



ALS Paragon



GC/MS Semivolatiles Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200206469

Work Order Number: 0903156

1. This report consists of 1 water sample. The sample was received cool and intact by ALS Paragon on 03/20/09.
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 $\leq 15\%$. 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 recoveries and RPDs were within the acceptance criteria.
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 Paragon certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

SLJ
Sharon L. Jobes
Organics Primary Data Reviewer

3-31-09
Date

Joe Kattum
Organics Final Data Reviewer

March 31, 2009
Date



ALS Paragon
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 Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200206469

Client Project Number:

Client PO Number: OE PHA 090000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Gordon-Ross 090319	0903156-1		WATER	19-Mar-09	10:05

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0903156Project Manager: AWInitials: LJO Date: 3/20/09

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	NONE	<u>YES</u>	NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible ?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<u>YES</u>	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<u>YES</u>	<u>NO</u>
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<u>YES</u>	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u> </u> < green pea <u> </u> > green pea	N/A	<u>YES</u>	NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<u>N/A</u>	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.)	<u>N/A</u>	YES	NO
17. Were the samples shipped on ice?		<u>YES</u>	NO
18. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: <u>#2</u> <u>#4</u>	RAD ONLY	<u>YES</u> NO
Cooler #: <u>1</u>			
Temperature (°C): <u>2.2</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>13</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <u>YES</u> / NO / NA (If no. see Form 008.)			

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

• The 500 ml poly For metals analysis needs to be Filtered and preserved in house.

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____Project Manager Signature / Date: [Signature] 3/23/09

*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 Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 24-Mar-09

Date Analyzed: 28-Mar-09

Prep Method: SW3520 Rev C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5703

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: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 1 of 3

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 24-Mar-09

Date Analyzed: 28-Mar-09

Prep Method: SW3520 Rev C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5703

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: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 2 of 3

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 24-Mar-09

Date Analyzed: 28-Mar-09

Prep Method: SW3520 Rev C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5703

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	45.4		50	91	21 - 106
367-12-4	2-FLUOROPHENOL	70.7		75	94	21 - 100
4165-60-0	NITROBENZENE-D5	47		50	94	34 - 111
4165-62-2	PHENOL-D5	71.6		75	96	15 - 104
1718-51-0	TERPHENYL-D14	51		50	102	33 - 111

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 3 of 3

GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Field ID:	
Lab ID:	EX090324-2MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 24-Mar-09

Date Analyzed: 28-Mar-09

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: As Received

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Clean DF: 1

File Name: N5703

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
	3.91	OXYGENATED HYDROCARBON1	1	11	UG/L	J

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 2 of 2

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Field ID:	Gordon-Ross 090319
Lab ID:	0903156-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 24-Mar-09

Date Analyzed: 28-Mar-09

Prep Method: SW3520 Rev C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: As Received

File Name: N5706

Sample Aliquot: 1065 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: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 1 of 3

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Field ID:	Gordon-Ross 090319
Lab ID:	0903156-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 19-Mar-09
Date Extracted: 24-Mar-09
Date Analyzed: 28-Mar-09
Prep Method: SW3520 Rev C

Prep Batch: EX090324-2
QCBatchID: EX090324-2-1
Run ID: SV090328-1
Cleanup: NONE
Basis: As Received
File Name: N5706

Sample Aliquot: 1065 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: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon
LIMS Version: 6.253A

Page 2 of 3

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Field ID:	Gordon-Ross 090319
Lab ID:	0903156-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 24-Mar-09

Date Analyzed: 28-Mar-09

Prep Method: SW3520 Rev C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: As Received

File Name: N5706

Sample Aliquot: 1065 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	39.2		70.4	56	23 - 100
321-60-8	2-FLUOROBIPHENYL	31.5		46.9	67	21 - 106
367-12-4	2-FLUOROPHENOL	48.8		70.4	69	21 - 100
4165-60-0	NITROBENZENE-D5	32.6		46.9	69	34 - 111
4165-62-2	PHENOL-D5	49.7		70.4	71	15 - 104
1718-51-0	TERPHENYL-D14	39.3		46.9	84	33 - 111

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

Page 3 of 3

LIMS Version: 6.253A

GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Field ID:	Gordon-Ross 090319
Lab ID:	0903156-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 24-Mar-09

Date Analyzed: 28-Mar-09

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: As Received

Sample Aliquot: 1065 ml

Final Volume: 1 ml

Clean DF: 1

File Name: N5706

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
	3.91	OXYGENATED HYDROCARBON1	1	11	UG/L	B,J

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 1 of 2

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/24/2009

Date Analyzed: 03/28/2009

Prep Method: SW3520C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5704

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	42	10		70	10 - 108%
62-75-9	N-NITROSODIMETHYLAMINE	60	53.5	10		89	26 - 110%
62-53-3	ANILINE	60	50.3	10		84	25 - 125%
108-95-2	PHENOL	60	52	10		87	49 - 101%
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	51.9	10		86	37 - 110%
95-57-8	2-CHLOROPHENOL	60	49.9	10		83	37 - 106%
541-73-1	1,3-DICHLOROBENZENE	60	45.9	10		76	32 - 98%
106-46-7	1,4-DICHLOROBENZENE	60	46.1	10		77	32 - 98%
95-50-1	1,2-DICHLOROBENZENE	60	46.9	10		78	33 - 102%
100-51-6	BENZYL ALCOHOL	60	53	10		88	30 - 112%
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	50.1	10		83	26 - 131%
95-48-7	2-METHYLPHENOL	60	50.6	10		84	38 - 109%
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	52.1	10		87	34 - 128%
108-39-4	3+4-METHYLPHENOL	60	49.3	10		82	32 - 110%
67-72-1	HEXACHLOROETHANE	60	45.3	10		76	28 - 94%
98-95-3	NITROBENZENE	60	32.2	10		54	44 - 109%
78-59-1	ISOPHORONE	60	45.7	10		76	50 - 112%
88-75-5	2-NITROPHENOL	60	44.4	10		74	39 - 113%
105-67-9	2,4-DIMETHYLPHENOL	60	42.1	10		70	28 - 109%
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	45.9	10		76	46 - 107%
120-83-2	2,4-DICHLOROPHENOL	60	45	10		75	48 - 105%
65-85-0	BENZOIC ACID	100	41.9	50	J	42	10 - 125%
120-82-1	1,2,4-TRICHLOROBENZENE	60	39.6	10		66	37 - 107%
91-20-3	NAPHTHALENE	60	43.5	10		72	39 - 102%
106-47-8	4-CHLOROANILINE	60	45.2	10		75	15 - 109%
87-68-3	HEXACHLOROBUTADIENE	60	37.7	10		63	27 - 103%

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 1 of 7

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/24/2009

Date Analyzed: 03/28/2009

Prep Method: SW3520C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5704

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	48.6	10		81	47 - 111%
91-57-6	2-METHYLNAPHTHALENE	60	43.3	10		72	46 - 104%
90-12-0	1-METHYLNAPHTHALENE	60	49.7	10		83	46 - 104%
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	13.8	10		23	10 - 125%
88-06-2	2,4,6-TRICHLOROPHENOL	60	51.6	10		86	49 - 113%
95-95-4	2,4,5-TRICHLOROPHENOL	60	54.5	10		91	49 - 111%
91-58-7	2-CHLORONAPHTHALENE	60	50.3	10		84	36 - 137%
88-74-4	2-NITROANILINE	60	59.7	20		99	48 - 115%
131-11-3	DIMETHYL PHTHALATE	60	53.7	10		89	25 - 127%
606-20-2	2,6-DINITROTOLUENE	60	56.4	10		94	49 - 117%
208-96-8	ACENAPHTHYLENE	60	53.6	10		89	50 - 107%
99-09-2	3-NITROANILINE	60	58.2	20		97	19 - 126%
83-32-9	ACENAPHTHENE	60	53	10		88	47 - 108%
51-28-5	2,4-DINITROPHENOL	60	51.3	20		86	14 - 138%
100-02-7	4-NITROPHENOL	60	52	20		87	21 - 119%
132-64-9	DIBENZOFURAN	60	53	10		88	54 - 107%
121-14-2	2,4-DINITROTOLUENE	60	54.5	10		91	51 - 118%
84-66-2	DIETHYL PHTHALATE	60	56.3	10		94	41 - 118%
86-73-7	FLUORENE	60	53.3	10		89	50 - 112%
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	53	10		88	50 - 111%
100-01-6	4-NITROANILINE	60	55.2	20		92	36 - 118%
103-33-3	AZOBENZENE	60	55.3	10		92	21 - 137%
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	54.5	20		91	40 - 130%
86-30-6	N-NITROSODIPHENYLAMINE	60	47.4	10		79	48 - 111%
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	52	10		87	52 - 113%
118-74-1	HEXACHLOROBENZENE	60	50.7	10		84	52 - 112%
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	88.5	10		88	23 - 112%

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 2 of 7

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/24/2009

Date Analyzed: 03/28/2009

Prep Method: SW3520C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5704

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	53.1	20		88	38 - 117%
85-01-8	PHENANTHRENE	60	55	10		92	51 - 117%
120-12-7	ANTHRACENE	60	54.4	10		91	54 - 112%
86-74-8	CARBAZOLE	60	56.7	10		95	48 - 117%
84-74-2	DI-N-BUTYL PHTHALATE	60	55.8	10		93	54 - 116%
206-44-0	FLUORANTHENE	60	53.8	10		90	54 - 116%
129-00-0	PYRENE	60	52.6	10		88	49 - 128%
85-68-7	BUTYL BENZYL PHTHALATE	60	54.9	10		92	46 - 116%
56-55-3	BENZO(A)ANTHRACENE	60	54.2	10		90	56 - 109%
91-94-1	3,3'-DICHLOROBENZIDINE	60	28.2	10		47	19 - 111%
218-01-9	CHRYSENE	60	55.6	10		93	55 - 109%
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	55.4	10		92	42 - 126%
117-84-0	DI-N-OCTYL PHTHALATE	60	55.7	10		93	37 - 137%
205-99-2	BENZO(B)FLUORANTHENE	60	54.9	10		92	45 - 118%
207-08-9	BENZO(K)FLUORANTHENE	60	55.9	10		93	45 - 124%
50-32-8	BENZO(A)PYRENE	60	49.5	10		83	53 - 110%
193-39-5	INDENO(1,2,3-CD)PYRENE	60	56.3	10		94	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	57	10		95	38 - 123%

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 3 of 7

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/24/2009

Date Analyzed: 03/28/2009

Prep Method: SW3520C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5705

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	40	10		67	20	5
62-75-9	N-NITROSODIMETHYLAMINE	60	54.1	10		90	20	1
62-53-3	ANILINE	60	45.9	10		76	20	9
108-95-2	PHENOL	60	53	10		88	20	2
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	53.5	10		89	20	3
95-57-8	2-CHLOROPHENOL	60	50.9	10		85	20	2
541-73-1	1,3-DICHLOROBENZENE	60	47.7	10		79	20	4
106-46-7	1,4-DICHLOROBENZENE	60	47.8	10		80	20	4
95-50-1	1,2-DICHLOROBENZENE	60	49	10		82	20	4
100-51-6	BENZYL ALCOHOL	60	52.7	10		88	20	1
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	51.6	10		86	20	3
95-48-7	2-METHYLPHENOL	60	50.9	10		85	20	1
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	52.7	10		88	20	1
108-39-4	3+4-METHYLPHENOL	60	50	10		83	20	1
67-72-1	HEXACHLOROETHANE	60	47.3	10		79	20	4
98-95-3	NITROBENZENE	60	34.2	10		57	20	6
78-59-1	ISOPHORONE	60	46.6	10		78	20	2
88-75-5	2-NITROPHENOL	60	46.7	10		78	20	5
105-67-9	2,4-DIMETHYLPHENOL	60	38	10		63	20	10
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	47.4	10		79	20	3
120-83-2	2,4-DICHLOROPHENOL	60	46.8	10		78	20	4
65-85-0	BENZOIC ACID	100	34.7	50	J	35	20	19
120-82-1	1,2,4-TRICHLOROBENZENE	60	41.9	10		70	20	6
91-20-3	NAPHTHALENE	60	45.4	10		76	20	4
106-47-8	4-CHLOROANILINE	60	44.9	10		75	20	1
87-68-3	HEXACHLOROBUTADIENE	60	40	10		67	20	6
59-50-7	4-CHLORO-3-METHYLPHENOL	60	49.2	10		82	20	1

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 4 of 7

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/24/2009

Date Analyzed: 03/28/2009

Prep Method: SW3520C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5705

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	44.6	10		74	20	3
90-12-0	1-METHYLNAPHTHALENE	60	50.7	10		85	20	2
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	15.3	10		26	20	10
88-06-2	2,4,6-TRICHLOROPHENOL	60	52.4	10		87	20	1
95-95-4	2,4,5-TRICHLOROPHENOL	60	54	10		90	20	1
91-58-7	2-CHLORONAPHTHALENE	60	51	10		85	20	1
88-74-4	2-NITROANILINE	60	58.9	20		98	20	1
131-11-3	DIMETHYL PHTHALATE	60	53.1	10		89	20	1
606-20-2	2,6-DINITROTOLUENE	60	55.7	10		93	20	1
208-96-8	ACENAPHTHYLENE	60	53.8	10		90	20	0
99-09-2	3-NITROANILINE	60	56.7	20		95	20	3
83-32-9	ACENAPHTHENE	60	52.8	10		88	20	0
51-28-5	2,4-DINITROPHENOL	60	51.6	20		86	20	0
100-02-7	4-NITROPHENOL	60	48.9	20		81	20	6
132-64-9	DIBENZOFURAN	60	52.7	10		88	20	1
121-14-2	2,4-DINITROTOLUENE	60	52.4	10		87	20	4
84-66-2	DIETHYL PHTHALATE	60	54.3	10		91	20	4
86-73-7	FLUORENE	60	52.2	10		87	20	2
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	52.3	10		87	20	1
100-01-6	4-NITROANILINE	60	51.3	20		86	20	7
103-33-3	AZOBENZENE	60	53.2	10		89	20	4
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	54.9	20		92	20	1
86-30-6	N-NITROSODIPHENYLAMINE	60	46.5	10		77	20	2
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	53.1	10		89	20	2
118-74-1	HEXACHLOROBENZENE	60	52.1	10		87	20	3
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	89.6	10		90	20	1
87-86-5	PENTACHLOROPHENOL	60	53	20		88	20	0

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 5 of 7

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: EX090324-2LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/24/2009

Date Analyzed: 03/28/2009

Prep Method: SW3520C

Prep Batch: EX090324-2

QCBatchID: EX090324-2-1

Run ID: SV090328-1

Cleanup: NONE

Basis: N/A

File Name: N5705

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	54.6	10		91	20	1
120-12-7	ANTHRACENE	60	54.2	10		90	20	0
86-74-8	CARBAZOLE	60	54.9	10		92	20	3
84-74-2	DI-N-BUTYL PHTHALATE	60	54.9	10		91	20	2
206-44-0	FLUORANTHENE	60	53.4	10		89	20	1
129-00-0	PYRENE	60	52.5	10		87	20	0
85-68-7	BUTYL BENZYL PHTHALATE	60	55.5	10		92	20	1
56-55-3	BENZO(A)ANTHRACENE	60	54.5	10		91	20	1
91-94-1	3,3'-DICHLOBENZIDINE	60	26.5	10		44	20	6
218-01-9	CHRYSENE	60	54.6	10		91	20	2
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	55.7	10		93	20	1
117-84-0	DI-N-OCTYL PHTHALATE	60	55.5	10		92	20	1
205-99-2	BENZO(B)FLUORANTHENE	60	57.2	10		95	20	4
207-08-9	BENZO(K)FLUORANTHENE	60	56.2	10		94	20	0
50-32-8	BENZO(A)PYRENE	60	49.3	10		82	20	0
193-39-5	INDENO(1,2,3-CD)PYRENE	60	54.3	10		91	20	4
53-70-3	DIBENZO(A,H)ANTHRACENE	60	56.2	10		94	20	4
191-24-2	BENZO(G,H,I)PERYLENE	60	53.6	10		89	20	6

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 6 of 7

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

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	85		84		23 - 100
321-60-8	2-FLUOROBIPHENYL	50	83		84		21 - 106
367-12-4	2-FLUOROPHENOL	75	82		86		21 - 100
4165-60-0	NITROBENZENE-D5	50	74		79		34 - 111
4165-62-2	PHENOL-D5	75	86		88		15 - 104
1718-51-0	TERPHENYL-D14	50	85		85		33 - 111

Data Package ID: SV0903156-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

Page 7 of 7

Data File : D:\HPCHEM\1\DATA\032809\N5703.D

Vial: 3

Acq On : 28 Mar 2009 3:25 pm

Operator: JK SOP 506 Rev

Sample : EX090324-2MB

Inst : GC/MS Ins

Misc : WATER EX090324-2

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 28 15:51 2009

Quant Results File: 032709S1.RES

Quant Method : D:\HPCHEM\1\METHODS\032709S1.M (RTE Integrator)

Title : GC-MS Semivolatiles SOP no. 506

Last Update : Sat Mar 28 14:34:56 2009

Response via : Initial Calibration

DataAcq Meth : 032709S1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.94	152	287635 ✓	40.00	ng/uL	0.00
24) Naphthalene-d8	7.14	136	1031485 ✓	40.00	ng/uL	0.00
41) Acenaphthene-d10	8.69	164	490555 ✓	40.00	ng/uL	0.00
69) Phenanthrene-d10	9.98	188	748538 ✓	40.00	ng/uL	0.00
80) Chrysene-d12	12.27	240	813035 ✓	40.00	ng/uL	0.00
91) Perylene-d12	13.84	264	609639 ✓	40.00	ng/uL	0.00

System Monitoring Compounds

5) 2-Fluorophenol	4.54	112	574460	70.71	ng/uL	0.00
Spiked Amount	75.000	Range	21 - 100	Recovery	=	94.28% ✓
6) 2-Chlorophenol-d4	5.71	132	583164	69.33	ng/uL	0.00
Spiked Amount	75.000	Range	33 - 110	Recovery	=	92.44%
8) Phenol-d5	5.51	99	722788	71.64	ng/uL	-0.01
Spiked Amount	75.000	Range	15 - 104	Recovery	=	95.52% ✓
15) 1,2-Dichlorobenzene-d4	6.09	152	279635	44.87	ng/uL	0.00
Spiked Amount	50.000	Range	16 - 110	Recovery	=	89.74%
25) Nitrobenzene-d5	6.46	82	417511	46.96	ng/uL	0.00
Spiked Amount	50.000	Range	34 - 111	Recovery	=	93.92% ✓
46) 2-Fluorobiphenyl	8.07	172	777809	45.36	ng/uL	0.00
Spiked Amount	50.000	Range	21 - 106	Recovery	=	90.72% ✓
68) 2,4,6-Tribromophenol	9.37	330	96111	49.94	ng/uL	0.00
Spiked Amount	75.000	Range	23 - 100	Recovery	=	66.59% ✓
83) p-Terphenyl-d14	11.30	244	784660	51.04	ng/uL	0.00
Spiked Amount	50.000	Range	33 - 111	Recovery	=	102.08%

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration

N5703.D 032709S1.M Sat Mar 28 15:51:34 2009

Page 1

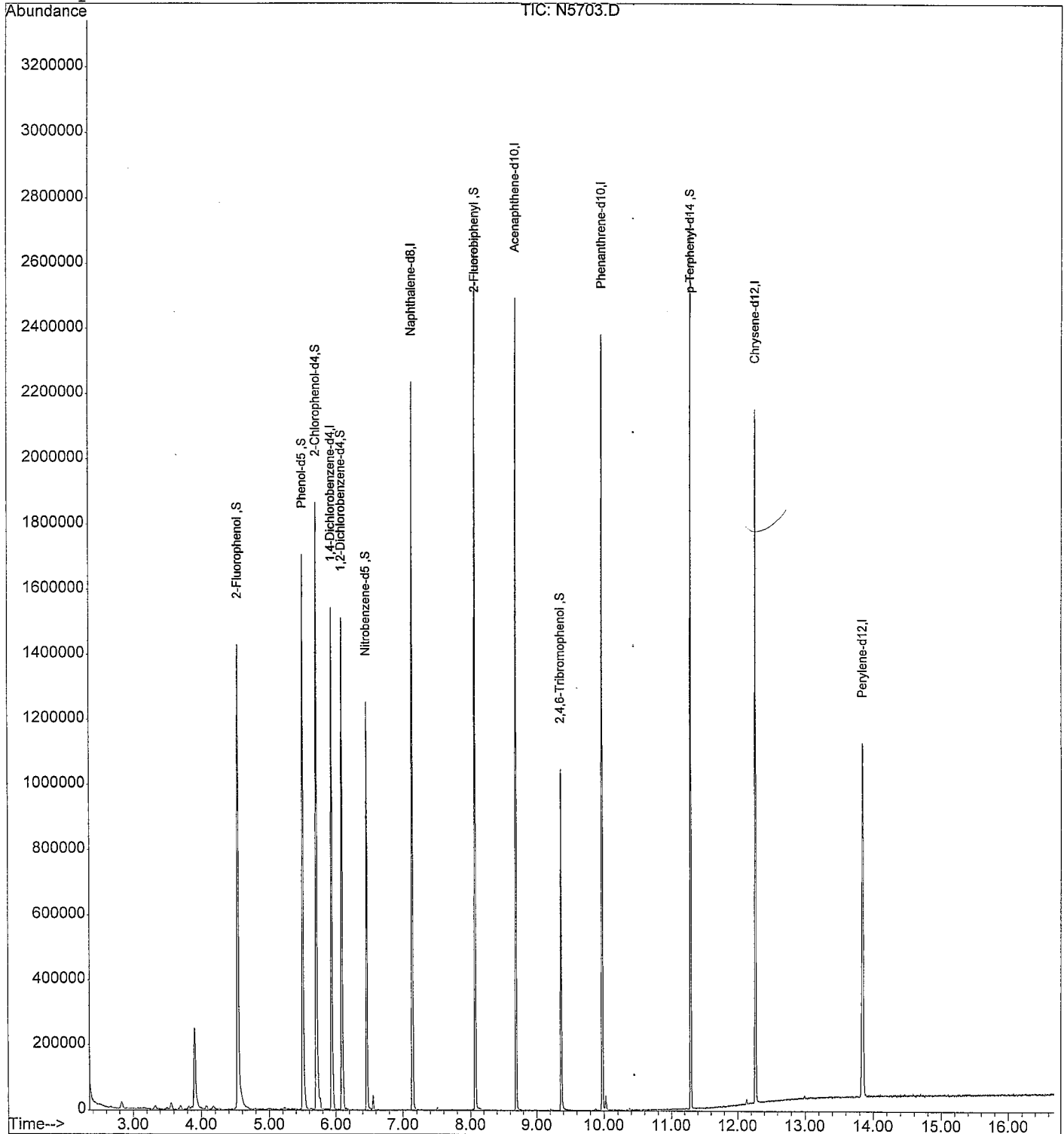
Quantitation Report

Data File : D:\HPCHEM\1\DATA\032809\N5703.D
 Acq On : 28 Mar 2009 3:25 pm
 Sample : EX090324-2MB
 Misc : WATER EX090324-2
 MS Integration Params: RTEINT.P
 Quant Time: Mar 28 15:51 2009

Vial: 3
 Operator: JK SOP 506
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: 032709S1.RES

Method : D:\HPCHEM\1\METHODS\032709S1.M (RTE Integrator)
 Title : GC-MS Semivolatiles SOP no. 506
 Last Update : Sat Mar 28 14:34:56 2009
 Response via : Initial Calibration



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\032809\N5703.D

Acq On : 28 Mar 2009 3:25 pm

Sample : EX090324-2MB

Misc : WATER EX090324-2

MS Integration Params: LSCINT.P

Vial: 3

Operator: JK SOP 50

Inst : GC/MS Ins

Multiplr: 1.00

Quant Method : D:\HPCHEM\1\METHODS\032709S1.M (RTE Integrator)

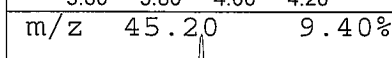
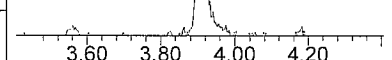
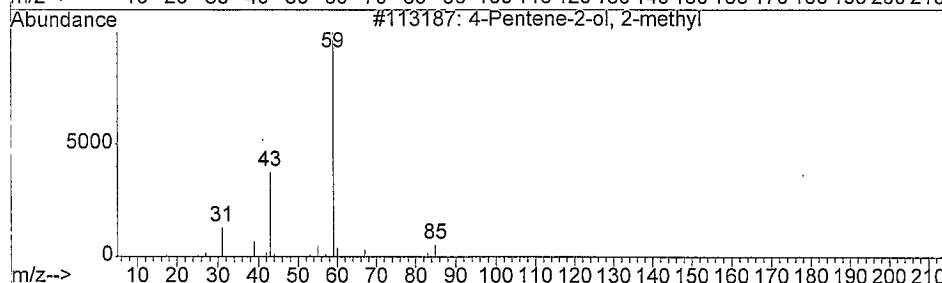
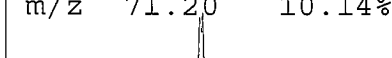
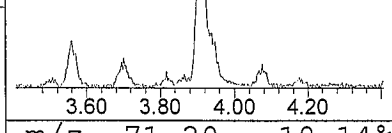
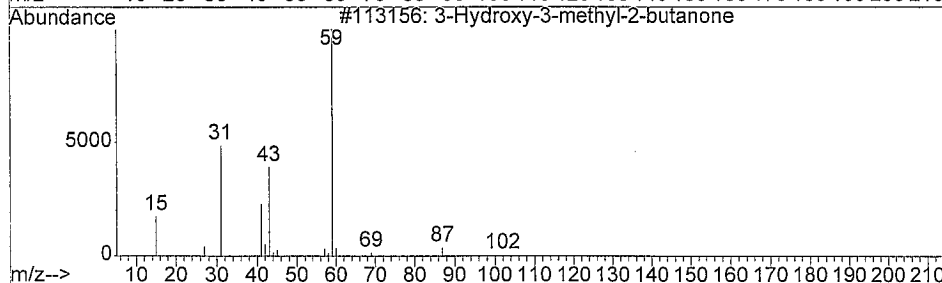
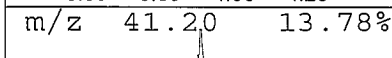
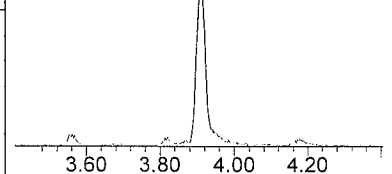
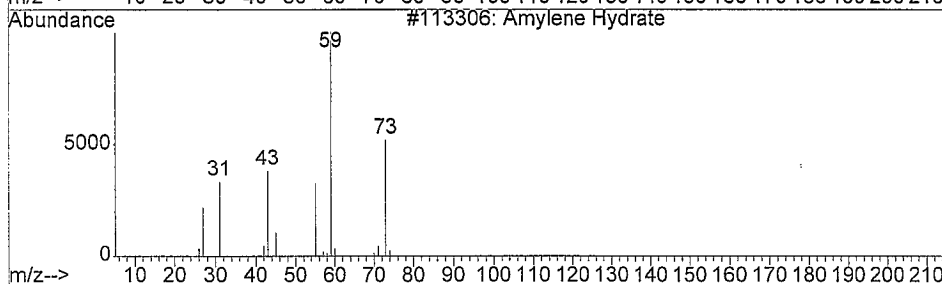
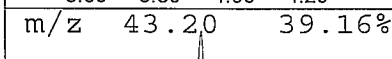
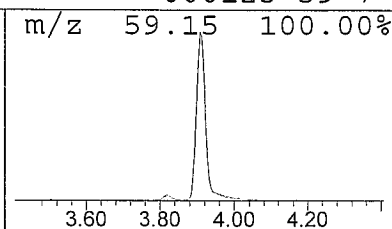
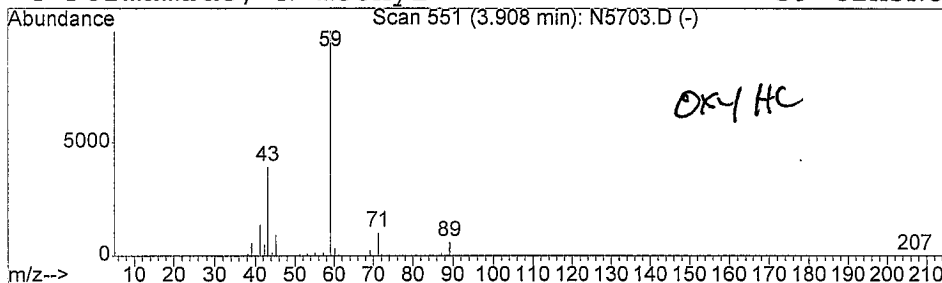
Title : GC-MS Semivolatiles SOP no. 506

Library : D:\DATABASE\NIST98.L

Peak Number 1 Amylene Hydrate Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.91	10.75 ng/uL	471644	1,4-Dichlorobenzene-d4	5.94

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Amylene Hydrate	88	C5H12O	000075-85-4	40
2		3-Hydroxy-3-methyl-2-butanone	102	C5H10O2	000115-22-0	38
3		4-Pentene-2-ol, 2-methyl	100	C6H12O	000624-97-5	36
4		Formamide, N-methyl-	59	C2H5NO	000123-39-7	9



Data File : D:\HPCHEM\1\DATA\032809\N5706.D

Vial: 6

Acq On : 28 Mar 2009 4:37 pm

Operator: JK SOP 506 Rev

Sample : 0903156-1

Inst : GC/MS Ins

Misc : WATER EX090324-2

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Mar 30 8:50 2009

Quant Results File: 032709S1.RES

Quant Method : D:\HPCHEM\1\METHODS\032709S1.M (RTE Integrator)

Title : GC-MS Semivolatiles SOP no. 506

Last Update : Sat Mar 28 14:34:56 2009

Response via : Initial Calibration

DataAcq Meth : 032709S1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	5.94	152	332462 ✓	40.00	ng/uL	0.00
24) Naphthalene-d8	7.14	136	1162322 ✓	40.00	ng/uL	0.00
41) Acenaphthene-d10	8.69	164	567646 ✓	40.00	ng/uL	-0.01
69) Phenanthrene-d10	9.98	188	875523 ✓	40.00	ng/uL	0.00
80) Chrysene-d12	12.26	240	1082621 ✓	40.00	ng/uL	-0.02
91) Perylene-d12	13.84	264	820585 ✓	40.00	ng/uL	-0.01

System Monitoring Compounds

5) 2-Fluorophenol	4.54	112	487608	51.93	ng/uL	0.00
Spiked Amount	75.000	Range	21 - 100	Recovery	=	69.24% ✓
6) 2-Chlorophenol-d4	5.71	132	495733	50.99	ng/uL	-0.01
Spiked Amount	75.000	Range	33 - 110	Recovery	=	67.99%
8) Phenol-d5	5.51	99	617292	52.93	ng/uL	-0.01
Spiked Amount	75.000	Range	15 - 104	Recovery	=	70.57% ✓
15) 1,2-Dichlorobenzene-d4	6.09	152	242201	33.62	ng/uL	0.00
Spiked Amount	50.000	Range	16 - 110	Recovery	=	67.24%
25) Nitrobenzene-d5	6.46	82	347993	34.74	ng/uL	-0.01
Spiked Amount	50.000	Range	34 - 111	Recovery	=	69.48% ✓
46) 2-Fluorobiphenyl	8.07	172	666439	33.59	ng/uL	0.00
Spiked Amount	50.000	Range	21 - 106	Recovery	=	67.18% ✓
68) 2,4,6-Tribromophenol	9.36	330	89635	41.71	ng/uL	-0.01
Spiked Amount	75.000	Range	23 - 100	Recovery	=	55.61% ✓
83) p-Terphenyl-d14	11.29	244	856881	41.86	ng/uL	-0.01
Spiked Amount	50.000	Range	33 - 111	Recovery	=	83.72% ✓

Target Compounds

Qvalue

(#) = qualifier out of range (m) = manual integration

N5706.D 032709S1.M Mon Mar 30 08:51:15 2009

Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\032809\N5706.D
 Acq On : 28 Mar 2009 4:37 pm
 Sample : 0903156-1
 Misc : WATER EX090324-2
 MS Integration Params: RTEINT.P
 Quant Time: Mar 30 8:50 2009

Vial: 6
 Operator: JK SOP 506
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Results File: 032709S1.RES

Method : D:\HPCHEM\1\METHODS\032709S1.M (RTE Integrator)
 Title : GC-MS Semivolatiles SOP no. 506
 Last Update : Sat Mar 28 14:34:56 2009
 Response via : Initial Calibration

