



# ALS Paragon



## Total Organic Carbon Case Narrative

---

### Colorado Oil & Gas Conservation Commission

Complaint 200206467

Work Order Number: 0903159

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.

- 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.

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.

SY  
Sharon L. Jobs  
Organics Primary Data Reviewer

3-26-09  
Date

Sandra S. Webb  
Organics Final Data Reviewer

03-26-09  
Date

# ALS Paragon

## Sample Number(s) Cross-Reference Table

---

**Paragon OrderNum:** 0903159

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

**Client Project Name:** Complaint 200206467

**Client Project Number:**

**Client PO Number:** OE PHA 09000000004

---

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Kosslyn 090319	0903159-1		WATER	19-Mar-09	13:45
Trip Blank	0903159-2		WATER	20-Mar-09	



CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCC

Workorder No: 0903159

Project Manager: AW

Initials: 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> ___ < green pea ___ > 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?	IR gun used*: <input checked="" type="radio"/> #2 <input checked="" type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES <input type="radio"/> 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 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.

\* 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: Quwey 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 200206467  
**Work Order Number:** 0903159      **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
Kosslyn 090319	0903159-1	03/19/2009	03/24/2009	03/24/2009	N/A	1	1	1	U	40 ml

**Comments:**

---

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

**Data Package ID:** *MO0903159-1*

---

# TOTAL ORGANIC CARBON

Method EPA415.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0903159

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206467

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: MO0903159-1

Date Printed: Wednesday, March 25, 2009

ALS Paragon

LIMS Version: 6.252A

Page 1 of 1

# Organic Carbon

## Method EPA415.1

### Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903159

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206467

Lab ID: MO090324-1LCS

Sample Matrix: WATER

Prep Batch: MO090324-1

Sample Aliquot: 40 ml

% Moisture: N/A

QCBatchID: MO090324-1-1

Final Volume: 40 ml

Date Collected: N/A

Run ID: MO090324-1A

Result Units: MG/L

Date Extracted: 03/24/2009

Cleanup: NONE

Clean DF: 1

Date Analyzed: 03/24/2009

Basis: N/A

Prep Method: NONE

File Name: 03241037

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

Prep Batch: MO090324-1

Sample Aliquot: 40 ml

% Moisture: N/A

QCBatchID: MO090324-1-1

Final Volume: 40 ml

Date Collected: N/A

Run ID: MO090324-1A

Result Units: MG/L

Date Extracted: 03/24/2009

Cleanup: NONE

Clean DF: 1

Date Analyzed: 03/24/2009

Basis: N/A

Prep Method: NONE

File Name: 03241037

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: MO0903159-1