



# Dissolved Gasses

## Case Narrative

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### **Colorado Oil & Gas Conservation Commission**

**Complaint 200272771**

Work Order Number: 1010128

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 10/08/2010.

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 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

10-27-10  
Date

Dan Sheneman  
Organics Final Data Reviewer

10-28-10  
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 Environmental -- FC

## Sample Number(s) Cross-Reference Table

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**Paragon OrderNum:** 1010128

**Client Name:** Colorado Oil & Gas Conservation Commission

**Client Project Name:** Complaint 200272771

**Client Project Number:**

**Client PO Number:** OE PHA 11000000014

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Burge WW	1010128-1		WATER	06-Oct-10	11:25
Trip Blank	1010128-2		WATER	06-Oct-10	





## CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCCWorkorder No: 1010128Project Manager: AWInitials: CW Date: 10-8-10

1. Does this project require any <b>special handling</b> in addition to standard Paragon procedures?		<u>YES</u>	NO
2. Are custody seals on <b>shipping containers</b> intact?	NONE	<u>YES</u>	NO
3. Are Custody seals on <b>sample containers</b> intact?	NONE	<u>YES</u>	NO
4. Is there a <b>COC (Chain-of-Custody)</b> present or other representative documents?		<u>YES</u>	NO
5. Are the <b>COC and bottle labels</b> complete and legible?		<u>YES</u>	NO
6. Is the <b>COC in agreement</b> with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were <b>airbills / shipping documents</b> present and/or removable?	DROP OFF	<u>YES</u>	NO
8. Are all aqueous <b>samples requiring preservation</b> preserved correctly? (excluding volatiles)	N/A	<u>YES</u>	NO
9. Are all aqueous <b>non-preserved samples</b> pH 4-9?	N/A	<u>YES</u>	NO
10. Is there <b>sufficient sample</b> for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the <b>proper containers</b> for the requested analyses?		<u>YES</u>	NO
12. Are all samples within <b>holding times</b> for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received <b>intact</b> ? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring <b>no headspace</b> (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u>      </u> < green pea <u>      </u> > green pea	N/A	<u>YES</u>	NO
15. Do perchlorate LCMS-MS samples <b>have headspace</b> ? (at least 1/3 of container required)	N/A	<u>YES</u>	NO
16. Were samples checked for and free from the presence of <b>residual chlorine</b> ? (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	N/A	<u>YES</u>	NO
17. Were the samples <b>shipped on ice</b> ?		<u>YES</u>	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <u>#2</u> <u>#4</u> RAD ONLY		<u>YES</u>	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>4.5</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>12</u>			
Background µR/hr reading: <u>11</u>			
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

received out of hotel with only a few hours of hold time remaining.  
AW 10/8/10

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

Project Manager Signature / Date: \_\_\_\_\_

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

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

# Dissolved Gasses

Method RSK175

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1010128

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200272771

Lab ID: HC101019-9MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 19-Oct-10

Date Analyzed: 19-Oct-10

Prep Method: METHOD

Prep Batch: HC101019-9

QCBatchID: HC101019-9-1

Run ID: HC101019-9

Cleanup: NONE

Basis: N/A

File Name: 03077.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: MEE1010128-1

# Dissolved Gasses

Method RSK175

## Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1010128

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200272771

Field ID:	Burge WW
Lab ID:	1010128-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 06-Oct-10

Date Extracted: 19-Oct-10

Date Analyzed: 19-Oct-10

Prep Method: METHOD

Prep Batch: HC101019-9

QCBatchID: HC101019-9-1

Run ID: HC101019-9

Cleanup: NONE

Basis: As Received

File Name: 03083.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	1000	1		
74-85-1	ETHENE	1	1	1	U	
74-84-0	ETHANE	1	2	2	U	

Data Package ID: MEE1010128-1

Date Printed: Wednesday, October 27, 2010

ALS Environmental -- FC

LIMS Version: 6.425A

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# Dissolved Gasses

## Method RSK175

### Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1010128

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200272771

Lab ID: HC101019-9LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10/19/2010

Date Analyzed: 10/19/2010

Prep Method: METHOD

Prep Batch: HC101019-9

QCBatchID: HC101019-9-1

Run ID: HC101019-9

Cleanup: NONE

Basis: N/A

File Name: 03076.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	158	1		111	80 - 120%
74-85-1	ETHENE	249	267	1		107	80 - 120%
74-84-0	ETHANE	267	296	2		111	80 - 120%

Lab ID: HC101019-9LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 10/19/2010

Date Analyzed: 10/19/2010

Prep Method: METHOD

Prep Batch: HC101019-9

QCBatchID: HC101019-9-1

Run ID: HC101019-9

Cleanup: NONE

Basis: N/A

File Name: 03093.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	161	1		113	25	2
74-85-1	ETHENE	249	272	1		109	25	2
74-84-0	ETHANE	267	302	2		113	25	2

Data Package ID: MEE1010128-1