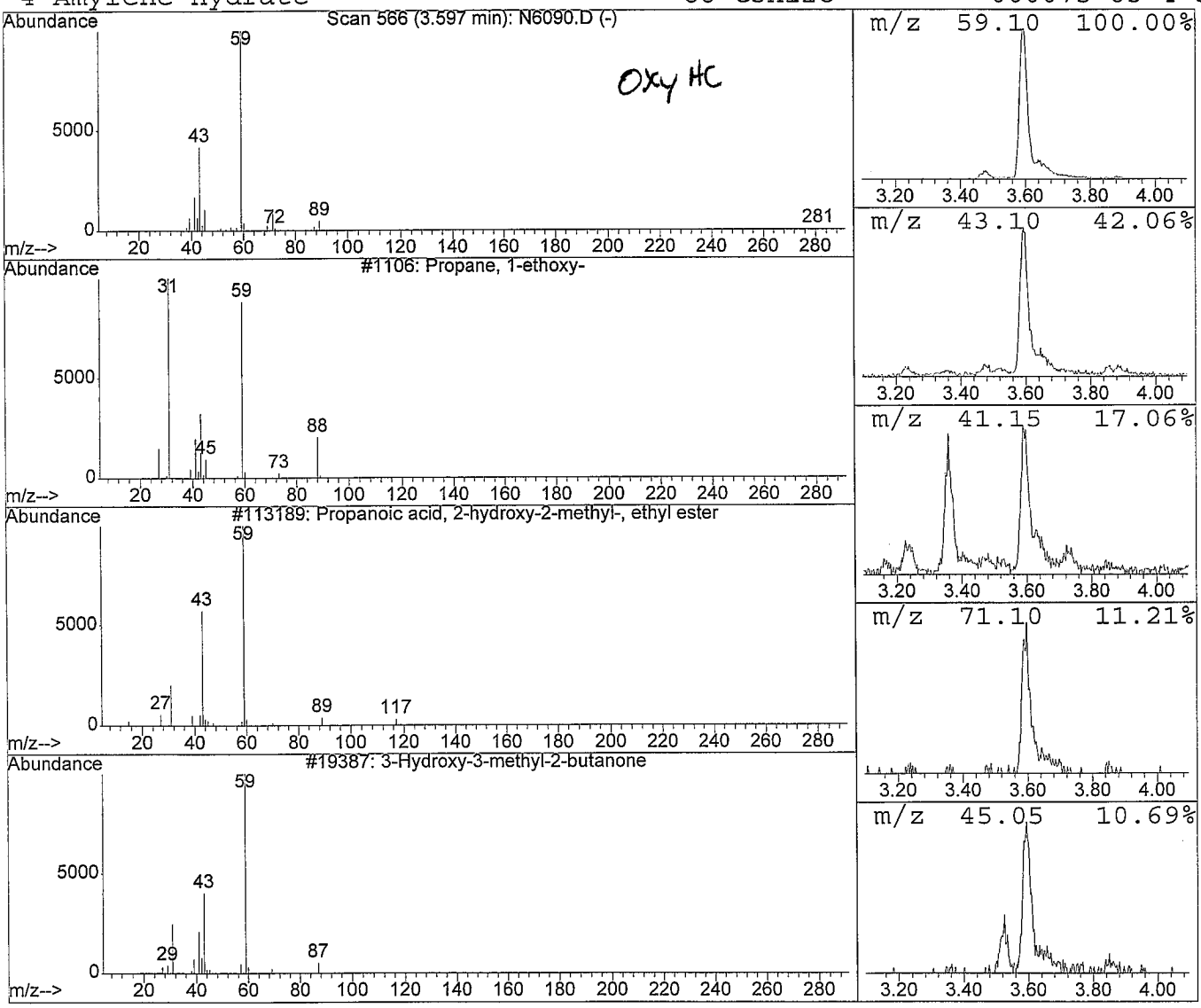
Peak Number 1 Propane, 1-ethoxy- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.60	5.15 ng/uL	275221	1,4-Dichlorobenzene-d4	5.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 1-ethoxy-	88	C5H12O	000628-32-0	56
2	Propanoic acid, 2-hydroxy-2-methyl-	132	C6H12O3	000080-55-7	50
3	3-Hydroxy-3-methyl-2-butanone	102	C5H10O2	000115-22-0	45
4	Amylene Hydrate	88	C5H12O	000075-85-4	39



Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\051909\N6094.D Vial: 7
Acq On : 19 May 2009 3:15 pm Operator: JK SOP 506 Rev
Sample : 0905095-1 Inst : GC/MS Ins
Misc : WATER EX090516-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 19 15:41 2009 Quant Results File: 042909S1.RES

Quant Method : D:\HPCHEM\1\METHODS\042909S1.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue May 19 13:51:03 2009
Response via : Initial Calibration
DataAcq Meth : 042909S1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.70	152	423335	40.00	ng/uL	0.00
24) Naphthalene-d8	6.92	136	1656312	40.00	ng/uL	0.00
41) Acenaphthene-d10	8.47	164	769572	40.00	ng/uL	0.00
69) Phenanthrene-d10	9.75	188	1089875	40.00	ng/uL	0.00
80) Chrysene-d12	12.02	240	1149584	40.00	ng/uL	0.00
91) Perylene-d12	13.42	264	654500	40.00	ng/uL	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	4.26	112	694387	53.28	ng/uL	0.00
Spiked Amount 75.000	Range 21 - 100		Recovery = 71.04%			
6) 2-Chlorophenol-d4	5.47	132	748740	54.02	ng/uL	0.00
Spiked Amount 75.000	Range 33 - 110		Recovery = 72.03%			
8) Phenol-d5	5.30	99	863772	54.23	ng/uL	0.00
Spiked Amount 75.000	Range 15 - 104		Recovery = 72.31%			
15) 1,2-Dichlorobenzene-d4	5.86	152	337558	34.29	ng/uL	0.00
Spiked Amount 50.000	Range 16 - 110		Recovery = 68.58%			
25) Nitrobenzene-d5	6.24	82	493195	35.08	ng/uL	0.00
Spiked Amount 50.000	Range 34 - 111		Recovery = 70.16%			
46) 2-Fluorobiphenyl	7.86	172	982618	35.49	ng/uL	0.00
Spiked Amount 50.000	Range 21 - 106		Recovery = 70.98%			
68) 2,4,6-Tribromophenol	9.15	330	132211	45.52	ng/uL	0.00
Spiked Amount 75.000	Range 23 - 100		Recovery = 60.69%			
83) p-Terphenyl-d14	11.07	244	1054598	42.24	ng/uL	0.00
Spiked Amount 50.000	Range 33 - 111		Recovery = 84.48%			

Target Compounds Qvalue

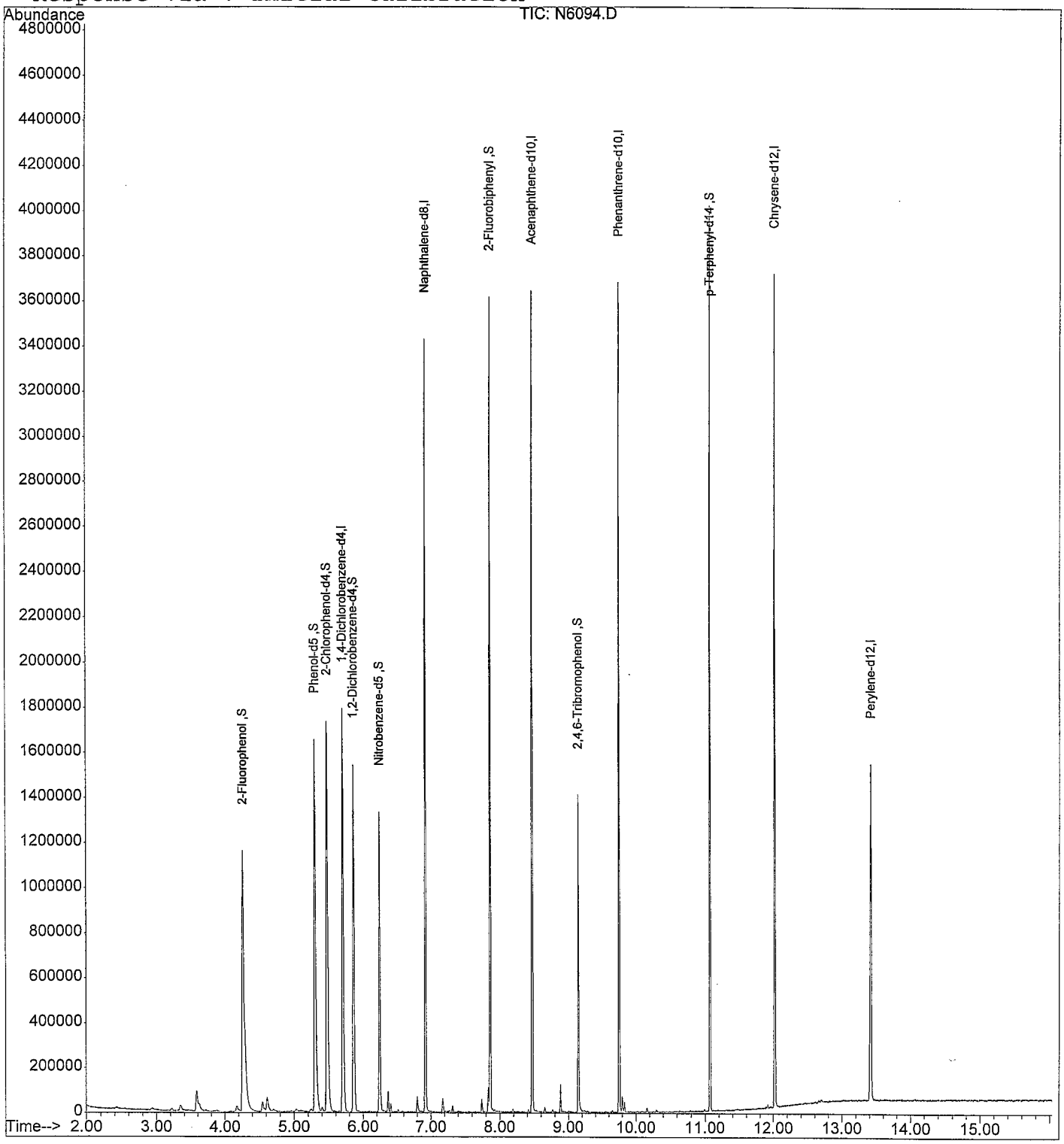
(#) = qualifier out of range (m) = manual integration
N6094.D 042909S1.M Tue May 19 15:41:07 2009 JK 5-20-09 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\051909\N6094.D
Acq On : 19 May 2009 3:15 pm
Sample : 0905095-1
Misc : WATER EX090516-3
MS Integration Params: RTEINT.P
Quant Time: May 19 15:41 2009

Vial: 7
Operator: JK SOP 506
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 042909S1.RES

Method : D:\HPCHEM\1\METHODS\042909S1.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Tue May 19 13:51:03 2009
Response via : Initial Calibration



N6094.D 042909S1.M Tue May 19 15:41:07 2009 Page 2

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\051909\N6094.D
Acq On : 19 May 2009 3:15 pm
Sample : 0905095-1
Misc : WATER EX090516-3
MS Integration Params: LSCINT.P

Vial: 7
Operator: JK SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Method : D:\HPCHEM\1\METHODS\042909S1.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Library : D:\DATABASE\NIST98.L

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Peak Number 1 3-Heptanol, 4-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.58	4.08 ng/uL	248597	1,4-Dichlorobenzene-d4	5.70

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Heptanol, 4-methyl-	130	C8H18O	014979-39-6	40
2	Pentane, 1-ethoxy-	116	C7H16O	017952-11-3	40
3	Amylene Hydrate	88	C5H12O	000075-85-4	39
4	2-Propanol, 2-methyl-	74	C4H10O	000075-65-0	36