



Dissolved Gasses

Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200221017

Work Order Number: 0910287

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 10/28/2009.

The sample was free of headspace prior to analysis.

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, sample duplicate and matrix spike. Per method requirements, matrix QC was performed for this 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.

All preparation QC results were within the acceptance criteria.

4. The sample was associated with one or more of the following analytical QC: initial calibrations, initial calibration verifications (ICV), and continuing calibration verifications (CCV).
5. All analytical QC were within the acceptance criteria.
6. Sample dilutions were not required for the requested analysis.
7. The sample was prepared and analyzed within the established holding time.
8. 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 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

11-9-09
Date

Steve Ags
Organics Final Data Reviewer

11-10-09
Date



ALS
Data Qualifier Flags
Chromatography and Mass Spectrometry

- U or ND:** This flag indicates that the compound was analyzed for but not detected.
- J:** This flag indicates an estimated value. This flag is used as follows : (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the 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 Laboratory Group -- FC

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200221017

Client Project Number:

Client PO Number: OE PHA 090000000004

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



ALS Laboratory Group

225 Commerce Drive, Fort Collins, CO 80524

TF: 800-443-1511 PH: 970-490-1511 FX: 970-490-1522

Chain-of-Custody

0910287

Date 27 Oct 2009 Page 1 of 1

Lab ID

Project Name/No.		Sampler(s)	Gintautas	Turnaround	Standard	or Due	Disposal	By Lab or Return
REPORT TO:	Peter Gintautas							
PHONE:	719-846-3091							
FAX:	719-846-3384							
E-MAIL:	peter.gintautas@state.co							
COMPANY:	Colo. Oil & Gas Comm.							
ADDRESS:	PO Box 108 Trinidad CO 81082							

Provide additional information as needed in Comments below.

Circle Analytical Method Above

Circle Analytical Method Above

Provide additional information as needed in Comments box:																																		
Sample ID	Date	Time	Lab ID	Matrix	Preservative (Type HCl, etc.)	No. of Containers	TPH Methane Ethane Ethane	VOCs	BTEX + MtBE	SVOCs	OC Pesticides	PCBs TOL	Herbicides	Explosives	TCLP Organics SW1311	TCLP Metals SW1311	Total Metals (ICP) or Hg	Dissolved Metals (ICP) or Hg	Total Metals (ICP-MS)	Dissolved Metals (ICP-MS)	Hexavalent Chromium	Inorganic Anions	Solids	pH	Perchlorate	Actinides	Gamma Isotopes	Gross Alpha / Beta	Total Alpha-Emitting Radium	Radium 226	Radium 228	Strontium 90 (Total RadioSr)	Tritium	
Complaint 200221017 Stevens WW	27 Oct	09:30	1	W	HCL	3	X	X		X		X					X		X	X	X	X	X		X									
Complaint 200221028 Licano WW	27 Oct	10:35		W	HCL	3	X			X		X						X		X	X	X	X	Y	Y									
Complaint 200221032 Meadows WW	27 Oct			W	HCL	5	X										X		X	X	X	X	X	Y	Y									
Complaint 200221031 Bieber WW	27 Oct	12:00		W	HCL	3	X	X				X					X		X	X	X	X	X	X	X									

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

For metals or anions, please detail analyte list below.

Comments:

(Trip blank + Complaint 200221032) = 8260-25 + tertbutanol / TICS
Anions = Br, Cl, F, Na, NO₃, SO₄
Filter + Preserve metals upon receipt
200.7 = B, Ba, Be, Ca, Cr, Co, Cu, Fe, Li, Mg, Mn, Ni, K, Na, Sr, Zn, Si
200.8 = Sb, As, Cd, Pb, Mo, Se, Ag, Te, U

Originator: Retain pink page or a photocopy!

Form 202r7 (5/19/09)

Relinquished By:	(1)	Relinquished By:	(1)
Signature	[Signature]	Signature	
Printed Name	Peter Gintautas	Printed Name	
Date	27 Oct 09	Date	
Time	16:20	Time	
Company	COGCC	Company	
Received By:	(1)	Received By:	(1)
Signature	[Signature]	Signature	
Printed Name	Lawrence Schmitz	Printed Name	
Date	10-28-09	Date	
Time	1015	Time	
Company	ALS	Company	



CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCCWorkorder No: 0910287Project Manager: AWInitials: LAS Date: 10/28/2009

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	<input checked="" type="radio"/> NO * 10/28/09
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO 10/28/09
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	<input checked="" type="radio"/> 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 _____ > green pea	N/A	<input checked="" type="radio"/> YES	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*: <input checked="" type="radio"/> #2 <input checked="" type="radio"/> #4 RAD ONLY		<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u> <u>2</u>			
Temperature (°C): <u>2.7°</u> <u>3.8°</u>			
No. of custody seals on cooler: <u>1</u> <u>1</u>			
DOT Survey/ Acceptance Information	External µR/hr reading: <u>15</u> <u>15</u>		
	Background µR/hr reading: <u>13</u>		
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES <input checked="" 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

* 10/28/09

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

If applicable, was the client contacted? YES / NO / ☒ NA Contact: _____ Date/Time: _____Project Manager Signature / Date: [Signature] 11/2/09

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

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

Dissolved Gasses

Method RSK175

Method Blank

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Lab ID: HC091103-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03-Nov-09

Date Analyzed: 03-Nov-09

Prep Method: METHOD

Prep Batch: HC091103-1

QCBatchID: HC091103-1-1

Run ID: HC091103-1A

Cleanup: NONE

Basis: N/A

File Name: 01769.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: MEE0910287-1

Date Printed: Monday, November 09, 2009

ALS Laboratory Group -- FC

LIMS Version: 6.307A

Page 1 of 1

Dissolved Gasses

Method RSK175

Sample Results

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Field ID:	Stevens WW
Lab ID:	0910287-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 27-Oct-09

Date Extracted: 03-Nov-09

Date Analyzed: 03-Nov-09

Prep Method: METHOD

Prep Batch: HC091103-1

QCBatchID: HC091103-1-1

Run ID: HC091103-1A

Cleanup: NONE

Basis: As Received

File Name: 01775.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	1	100	1		
74-85-1	ETHENE	1	1	1	U	
74-84-0	ETHANE	1	2	2	U	

Data Package ID: MEE0910287-1

Date Printed: Monday, November 09, 2009

ALS Laboratory Group -- FC

LIMS Version: 6.307A

Page 1 of 1

Dissolved Gasses

Method RSK175

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910287

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221017

Lab ID: HC091103-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11/03/2009

Date Analyzed: 11/03/2009

Prep Method: METHOD

Prep Batch: HC091103-1

QCBatchID: HC091103-1-1

Run ID: HC091103-1A

Cleanup: NONE

Basis: N/A

File Name: 01768.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	142	138	1		97	80 - 120%
74-85-1	ETHENE	249	231	1		93	80 - 120%
74-84-0	ETHANE	267	243	2		91	80 - 120%

Lab ID: HC091103-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 11/03/2009

Date Analyzed: 11/03/2009

Prep Method: METHOD

Prep Batch: HC091103-1

QCBatchID: HC091103-1-1

Run ID: HC091103-1A

Cleanup: NONE

Basis: N/A

File Name: 01779.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	142	155	1		109	25	12
74-85-1	ETHENE	249	264	1		106	25	13
74-84-0	ETHANE	267	278	2		104	25	13

Data Package ID: MEE0910287-1

Date Printed: Monday, November 09, 2009

ALS Laboratory Group -- FC

Page 1 of 1

LIMS Version: 6.307A