

Anion / Cation Summary Report

Lab ID: **0812076-1**
Field ID Angely WW

QC Type: SMP

Analyte	Final Result	Report Units	mEq
BICARBONATE AS CaCO3	57.20488	MG/L	1.14
CHLORIDE	60.66372	MG/L	1.71
FLUORIDE	3.230523	MG/L	0.17
NITRATE AS N	0.4	MG/L	0.00
NITRITE AS N	0.2	MG/L	0.00
SULFATE	1036.584	MG/L	21.58
Anion Result Sum		1158.28	

Analyte	Final Result	Report Units	mEq
CALCIUM	188.9487	MG/L	9.43
IRON	0.1	MG/L	0.00
MAGNESIUM	2.529686	MG/L	0.21
MANGANESE	0.1867702	MG/L	0.01
POTASSIUM	2.167762	MG/L	0.06
SODIUM	264.6501	MG/L	11.51
Cation Result Sum		458.58	

Total Result: **1616.87** MG/L
TDS Result: **1570.0001** MG/L
RPD: 2.94%

Anion mEq Sum: **24.61**
Cation mEq Sum: **21.21**
RPD: 14.82%

Below is a list of Lab IDs for this Order Number that were logged in for metals analyses. Note: if this area is empty then either no metals analyses were requested or the cations of interest were not requested.

0812076-1



ALS Paragon



Dissolved Gasses Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200199690

Work Order Number: 0812076

1. This report consists of 1 water sample. The sample was received cool and intact by ALS Paragon on 12/09/08. The vial for sample 0812076-1 contained headspace prior to analysis because it was not received headspace free. The sample had a pH > 2 at the time of analysis.
2. The sample was prepared and analyzed according to method RSK-175 procedures and SOP449R0.
3. The preparation batch included a method blank, laboratory control sample, laboratory control sample duplicate, and sample duplicate. Due to insufficient sample volume, a matrix spike was not prepared. The following is the sample used for the matrix QC:

Sample ID	QC Type	Batch ID
0812076-1	DUP	MEE081217-1

Similarity of matrix and therefore relevance of the QC results should not be automatically inferred for any sample other than the native sample selected for QC.

4. All preparation QC results were within the acceptance criteria.
5. All samples are associated with one or more of the following analytical QC: initial calibrations, initial calibration verifications (ICV), and continuing calibration verifications (CCV).
6. All analytical QC were within the acceptance criteria.
7. The sample was analyzed at a dilution in order to bring the target analytes within the calibration range of the instrument. The reporting limits have been adjusted accordingly.
8. The sample was prepared and analyzed within the established holding times.
9. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in SOP 939 Revision 3.



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.

Emily Knodel
Emily Knodel
Organics Primary Data Reviewer

12-22-08
Date

Joe Niles
Organics Final Data Reviewer

12-22-08
Date

Paragon Analytics
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: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200199690

Client Project Number:

Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Angely WW	0812076-1		WATER	08-Dec-08	11:58
Trip Blank	0812076-2		WATER	08-Dec-08	

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0812076Project Manager: AWInitials: CDTDate: 12-9-08

1. Does this project require any special handling in addition to standard Paragon procedures?	YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?	<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?	<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)	<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES NO
10. Is there sufficient sample for the requested analyses?	<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?	<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?	<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)	<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: _____ < green pea <input checked="" type="checkbox"/> > green pea	N/A	YES <input checked="" type="radio"/> NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> 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.)	<input checked="" type="radio"/> N/A	YES NO
17. Were the samples shipped on ice ?	<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <input checked="" type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES NO
Cooler #: <u>1</u>		
Temperature (°C): <u>4.8</u>		
No. of custody seals on cooler: <u>2</u>		
DOT Survey/ Acceptance Information	External µR/hr reading: <u>13</u>	
	Background µR/hr reading: <u>10</u>	
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> 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 All > green pea 0812076-1-1 0812076-2-1

↓ -2 ↓ -2
↓ -3 ↓ -3
↓ -4
↓ -5

If applicable, was the client contacted? ☒ YES / NO / NA Contact: Peter ConstantasDate/Time: 12/9/08Project Manager Signature / Date: [Signature] 12/9/08

e-mail

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

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

Dissolved Gasses

Method RSK175

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: MEE081217-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 17-Dec-08

Date Analyzed: 17-Dec-08

Prep Method: METHOD

Prep Batch: MEE081217-1

QCBatchID: MEE081217-1-1

Run ID: MEE081217-1A

Cleanup: NONE

Basis: N/A

File Name: 00837.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
74-82-8	METHANE	1	1	1	U	
74-85-1	ETHENE	1	1	1	U	
74-84-0	ETHANE	1	2	2	U	

Data Package ID: MEE0812076-1

Date Printed: Monday, December 22, 2008

ALS Paragon

LIMS Version: 6.217A

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Dissolved Gasses

Method RSK175

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID: Angely WW

Lab ID: 0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 17-Dec-08

Date Analyzed: 17-Dec-08

Prep Method: METHOD

Prep Batch: MEE081217-1

QCBatchID: MEE081217-1-1

Run ID: MEE081217-1A

Cleanup: NONE

Basis: As Received

File Name: 00842.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
74-82-8	METHANE	10	100000	10		
74-85-1	ETHENE	10	10	10	U	
74-84-0	ETHANE	10	140	20		

Data Package ID: MEE0812076-1

Date Printed: Monday, December 22, 2008

ALS Paragon

LIMS Version: 6.217A

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Dissolved Gasses

Method RSK175

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: MEE081217-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/17/2008

Date Analyzed: 12/17/2008

Prep Method: METHOD

Prep Batch: MEE081217-1

QCBatchID: MEE081217-1-1

Run ID: MEE081217-1A

Cleanup: NONE

Basis: N/A

File Name: 00836.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
74-82-8	METHANE	140	147	1		105	80 - 120%
74-85-1	ETHENE	245	256	1		104	80 - 120%
74-84-0	ETHANE	262	256	2		98	80 - 120%

Lab ID: MEE081217-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/17/2008

Date Analyzed: 12/17/2008

Prep Method: METHOD

Prep Batch: MEE081217-1

QCBatchID: MEE081217-1-1

Run ID: MEE081217-1A

Cleanup: NONE

Basis: N/A

File Name: 00844.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
74-82-8	METHANE	140	150	1		107	25	2
74-85-1	ETHENE	245	253	1		103	25	1
74-84-0	ETHANE	262	253	2		97	25	1

Data Package ID: MEE0812076-1

Date Printed: Monday, December 22, 2008

ALS Paragon

LIMS Version: 6.217A

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Dissolved Gasses

Method RSK175

Duplicate Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID: Angely WW

Lab ID: 0812076-1D

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12/08/2008

Date Extracted: 12/17/2008

Date Analyzed: 12/17/2008

Prep Batch: MEE081217-1

QCBatchID: MEE081217-1-1

Run ID: MEE081217-1A

Cleanup: NONE

Basis: As Received

File Name: 00843.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Sample Result	Samp Qual	Duplicate Result	Dup Qual	Reporting Limit	Dilution Factor	RPD	RPD Limit
74-82-8	METHANE	100000		92800		10	10	8	25
74-85-1	ETHENE	10	U	10	U	10	10		25
74-84-0	ETHANE	140		131		20	10	7	25

Data Package ID: MEE0812076-1

Date Printed: Monday, December 22, 2008

ALS Paragon

LIMS Version: 6.217A

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ALS Paragon



Total Extractable Hydrocarbons (Diesel) Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200199690

Order Number - 0812076

1. This report consists of 1 water sample. The sample was received cool and intact by ALS Paragon on 12/09/2008.
2. The water sample was extracted using separatory funnels according to SOP 626 Revision 9 based on Method 3510C.
3. The extract was then analyzed using GC with a DB-5.625 capillary column and a flame ionization detector (FID) according to SOP 406 Revision 13 generally based on SW-846 Method 8000B and Method 8015B and specifically on the California LUFT Field Manual (October 1989 revision). The procedures are based on this general method because SW-846 does not have a specific method for total extractable petroleum hydrocarbons (TEPH) or diesel range organics. The only true modification from this method is that TEPH is a multicomponent mixture and is quantitated by integrating across the entire range, rather than summing areas of individual peaks. All positive results were quantitated using the responses from the initial calibration curve using the external standard technique. Also, a confirmation column is not used, because the analyte is a multicomponent mixture and the specific carbon range of the peaks detected is specified on the individual sample reporting forms.
4. All initial and continuing calibration criteria were met.
5. The method blank associated with this project was below the MDL for diesel range organics.
6. All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria.
7. 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.
8. The sample was extracted and analyzed within the established holding time.
9. All surrogate recoveries were within the acceptance criteria.



11. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in SOP 939 Revision 3.

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.

Mindy Norton
Mindy Norton
Organics Primary Data Reviewer

12-17-08
Date

Joe Nolte
Organics Final Data Reviewer

12-18-08
Date



***ALS Paragon
Data Qualifier Flags
Fuels***

- G:** This flag indicates that a pattern resembling gasoline was detected in this sample.
- D:** This flag indicates that a pattern resembling diesel was detected in this sample.
- M:** This flag indicates that a pattern resembling motor oil was detected in this sample.
- C:** This flag indicates that a pattern resembling crude oil was detected in this sample.
- 4:** This flag indicates that a pattern resembling JP-4 was detected in this sample.
- 5:** This flag indicates that a pattern resembling JP-5 was detected in this sample.
- H:** This flag indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L:** This flag indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z:** This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
gasoline
JP-8
diesel
mineral spirits
motor oil
Stoddard solvent
bunker C

Multiple flags may be used to indicate the presence of more than one product or component.

Paragon Analytics, Inc.
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 data indicate the presence of a compound that meets the 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 outside the control criteria.
+: 	This flag indicates that the relative percent difference (RPD) exceeds the control criteria.

ALS Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200199690

Client Project Number:

Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Angely WW	0812076-1		WATER	08-Dec-08	11:58
Trip Blank	0812076-2		WATER	08-Dec-08	



Paragon Analyticals

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) 0812075 CT 12-9-08
Chain-of-Custody Date Ed Dec 16 Page 1 of 1 **Originator: Retain pink copy!**

Project Name/No.: 6-11-08 Turnaround (circle one) Standard or Rush (Due 14 days) (Dispose: Date 3/21/09 or Return to Client

Report To: Peter Gintant

Phone: 719-846-3691

Fax: 719-846-3691

E-mail: Peter.Gintant@state.co.us

Company: Colorado Oil & Gas Cons. Comm.

Address: 6115 Park Ave

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

Sample ID

Date

Time *

Lab ID

Matrix

Preservative

(Indicate type... HCl, etc.)

No. of Containers

VOCs

SVOCs

OC Pesticides

PCBs

Herbicides

Explosives

TCLP Organics SW1311

TCLP Metals SW1311 Hg

Total Metals by ICP Hg

Dissolved Metals by ICP Hg

Total Metals by ICP/MS

Dissolved Metals by ICP/MS

Hexavalent Chromium

Inorganic Anions

Solids:

TPH

Gross Alpha / Beta

Actinides by Paragon SOP

Tritium

Total Alpha-Emitting Radium

Radium 226

Radium 228

Strontium 90 (Total Radio)

Gamma Isotopes

Radon 222

SM7510Rn

Relinquished By:

Signature

Printed Name

Date

Time

Company

Relinquished By:

Signature

Printed Name

Date

Time

Company

Received By:

Signature

Printed Name

Date

Time

Company

Form 20216.xls (6/16/06)

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0812076Project Manager: AWInitials: CDTDate: 12-9-08

1. Does this project require any special handling in addition to standard Paragon procedures?	YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?	<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?	<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)	<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES NO
10. Is there sufficient sample for the requested analyses?	<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?	<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?	<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)	<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: _____ < green pea <input checked="" type="checkbox"/> > green pea	N/A	YES <input checked="" type="radio"/> NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> 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.)	<input checked="" type="radio"/> N/A	YES NO
17. Were the samples shipped on ice ?	<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <input checked="" type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES NO
Cooler #: <u>1</u>		
Temperature (°C): <u>4.8</u>		
No. of custody seals on cooler: <u>2</u>		
DOT Survey/ Acceptance Information	External µR/hr reading: <u>13</u>	
	Background µR/hr reading: <u>10</u>	
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> 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 All > green pea 0812076-1-1 0812076-2-1

↓ -2 ↓ -2
↓ -3 ↓ -3
↓ -4
↓ -5

If applicable, was the client contacted? ☒ YES / NO / NA Contact: Peter ConstantasDate/Time: 12/9/08Project Manager Signature / Date: [Signature] 12/9/08

e-mail

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

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

Total Extractable Hydrocarbons

Method SW8015MCALUFTB

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081211-3MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11-Dec-08

Date Analyzed: 15-Dec-08

Prep Method: SW3510 Rev C

Prep Batch: EX081211-3

QCBatchID: EX081211-3-2

Run ID: HCD081215-3A

Cleanup: NONE

Basis: N/A

File Name: F3F33074

Sample Aliquot: 1000 ml

Final Volume: 2.5 ml

Result Units: mg/l

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	DIESEL RANGE ORGANICS	1	0.05	0.05	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	0.231		0.25	93	60 - 140

Data Package ID: HCD0812076-1

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.216A

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Total Extractable Hydrocarbons

Method SW8015MCALUFTB

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 11-Dec-08

Date Analyzed: 15-Dec-08

Prep Method: SW3510 Rev C

Prep Batch: EX081211-3

QCBatchID: EX081211-3-2

Run ID: HCD081215-3A

Cleanup: NONE

Basis: As Received

File Name: F3F33077

Sample Aliquot: 1050 ml

Final Volume: 2.5 ml

Result Units: mg/l

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	DIESEL RANGE ORGANICS	1	0.048	0.048	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	0.21		0.238	88	60 - 140

Data Package ID: HCD0812076-1

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.216A

Page 1 of 1

Total Extractable Hydrocarbons

Method SW8015MCALUFTB

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081211-3LCS	Sample Matrix: WATER % Moisture: N/A Date Collected: N/A Date Extracted: 12/11/2008 Date Analyzed: 12/15/2008 Prep Method: SW3510C	Prep Batch: EX081211-3 QCBatchID: EX081211-3-2 Run ID: HCD081215-3A Cleanup: NONE Basis: N/A File Name: F3F33075	Sample Aliquot: 1000 ml Final Volume: 2.5 ml Result Units: mg/l Clean DF: 1
-----------------------	---	---	--

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
68334-30-5	DIESEL RANGE ORGANICS	1	0.843	0.05		84	60 - 140%

Lab ID: EX081211-3LCSD	Sample Matrix: WATER % Moisture: N/A Date Collected: N/A Date Extracted: 12/11/2008 Date Analyzed: 12/15/2008 Prep Method: SW3510C	Prep Batch: EX081211-3 QCBatchID: EX081211-3-2 Run ID: HCD081215-3A Cleanup: NONE Basis: N/A File Name: F3F33076	Sample Aliquot: 1000 ml Final Volume: 2.5 ml Result Units: mg/l Clean DF: 1
------------------------	---	---	--

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
68334-30-5	DIESEL RANGE ORGANICS	1	0.882	0.05		88	50	5

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
84-15-1	O-TERPHENYL	0.25	94		97		60 - 140

Data Package ID: HCD0812076-1

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.216A

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ALS Paragon



GC/MS Semivolatiles Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200199690

Order Number - 0812076

1. This report consists of 1 water sample. The sample was received cool and intact by ALS Paragon on 12/09/08.
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 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
3,3'-Dichlorobenzidine	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 and 3,3'-dichlorobenzidine 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. 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.

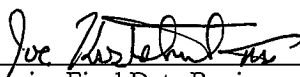
The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS Paragon certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.



Sharon L. Jones
Organics Primary Data Reviewer

12-16-08

Date



Joe Zastelnik
Organics Final Data Reviewer

December 16, 2008

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: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200199690

Client Project Number:

Client PO Number: OE PHA 090000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Angely WW	0812076-1		WATER	08-Dec-08	11:58
Trip Blank	0812076-2		WATER	08-Dec-08	



Paragon Analyticals

A Division of DataChem Laboratories, Inc.

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

Chain-of-Custody

Accession Number (LAB ID) 0812076 CT 12-9-08
Date Ed Dec 16 Page 1 of 1 Originator: Retain pink copy!

Project Name/No.: 6-11-08 Turnaround (circle one) Standard or Rush (Due 14 days) (Dispose: Date 3/21/09 or Return to Client

Report To: Peter Gintartas

Phone: 719-846-3691

Fax:

E-mail: Peter.Gintartas@state.co.us

Company: Colorado Oil & Gas Cons. Comm.

Address:

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

Sample ID

Date

Time *

Lab ID

Matrix

Preservative

(Indicate type... HCl, etc.)

No. of Containers

VOCs

SVOCs

OC Pesticides

PCBs

Herbicides

Explosives

TCLP Organics SW1311

TCLP Metals SW1311 Hg

Total Metals by ICP Hg

Dissolved Metals by ICP Hg

Total Metals by ICP/MS

Dissolved Metals by ICP/MS

Hexavalent Chromium

Inorganic Anions

Solids:

TPH

Gross Alpha / Beta

Actinides by Paragon SOP

Tritium

Total Alpha-Emitting Radium

Radium 226

Radium 228

Strontium 90 (Total Radio)

Gamma Isotopes

Radon 222

SM7510Rn

Relinquished By:

Signature

Printed Name

Date

Time

Company

Relinquished By:

Signature

Printed Name

Date

Time

Company

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

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0812076Project Manager: AWInitials: CDT Date: 12-9-08

1. Does this project require any special handling in addition to standard Paragon procedures?	YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?	<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?	<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)	<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES NO
10. Is there sufficient sample for the requested analyses?	<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?	<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?	<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)	<input checked="" type="radio"/> YES	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 <input checked="" type="checkbox"/> > green pea	N/A	YES <input checked="" type="radio"/> NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> 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.)	<input checked="" type="radio"/> N/A	YES NO
17. Were the samples shipped on ice?	<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <input checked="" type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES NO
Cooler #: <u>1</u>		
Temperature (°C): <u>4.8</u>		
No. of custody seals on cooler: <u>2</u>		
DOT Survey/ Acceptance Information	External µR/hr reading: <u>13</u>	
	Background µR/hr reading: <u>10</u>	
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> 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 All > green pea 0812076-1-1 0812076-2-1

↓ -2 ↓ -2
↓ -3 ↓ -3
↓ -4
↓ -5

If applicable, was the client contacted? ☒ YES / NO / NA Contact: Peter Constantas Date/Time: 12/9/08Project Manager Signature / Date: [Signature] 12/9/08 e-mail

*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: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: SW3520 Rev C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9981

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: SV0812076-1

Date Printed: Tuesday, December 16, 2008

ALS Paragon

LIMS Version: 6.215A

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GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: SW3520 Rev C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9981

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: SV0812076-1

Date Printed: Tuesday, December 16, 2008

ALS Paragon

LIMS Version: 6.215A

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GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: SW3520 Rev C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9981

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	46.1		75	61	23 - 100
321-60-8	2-FLUOROBIPHENYL	42.5		50	85	21 - 106
367-12-4	2-FLUOROPHENOL	54.8		75	73	21 - 100
4165-60-0	NITROBENZENE-D5	40.3		50	81	34 - 111
4165-62-2	PHENOL-D5	55.2		75	74	15 - 104
1718-51-0	TERPHENYL-D14	51		50	102	33 - 111

Data Package ID: SV0812076-1

Date Printed: Tuesday, December 16, 2008

ALS Paragon

LIMS Version: 6.215A

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GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	
Lab ID:	EX081210-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10-Dec-08

Date Analyzed: 12-Dec-08

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: As Received

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Clean DF: 1

File Name: R9981

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

Data Package ID: SV0812076-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: SW3520 Rev C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: As Received

File Name: R9984

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: SV0812076-1

Date Printed: Tuesday, December 16, 2008

ALS Paragon

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LIMS Version: 6.215A

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 08-Dec-08
Date Extracted: 10-Dec-08
Date Analyzed: 12-Dec-08
Prep Method: SW3520 Rev C

Prep Batch: EX081210-1
QCBatchID: EX081210-1-1
Run ID: SV081212-3
Cleanup: NONE
Basis: As Received
File Name: R9984

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: SV0812076-1

Date Printed: Tuesday, December 16, 2008

ALS Paragon

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 08-Dec-08
Date Extracted: 10-Dec-08
Date Analyzed: 12-Dec-08
Prep Method: SW3520 Rev C

Prep Batch: EX081210-1
QCBatchID: EX081210-1-1
Run ID: SV081212-3
Cleanup: NONE
Basis: As Received
File Name: R9984

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	44.6		70.8	63	23 - 100
321-60-8	2-FLUOROBIPHENYL	30.9		47.2	65	21 - 106
367-12-4	2-FLUOROPHENOL	40.6		70.8	57	21 - 100
4165-60-0	NITROBENZENE-D5	29.4		47.2	62	34 - 111
4165-62-2	PHENOL-D5	41.4		70.8	59	15 - 104
1718-51-0	TERPHENYL-D14	36.3		47.2	77	33 - 111

Data Package ID: SV0812076-1

Date Printed: Tuesday, December 16, 2008

ALS Paragon

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GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 12-Dec-08

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: As Received

Sample Aliquot: 1060 ml

Final Volume: 1 ml

Clean DF: 1

File Name: R9984

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

Data Package ID: SV0812076-1

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/12/2008

Prep Method: SW3520C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9982

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	38.6	10		64	10 - 108%
62-75-9	N-NITROSODIMETHYLAMINE	60	51.5	10		86	26 - 110%
62-53-3	ANILINE	60	44.4	10		74	25 - 125%
108-95-2	PHENOL	60	50.4	10		84	49 - 101%
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	49.7	10		83	37 - 110%
95-57-8	2-CHLOROPHENOL	60	51.7	10		86	37 - 106%
541-73-1	1,3-DICHLOROBENZENE	60	46.3	10		77	32 - 98%
106-46-7	1,4-DICHLOROBENZENE	60	47.3	10		79	32 - 98%
95-50-1	1,2-DICHLOROBENZENE	60	48.3	10		81	33 - 102%
100-51-6	BENZYL ALCOHOL	60	50.4	10		84	30 - 112%
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	55.1	10		92	26 - 131%
95-48-7	2-METHYLPHENOL	60	50.2	10		84	38 - 109%
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	54.8	10		91	34 - 128%
108-39-4	3+4-METHYLPHENOL	60	47.8	10		80	32 - 110%
67-72-1	HEXACHLOROETHANE	60	49.7	10		83	28 - 94%
98-95-3	NITROBENZENE	60	42.5	10		71	44 - 109%
78-59-1	ISOPHORONE	60	44.9	10		75	50 - 112%
88-75-5	2-NITROPHENOL	60	47.6	10		79	39 - 113%
105-67-9	2,4-DIMETHYLPHENOL	60	44	10		73	28 - 109%
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	43.3	10		72	46 - 107%
120-83-2	2,4-DICHLOROPHENOL	60	44.1	10		74	48 - 105%
65-85-0	BENZOIC ACID	100	51	50		51	10 - 125%
120-82-1	1,2,4-TRICHLOROBENZENE	60	39.9	10		67	37 - 107%
91-20-3	NAPHTHALENE	60	43.7	10		73	39 - 102%
106-47-8	4-CHLOROANILINE	60	39.8	10		66	15 - 109%
87-68-3	HEXACHLOROBUTADIENE	60	41.4	10		69	27 - 103%

Data Package ID: SV0812076-1

Date Printed: Tuesday, December 16, 2008

ALS Paragon

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GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/12/2008

Prep Method: SW3520C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9982

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	46.4	10		77	47 - 111%
91-57-6	2-METHYLNAPHTHALENE	60	41.2	10		69	46 - 104%
90-12-0	1-METHYLNAPHTHALENE	60	42.4	10		71	46 - 104%
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	11	10		18	10 - 125%
88-06-2	2,4,6-TRICHLOROPHENOL	60	59.3	10		99	49 - 113%
95-95-4	2,4,5-TRICHLOROPHENOL	60	56.1	10		94	49 - 111%
91-58-7	2-CHLORONAPHTHALENE	60	52.9	10		88	36 - 137%
88-74-4	2-NITROANILINE	60	59.8	20		100	48 - 115%
131-11-3	DIMETHYL PHTHALATE	60	54.5	10		91	25 - 127%
606-20-2	2,6-DINITROTOLUENE	60	50.9	10		85	49 - 117%
208-96-8	ACENAPHTHYLENE	60	54.7	10		91	50 - 107%
99-09-2	3-NITROANILINE	60	51	20		85	19 - 126%
83-32-9	ACENAPHTHENE	60	53.2	10		89	47 - 108%
51-28-5	2,4-DINITROPHENOL	60	55.6	20		93	14 - 138%
100-02-7	4-NITROPHENOL	60	57.6	20		96	21 - 119%
132-64-9	DIBENZOFURAN	60	51.2	10		85	54 - 107%
121-14-2	2,4-DINITROTOLUENE	60	52.5	10		87	51 - 118%
84-66-2	DIETHYL PHTHALATE	60	57.6	10		96	41 - 118%
86-73-7	FLUORENE	60	56.2	10		94	50 - 112%
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	52.5	10		87	50 - 111%
100-01-6	4-NITROANILINE	60	52.2	20		87	36 - 118%
103-33-3	AZOBENZENE	60	56.8	10		95	21 - 137%
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	59.1	20		99	40 - 130%
86-30-6	N-NITROSODIPHENYLAMINE	60	45	10		75	48 - 111%
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	52.6	10		88	52 - 113%
118-74-1	HEXACHLOROBENZENE	60	54.1	10		90	52 - 112%
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	94.4	10		94	23 - 112%

Data Package ID: SV0812076-1

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GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/12/2008

Prep Method: SW3520C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9982

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	57.6	20		96	38 - 117%
85-01-8	PHENANTHRENE	60	55.4	10		92	51 - 117%
120-12-7	ANTHRACENE	60	55.2	10		92	54 - 112%
86-74-8	CARBAZOLE	60	55.3	10		92	48 - 117%
84-74-2	DI-N-BUTYL PHTHALATE	60	64.1	10		107	54 - 116%
206-44-0	FLUORANTHENE	60	59.1	10		98	54 - 116%
129-00-0	PYRENE	60	42.2	10		70	49 - 128%
85-68-7	BUTYL BENZYL PHTHALATE	60	52.1	10		87	46 - 116%
56-55-3	BENZO(A)ANTHRACENE	60	50	10		83	56 - 109%
91-94-1	3,3'-DICHLOROBENZIDINE	60	41.9	10		70	19 - 111%
218-01-9	CHRYSENE	60	49.2	10		82	55 - 109%
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	50.2	10		84	42 - 126%
117-84-0	DI-N-OCTYL PHTHALATE	60	55.9	10		93	37 - 137%
205-99-2	BENZO(B)FLUORANTHENE	60	53.3	10		89	45 - 118%
207-08-9	BENZO(K)FLUORANTHENE	60	51.6	10		86	45 - 124%
50-32-8	BENZO(A)PYRENE	60	48.6	10		81	53 - 110%
193-39-5	INDENO(1,2,3-CD)PYRENE	60	48.5	10		81	43 - 125%
53-70-3	DIBENZO(A,H)ANTHRACENE	60	51.4	10		86	42 - 127%
191-24-2	BENZO(G,H,I)PERYLENE	60	45.7	10		76	38 - 123%

Data Package ID: SV0812076-1

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GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/12/2008

Prep Method: SW3520C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9983

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	16.2	10	+	27	20	82
62-75-9	N-NITROSODIMETHYLAMINE	60	46.9	10		78	20	9
62-53-3	ANILINE	60	6.39	10	J*+	11	20	150
108-95-2	PHENOL	60	46.8	10		78	20	7
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	45.2	10		75	20	10
95-57-8	2-CHLOROPHENOL	60	47.4	10		79	20	9
541-73-1	1,3-DICHLOROBENZENE	60	42.7	10		71	20	8
106-46-7	1,4-DICHLOROBENZENE	60	43.8	10		73	20	8
95-50-1	1,2-DICHLOROBENZENE	60	44.2	10		74	20	9
100-51-6	BENZYL ALCOHOL	60	46.9	10		78	20	7
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	50.7	10		84	20	8
95-48-7	2-METHYLPHENOL	60	45.3	10		76	20	10
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	50.6	10		84	20	8
108-39-4	3+4-METHYLPHENOL	60	43.5	10		73	20	9
67-72-1	HEXACHLOROETHANE	60	45.4	10		76	20	9
98-95-3	NITROBENZENE	60	40.4	10		67	20	5
78-59-1	ISOPHORONE	60	43.1	10		72	20	4
88-75-5	2-NITROPHENOL	60	44.4	10		74	20	7
105-67-9	2,4-DIMETHYLPHENOL	60	40.1	10		67	20	9
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	40.8	10		68	20	6
120-83-2	2,4-DICHLOROPHENOL	60	41.3	10		69	20	7
65-85-0	BENZOIC ACID	100	54.7	50		55	20	7
120-82-1	1,2,4-TRICHLOROBENZENE	60	37.4	10		62	20	7
91-20-3	NAPHTHALENE	60	40.7	10		68	20	7
106-47-8	4-CHLOROANILINE	60	33.5	10		56	20	17
87-68-3	HEXACHLOROBUTADIENE	60	38.4	10		64	20	8
59-50-7	4-CHLORO-3-METHYLPHENOL	60	45.3	10		75	20	2

Data Package ID: SV0812076-1

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Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/12/2008

Prep Method: SW3520C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9983

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	39.1	10		65	20	5
90-12-0	1-METHYLNAPHTHALENE	60	40.7	10		68	20	4
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	11.2	10		19	20	2
88-06-2	2,4,6-TRICHLOROPHENOL	60	57	10		95	20	4
95-95-4	2,4,5-TRICHLOROPHENOL	60	54.2	10		90	20	3
91-58-7	2-CHLORONAPHTHALENE	60	49.5	10		82	20	7
88-74-4	2-NITROANILINE	60	59.6	20		99	20	0
131-11-3	DIMETHYL PHTHALATE	60	54.3	10		90	20	0
606-20-2	2,6-DINITROTOLUENE	60	50.7	10		85	20	0
208-96-8	ACENAPHTHYLENE	60	52.2	10		87	20	5
99-09-2	3-NITROANILINE	60	51.1	20		85	20	0
83-32-9	ACENAPHTHENE	60	51.9	10		87	20	2
51-28-5	2,4-DINITROPHENOL	60	60.2	20		100	20	8
100-02-7	4-NITROPHENOL	60	58.3	20		97	20	1
132-64-9	DIBENZOFURAN	60	49.7	10		83	20	3
121-14-2	2,4-DINITROTOLUENE	60	51.9	10		87	20	1
84-66-2	DIETHYL PHTHALATE	60	56.7	10		95	20	2
86-73-7	FLUORENE	60	55.2	10		92	20	2
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	50.9	10		85	20	3
100-01-6	4-NITROANILINE	60	51.6	20		86	20	1
103-33-3	AZO BENZENE	60	55.7	10		93	20	2
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	60.3	20		100	20	2
86-30-6	N-NITROSODIPHENYLAMINE	60	41.5	10		69	20	8
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	51.9	10		87	20	1
118-74-1	HEXACHLORO BENZENE	60	52.7	10		88	20	3
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	92.9	10		93	20	2
87-86-5	PENTACHLOROPHENOL	60	56.7	20		94	20	2

Data Package ID: SV0812076-1

Date Printed: Tuesday, December 16, 2008

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GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: EX081210-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/12/2008

Prep Method: SW3520C

Prep Batch: EX081210-1

QCBatchID: EX081210-1-1

Run ID: SV081212-3

Cleanup: NONE

Basis: N/A

File Name: R9983

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	53.8	10		90	20	3
120-12-7	ANTHRACENE	60	53	10		88	20	4
86-74-8	CARBAZOLE	60	53.1	10		89	20	4
84-74-2	DI-N-BUTYL PHTHALATE	60	61.5	10		102	20	4
206-44-0	FLUORANTHENE	60	57.3	10		95	20	3
129-00-0	PYRENE	60	42.9	10		71	20	2
85-68-7	BUTYL BENZYL PHTHALATE	60	52.9	10		88	20	2
56-55-3	BENZO(A)ANTHRACENE	60	48.3	10		81	20	3
91-94-1	3,3'-DICHLOROBENZIDINE	60	26.6	10	+	44	20	45
218-01-9	CHRYSENE	60	47.4	10		79	20	4
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	50.2	10		84	20	0
117-84-0	DI-N-OCTYL PHTHALATE	60	54.4	10		91	20	3
205-99-2	BENZO(B)FLUORANTHENE	60	51.2	10		85	20	4
207-08-9	BENZO(K)FLUORANTHENE	60	52.6	10		88	20	2
50-32-8	BENZO(A)PYRENE	60	45.4	10		76	20	7
193-39-5	INDENO(1,2,3-CD)PYRENE	60	47.8	10		80	20	1
53-70-3	DIBENZO(A,H)ANTHRACENE	60	50.8	10		85	20	1
191-24-2	BENZO(G,H,I)PERYLENE	60	45.3	10		76	20	1

Data Package ID: SV0812076-1

Date Printed: Tuesday, December 16, 2008

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GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

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	82		82		23 - 100
321-60-8	2-FLUOROBIPHENYL	50	89		83		21 - 106
367-12-4	2-FLUOROPHENOL	75	80		73		21 - 100
4165-60-0	NITROBENZENE-D5	50	74		69		34 - 111
4165-62-2	PHENOL-D5	75	82		76		15 - 104
1718-51-0	TERPHENYL-D14	50	72		73		33 - 111

Data Package ID: SV0812076-1

Date Printed: Tuesday, December 16, 2008

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GC/MS Volatiles Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200199690

Order Number - 0812076

1. This report consists of 2 water samples. The samples were received cool and intact by ALS Paragon on 12/09/08. The vials for samples 08012076-1 and -2 contained headspace prior to analysis because they were not received headspace free into the volatiles laboratory.
2. These samples were prepared according to SW-846, 3rd Edition procedures. Specifically, the water samples were prepared by purging 10 mL using purge and trap procedures based on Method 5030C.
3. The samples were analyzed using GC/MS with an RTX-624, RTX-VMS, or equivalent capillary column according to SOP 525 Revision 12 based on SW-846 Method 8260B. 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 calibrations are verified by comparing a second source standard calibration verification (ICV) against the calibration curve. All target compounds in the second source verification had a %D of less than 25%.
6. All criteria for SPCC's and CCC's were met in daily (continuing) calibration verifications (CCV).
7. Methylene chloride, acetone and 2-butanone are common laboratory contaminants. In order to minimize the levels of these compounds detected in the gc/ms analysis, ALS Paragon has designated its volatile laboratory as a restricted access area. In addition, the laboratory has been equipped with a dedicated, air intake and exhaust system that operates under positive pressure in order to minimize cross contamination of these compounds. Due to fluctuations in ambient laboratory conditions, reported sample values for common laboratory contaminants may be due to lab contamination even if the compound in question is not detected in the associated method blank.



All method blank criteria were met.


8. All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria with the following exception:

Spiked Compound	QC Sample	Direction
Bromoform	LCSD	High


The high recovery of this spike compound suggests that the quantitations of target analytes may be biased high. This analyte was not detected above the reporting limit in the associated samples. The reporting limits are defensible because the elevated recovery demonstrates an increase in sensitivity. 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 samples were analyzed within the established holding time.
11. All surrogate recoveries were within acceptance criteria.
12. All internal standard recoveries were within acceptance criteria.
13. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in SOP 939 Revision 3.

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.


Sharon L. Jobs
Organics Primary Data Reviewer

12-15-08
Date


Stephen D. White
Organics Final Data Reviewer

12-15-08
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: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200199690

Client Project Number:

Client PO Number: OE PHA 090000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Angely WW	0812076-1		WATER	08-Dec-08	11:58
Trip Blank	0812076-2		WATER	08-Dec-08	

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0812076Project Manager: AWInitials: CDT Date: 12-9-08

1. Does this project require any special handling in addition to standard Paragon procedures?	YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?	<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?	<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)	<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES NO
10. Is there sufficient sample for the requested analyses?	<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?	<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?	<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)	<input checked="" type="radio"/> YES	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 <input checked="" type="checkbox"/> > green pea	N/A	YES <input checked="" type="radio"/> NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> 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.)	<input checked="" type="radio"/> N/A	YES NO
17. Were the samples shipped on ice?	<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <input checked="" type="radio"/> #4 RAD ONLY	<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u>		
Temperature (°C): <u>4.8</u>		
No. of custody seals on cooler: <u>2</u>		
DOT Survey/ Acceptance Information	External µR/hr reading: <u>13</u>	
	Background µR/hr reading: <u>10</u>	
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> 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 All > green pea 0812076-1-1 0812076-2-1

↓ ↓

-2 -2

-3 -3

-4

-5

If applicable, was the client contacted? ☒ YES / NO / NA Contact: Peter Constantas Date/Time: 12/9/08Project Manager Signature / Date: [Signature] 12/9/08

e-mail

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

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

GC/MS Volatiles

Method SW8260_25B

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Method: SW5030 Rev C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24936

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	U	
74-87-3	CHLOROMETHANE	1	1	1	U	
75-01-4	VINYL CHLORIDE	1	1	1	U	
74-83-9	BROMOMETHANE	1	1	1	U	
75-00-3	CHLOROETHANE	1	1	1	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	1	1	1	U	
67-64-1	ACETONE	1	10	10	U	
74-88-4	IODOMETHANE	1	1	1	U	
75-15-0	CARBON DISULFIDE	1	1	1	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	U	
108-05-4	VINYL ACETATE	1	2	2	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	U	
78-93-3	2-BUTANONE	1	10	10	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	U	
67-66-3	CHLOROFORM	1	1	1	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	U	
71-43-2	BENZENE	1	1	1	U	
79-01-6	TRICHLOROETHENE	1	1	1	U	

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

ALS Paragon

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GC/MS Volatiles

Method SW8260_25B

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Method: SW5030 Rev C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24936

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

78-87-5	1,2-DICHLOROPROPANE	1	1	1	U	
74-95-3	DIBROMOMETHANE	1	1	1	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	U	
108-88-3	TOLUENE	1	1	1	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	U	
591-78-6	2-HEXANONE	1	10	10	U	
127-18-4	TETRACHLOROETHENE	1	1	1	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	U	
544-10-5	1-CHLOROHEXANE	1	1	1	U	
108-90-7	CHLOROBENZENE	1	1	1	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	U	
100-41-4	ETHYLBENZENE	1	1	1	U	
136777-61-2	M+P-XYLENE	1	1	1	U	
95-47-6	O-XYLENE	1	1	1	U	
100-42-5	STYRENE	1	1	1	U	
75-25-2	BROMOFORM	1	1	1	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	U	
108-86-1	BROMOBENZENE	1	1	1	U	
103-65-1	N-PROPYLBENZENE	1	1	1	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	U	

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

ALS Paragon

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GC/MS Volatiles

Method SW8260_25B

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Method: SW5030 Rev C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24936

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

98-06-6	TERT-BUTYLBENZENE	1	1	1	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	U	
104-51-8	N-BUTYLBENZENE	1	1	1	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	U	
91-20-3	NAPHTHALENE	1	1	1	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	26.8		25	107	78 - 129
1868-53-7	DIBROMOFLUOROMETHANE	23.9		25	95	80 - 124
2037-26-5	TOLUENE-D8	24.2		25	97	81 - 119

Data Package ID: VL0812076-1

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GC/MS Volatiles

Method SW8260_25

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	
Lab ID:	VL081210-4MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: As Received

Sample Aliquot: 10 ml

Final Volume: 10 ml

Clean DF: 1

File Name: D24936

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

Data Package ID: VL0812076-1

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GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Method: SW5030 Rev C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: As Received

File Name: D24938

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	U	
74-87-3	CHLOROMETHANE	1	1	1	U	
75-01-4	VINYL CHLORIDE	1	1	1	U	
74-83-9	BROMOMETHANE	1	1	1	U	
75-00-3	CHLOROETHANE	1	1	1	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1	1	1	U	
67-64-1	ACETONE	1	10	10	U	
74-88-4	IODOMETHANE	1	1	1	U	
75-15-0	CARBON DISULFIDE	1	1	1	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	U	
108-05-4	VINYL ACETATE	1	2	2	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	U	
78-93-3	2-BUTANONE	1	10	10	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	U	
67-66-3	CHLOROFORM	1	1	1	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	U	
71-43-2	BENZENE	1	1	1	U	
79-01-6	TRICHLOROETHENE	1	1	1	U	

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

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GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Method: SW5030 Rev C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: As Received

File Name: D24938

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

78-87-5	1,2-DICHLOROPROPANE	1	1	1	U	
74-95-3	DIBROMOMETHANE	1	1	1	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	U	
108-88-3	TOLUENE	1	1	1	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	U	
591-78-6	2-HEXANONE	1	10	10	U	
127-18-4	TETRACHLOROETHENE	1	1	1	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	U	
544-10-5	1-CHLOROHEXANE	1	1	1	U	
108-90-7	CHLOROBENZENE	1	1	1	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	U	
100-41-4	ETHYLBENZENE	1	1	1	U	
136777-61-2	M+P-XYLENE	1	1	1	U	
95-47-6	O-XYLENE	1	1	1	U	
100-42-5	STYRENE	1	1	1	U	
75-25-2	BROMOFORM	1	1	1	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	U	
108-86-1	BROMOBENZENE	1	1	1	U	
103-65-1	N-PROPYLBENZENE	1	1	1	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	U	

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

ALS Paragon

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LIMS Version: 6.215A

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Method: SW5030 Rev C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: As Received

File Name: D24938

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

98-06-6	TERT-BUTYLBENZENE	1	1	1	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	U	
104-51-8	N-BUTYLBENZENE	1	1	1	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	U	
91-20-3	NAPHTHALENE	1	1	1	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	26.6		25	106	78 - 129
1868-53-7	DIBROMOFLUOROMETHANE	24.1		25	96	80 - 124
2037-26-5	TOLUENE-D8	25		25	100	81 - 119

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

ALS Paragon

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LIMS Version: 6.215A

GC/MS Volatiles

Method SW8260_25

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: As Received

Sample Aliquot: 10 ml

Final Volume: 10 ml

Clean DF: 1

File Name: D24938

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

Data Package ID: VL0812076-1

Date Printed: Friday, December 19, 2008

ALS Paragon

LIMS Version: 6.217A

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GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Trip Blank
Lab ID:	0812076-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Method: SW5030 Rev C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: As Received

File Name: D24937

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	U	
74-87-3	CHLOROMETHANE	1	1	1	U	
75-01-4	VINYL CHLORIDE	1	1	1	U	
74-83-9	BROMOMETHANE	1	1	1	U	
75-00-3	CHLOROETHANE	1	1	1	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1	1	1	U	
67-64-1	ACETONE	1	10	10	U	
74-88-4	IODOMETHANE	1	1	1	U	
75-15-0	CARBON DISULFIDE	1	1	1	U	
75-09-2	METHYLENE CHLORIDE	1	0.62	1	J	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	U	
108-05-4	VINYL ACETATE	1	2	2	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	U	
78-93-3	2-BUTANONE	1	10	10	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	U	
67-66-3	CHLOROFORM	1	1	1	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	U	
71-43-2	BENZENE	1	1	1	U	
79-01-6	TRICHLOROETHENE	1	1	1	U	

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

ALS Paragon

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LIMS Version: 6.215A

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Trip Blank
Lab ID:	0812076-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Method: SW5030 Rev C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: As Received

File Name: D24937

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

78-87-5	1,2-DICHLOROPROPANE	1	1	1	U	
74-95-3	DIBROMOMETHANE	1	1	1	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	U	
108-88-3	TOLUENE	1	1	1	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	U	
591-78-6	2-HEXANONE	1	10	10	U	
127-18-4	TETRACHLOROETHENE	1	1	1	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	U	
544-10-5	1-CHLOROHEXANE	1	1	1	U	
108-90-7	CHLOROBENZENE	1	1	1	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	U	
100-41-4	ETHYLBENZENE	1	1	1	U	
136777-61-2	M+P-XYLENE	1	1	1	U	
95-47-6	O-XYLENE	1	1	1	U	
100-42-5	STYRENE	1	1	1	U	
75-25-2	BROMOFORM	1	1	1	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	U	
108-86-1	BROMOBENZENE	1	1	1	U	
103-65-1	N-PROPYLBENZENE	1	1	1	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	U	

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

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LIMS Version: 6.215A

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Trip Blank
Lab ID:	0812076-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 08-Dec-08
Date Extracted: 10-Dec-08
Date Analyzed: 10-Dec-08
Prep Method: SW5030 Rev C

Prep Batch: VL081210-4
QCBatchID: VL081210-4-1
Run ID: VL081210-4A
Cleanup: NONE
Basis: As Received
File Name: D24937

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

98-06-6	TERT-BUTYLBENZENE	1	1	1	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	U	
104-51-8	N-BUTYLBENZENE	1	1	1	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	U	
91-20-3	NAPHTHALENE	1	1	1	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	26.4		25	105	78 - 129
1868-53-7	DIBROMOFLUOROMETHANE	24.2		25	97	80 - 124
2037-26-5	TOLUENE-D8	24.8		25	99	81 - 119

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

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GC/MS Volatiles

Method SW8260_25

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Trip Blank
Lab ID:	0812076-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 10-Dec-08

Date Analyzed: 10-Dec-08

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: As Received

Sample Aliquot: 10 ml

Final Volume: 10 ml

Clean DF: 1

File Name: D24937

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

Data Package ID: VL0812076-1

Date Printed: Friday, December 19, 2008

ALS Paragon

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GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/10/2008

Prep Method: SW5030C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24934

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
75-71-8	DICHLORODIFLUOROMETHANE	10	11	1		110	38 - 131%
74-87-3	CHLOROMETHANE	10	10.1	1		101	62 - 141%
75-01-4	VINYL CHLORIDE	10	10.4	1		104	77 - 124%
74-83-9	BROMOMETHANE	10	10.3	1		103	76 - 133%
75-00-3	CHLOROETHANE	10	11.4	1		114	81 - 130%
75-69-4	TRICHLOROFLUOROMETHANE	10	11	1		110	84 - 146%
75-35-4	1,1-DICHLOROETHENE	10	10	1		100	75 - 126%
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHA	10	9.75	1		98	71 - 144%
67-64-1	ACETONE	40	39.4	10		99	50 - 150%
74-88-4	IODOMETHANE	10	11.3	1		113	76 - 116%
75-15-0	CARBON DISULFIDE	10	10.4	1		104	68 - 129%
75-09-2	METHYLENE CHLORIDE	10	9.87	1		99	22 - 146%
156-60-5	TRANS-1,2-DICHLOROETHENE	10	10.3	1		103	76 - 135%
1634-04-4	METHYL TERTIARY BUTYL ETHER	20	18.6	1		93	75 - 125%
75-34-3	1,1-DICHLOROETHANE	10	9.7	1		97	77 - 131%
108-05-4	VINYL ACETATE	10	9.63	2		96	56 - 151%
156-59-2	CIS-1,2-DICHLOROETHENE	10	10.1	1		101	81 - 121%
78-93-3	2-BUTANONE	40	33.8	10		85	50 - 150%
74-97-5	BROMOCHLOROMETHANE	10	10.1	1		101	85 - 126%
67-66-3	CHLOROFORM	10	9.83	1		98	84 - 125%
71-55-6	1,1,1-TRICHLOROETHANE	10	10.1	1		101	82 - 129%
594-20-7	2,2-DICHLOROPROPANE	10	9.94	1		99	79 - 130%
56-23-5	CARBON TETRACHLORIDE	10	10.1	1		101	83 - 135%
563-58-6	1,1-DICHLOROPROPENE	10	9.88	1		99	85 - 127%
107-06-2	1,2-DICHLOROETHANE	10	9.41	1		94	84 - 126%
71-43-2	BENZENE	10	9.73	1		97	82 - 122%

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

ALS Paragon

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GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/10/2008

Prep Method: SW5030C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24934

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
79-01-6	TRICHLOROETHENE	10	10.1	1		101	82 - 121%
78-87-5	1,2-DICHLOROPROPANE	10	9.39	1		94	81 - 121%
74-95-3	DIBROMOMETHANE	10	9.42	1		94	81 - 125%
75-27-4	BROMODICHLOROMETHANE	10	9.54	1		95	82 - 120%
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	9.66	1		97	79 - 120%
108-10-1	4-METHYL-2-PENTANONE	40	34.8	10		87	50 - 150%
108-88-3	TOLUENE	10	9.88	1		99	83 - 121%
10061-02-6	TRANS-1,3-DICHLOROPROPENE	10	9.09	1		91	78 - 113%
79-00-5	1,1,2-TRICHLOROETHANE	10	9.05	1		90	82 - 122%
591-78-6	2-HEXANONE	40	33.5	10		84	50 - 150%
127-18-4	TETRACHLOROETHENE	10	11.2	1		112	79 - 136%
142-28-9	1,3-DICHLOROPROPANE	10	9.01	1		90	80 - 126%
124-48-1	DIBROMOCHLOROMETHANE	10	9.84	1		98	80 - 123%
106-93-4	1,2-DIBROMOETHANE	10	9.39	1		94	85 - 124%
544-10-5	1-CHLOROHEXANE	10	10	1		100	77 - 135%
108-90-7	CHLOROBENZENE	10	9.9	1		99	82 - 121%
630-20-6	1,1,1,2-TETRACHLOROETHANE	10	9.87	1		99	85 - 128%
100-41-4	ETHYLBENZENE	10	9.82	1		98	83 - 126%
136777-61-	M+P-XYLENE	20	20.2	1		101	82 - 129%
95-47-6	O-XYLENE	10	10.2	1		102	87 - 132%
100-42-5	STYRENE	10	10.1	1		101	82 - 123%
75-25-2	BROMOFORM	10	11.2	1		112	79 - 118%
98-82-8	ISOPROPYLBENZENE	10	10.4	1		104	75 - 132%
96-18-4	1,2,3-TRICHLOROPROPANE	10	8.97	1		90	77 - 128%
79-34-5	1,1,1,2-TETRACHLOROETHANE	10	8.38	1		84	74 - 130%
108-86-1	BROMOBENZENE	10	10	1		100	78 - 124%
103-65-1	N-PROPYLBENZENE	10	9.37	1		94	75 - 134%

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

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GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/10/2008

Prep Method: SW5030C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24934

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
95-49-8	2-CHLOROTOLUENE	10	9.28	1		93	77 - 128%
108-67-8	1,3,5-TRIMETHYLBENZENE	10	9.79	1		98	77 - 131%
106-43-4	4-CHLOROTOLUENE	10	9.25	1		93	79 - 128%
98-06-6	TERT-BUTYLBENZENE	10	9.97	1		100	76 - 134%
95-63-6	1,2,4-TRIMETHYLBENZENE	10	9.67	1		97	80 - 138%
135-98-8	SEC-BUTYLBENZENE	10	9.71	1		97	73 - 135%
541-73-1	1,3-DICHLOROBENZENE	10	9.92	1		99	79 - 126%
99-87-6	P-ISOPROPYLTOLUENE	10	10	1		100	72 - 132%
106-46-7	1,4-DICHLOROBENZENE	10	9.83	1		98	81 - 125%
104-51-8	N-BUTYLBENZENE	10	9.42	1		94	77 - 141%
95-50-1	1,2-DICHLOROBENZENE	10	9.76	1		98	82 - 128%
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	10	9.27	2		93	64 - 134%
120-82-1	1,2,4-TRICHLOROBENZENE	10	10.8	1		108	80 - 128%
87-68-3	HEXACHLOROBUTADIENE	10	12.4	1		124	70 - 136%
91-20-3	NAPHTHALENE	10	9.42	1		94	78 - 125%
87-61-6	1,2,3-TRICHLOROBENZENE	10	11.1	1		111	79 - 131%

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

ALS Paragon

LIMS Version: 6.215A

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GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/10/2008

Prep Method: SW5030C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24935

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
75-71-8	DICHLORODIFLUOROMETHANE	10	10.3	1		103	20	7
74-87-3	CHLOROMETHANE	10	9.13	1		91	20	10
75-01-4	VINYL CHLORIDE	10	9.29	1		93	20	11
74-83-9	BROMOMETHANE	10	9.76	1		98	20	5
75-00-3	CHLOROETHANE	10	10.6	1		106	20	7
75-69-4	TRICHLOROFLUOROMETHANE	10	10.4	1		104	20	6
75-35-4	1,1-DICHLOROETHENE	10	9.4	1		94	20	6
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHA	10	9.26	1		93	20	5
67-64-1	ACETONE	40	41.4	10		103	30	5
74-88-4	IODOMETHANE	10	10.8	1		108	20	4
75-15-0	CARBON DISULFIDE	10	9.62	1		96	20	8
75-09-2	METHYLENE CHLORIDE	10	9.59	1		96	20	3
156-60-5	TRANS-1,2-DICHLOROETHENE	10	9.83	1		98	20	4
1634-04-4	METHYL TERTIARY BUTYL ETHER	20	19.8	1		99	20	6
75-34-3	1,1-DICHLOROETHANE	10	9.25	1		92	20	5
108-05-4	VINYL ACETATE	10	10.4	2		104	20	8
156-59-2	CIS-1,2-DICHLOROETHENE	10	9.92	1		99	20	2
78-93-3	2-BUTANONE	40	38.5	10		96	30	13
74-97-5	BROMOCHLOROMETHANE	10	10.8	1		108	20	7
67-66-3	CHLOROFORM	10	9.63	1		96	20	2
71-55-6	1,1,1-TRICHLOROETHANE	10	9.74	1		97	20	4
594-20-7	2,2-DICHLOROPROPANE	10	9.33	1		93	20	6
56-23-5	CARBON TETRACHLORIDE	10	9.66	1		97	20	5
563-58-6	1,1-DICHLOROPROPENE	10	9.44	1		94	20	5
107-06-2	1,2-DICHLOROETHANE	10	9.65	1		96	20	3
71-43-2	BENZENE	10	9.54	1		95	20	2
79-01-6	TRICHLOROETHENE	10	9.84	1		98	20	3

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

ALS Paragon

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GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/10/2008

Prep Method: SW5030C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24935

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
78-87-5	1,2-DICHLOROPROPANE	10	9.51	1		95	20	1
74-95-3	DIBROMOMETHANE	10	10.2	1		102	20	8
75-27-4	BROMODICHLOROMETHANE	10	9.78	1		98	20	2
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	9.98	1		100	20	3
108-10-1	4-METHYL-2-PENTANONE	40	39	10		98	30	11
108-88-3	TOLUENE	10	9.72	1		97	20	2
10061-02-6	TRANS-1,3-DICHLOROPROPENE	10	9.51	1		95	20	5
79-00-5	1,1,2-TRICHLOROETHANE	10	9.6	1		96	20	6
591-78-6	2-HEXANONE	40	37.3	10		93	30	11
127-18-4	TETRACHLOROETHENE	10	11.2	1		112	20	0
142-28-9	1,3-DICHLOROPROPANE	10	9.62	1		96	20	7
124-48-1	DIBROMOCHLOROMETHANE	10	10.5	1		105	20	7
106-93-4	1,2-DIBROMOETHANE	10	9.97	1		100	20	6
544-10-5	1-CHLOROHEXANE	10	9.73	1		97	20	3
108-90-7	CHLOROBENZENE	10	9.83	1		98	20	1
630-20-6	1,1,1,2-TETRACHLOROETHANE	10	9.95	1		100	20	1
100-41-4	ETHYLBENZENE	10	9.5	1		95	20	3
136777-61-	M+P-XYLENE	20	19.8	1		99	20	2
95-47-6	O-XYLENE	10	9.87	1		99	20	3
100-42-5	STYRENE	10	10.1	1		101	20	0
75-25-2	BROMOFORM	10	11.9	1	*	119	20	6
98-82-8	ISOPROPYLBENZENE	10	9.81	1		98	20	6
96-18-4	1,2,3-TRICHLOROPROPANE	10	9.87	1		99	20	10
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	8.98	1		90	20	7
108-86-1	BROMOBENZENE	10	10.2	1		102	20	2
103-65-1	N-PROPYLBENZENE	10	9	1		90	20	4
95-49-8	2-CHLOROTOLUENE	10	8.94	1		89	20	4

Data Package ID: VL0812076-1

Date Printed: Thursday, December 11, 2008

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GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: VL081210-4LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/10/2008

Date Analyzed: 12/10/2008

Prep Method: SW5030C

Prep Batch: VL081210-4

QCBatchID: VL081210-4-1

Run ID: VL081210-4A

Cleanup: NONE

Basis: N/A

File Name: D24935

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
108-67-8	1,3,5-TRIMETHYLBENZENE	10	9.37	1		94	20	4
106-43-4	4-CHLOROTOLUENE	10	9	1		90	20	3
98-06-6	TERT-BUTYLBENZENE	10	9.43	1		94	20	6
95-63-6	1,2,4-TRIMETHYLBENZENE	10	9.27	1		93	20	4
135-98-8	SEC-BUTYLBENZENE	10	9.21	1		92	20	5
541-73-1	1,3-DICHLOROBENZENE	10	9.79	1		98	20	1
99-87-6	P-ISOPROPYLTOLUENE	10	9.46	1		95	20	6
106-46-7	1,4-DICHLOROBENZENE	10	9.73	1		97	20	1
104-51-8	N-BUTYLBENZENE	10	8.8	1		88	20	7
95-50-1	1,2-DICHLOROBENZENE	10	9.7	1		97	20	1
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	10	9.85	2		99	20	6
120-82-1	1,2,4-TRICHLOROBENZENE	10	10.7	1		107	20	1
87-68-3	HEXACHLOROBUTADIENE	10	11.6	1		116	20	7
91-20-3	NAPHTHALENE	10	9.71	1		97	20	3
87-61-6	1,2,3-TRICHLOROBENZENE	10	11.2	1		112	20	2

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25	105		107		78 - 129
1868-53-7	DIBROMOFLUOROMETHANE	25	96		97		80 - 124
2037-26-5	TOLUENE-D8	25	96		96		81 - 119

Data Package ID: VL0812076-1

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ALS Paragon



Inorganics Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200199690

Work Order Number: 0812076

1. This report consists of 1 water sample.
2. The sample was received cool and intact by ALS Paragon on 12/09/08.
3. The sample was prepared for analysis based on Methods for the Chemical Analysis of Waters and Wastes (MCAWW), May 1994 procedures and Environmental Monitoring Systems Laboratory (EMSL) Rev 2.1 procedures.
4. The sample was analyzed following MCAWW and EMSL procedures for the following methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106 Rev 7
Bicarbonate	310.1	1106 Rev 7
Carbonate	310.1	1106 Rev 7
pH	150.1	1126 Rev 16
Specific conductance	120.1	1128 Rev 9
TDS	160.1	1101 Rev 10
Bromide	300.0	1113 Rev 11
Chloride	300.0	1113 Rev 11
Fluoride	300.0	1113 Rev 11
Nitrate as N	300.0	1113 Rev 11
Nitrite as N	300.0	1113 Rev 11
Sulfate	300.0	1113 Rev 11

5. All standards and solutions were used within their recommended shelf life.
6. The sample was prepared and analyzed within the established hold time for each analysis.

All in house quality control procedures were followed, as described below.

7. General quality control procedures.



- n A preparation (method) blank and laboratory control sample (LCS) were prepared and analyzed with the samples in each applicable preparation batch. There were not more than 20 samples in each preparation batch.
- n The method blank associated with each applicable batch was below the reporting limit for the requested analytes. This indicates that no contaminants were introduced to the samples during preparation and analysis.
- n The LCS was within the acceptance limits for each applicable analysis.
- n All initial and continuing calibration blanks (ICB/CCB) associated with each applicable analytical batch were below the reporting limit for the requested analytes.
- n All initial and continuing calibration verifications (ICV/CCV) associated with each applicable analytical batch were within the acceptance criteria for the requested analytes. This indicates a valid calibration and stable instrument conditions.

8. Matrix specific quality control procedures.

Per method requirements, matrix QC was performed for each analysis. 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.

9. Electrical conductivity screening indicated that the concentration of dissolved salts was high in the sample. Therefore, it was necessary to dilute the sample prior to injection into the ion chromatograph in order to minimize the amount of salts loaded into the analytical column.

It was necessary to further dilute the sample in order to bring the chloride and sulfate concentrations into the analytical range of the ion chromatograph (IC).

A reduced aliquot was taken of the sample for the TDS analysis. Reporting limits were elevated accordingly.

10. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in SOP 939 Revision 3.



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.

Megan Johnson
Megan Johnson
Inorganics Primary Data Reviewer

12/18/08
Date

A. A. Lopez
Inorganics Final Data Reviewer

12/18/08
Date

ALS Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200199690

Client Project Number:

Client PO Number: OE PHA 090000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Angely WW	0812076-1		WATER	08-Dec-08	11:58
Trip Blank	0812076-2		WATER	08-Dec-08	



Inorganic Data Reporting Qualifiers

The following qualifiers are used by the laboratory when reporting results of inorganic analyses.

- Concentration qualifier -- If the analyte was analyzed for but not detected a “U” is entered.
- QC qualifier -- Specified entries and their meanings are as follows:
 - N - Spiked sample recovery not within control limits.
 - * - Duplicate analysis (relative percent difference) not within control limits.
 - Z - Calibration spike recovery not within control limits.



Paragon Analyticals

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) 0812076 CT 12-9-08
Chain-of-Custody Date Ed Dec 16 Page 1 of 1 Originator: Retain pink copy!

Project Name/No.: 6-11-08 Sampler(s): 6-11-08 Turnaround (circle one) Standard or Rush (Due 14 days) (Dispose: Date 3/11/09 or Return to Client

Report To: Peter Gintartas

Phone: 719-846-3691

Fax: 719-846-3691

E-mail: Peter.Gintartas@state.co.us

Company: Colorado Oil & Gas Cons. Comm.

Address: 6115 Park Ave

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

Sample ID

Date

Time *

Lab ID

Matrix

Preservative

(Indicate type... HCl, etc.)

No. of Containers

VOCs

SVOCs

OC Pesticides

PCBs

Herbicides

Explosives

TCLP Organics SW1311

TCLP Metals SW1311 Hg

Total Metals by ICP Hg

Dissolved Metals by ICP Hg

Total Metals by ICP/MS

Dissolved Metals by ICP/MS

Hexavalent Chromium

Inorganic Anions

Solids:

TPH

Gross Alpha / Beta

Actinides by Paragon SOP

Tritium

Total Alpha-Emitting Radium

Radium 226

Radium 228

Strontium 90 (Total Radio)

Gamma Isotopes

Radon 222

SM7510Rn

* 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:

Filter + preserve metals upon receipt

Analysis = Pb, Cd, Fe, Ni, Mn, Zn, Cu

Analysis = Sb, Ag, As, Cd, Pb, Ni, Se, Te, U

Analysis = Pb, Bi, B, Ca, Cr, Cu, Fe, Li, Mg, Mn, Ni, K, Na, S, Zn

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0812076Project Manager: AWInitials: CDTDate: 12-9-08

1. Does this project require any special handling in addition to standard Paragon procedures?	YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?	<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?	<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)	<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES NO
10. Is there sufficient sample for the requested analyses?	<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?	<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?	<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)	<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: _____ < green pea <input checked="" type="checkbox"/> > green pea	N/A	YES <input checked="" type="radio"/> NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> 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.)	<input checked="" type="radio"/> N/A	YES NO
17. Were the samples shipped on ice ?	<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <input checked="" type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES NO
Cooler #: <u>1</u>		
Temperature (°C): <u>4.8</u>		
No. of custody seals on cooler: <u>2</u>		
DOT Survey/ Acceptance Information	External µR/hr reading: <u>13</u>	
	Background µR/hr reading: <u>10</u>	
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> 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 All > green pea 0812076-1-1 0812076-2-1

↓ -2 ↓ -2
↓ -3 ↓ -3
↓ -4
↓ -5

If applicable, was the client contacted? ☒ YES / NO / NA Contact: Peter ConstantasDate/Time: 12/9/08Project Manager Signature / Date: [Signature] 12/9/08

e-mail

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

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

BICARBONATE AS CaCO₃

Method EPA310.1

Sample Results

Lab Name: ALS Paragon

Client Name: Colorado Oil & Gas Conservation Commission

Client Project ID: Complaint 200199690

Work Order Number: 0812076

Final Volume: 100 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
Angely WW	0812076-1	12/08/2008	12/16/2008	12/16/2008	N/A	1	57	5		100 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *ak0812076-1*

Date Printed: Wednesday, December 17, 2008

ALS Paragon

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CARBONATE AS CaCO₃

Method EPA310.1

Sample Results

Lab Name: ALS Paragon

Client Name: Colorado Oil & Gas Conservation Commission

Client Project ID: Complaint 200199690

Work Order Number: 0812076

Final Volume: 100 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
Angely WW	0812076-1	12/08/2008	12/16/2008	12/16/2008	N/A	1	5	5	U	100 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *ak0812076-1*

Date Printed: Wednesday, December 17, 2008

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TOTAL ALKALINITY AS CaCO3

Method EPA310.1

Sample Results

Lab Name: ALS Paragon

Client Name: Colorado Oil & Gas Conservation Commission

Client Project ID: Complaint 200199690

Work Order Number: 0812076

Final Volume: 100 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
Angely WW	0812076-1	12/08/2008	12/16/2008	12/16/2008	N/A	1	57	5		100 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *ak0812076-1*

Date Printed: Wednesday, December 17, 2008

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pH

Method EPA150.1

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 12-Dec-08

Date Analyzed: 20-Dec-08

Prep Method: NONE

Prep Batch: PH081212-1

QCBatchID: PH081212-1-1

Run ID: ph081212-1a

Cleanup: NONE

Basis: As Received

File Name:

Sample Aliquot: 20 ml

Final Volume: 20 ml

Result Units: pH

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-29-7	PH	1	7.67	0.1		

Data Package ID: *ph0812076-1*

Specific Conductance in Water

Method EPA120.1

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 12-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: NONE

Prep Batch: SC081212-1

QCBatchID: SC081212-1-1

Run ID: sc081212-1a

Cleanup: NONE

Basis: As Received

File Name:

Sample Aliquot: 45 ml

Final Volume: 45 ml

Result Units: umhos/cm

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-34-4	SPECIFIC CONDUCTIVITY	1	2040	1		

Data Package ID: *sc0812076-1*

Date Printed: Wednesday, December 17, 2008

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Total Dissolved Solids

Method EPA160.1

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 12-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: NONE

Prep Batch: TD081212-1

QCBatchID: TD081212-1-1

Run ID: td081215-1a

Cleanup: NONE

Basis: As Received

File Name: Manual Entry

Sample Aliquot: 50 ml

Final Volume: 100 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-33-3	TOTAL DISSOLVED SOLIDS	1	1600	40		

Data Package ID: *td0812076-1*

Date Printed: Wednesday, December 17, 2008

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Ion Chromatography

Method EPA300.0 Revision 2.1

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 09-Dec-08

Date Analyzed: 09-Dec-08

Prep Method: NONE

Prep Batch: IC081209-1

QCBatchID: IC081209-1-1

Run ID: ic081209-1a

Cleanup: NONE

Basis: As Received

File Name: 81209_032.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
16984-48-8	FLUORIDE	2	3.2	0.2		
16887-00-6	CHLORIDE	20	61	4		
14797-65-0	NITRITE AS N	2	0.2	0.2	U	
24959-67-9	BROMIDE	2	0.74	0.4		
14797-55-8	NITRATE AS N	2	0.4	0.4	U	
14808-79-8	SULFATE	20	1000	20		

Data Package ID: ic0812076-1

Date Printed: Wednesday, December 17, 2008

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BICARBONATE AS CaCO₃

Method EPA310.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: AK081216-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: AK081216-1

QCBatchID: AK081216-1-1

Run ID: ak081216-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
AK081216-1MB	12/16/2008	12/16/2008	N/A	1	5	5	U

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: ak0812076-1

Date Printed: Wednesday, December 17, 2008

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CARBONATE AS CaCO₃

Method EPA310.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: AK081216-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: AK081216-1

QCBatchID: AK081216-1-1

Run ID: ak081216-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
AK081216-1MB	12/16/2008	12/16/2008	N/A	1	5	5	U

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: ak0812076-1

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.215A

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TOTAL ALKALINITY AS CaCO₃

Method EPA310.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: AK081216-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: AK081216-1

QCBatchID: AK081216-1-1

Run ID: ak081216-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
AK081216-1MB	12/16/2008	12/16/2008	N/A	1	5	5	U

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: ak0812076-1

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.215A

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TOTAL ALKALINITY AS CaCO₃

Method EPA310.1

Laboratory Control Sample

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: AK081216-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/16/2008

Date Analyzed: 12/16/2008

Prep Batch: AK081216-1

QCBatchID: AK081216-1-1

Run ID: ak081216-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
11-43-8	TOTAL ALKALINITY AS CaCO ₃	100	97.7	5		98	85 - 115

Data Package ID: ak0812076-1

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.215A

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Total Dissolved Solids

Method EPA160.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: TD081212-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: NONE

Prep Batch: TD081212-1

QCBatchID: TD081212-1-1

Run ID: td081215-1a

Cleanup: NONE

Basis: N/A

File Name: Manual Entry

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-33-3	TOTAL DISSOLVED SOLIDS	1	20	20	U	

Data Package ID: *td0812076-1*

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.215A

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Total Dissolved Solids

Method EPA160.1

Laboratory Control Sample

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: TD081212-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/12/2008

Date Analyzed: 12/12/2008

Prep Method: NONE

Prep Batch: TD081212-1

QCBatchID: TD081212-1-1

Run ID: td081215-1a

Cleanup: NONE

Basis: N/A

File Name: Manual Entry

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
10-33-3	TOTAL DISSOLVED SOLIDS	400	401	20		100	85 - 115%

Data Package ID: *td0812076-1*

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.215A

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Ion Chromatography

Method EPA300.0 Revision 2.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: IC081209-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 09-Dec-08

Date Analyzed: 09-Dec-08

Prep Method: NONE

Prep Batch: IC081209-1

QCBatchID: IC081209-1-1

Run ID: ic081209-1a

Cleanup: NONE

Basis: N/A

File Name: 81209_011.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
16984-48-8	FLUORIDE	1	0.1	0.1	U	
16887-00-6	CHLORIDE	1	0.2	0.2	U	
14797-65-0	NITRITE AS N	1	0.1	0.1	U	
24959-67-9	BROMIDE	1	0.2	0.2	U	
14797-55-8	NITRATE AS N	1	0.2	0.2	U	
14808-79-8	SULFATE	1	1	1	U	

Data Package ID: ic0812076-1

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.215A

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Ion Chromatography

Method EPA300.0 Revision 2.1

Laboratory Control Sample

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: IC081209-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/09/2008

Date Analyzed: 12/09/2008

Prep Method: NONE

Prep Batch: IC081209-1

QCBatchID: IC081209-1-1

Run ID: ic081209-1a

Cleanup: NONE

Basis: N/A

File Name: 81209_012.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
16984-48-8	FLUORIDE	2.5	2.49	0.1		100	90 - 110%
16887-00-6	CHLORIDE	5	5.39	0.2		108	90 - 110%
14797-65-0	NITRITE AS N	2	1.99	0.1		99	90 - 110%
24959-67-9	BROMIDE	5	5.26	0.2		105	90 - 110%
14797-55-8	NITRATE AS N	5	5.2	0.2		104	90 - 110%
14808-79-8	SULFATE	25	26.3	1		105	90 - 110%

Data Package ID: ic0812076-1

Date Printed: Wednesday, December 17, 2008

ALS Paragon

LIMS Version: 6.215A

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Lab #: 151580 Job #: 10746
 Sample Name/Number: Angely WW
 Company: Colorado Oil & Gas Conservation
 Date Sampled: 12/08/2008
 Container: Dissolved Gas Bottle
 Field/Site Name: Complaint 200199690
 Location: Huerfano County, CO
 Formation/Depth:
 Sampling Point:
 Date Received: 12/12/2008 Date Reported: 12/31/2008

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 18O per mil
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	0.229			
Oxygen -----	2.19			
Nitrogen -----	10.47			
Carbon Dioxide -----	0.097			
Methane -----	86.96	-49.28	-235.4	
Ethane -----	0.0532			
Ethylene -----	na			
Propane -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			
Water -----			-104.3	-13.87
Dissolved Inorganic Carbon -		-22.14		

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 882

Specific gravity, calculated: 0.612

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.46

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen and oxygen are relative to VSMOW. Calculations for BTU and specific gravity per D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. ASTM Chemical analysis based on standards accurate to within 2%



ALS Paragon



Metals Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200199690

Work Order Number: 0812076

1. This report consists of 1 water sample.
2. The sample was received cool and intact by ALS Paragon on 12/09/08.
3. The sample was to be analyzed for dissolved metals. The sample was filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than two prior to analysis.
4. The sample was prepared for analysis based on Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures.

Prior to analysis by Trace ICP, an ionization buffer was added to the sample and associated QC to improve the sodium and potassium quantitation.

For analysis by Trace ICP and ICP-MS, the sample was digested following method 200.2 and SOP 806 Rev. 13.

The sample was prepared for ICP-MS analysis of arsenic and selenium by passing the digested sample and associated QC through a cation exchange column. The cation exchange column removes cations from the matrix and eliminates the CaCl^+ (mass 75) interferences on arsenic.

5. The sample was analyzed following Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures.

Analysis by Trace ICP followed method 200.7 and SOP 807 Rev. 11.

The relationship between intensity and concentration for each element is established using at least four standards, one of which is a blank solution.

During sample analysis concentrations are computed by the software and the results are printed in mg/L. The instrument software does not provide a printout which gives both intensity and concentration. The validity of the calibration equation is tested by analyzing the following



solutions: a blank, a low level check solution with concentrations near the reporting limit, an Initial Calibration Verification (ICV) standard from a 2nd source standard solution with concentrations near the middle of the analytical range, a Continuing Calibration Verification (CCV) standard with concentrations at two times those in the ICV, and a readback of the highest calibration standard.

These solutions provide verification that the calibration equations are functioning properly throughout the analytical range of the instrument. During sample analysis dilutions are made for analytes found at concentrations above the highest calibration standard. No results are taken from extrapolations beyond the highest standard.

Analysis by ICP-MS followed method 200.8 and SOP 827 Rev. 6.

The relationship between intensity and concentration for each element is established using at least four standards, one of which is a blank solution. A calibration equation relating instrument response to concentration is developed by the instrument software. The equation is a higher order polynomial. This type of equation is used to improve quantitation accuracy at lower concentrations where the relationship between concentration and instrument response is non-linear.

During sample analysis concentrations are computed by the software and the results are printed in ug/L. The validity of the calibration equation is tested by analyzing the following solutions: a blank, a low level check solution with concentrations near the reporting limit, an Initial Calibration Verification (ICV) standard from a 2nd source standard solution with concentrations near the middle of the analytical range, a Continuing Calibration Verification (CCV) standard with concentrations near the middle of the analytical range but different than those in the ICV, and a readback of the highest calibration standard.

These solutions provide verification that the calibration equations are functioning properly throughout the analytical range of the instrument. During sample analysis dilutions are made for analytes found at concentrations above the highest calibration standard. No results are taken from extrapolations beyond the highest standard.

6. All standards and solutions are NIST traceable and were used within their recommended shelf life.
7. The sample was prepared and analyzed within the established hold times.

All in house quality control procedures were followed, as described below.

8. General quality control procedures.

- A filter (method) blank and laboratory control sample were filtered, preserved, and digested at the same time as the samples. There were not more than 20 samples associated with each filtered blank and laboratory control sample.
- The filter (method) blank associated with each digestion batch was below the practical quantitation limit for each requested analyte.



- The laboratory control sample associated with each digestion batch was within the acceptance limits. This indicates complete digestion according to the method.
- All initial and continuing calibration blanks associated with each analytical batch were below the practical quantitation limits for the requested analytes, with the exception of CCB6 for strontium. The method blank and laboratory control sample were the only samples associated with this order number that were bracketed by this CCB. Strontium was not detected in the method blank, and was within control limits in the laboratory control sample.
- All initial and continuing calibration verifications associated with each analytical batch were within the acceptance criteria for the requested analytes, with the exception of CCV6 for strontium. The method blank and laboratory control sample were the only samples associated with this order number that were bracketed by this CCV. Strontium was not detected in the method blank, and was within control limits in the laboratory control sample.
- The interference check samples associated with Method 200.8 were analyzed.
- The interference check samples associated with Method 200.7 were within acceptance criteria.

9. Matrix specific quality control procedures.

Per method requirements, matrix QC was performed for each analysis. 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 required a dilution to bring sodium into the analytical range of the Trace ICP.


It is a standard ALS Paragon practice that samples for ICP-MS are analyzed at a dilution.

11. Sodium Adsorption Ration (SAR) was determined by calculation based on a reference from the client. Calcium, magnesium, and sodium concentrations were determined by ICP, Method 200.7.


$$SAR = Na / (((Ca + Mg) / 2)^{1/2})$$

The analyte results are the me/L concentrations based on conversions from their mg/L concentrations.

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.


Emily Knodel
Inorganics Primary Data Reviewer

12-22-08
Date


Inorganics Final Data Reviewer

12/22/08
Date



Inorganic Data Reporting Qualifiers

The following qualifiers are used by the laboratory when reporting results of inorganic analyses.

- Result qualifier -- If the analyte was analyzed for but not detected a “U” is entered.
- QC qualifier -- Specified entries and their meanings are as follows:
 - E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 - M - Duplicate injection precision was not met.
 - N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 - Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 - * - Duplicate analysis (relative percent difference) not within control limits.
 - S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

ALS Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200199690

Client Project Number:

Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Angely WW	0812076-1		WATER	08-Dec-08	11:58
Trip Blank	0812076-2		WATER	08-Dec-08	



Paragon Analyticals

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) 0812076 CT 12-9-08
Chain-of-Custody Date Ed Dec 08 Page 1 of 1 Originator: Retain pink copy!

Project Name/No.: 6-11-08 Sampler(s): 6-11-08 Turnaround (circle one) Standard or Rush (Due 14 days) (Dispose: Date 30 Oct or Return to Client

Report To: Peter Gintant

Phone: 719-846-3691

Fax: 719-846-3691

E-mail: Peter.Gintant@state.co.us

Company: Colorado Oil & Gas Cons. Comm.

Address: 611 S. K...

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

Sample ID

Date

Time *

Lab ID

Matrix

Preservative

(Indicate type... HCl, etc.)

No. of Containers

VOCs

SVOCs

OC Pesticides

PCBs

Herbicides

Explosives

TCLP Organics SW1311

TCLP Metals SW1311 Hg

Total Metals by ICP Hg

Dissolved Metals by ICP Hg

Total Metals by ICP/MS

Dissolved Metals by ICP/MS

Hexavalent Chromium

Inorganic Anions

Solids:

TPH

Gross Alpha / Beta

Actinides by Paragon SOP

Tritium

Total Alpha-Emitting Radium

Radium 226

Radium 228

Strontium 90 (Total Radio)

Gamma Isotopes

Radon 222

SM7510Rn

Relinquished By:

Signature

Printed Name

Date

Time

Company

Relinquished By:

Signature

Printed Name

Date

Time

Company

Form 20216.xls (6/16/06)

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0812076Project Manager: AWInitials: CDTDate: 12-9-08

1. Does this project require any special handling in addition to standard Paragon procedures?	YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?	<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?	<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)	<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES NO
10. Is there sufficient sample for the requested analyses?	<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?	<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?	<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)	<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: _____ < green pea <input checked="" type="checkbox"/> > green pea	N/A	YES <input checked="" type="radio"/> NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> 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.)	<input checked="" type="radio"/> N/A	YES NO
17. Were the samples shipped on ice ?	<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <input checked="" type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES NO
Cooler #: <u>1</u>		
Temperature (°C): <u>4.8</u>		
No. of custody seals on cooler: <u>2</u>		
DOT Survey/ Acceptance Information	External µR/hr reading: <u>13</u>	
	Background µR/hr reading: <u>10</u>	
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> 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 All > green pea 0812076-1-1 0812076-2-1

↓ -2 ↓ -2
↓ -3 ↓ -3
↓ -4
↓ -5

If applicable, was the client contacted? ☒ YES / NO / NA Contact: Peter ConstantasDate/Time: 12/9/08Project Manager Signature / Date: [Signature] 12/9/08

e-mail

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

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

Dissolved Metals by 200.7

Method EPA200.7 Revision 4.4

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID: Angely WW

Lab ID: 0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 11-Dec-08

Date Analyzed: 16-Dec-08

Prep Method: EPA200.2 Rev 2.8

Prep Batch: IP081211-4

QCBatchID: IP081211-4-1

Run ID: IT081216-1A7

Cleanup: NONE

Basis: As Received

File Name: T81216A.

Sample Aliquot: 50 g

Final Volume: 50 g

Result Units: mg/l

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7440-39-3	BARIUM	1	0.1	0.1	U	
7440-41-7	BERYLLIUM	1	0.002	0.002	U	
7440-42-8	BORON	1	0.45	0.1		
7440-70-2	CALCIUM	1	190	1		
7440-47-3	CHROMIUM	1	0.01	0.01	U	
7440-48-4	COBALT	1	0.01	0.01	U	
7440-50-8	COPPER	1	0.01	0.01	U	
7439-89-6	IRON	1	0.1	0.1	U	
7439-93-2	LITHIUM	1	0.029	0.01		
7439-95-4	MAGNESIUM	1	2.5	1		
7439-96-5	MANGANESE	1	0.19	0.01		
7440-02-0	NICKEL	1	0.02	0.02	U	
7440-09-7	POTASSIUM	1	2.2	1		
7440-23-5	SODIUM	5	260	5		
	SODIUM ADSORPTION RATIO	5	5.2	0.85		
7440-24-6	STRONTIUM	1	3.8	0.01		
7440-66-6	ZINC	1	0.02	0.02	U	

Data Package ID: IT0812076-1

Date Printed: Monday, December 22, 2008

ALS Paragon

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LIMS Version: 6.217A

Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Field ID:	Angely WW
Lab ID:	0812076-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 08-Dec-08

Date Extracted: 11-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: EPA200.2 Rev 2.8

Prep Batch: IP081211-4

QCBatchID: IP081211-4-2

Run ID: IM081212-1A5

Cleanup: NONE

Basis: As Received

File Name: 12DEC08A

Sample Aliquot: 50 g

Final Volume: 50 g

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7440-36-0	ANTIMONY	10	0.45	0.3		
7440-38-2	ARSENIC	10	2	2	U	
7440-43-9	CADMIUM	10	0.3	0.3	U	
7439-92-1	LEAD	10	0.5	0.5	U	
7439-98-7	MOLYBDENUM	10	2	1		
7782-49-2	SELENIUM	10	1	1	U	
7440-22-4	SILVER	10	0.1	0.1	U	
7440-28-0	THALLIUM	10	0.2	0.2	U	
7440-61-1	URANIUM	10	0.1	0.1	U	

Data Package ID: IM0812076-1

Date Printed: Monday, December 22, 2008

ALS Paragon

LIMS Version: 6.217A

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Metals by 200.7

Method EPA200.7 Revision 4.4

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: F081210-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11-Dec-08

Date Analyzed: 16-Dec-08

Prep Method: EPA200.2 Rev 2.8

Prep Batch: IP081211-4

QCBatchID: IP081211-4-1

Run ID: IT081216-1A7

Cleanup: NONE

Basis: N/A

File Name: T81216A.

Sample Aliquot: 50 g

Final Volume: 50 g

Result Units: mg/l

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7440-39-3	BARIUM	1	0.1	0.1	U	
7440-41-7	BERYLLIUM	1	0.002	0.002	U	
7440-42-8	BORON	1	0.1	0.1	U	
7440-70-2	CALCIUM	1	1	1	U	
7440-47-3	CHROMIUM	1	0.01	0.01	U	
7440-48-4	COBALT	1	0.01	0.01	U	
7440-50-8	COPPER	1	0.01	0.01	U	
7439-89-6	IRON	1	0.1	0.1	U	
7439-93-2	LITHIUM	1	0.01	0.01	U	
7439-95-4	MAGNESIUM	1	1	1	U	
7439-96-5	MANGANESE	1	0.01	0.01	U	
7440-02-0	NICKEL	1	0.02	0.02	U	
7440-09-7	POTASSIUM	1	1	1	U	
7440-23-5	SODIUM	1	1	1	U	
7440-24-6	STRONTIUM	1	0.01	0.01	U	
7440-66-6	ZINC	1	0.02	0.02	U	

Data Package ID: IT0812076-1

Date Printed: Monday, December 22, 2008

ALS Paragon

LIMS Version: 6.217A

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Metals by 200.7

Method EPA200.7 Revision 4.4

Laboratory Control Sample

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: F081210-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/11/2008

Date Analyzed: 12/16/2008

Prep Method: EPA200.22.8

Prep Batch: IP081211-4

QCBatchID: IP081211-4-1

Run ID: IT081216-1A7

Cleanup: NONE

Basis: N/A

File Name: T81216A.

Sample Aliquot: 50 g

Final Volume: 50 g

Result Units: mg/l

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7440-39-3	BARIUM	2	2.02	0.1		101	85 - 115%
7440-41-7	BERYLLIUM	0.05	0.0449	0.002		90	85 - 115%
7440-42-8	BORON	1	1.01	0.1		101	85 - 115%
7440-70-2	CALCIUM	40	39.9	1		100	85 - 115%
7440-47-3	CHROMIUM	0.2	0.199	0.01		99	85 - 115%
7440-48-4	COBALT	0.5	0.479	0.01		96	85 - 115%
7440-50-8	COPPER	0.25	0.237	0.01		95	85 - 115%
7439-89-6	IRON	1	1.01	0.1		101	85 - 115%
7439-93-2	LITHIUM	0.5	0.518	0.01		104	85 - 115%
7439-95-4	MAGNESIUM	40	40.5	1		101	85 - 115%
7439-96-5	MANGANESE	0.5	0.49	0.01		98	85 - 115%
7440-02-0	NICKEL	0.5	0.5	0.02		100	85 - 115%
7440-09-7	POTASSIUM	40	43.2	1		108	85 - 115%
7440-23-5	SODIUM	40	40	1		100	85 - 115%
7440-24-6	STRONTIUM	0.5	0.484	0.01		97	85 - 115%
7440-66-6	ZINC	0.5	0.509	0.02		102	85 - 115%

Data Package ID: IT0812076-1

Date Printed: Monday, December 22, 2008

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Metals by 200.8

Method EPA200.8 Revision 5.4

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: F081210-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11-Dec-08

Date Analyzed: 12-Dec-08

Prep Method: EPA200.2 Rev 2.8

Prep Batch: IP081211-4

QCBatchID: IP081211-4-2

Run ID: IM081212-1A5

Cleanup: NONE

Basis: N/A

File Name: 12DEC08A

Sample Aliquot: 50 g

Final Volume: 50 g

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7440-36-0	ANTIMONY	10	0.3	0.3	U	
7440-38-2	ARSENIC	10	2	2	U	
7440-43-9	CADMIUM	10	0.3	0.3	U	
7439-92-1	LEAD	10	0.5	0.5	U	
7439-98-7	MOLYBDENUM	10	1	1	U	
7782-49-2	SELENIUM	10	1	1	U	
7440-22-4	SILVER	10	0.1	0.1	U	
7440-28-0	THALLIUM	10	0.2	0.2	U	
7440-61-1	URANIUM	10	0.1	0.1	U	

Data Package ID: IM0812076-1

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Metals by 200.8

Method EPA200.8 Revision 5.4

Laboratory Control Sample

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: FM81210-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/11/2008

Date Analyzed: 12/12/2008

Prep Method: EPA200.22.8

Prep Batch: IP081211-4

QCBatchID: IP081211-4-2

Run ID: IM081212-1A5

Cleanup: NONE

Basis: N/A

File Name: 12DEC08A

Sample Aliquot: 50 g

Final Volume: 50 g

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7440-36-0	ANTIMONY	20	19.7	0.3		99	85 - 115%
7440-38-2	ARSENIC	40	41.9	2		105	85 - 115%
7440-43-9	CADMIUM	20	19.6	0.3		98	85 - 115%
7439-92-1	LEAD	100	100	0.5		100	85 - 115%
7439-98-7	MOLYBDENUM	20	19.7	1		99	85 - 115%
7782-49-2	SELENIUM	40	40.9	1		102	85 - 115%
7440-22-4	SILVER	20	20.5	0.1		103	85 - 115%
7440-28-0	THALLIUM	1	0.848	0.2		85	85 - 115%
7440-61-1	URANIUM	20	20.6	0.1		103	85 - 115%

Data Package ID: IM0812076-1

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ALS Paragon



Total Organic Carbon Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200199690

Order Number - 0812076

1. This report consists of 1 water sample.
2. The sample was received cool and intact by ALS Paragon on 12/09/08.
3. The sample had been correctly preserved for the requested analysis.
4. The sample was prepared for analysis based on Methods for the Chemical Analysis of Waters and Wastes (MCAWW), May 1994 procedures.

5. The sample was analyzed following MCAWW procedures for the following method:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
TOC (Total Organic Carbon)	415.1	670 Rev 12

6. All standards and solutions were used within their recommended shelf life.
7. The sample was prepared and analyzed within the established hold time for TOC analysis.

All in house quality control procedures were followed, as described below.

8. General quality control procedures.
 - n A preparation (method) blank, laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed with the samples in this preparation batch. There were not more than 20 samples in this preparation batch.
 - n The method blank associated with this batch was below the reporting limit for the requested analyte. This indicates that no contaminants were introduced to the samples during preparation and analysis.
 - n The LCS and LCSD were within the acceptance limits for TOC analysis.



- All continuing calibration verifications (CCV) associated with this batch were within the acceptance criteria for the requested analyte. This indicates a valid calibration and stable instrument conditions.

9. Matrix specific quality control procedures.

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.

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.

SL
Sharon L. Jobs
Organics Primary Data Reviewer

12-16-08
Date

B. Pirasteh
Organics Final Data Reviewer

12-16-08
Date

ALS Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200199690

Client Project Number:

Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Angely WW	0812076-1		WATER	08-Dec-08	11:58
Trip Blank	0812076-2		WATER	08-Dec-08	

[illegible]

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0812076Project Manager: AWInitials: CDTDate: 12-9-08

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: _____ < green pea <input checked="" type="checkbox"/> > green pea	N/A	YES	<input checked="" type="radio"/> NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> 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.)	<input checked="" type="radio"/> N/A	YES	NO
17. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #2	<input checked="" type="radio"/> #4	RAD ONLY <input checked="" type="radio"/> YES NO
Cooler #: <u>1</u>			
Temperature (°C): <u>4.8</u>			
No. of custody seals on cooler: <u>2</u>			
DOT Survey/ Acceptance Information	External µR/hr reading: <u>13</u>		
	Background µR/hr reading: <u>10</u>		
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input type="radio"/> 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 All > green pea 0812076-1-1 0812076-2-1

↓ ↓ -2 ↓ ↓ -2

↓ ↓ -3 ↓ ↓ -3

↓ ↓ -4 ↓ ↓ -4

↓ ↓ -5 ↓ ↓ -5

If applicable, was the client contacted? ☒ YES / NO / NA Contact: Peter Constantas Date/Time: 12/9/08Project Manager Signature / Date: [Signature] 12/9/08

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

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



Inorganic Data Reporting Qualifiers

The following qualifiers are used by the laboratory when reporting results of inorganic analyses.

- Concentration qualifier -- If the analyte was analyzed for but not detected a “U” is entered.
- QC qualifier -- Specified entries and their meanings are as follows:
 - N - Spiked sample recovery not within control limits.
 - * - Duplicate analysis (relative percent difference) not within control limits.
 - B - The method blank for the analysis contained the analyte of interest above the reporting limit.

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Paragon

Client Name: Colorado Oil & Gas Conservation Commission

Client Project ID: Complaint 200199690

Work Order Number: 0812076

Final Volume: 40 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
Angely WW	0812076-1	12/08/2008	12/12/2008	12/12/2008	N/A	1	1.6	1		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: MO0812076-1

Date Printed: Monday, December 15, 2008

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TOTAL ORGANIC CARBON

Method EPA415.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: MO081212-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: MO081212-1

QCBatchID: MO081212-1-1

Run ID: MO081212-1A

Cleanup: NONE

Basis: N/A

Sample Aliquot: 40 ml

Final Volume: 40 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
MO081212-1MB	12/12/2008	12/12/2008	N/A	1	1	1	U

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

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Organic Carbon

Method EPA415.1

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0812076

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200199690

Lab ID: MO081212-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/12/2008

Date Analyzed: 12/12/2008

Prep Method: NONE

Prep Batch: MO081212-1

QCBatchID: MO081212-1-1

Run ID: MO081212-1A

Cleanup: NONE

Basis: N/A

File Name: 12121027

Sample Aliquot: 40 ml

Final Volume: 40 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
10-35-5	TOTAL ORGANIC CARBON	15	15.5	1		103	85 - 115%

Lab ID: MO081212-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12/12/2008

Date Analyzed: 12/12/2008

Prep Method: NONE

Prep Batch: MO081212-1

QCBatchID: MO081212-1-1

Run ID: MO081212-1A

Cleanup: NONE

Basis: N/A

File Name: 12121027

Sample Aliquot: 40 ml

Final Volume: 40 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
10-35-5	TOTAL ORGANIC CARBON	15	15.4	1		103	20	1

Data Package ID: MO0812076-1

Date Printed: Monday, December 15, 2008

ALS Paragon

LIMS Version: 6.215A

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