



Total Organic Carbon Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200294386

Work Order Number: 1102061

1. This report consists of 1 water sample.
 2. The sample was received cool and intact by ALS on 02/05/11.
 3. The sample was filtered prior to 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 14
 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.

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.

10. It was necessary to dilute the sample in order to bring the TOC concentration into the analytical range of the instrument.

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.



Sharon L. Jobes
Organics Primary Data Reviewer

2-15-11
Date



Organics Final Data Reviewer

2/15/11
Date



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.

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Sample Number(s) Cross-Reference Table

OrderNum: 1102061

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200294386

Client Project Number:

Client PO Number: OE PHA 11000000014

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Dahl WW PM	1102061-1		WATER	03-Feb-11	14:56
Trip Blank	1102061-2		WATER	03-Feb-11	6:30
Dahl WW AM	1102061-3		WATER	03-Feb-11	11:59



CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CUGCCWorkorder No: 1102061Project Manager: AWInitials: CDTDate: 2-5-11

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	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	NO
9. Are all aqueous non-preserved samples pH 4-9 ?	N/A	YES	<input checked="" type="radio"/> 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: <u> </u> < green pea <u> </u> > green pea	N/A	YES	<input checked="" type="radio"/> 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*: <u>#2</u> <input checked="" type="radio"/> <u>#4</u>	RAD ONLY	<input checked="" type="radio"/> YES
Cooler #: <u>1</u>			
Temperature (°C): <u>3.8°</u>			
No. of custody seals on cooler: <u>2</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? <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> NA (If no, see Form 008.)			

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

Headspace: 1102061-2-1
 - 2-2
 - 3-1
 - 3-2 } > GREEN PEA

Sample 1102061-3-4 and 1102061-3-5 received @ pH 2.5

If applicable, was the client contacted? YES / NO ☒ NO Contact: _____ Date/Time: _____Project Manager Signature / Date: AW 2/7/11

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC

Client Name: Colorado Oil & Gas Conservation Commission

Client Project ID: Complaint 200294386

Work Order Number: 1102061

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
Dahl WW AM	1102061-3	02/03/2011	02/14/2011	02/14/2011	N/A	40	520	40		40 ml

Comments:

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

Data Package ID: *MO1102061-1*

Date Printed: Tuesday, February 15, 2011

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Page 1 of 1

TOTAL ORGANIC CARBON

Method EPA415.1

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1102061

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200294386

Lab ID: MO110214-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: MO110214-1

QCBatchID: MO110214-1-1

Run ID: MO110214-1A

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
MO110214-1MB	2/14/2011	02/14/2011	N/A	1	1	1	U

Comments:

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

Data Package ID: MO1102061-1

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Page 1 of 1

Organic Carbon

Method EPA415.1

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1102061

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200294386

Lab ID: MO110214-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 02/14/2011

Date Analyzed: 02/14/2011

Prep Method: NONE

Prep Batch: MO110214-1

QCBatchID: MO110214-1-1

Run ID: MO110214-1A

Cleanup: NONE

Basis: N/A

File Name: 02140947

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	15.6	1		104	85 - 115%

Lab ID: MO110214-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 02/14/2011

Date Analyzed: 02/14/2011

Prep Method: NONE

Prep Batch: MO110214-1

QCBatchID: MO110214-1-1

Run ID: MO110214-1A

Cleanup: NONE

Basis: N/A

File Name: 02140947

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	15.5	1		103	20	1

Data Package ID: MO1102061-1

Date Printed: Tuesday, February 15, 2011

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Page 1 of 1