



ALS Paragon



Total Organic Carbon Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200206469

Work Order Number: 0903156

1. This report consists of 1 water sample.
2. The sample was received cool and intact by ALS Paragon on 03/20/09.
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.

Sample 0903156-1 was designated as the quality control sample for this analysis. 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.

- A matrix spike (MS) and matrix spike duplicate (MSD) were prepared and analyzed with this batch. All guidance criteria for precision and accuracy were met.

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.

Sej
Sharon L. Jobes
Organics Primary Data Reviewer

3-26-09
Date

Linda S. Jeff
Organics Final Data Reviewer

03-26-09
Date

ALS Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200206469

Client Project Number:

Client PO Number: OE PHA 090000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Gordon-Ross 090319	0903156-1		WATER	19-Mar-09	10:05



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) 0903156

Chain-of-Custody Date 3/19/09 Page 1 of 1 Originator: Retain pink copy!

Project Name/No.: <u>NFR</u>		Sampler(s): <u>C. Whitmore</u>		Turnaround (circle one): <u>Standard</u> or Rush (Due <u>14</u>)		Dispose: Date <u>3/24/09</u> or Return to Client			
Report To: <u>Peter Gintautas</u>		Phone: <u>719-846-3091</u>		Fax: <u>719-846-3091</u>		E-mail: <u>peter.gintautas@state.co.us</u>			
Company: <u>Colorado Oil & Gas Services, Inc.</u>		Address: <u>2000 E. 200th St, Aurora, CO 80011</u>		Comments: <u>See comments on 20004503</u>					
Circle method (right); provide additional information as needed (comments).		Sample ID		Date	Time *	Lab ID	Matrix	Preservative (indicate type... HCl, etc.)	No. of Containers
GROSS 090319		3/19/09	10:05	10		10	DW		
PULSFER 090319		3/19/09	11:05	10		10	DW		
VANAE 090319		3/19/09	12:40	10		10	DW		
KOSSEL 090319		3/19/09	13:45	10		10	DW		
VOCs		SW8260B - 25 Full + TICs							
BTEX (only)		SW8260B - 25 Full + TICs							
SVOCs		SW8270C - Full + TICs							
OC Pesticides		SW8081A							
PCBs		SW8082							
Herbicides		SW8151A							
Explosives		SW8330							
TCMP Organics		SW1311							
TCMP Metals		SW1311 Hg							
Total Metals by ICP Hg		SW6010B 7470 7471 E200.7							
Dissolved Metals by ICP Hg		SW6010B 7470 E200.7							
Total Metals by ICP/MS		SW6020A E200.8							
Dissolved Metals by ICP/MS		SW6020A E200.8							
Hexavalent Chromium		SW1700A E200.8							
Inorganic Anions		SW9056 E300.0 (specify in comments)							
Solids:		Total E160.3 TDS E160.1 TSS E160.2							
PH		SW9040B SW9045C							
TPH Conductivity		SW8015B CPO BRO (circle one or both)							
Gross Alpha / Beta		SW9310 E900.0							
Actinides by Paragon SOP		Pu / U / Am / Th / Cm /							
Tritium		E906.0							
Total Alpha-Emitting Radium		SW9315 E903.0							
Radium 226		E903.1							
Radium 228		SW9320 E904.0							
Strontium 90 (Total RadioSr)		D5811-00							
Gamma Isotopes		E901.1							
Radon 222		SM7510Ra							
SAR Calc.									
Airway Calc. Balance									
Relinquished By: (1)		Signature: <u>Christa E. Whitmore</u>	Printed Name: <u>Christa E. Whitmore</u>	Date: <u>3/19/09</u>	Time: <u>16:30</u>	Company: <u>Whitmore Associates</u>			
Relinquished By: (2)		Signature: _____	Printed Name: _____	Date: _____	Time: _____	Company: _____			
Received By: (1)		Signature: <u>Spencer J. Orban</u>	Printed Name: <u>Spencer J. Orban</u>	Date: <u>3/20/09</u>	Time: <u>09:30</u>	Company: <u>AIS Paragon</u>			
Received By: (2)		Signature: _____	Printed Name: _____	Date: _____	Time: _____	Company: _____			

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0903156Project Manager: AWInitials: LJO Date: 3/20/09

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	NONE	<u>YES</u>	NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible ?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<u>YES</u>	NO
8. Are all aqueous samples requiring preservation preserved correctly ? (excluding volatiles)	N/A	<u>YES</u>	<u>NO</u>
9. Are all aqueous non-preserved samples pH 4-9 ?	N/A	<u>YES</u>	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact ? (not broken or leaking, etc.)		<u>YES</u>	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 <u> </u> > green pea	N/A	<u>YES</u>	NO
15. Do perchlorate LCMS-MS samples have headspace ? (at least 1/3 of container required)	<u>N/A</u>	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.)	<u>N/A</u>	YES	NO
17. Were the samples shipped on ice ?		<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>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? <u>YES</u> / NO / NA (If no. see Form 008.)			

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

• The 500 ml 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: [Signature] 3/23/09

*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 200206469

Work Order Number: 0903156

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
Gordon-Ross 090319	0903156-1	03/19/2009	03/24/2009	03/24/2009	N/A	1	1.2	1		40 ml

Comments:

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

Data Package ID: MO0903156-1

Date Printed: Wednesday, March 25, 2009

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TOTAL ORGANIC CARBON

Method EPA415.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: MO090324-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: MO090324-1

QCBatchID: MO090324-1-1

Run ID: MO090324-1A

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
MO090324-1MB	3/24/2009	03/24/2009	N/A	1	1	1	U

Comments:

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

Data Package ID: MO0903156-1

Date Printed: Wednesday, March 25, 2009

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Organic Carbon

Method EPA415.1

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: MO090324-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/24/2009

Date Analyzed: 03/24/2009

Prep Method: NONE

Prep Batch: MO090324-1

QCBatchID: MO090324-1-1

Run ID: MO090324-1A

Cleanup: NONE

Basis: N/A

File Name: 03241037

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	15.3	1		102	85 - 115%

Lab ID: MO090324-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 03/24/2009

Date Analyzed: 03/24/2009

Prep Method: NONE

Prep Batch: MO090324-1

QCBatchID: MO090324-1-1

Run ID: MO090324-1A

Cleanup: NONE

Basis: N/A

File Name: 03241037

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		102	20	0

Data Package ID: MO0903156-1

Date Printed: Wednesday, March 25, 2009

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Organic Carbon

Method EPA415.1

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Field ID: Gordon-Ross 090319

LabID: 0903156-1MS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 24-Mar-09

Date Analyzed: 24-Mar-09

Prep Method: NONE

Prep Batch: MO090324-1

QCBatchID: MO090324-1-1

Run ID: MO090324-1A

Cleanup: NONE

Basis: As Received

Sample Aliquot: 40 ml

Final Volume: 40 ml

Result Units: MG/L

File Name: 03241037

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
10-35-5	TOTAL ORGANIC CARBON	1.2		11.3		1	10	102	80 - 120%

Field ID: Gordon-Ross 090319

LabID: 0903156-1MSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 24-Mar-09

Date Analyzed: 24-Mar-09

Prep Method: NONE

Prep Batch: MO090324-1

QCBatchID: MO090324-1-1

Run ID: MO090324-1A

Cleanup: NONE

Basis: As Received

Sample Aliquot: 40 ml

Final Volume: 40 ml

Result Units: MG/L

File Name: 03241037

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
10-35-5	TOTAL ORGANIC CARBON	11.3		10	101	1	20	0

Data Package ID: MO0903156-1

Date Printed: Wednesday, March 25, 2009

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LIMS Version: 6.252A

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