



# ALS Paragon



## Dissolved Gasses Case Narrative

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

**Complaint 200204502**

**Work Order Number: 0903157**

1. This report consists of 1 water sample. The sample was received cool and intact by ALS Paragon on 03/20/09. 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, and laboratory control sample duplicate. 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.
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. Sample 0903157-1RR1 was analyzed at a dilution in order to bring methane within the calibration range of the instrument. The reporting limit has 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

03-31-09  
Date

Dan Shenehan  
Organics Final Data Reviewer

03-31-09  
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

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**Paragon OrderNum:** 0903157

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

**Client Project Name:** Complaint 200204502

**Client Project Number:**

**Client PO Number:** OE PHA 090000000004

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Pulsifer 090319	0903157-1		WATER	19-Mar-09	11:05

Project Name/No.: NER      Sampler(s): C. Whitmore      Turnaround (circle one) (Standard) or Rush (Due 14)      Dispose: Date 3/6/ or Return to Client

Report To: Peter Gintantus  
Phone: 719-846-3091  
Fax:  
E-mail: peter.gintantus@state.co.us  
Company: Colo. Oil & Gas Conservation Comm.  
Address:  
Complaints: 2455 FIFTH AVE #200 DENVER CO 80202

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

[illegible]

\* 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:

Comments: Filter + preserve metals upon receipt  
Animals - Br, Cl, F, Na, Na<sub>2</sub>, S, U

$$200.7 = \text{B}_4, \text{Be}, \text{B}, \text{Ca}, \text{Cr}, \text{Cu}, \text{Fe}, \text{Li}, \text{Mn}, \text{Mg}, \text{Ni}, \text{K}, \text{Na}, \text{Sr}, \text{Zn}$$
$$Z_{\text{ov. } \mathcal{E}} = Sb, As, Cd, Pb, Mo, Se, Ag, Te, U$$

Relinquished By: _____	(1)	(2)
Signature _____		
Printed Name _____		
Date _____ Time _____		
Company _____		
Relinquished By: _____	(1)	(2)
Signature _____		
Printed Name _____		
Date _____ Time _____		
Company _____		
Relinquished By: _____	(1)	(2)
Signature _____		
Printed Name _____		
Date _____ Time _____		
Company _____		
Received By: _____	(1)	(2)
Signature _____		
Printed Name _____		
Date _____ Time _____		
Company _____		
Received By: _____	(1)	(2)
Signature _____		
Printed Name _____		
Date _____ Time _____		
Company _____		

## CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0903157Project Manager: AWInitials: LJO Date: 3/20/09

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

\* Sample 1, the 1L amber for SVOC analysis listed no sample time.  
 • The 500ml poly for metals analysis needs to be filtered and preserved in house.

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

\*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: 0903157

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200204502

Lab ID: HC090330-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 30-Mar-09

Date Analyzed: 30-Mar-09

Prep Method: METHOD

Prep Batch: HC090330-1

QCBatchID: HC090330-1-1

Run ID: HC090330-1A

Cleanup: NONE

Basis: N/A

File Name: 01027.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: HC0903157-1

Date Printed: Tuesday, March 31, 2009

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# Dissolved Gasses

Method RSK175

## Sample Results

Lab Name: ALS Paragon

Work Order Number: 0903157

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200204502

Field ID: Pulsifer 090319

Lab ID: 0903157-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 30-Mar-09

Date Analyzed: 30-Mar-09

Prep Method: METHOD

Prep Batch: HC090330-1

QCBatchID: HC090330-1-1

Run ID: HC090330-1A

Cleanup: NONE

Basis: As Received

File Name: 01031.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
74-85-1	ETHENE	1	1	1	U	
74-84-0	ETHANE	1	16	2		

Data Package ID: HC0903157-1

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# Dissolved Gasses

Method RSK175

## Sample Results

Lab Name: ALS Paragon

Work Order Number: 0903157

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200204502

Field ID:	Pulsifer 090319
Lab ID:	0903157-1RR1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 30-Mar-09

Date Analyzed: 30-Mar-09

Prep Method: METHOD

Prep Batch: HC090330-1

QCBatchID: HC090330-1-1

Run ID: HC090330-1A

Cleanup: NONE

Basis: As Received

File Name: 01032.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	2	12000	2		

Data Package ID: HC0903157-1

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# Dissolved Gasses

## Method RSK175

### Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903157

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200204502

Lab ID: HC090330-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/30/2009

Date Analyzed: 03/30/2009

Prep Method: METHOD

Prep Batch: HC090330-1

QCBatchID: HC090330-1-1

Run ID: HC090330-1A

Cleanup: NONE

Basis: N/A

File Name: 01026.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	118	1		85	80 - 120%
74-85-1	ETHENE	245	207	1		85	80 - 120%
74-84-0	ETHANE	262	220	2		84	80 - 120%

Lab ID: HC090330-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/30/2009

Date Analyzed: 03/30/2009

Prep Method: METHOD

Prep Batch: HC090330-1

QCBatchID: HC090330-1-1

Run ID: HC090330-1A

Cleanup: NONE

Basis: N/A

File Name: 01037.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	120	1		86	25	2
74-85-1	ETHENE	245	215	1		88	25	4
74-84-0	ETHANE	262	225	2		86	25	2

Data Package ID: HC0903157-1

Date Printed: Tuesday, March 31, 2009

ALS Paragon

LIMS Version: 6.253A

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