Dissolved Gasses
Case Narrative

Colorado Oil & Gas Conservation Commission
Complaint 200221032

Work Order Number: 0910289

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.

_____   11.9.09
Mindy Norton   Date
Organics Primary Data Reviewer

_____   11.10.09
Organics Final Data Reviewer   Date

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: 0910289
Client Name: Colorado Oil & Gas Conservation Commission
Client Project Name: Complaint 200221032
Client Project Number:
Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Meadows WW	0910289-1		WATER	27-Oct-09	11:14
Trip Blank	0910289-2		WATER	27-Oct-09	

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

Chain-of-Custody

Date 27 Oct 2009 **Page** 1 of 1 **Lab ID**

Project Name/No.	
REPORT TO:	Peter Gintautas
PHONE:	719-846-3091
FAX:	719-846-3384
E-MAIL:	peter.gintautas@state.co...
COMPANY:	Colo. Oil & Gas Cons. Comm.
ADDRESS:	PO Box 108
	Trinidad CO 81082

Sampler(s) Gintautas

Turnaround (Standard) or Due Mtg

Disposal (By Lab) or Retu...

Circle Analytical Method Above

Circle Analytical Method Ab...

Provide additional information as needed in Comments below.

Sample ID	Date	Time	Lab ID	Matrix	Preservative (Type HCl, etc.)	No. of Containers	TPH Methane Ethane Ethene SW8015B GRO-DRO other	VOCs	BTEX + MtBE	SVOCs	OC Pesticides	PCBs TOC	Herbicides	Explosives	TCLP Organics SW1311	TCLP Metals SW1311	Total Metals (ICP) or Hg	Dissolved Metals (ICP) or Hg	Total Metals (ICP-MS)	Dissolved Metals (ICP-MS)	Hexavalent Chromium	Inorganic Anions	Solids	pH	Perchlorate	Actinides	Gamma Isotopes	Gross Alpha / Beta	Total Alpha-Emitting Radium	Radium 226	Radium 228	Strontium 90 (Total RadioSr)	Tritium
Complaint 200221017 Stevens WW	27 Oct	09:36	W	HCl none	6	X	X		X		X						X		X	X	X	X	X		X								
Complaint 200221028				none	6	X			X		X								X	X	X	X	X		X								
Licano WW	27 Oct	10:25	W	HCl	3	X	X				X						X		X	X	X	X	X		X								
Complaint 200221032	27 Oct		1	none	5	X											X		X	X	X	X	X		X								
Meadows WW	↓	11:14	W	HCl	3	X											X		X	X	X	X	X		X								
Complaint 200221031				none	5	X											X		X	X	X	X	X		X								
Bieber WW	27 Oct	12:06	W	HCl	3	X					X						X		X	X	X	X	X		X								

Trip Blanks 40mL VCA (2)

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

For metals or anions, please detail analyte list below.

Comments: (Trip Blank + Complaint 200221032) = 8260.25 + tert-butanol / TICs

Anions = Br, Cl, F, NO₂, NO₃, SO₄

Filter + Preserve metals upon receipt

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

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

Relinquished By: (1)
Signature [signed]
Printed Name Peter Gintautas
Date 27 Oct 09 Time 16:20
Company COGCC

Received By: (1)
Signature [signed]
Printed Name Lauren Schmitz
Date 10/28/09 Time 1015
Company ALS

Relinquished By:
Signature _____
Printed Name _____
Date _____ Time _____
Company _____

Received By:
Signature _____
Printed Name _____
Date _____ Time _____
Company _____

Originator: Retain pink page or a photocopy! Form 202r7 (5/19/09)

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CONDITION OF SAMPLE UPON RECEIPT FORM   0910289

Client: **COGCC**

Project Manager: **AW**

Workorder No: ~~0910288~~ *JS* 10/28/09

Initials: **LAS**   Date: **10/28/09**

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

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

DOT Survey/ Acceptance Information

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

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

* 2 trip blanks not accounted for on COC — supplemental letter states they are to go with this workorder (sample #2 = 2 trip blanks)

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

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

Project Manager Signature / Date: _____ 11/c/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: 0910289
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221032

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: *MEE0910289-1*

Dissolved Gasses

Method RSK175
Sample Results

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 0910289

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200221032

Field ID: Meadows WW
Lab ID: 0910289-1

Sample Matrix: WATER	**Prep Batch:** HC091103-1
% Moisture: N/A	**QCBatchID:** HC091103-1-1
Date Collected: 27-Oct-09	**Run ID:** HC091103-1A
Date Extracted: 03-Nov-09	**Cleanup:** NONE
Date Analyzed: 03-Nov-09	**Basis:** As Received
Prep Method: METHOD	**File Name:** 01778.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	1600	1		
74-85-1	ETHENE	1	1	1	U	
74-84-0	ETHANE	1	2	2	U	

Data Package ID: *MEE0910289-1*

Dissolved Gasses

Method RSK175

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC
Work Order Number: 0910289
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200221032

Lab ID: HC091103-1LCS

Sample Matrix: WATER	**Prep Batch:** HC091103-1	**Sample Aliquot:**	38.5 ml
% Moisture: N/A	**QCBatchID:** HC091103-1-1	**Final Volume:**	38.5 ml
Date Collected: N/A	**Run ID:** HC091103-1A	**Result Units:** UG/L	
Date Extracted: 11/03/2009	**Cleanup:** NONE	**Clean DF:**	1
Date Analyzed: 11/03/2009	**Basis:** N/A		
Prep Method: METHOD	**File Name:** 01768.dat		

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	**Prep Batch:** HC091103-1	**Sample Aliquot:**	38.5 ml
% Moisture: N/A	**QCBatchID:** HC091103-1-1	**Final Volume:**	38.5 ml
Date Collected: N/A	**Run ID:** HC091103-1A	**Result Units:** UG/L	
Date Extracted: 11/03/2009	**Cleanup:** NONE	**Clean DF:**	1
Date Analyzed: 11/03/2009	**Basis:** N/A		
Prep Method: METHOD	**File Name:** 01779.dat		

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: *MEE0910289-1*