



# ALS Paragon



## Total Organic Carbon Case Narrative

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### Colorado Oil & Gas Conservation Commission

Complaint 200206880

Work Order Number: 0904002

1. This report consists of 1 water sample.
2. The sample was received cool and intact by ALS Paragon on 04/01/09.
3. The samples had been correctly preserved for the requested analysis.
4. The samples were prepared for analysis based on Methods for the Chemical Analysis of Waters and Wastes (MCAWW), May 1994 procedures.
5. The samples were 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.

SM  
Sharon L. Jobs  
Organics Primary Data Reviewer

4-8-09  
Date

Eric Bayless  
Organics Final Data Reviewer

4/8/09  
Date

# ALS Paragon

## Sample Number(s) Cross-Reference Table

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**Paragon OrderNum:** 0904002

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

**Client Project Name:** Complaint 200206880

**Client Project Number:**

**Client PO Number:** OE PHA 09000000004

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Ross WW	0904002-1		WATER	31-Mar-09	10:18
Trip Blank	0904002-2		WATER	31-Mar-09	



**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) 0904002

Chain-of-Custody Date 3/16/06 Page 1 of 1

Originator: Retain pink copy!

Project Name/No.: _____		Sampler(s): <u>Contaminant/Unknown Turnaround</u>		Standard or Rush (Due <u>14 days</u> )		Dispose: Date <u>3 days</u> or Return to Client			
Report To: <u>Peter Gintantas</u>		Phone: <u>714-846-3091</u>		Fax: <u>peter.gintantas@state.co.us</u>		Company: <u>Cal. Cell + Gas Cons. Comm.</u>		Address: _____	
Complaint <u>200206880</u>		Circle method (right); provide additional information as needed (comments).		Sample ID		Date		Time *	
Preservative		Matrix		Lab ID		No. of Containers		(Indicate type... HCl, etc.)	
ROSS WU		W		①		W		HCl	
↓		W		②		W		HCl	
↓		W		③		W		HCl	
↓		W		④		W		HCl	
Trip Blank		W		⑤		W		HCl	
VOCs		SW82608		SW82608		SW82608		SW82608	
BTEX (only) Methanol, Ethanol, Ethylbenzene		SW82608		SW82608		SW82608		SW82608	
SVOCs		SW8270C		SW8270C		SW8270C		SW8270C	
OC-Pesticides		SW8081A		SW8081A		SW8081A		SW8081A	
Herbicides		SW8082		SW8082		SW8082		SW8082	
Explosives		SW8330		SW8330		SW8330		SW8330	
TCMP Organics SW1311		SW82608 8270C 8081A 8151A		SW82608 8270C 8081A 8151A		SW82608 8270C 8081A 8151A		SW82608 8270C 8081A 8151A	
TCMP Metals SW1311 Hg		SW60108 7470		SW60108 7470		SW60108 7470		SW60108 7470	
Total Metals by ICP Hg		SW60108 7470 E200.7		SW60108 7470 E200.7		SW60108 7470 E200.7		SW60108 7470 E200.7	
Dissolved Metals by ICP Hg		SW6020A E200.8		SW6020A E200.8		SW6020A E200.8		SW6020A E200.8	
Total Metals by ICP/MS		SW6020A E200.8		SW6020A E200.8		SW6020A E200.8		SW6020A E200.8	
Dissolved Metals by ICP/MS		SW6020A E200.8		SW6020A E200.8		SW6020A E200.8		SW6020A E200.8	
Heavy Metals Chromium		SW706A Alkaline Digest Y/N		SW706A Alkaline Digest Y/N		SW706A Alkaline Digest Y/N		SW706A Alkaline Digest Y/N	
Inorganic Anions		SW9056 E300.0 (specify in comments)		SW9056 E300.0 (specify in comments)		SW9056 E300.0 (specify in comments)		SW9056 E300.0 (specify in comments)	
Solids:		Total E160.3 DS E160.1 TSS E160.2		Total E160.3 DS E160.1 TSS E160.2		Total E160.3 DS E160.1 TSS E160.2		Total E160.3 DS E160.1 TSS E160.2	
TPH		SW8015B GRO DRO (circle one or both)		SW8015B GRO DRO (circle one or both)		SW8015B GRO DRO (circle one or both)		SW8015B GRO DRO (circle one or both)	
Gross Alpha / Beta		SW9310 E900.0		SW9310 E900.0		SW9310 E900.0		SW9310 E900.0	
Actinides by Paragon SOP		Pu / U / Am / Th / Cm /		Pu / U / Am / Th / Cm /		Pu / U / Am / Th / Cm /		Pu / U / Am / Th / Cm /	
Tritium		E906.0		E906.0		E906.0		E906.0	
Total Alpha-Emitting Radium		SW9315 E903.0		SW9315 E903.0		SW9315 E903.0		SW9315 E903.0	
Radium 226		E903.1		E903.1		E903.1		E903.1	
Radium 228		SW9320 E904.0		SW9320 E904.0		SW9320 E904.0		SW9320 E904.0	
Strontium 90 (Total RadioSr)		D5811-00		D5811-00		D5811-00		D5811-00	
Gamma Isotopes		E901.1		E901.1		E901.1		E901.1	
Radon 222		SM7510Rn		SM7510Rn		SM7510Rn		SM7510Rn	
SAR cel		X		X		X		X	
Allyl - Cell Balance		X		X		X		X	
Conductivity		X		X		X		X	

\* 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:

filter + preserve metals upon receipt  
Anions =  $Br, Cl, F, NO_3, NO_2, SO_4$   
200.7 =  $Br, Bz, Bz, Ca, Cu, Co, Cu, Fe, Li, Mg, Mn, Ni, K, Na, Sr, Zn$   
200.6 =  $Sb, As, Cd, Pb, Mo, Se, Ag, Te, U$

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

## CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0904002Project Manager: AWInitials: CDTDate: 4-1-09

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	<input checked="" type="radio"/> NO
7. Were <b>airbills / shipping documents</b> 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 <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> <input checked="" type="checkbox"/> < green pea <input type="checkbox"/> > green pea	N/A	YES <input checked="" type="radio"/> 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> #2 <input checked="" type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES NO
Cooler #: <u>1</u>		
Temperature (°C): <u>3.8</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 / NO / NA (If no, see Form 008.)		

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

- Headspace: 0904002-2-1 < green pea (Trip Blank - not listed on COC)
- Metals bottle received unpreserved. Filter + preserve prior to analysis.

If applicable, was the client contacted? ☒ YES / NO / NA Contact: Peter Gontautas Date/Time: e-mail 4/1/09

Project Manager Signature / Date: [Signature] 4/1/09

\*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 200206880  
**Work Order Number:** 0904002  
**Reporting Basis:** As Received  
**Prep Method:** NONE  
**Final Volume:** 40 ml  
**Matrix:** WATER  
**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
Ross WW	0904002-1	03/31/2009	04/07/2009	04/07/2009	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:** MO0904002-1

# TOTAL ORGANIC CARBON

Method EPA415.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0904002

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206880

Lab ID: MO090407-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: MO090407-1

QCBatchID: MO090407-1-1

Run ID: MO090407-1A

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
MO090407-1MB	4/7/2009	04/07/2009	N/A	1	1	1	U

## Comments:

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

Data Package ID: MO0904002-1

Date Printed: Tuesday, April 07, 2009

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LIMS Version: 6.254A

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# Organic Carbon

## Method EPA415.1

### Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0904002

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206880

Lab ID: MO090407-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 04/07/2009

Date Analyzed: 04/07/2009

Prep Method: NONE

Prep Batch: MO090407-1

QCBatchID: MO090407-1-1

Run ID: MO090407-1A

Cleanup: NONE

Basis: N/A

File Name: 04071038

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	15.2	1		101	85 - 115%

Lab ID: MO090407-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 04/07/2009

Date Analyzed: 04/07/2009

Prep Method: NONE

Prep Batch: MO090407-1

QCBatchID: MO090407-1-1

Run ID: MO090407-1A

Cleanup: NONE

Basis: N/A

File Name: 04071038

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	15.2	1		101	20	0

Data Package ID: MO0904002-1

Date Printed: Tuesday, April 07, 2009

ALS Paragon

LIMS Version: 6.254A

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