

ANALYTICAL REPORT

Job Number: 280-1099-1

Job Description: 24639 WCR6 Hudson, CO 80462

For:
Colorado Oil&Gas Conservation Commision
1120 Lincoln St.
Suite 801
Denver, CO 80203
Attention: Bob Chesson



Approved for release.
Lori A Parsons
Project Manager I
3/24/2010 11:01 AM

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Project Manager I
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03/24/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE

Client: Colorado Oil&Gas Conservation Commission

Project: 24639 WCR6 Hudson, CO 80462

Report Number: 280-1099-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/05/2010; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.5 degrees C.

The laboratory received three Trip Blank VOA vials that were not listed on the Chain-of-Custody. The laboratory proceeded to analyze the Trip Blank sample by 8021B for BTEX+Mtbe and the client was notified on March 5, 2010.

VOLATILE ORGANIC COMPOUNDS (GC)

Samples ANDROVICH (280-1099-1) and TRIP BLANK (280-1099-2) were analyzed for volatile organic compounds (GC) in accordance with EPA SW-846 Method 8021B. The samples were analyzed on 03/09/2010.

No difficulties were encountered during the VOC analyses.

All quality control parameters were within the acceptance limits.

DISSOLVED GASES

Sample ANDROVICH (280-1099-1) was analyzed for dissolved gases in accordance with RSK_175. The sample was analyzed on 03/11/2010.

Sample ANDROVICH (280-1099-1)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The method required MS/MSD could not be performed for analytical batch 7167, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

No difficulties were encountered during the dissolved gases analysis.

All quality control parameters were within the acceptance limits.

DISSOLVED METALS

Sample ANDROVICH (280-1099-1) was analyzed for dissolved metals in accordance with EPA SW-846 Method 6010B. The samples were prepared on 03/10/2010 and analyzed on 03/11/2010 and 03/13/2010.

The MS/MSD was performed on sample ANDROVICH (280-1099-1) and was qualified with a '4' for sodium. The analyte present in the original sample was four times greater than the matrix spike concentration; therefore, control limits are not applicable.

No other difficulties were encountered during the dissolved metals analysis.

All other quality control parameters were within the acceptance limits.

ANIONS

Sample ANDROVICH (280-1099-1) was analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 03/05/2010.

Sample ANDROVICH (280-1099-1)[5X] required dilution prior to analysis for Chloride. The reporting limit has been adjusted accordingly.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

NITRATE-NITRITE AS NITROGEN

Sample ANDROVICH (280-1099-1) was analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 03/13/2010.

No difficulties were encountered during the nitrate-nitrite analysis.

All quality control parameters were within the acceptance limits.

ALKALINITY

Sample ANDROVICH (280-1099-1) was analyzed for Alkalinity in accordance with SM 2320B. The samples were analyzed on 03/09/2010.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS

Sample ANDROVICH (280-1099-1) was analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 03/10/2010.

No difficulties were encountered during the TDS analysis.

All quality control parameters were within the acceptance limits.

CATION ANION BALANCE

Sample ANDROVICH (280-1099-1) was analyzed for Cation Anion Balance in accordance with Cation Anion Balance. The samples were analyzed on 03/19/2010.

No difficulties were encountered during the Cation Anion Balance analysis.

All quality control parameters were within the acceptance limits.

SPECIFIC CONDUCTIVITY

Sample ANDROVICH (280-1099-1) was analyzed for specific conductivity in accordance with SM 2510B. The samples were analyzed on 03/09/2010.

No difficulties were encountered during the specific conductivity analysis.

All quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Sample ANDROVICH (280-1099-1) was analyzed for corrosivity (pH) in accordance with SM 4500 H+. The samples were analyzed on 03/06/2010.

No difficulties were encountered during the pH analysis.

All other quality control parameters were within the acceptance limits.

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-1099-1

SDG No.: _____

Instrument ID: GCV_H Analysis Batch Number: 5213Lab Sample ID: IC 280-5213/1 Client Sample ID: _____Date Analyzed: 02/23/10 10:43 Lab File ID: 111B0501.D GC Column: RTX 502.2 ID: 0.53 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorobenzene	11.65	Split Peak	target	02/24/10 07:17
Ethylbenzene	11.75	Split Peak	target	02/24/10 07:17

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-1099-1

SDG No.: _____

Instrument ID: GCV_H Analysis Batch Number: 7007Lab Sample ID: CCVIS 280-7007/1 Client Sample ID: _____Date Analyzed: 03/09/10 09:59 Lab File ID: 110B0201.D GC Column: RTX 502.2 ID: 0.53 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.00	Baseline Event	reamb	03/09/10 10:37

SAMPLE SUMMARY

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-1099-1	ANDROVICH	Water	03/05/2010 1045	03/05/2010 1203
280-1099-2TB	TRIP BLANK	Water	03/05/2010 0000	03/05/2010 1203

EXECUTIVE SUMMARY - Detections

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
280-1099-1	ANDROVICH				
Dissolved Methane		27000	500	ug/L	RSK-175
Bromide		1.2	0.20	mg/L	300.0
Chloride		120	15	mg/L	300.0
Fluoride		3.7	0.50	mg/L	300.0
Total Anions		16		meq/L	SM 1030F
Total Cations		17		meq/L	SM 1030F
Percent Difference		2.8		%	SM 1030F
Anion/Cation Balance		2.8		%	SM 1030F
Total Alkalinity		610	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		550	5.0	mg/L	SM 2320B
Carbonate Alkalinity as CaCO3		60	5.0	mg/L	SM 2320B
Specific Conductance		1500	2.0	umhos/cm	SM 2510B
Total Dissolved Solids		860	10	mg/L	SM 2540C
pH adj. to 25 deg C		8.69 HF	0.100	SU	SM 4500 H+ B
<i>Dissolved</i>					
Calcium		1900	200	ug/L	6010B
Iron		170	100	ug/L	6010B
Magnesium		560	200	ug/L	6010B
Sodium		380000	1000	ug/L	6010B

METHOD SUMMARY

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Aromatic and Halogenated VOCs by Gas Chromatography using PID or ELCD	TAL DEN	SW846 8021B	
Purge and Trap	TAL DEN		SW846 5030B
Dissolved Gases (GC)	TAL DEN	RSK RSK-175	
Metals (ICP)	TAL DEN	SW846 6010B	
Sample Filtration	TAL DEN		FILTRATION
Preparation, Total Recoverable or Dissolved Metals	TAL DEN		SW846 3005A
Anions, Ion Chromatography	TAL DEN	MCAWW 300.0	
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Cation Anion Balance	TAL DEN	SM SM 1030F	
Alkalinity	TAL DEN	SM SM 2320B	
Conductivity, Specific Conductance	TAL DEN	SM SM 2510B	
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2540C	
pH	TAL DEN	SM SM 4500 H+ B	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method	Analyst	Analyst ID
SW846 8021B	Ream, Brian E	BER
RSK RSK-175	Ream, Brian E	BER
SW846 6010B	Harre, John K	JKH
SW846 6010B	Trudell, Lynn-Anne	LT
MCAWW 300.0	Kudla, Ewa	EK
MCAWW 353.2	Golden, Reva	RG
SM SM 1030F	Sullivan, Roxanne	RS
SM SM 2320B	Derosia, Marcia R	MRD
SM SM 2510B	Peterson, Braden H	BHP
SM SM 2540C	Domnick, Brandon J	BJD
SM SM 4500 H+ B	Jarusewic, Lara E	LEJ

Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Client Sample ID: ANDROVICH

Lab Sample ID: 280-1099-1

Date Sampled: 03/05/2010 1045

Client Matrix: Water

Date Received: 03/05/2010 1203

8021B Aromatic and Halogenated VOCs by Gas Chromatography using PID or ELCD

Method:	8021B	Analysis Batch: 280-7007	Instrument ID:	GCV_H
Preparation:	5030B		Initial Weight/Volume:	5 mL
Dilution:	1.0		Final Weight/Volume:	5 mL
Date Analyzed:	03/09/2010 1525		Injection Volume:	5 mL
Date Prepared:	03/09/2010 1525		Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
Methyl tert-butyl ether	ND		5.0
Toluene	ND		0.50
m-Xylene & p-Xylene	ND		0.50
o-Xylene	ND		0.50
Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	97		85 - 115

Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-1099-2TB

Date Sampled: 03/05/2010 0000

Client Matrix: Water

Date Received: 03/05/2010 1203

8021B Aromatic and Halogenated VOCs by Gas Chromatography using PID or ELCD

Method:	8021B	Analysis Batch: 280-7007	Instrument ID:	GCV_H
Preparation:	5030B		Initial Weight/Volume:	5 mL
Dilution:	1.0		Final Weight/Volume:	5 mL
Date Analyzed:	03/09/2010 1556		Injection Volume:	5 mL
Date Prepared:	03/09/2010 1556		Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
Methyl tert-butyl ether	ND		5.0
Toluene	ND		0.50
m-Xylene & p-Xylene	ND		0.50
o-Xylene	ND		0.50
Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	97		85 - 115

Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Client Sample ID: ANDROVICH

Lab Sample ID: 280-1099-1

Client Matrix: Water

Date Sampled: 03/05/2010 1045

Date Received: 03/05/2010 1203

RSK-175 Dissolved Gases (GC)

Method: RSK-175

Analysis Batch: 280-7167

Instrument ID: GCV_J

Preparation: N/A

Initial Weight/Volume:

Dilution: 100

Final Weight/Volume: 18 mL

Date Analyzed: 03/11/2010 1653

Injection Volume:

Date Prepared:

Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Dissolved Methane	27000		500

Analytical Data

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-1099-1

Client Sample ID: ANDROVICH

Lab Sample ID: 280-1099-1

Date Sampled: 03/05/2010 1045

Client Matrix: Water

Date Received: 03/05/2010 1203

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 280-7116	Instrument ID:	MT_025
Preparation:	3005A	Prep Batch: 280-6690	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	03/11/2010 1754		Final Weight/Volume:	50 mL
Date Prepared:	03/10/2010 0730			

Analyte	Result (ug/L)	Qualifier	RL
Arsenic	ND		15
Cadmium	ND		5.0
Calcium	1900		200
Chromium	ND		10
Iron	170		100
Lead	ND		9.0
Potassium	ND		3000
Selenium	ND		15
Sodium	380000		1000

Method:	6010B	Analysis Batch: 280-7274	Instrument ID:	MT_025
Preparation:	3005A	Prep Batch: 280-6690	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	03/13/2010 0217		Final Weight/Volume:	50 mL
Date Prepared:	03/10/2010 0730			

Analyte	Result (ug/L)	Qualifier	RL
Magnesium	560		200
Manganese	ND		10

Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

General Chemistry**Client Sample ID: ANDROVICH**

Lab Sample ID: 280-1099-1

Date Sampled: 03/05/2010 1045

Client Matrix: Water

Date Received: 03/05/2010 1203

Analyte	Result	Qual	Units	RL	Dil	Method
Bromide	1.2		mg/L	0.20	1.0	300.0
	Analysis Batch: 280-6439	Date Analyzed: 03/05/2010 1806				
Chloride	120		mg/L	15	5.0	300.0
	Analysis Batch: 280-6439	Date Analyzed: 03/05/2010 1830				
Fluoride	3.7		mg/L	0.50	1.0	300.0
	Analysis Batch: 280-6439	Date Analyzed: 03/05/2010 1806				
Sulfate	ND		mg/L	5.0	1.0	300.0
	Analysis Batch: 280-6439	Date Analyzed: 03/05/2010 1806				
Nitrate Nitrite as N	ND		mg/L	0.10	1.0	353.2
	Analysis Batch: 280-7446	Date Analyzed: 03/13/2010 1410				
Total Alkalinity	610		mg/L	5.0	1.0	SM 2320B
	Analysis Batch: 280-6819	Date Analyzed: 03/09/2010 2007				
Bicarbonate Alkalinity as CaCO3	550		mg/L	5.0	1.0	SM 2320B
	Analysis Batch: 280-6819	Date Analyzed: 03/09/2010 2007				
Carbonate Alkalinity as CaCO3	60		mg/L	5.0	1.0	SM 2320B
	Analysis Batch: 280-6819	Date Analyzed: 03/09/2010 2007				
Total Dissolved Solids	860		mg/L	10	1.0	SM 2540C
	Analysis Batch: 280-6776	Date Analyzed: 03/10/2010 0754				
Analyte	Result	Qual	Units		Dil	Method
Total Anions	16		meq/L		1.0	SM 1030F
	Analysis Batch: 280-7935	Date Analyzed: 03/19/2010 1114				
Total Cations	17		meq/L		1.0	SM 1030F
	Analysis Batch: 280-7935	Date Analyzed: 03/19/2010 1114				
Percent Difference	2.8		%		1.0	SM 1030F
	Analysis Batch: 280-7935	Date Analyzed: 03/19/2010 1114				
Anion/Cation Balance	2.8		%		1.0	SM 1030F
	Analysis Batch: 280-7935	Date Analyzed: 03/19/2010 1114				
Analyte	Result	Qual	Units	RL	Dil	Method
Specific Conductance	1500		umhos/cm	2.0	1.0	SM 2510B
	Analysis Batch: 280-6636	Date Analyzed: 03/09/2010 1200				
pH adj. to 25 deg C	8.69	HF	SU	0.100	1.0	SM 4500 H+ B
	Analysis Batch: 280-6384	Date Analyzed: 03/06/2010 1045				

DATA REPORTING QUALIFIERS

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Lab Section	Qualifier	Description
Metals	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
General Chemistry	HF	Field parameter with a holding time of 15 minutes

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Analysis Batch:280-7007					
LCS 280-7007/2	Lab Control Sample	T	Water	8021B	
LCSD 280-7007/3	Lab Control Sample Duplicate	T	Water	8021B	
MB 280-7007/4	Method Blank	T	Water	8021B	
280-1099-1	ANDROVICH	T	Water	8021B	
280-1099-2TB	TRIP BLANK	T	Water	8021B	
280-1110-G-1 MS	Matrix Spike	T	Water	8021B	
280-1110-G-1 MSD	Matrix Spike Duplicate	T	Water	8021B	
Analysis Batch:280-7167					
LCS 280-7167/2	Lab Control Sample	T	Water	RSK-175	
LCSD 280-7167/3	Lab Control Sample Duplicate	T	Water	RSK-175	
MB 280-7167/4	Method Blank	T	Water	RSK-175	
280-1099-1	ANDROVICH	T	Water	RSK-175	
Report Basis					
T = Total					
Metals					
Prep Batch: 280-6690					
LCS 280-6438/2-F	Lab Control Sample	D	Water	3005A	
MB 280-6438/1-F	Method Blank	D	Water	3005A	
280-1099-1	ANDROVICH	D	Water	3005A	
280-1099-1MS	Matrix Spike	D	Water	3005A	
280-1099-1MSD	Matrix Spike Duplicate	D	Water	3005A	
Analysis Batch:280-7116					
LCS 280-6438/2-F	Lab Control Sample	D	Water	6010B	280-6690
MB 280-6438/1-F	Method Blank	D	Water	6010B	280-6690
280-1099-1	ANDROVICH	D	Water	6010B	280-6690
280-1099-1MS	Matrix Spike	D	Water	6010B	280-6690
280-1099-1MSD	Matrix Spike Duplicate	D	Water	6010B	280-6690
Analysis Batch:280-7274					
LCS 280-6438/2-F	Lab Control Sample	D	Water	6010B	280-6690
MB 280-6438/1-F	Method Blank	D	Water	6010B	280-6690
280-1099-1	ANDROVICH	D	Water	6010B	280-6690
280-1099-1MS	Matrix Spike	D	Water	6010B	280-6690
280-1099-1MSD	Matrix Spike Duplicate	D	Water	6010B	280-6690

Report Basis

D = Dissolved

TestAmerica Denver

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-6384					
LCS 280-6384/6	Lab Control Sample	T	Water	SM 4500 H+ B	
LCSD 280-6384/7	Lab Control Sample Duplicate	T	Water	SM 4500 H+ B	
280-1099-1	ANDROVICH	T	Water	SM 4500 H+ B	
280-1099-1DU	Duplicate	T	Water	SM 4500 H+ B	
Analysis Batch:280-6439					
LCS 280-6439/4	Lab Control Sample	T	Water	300.0	
LCSD 280-6439/5	Lab Control Sample Duplicate	T	Water	300.0	
MB 280-6439/6	Method Blank	T	Water	300.0	
MRL 280-6439/3	Method Reporting Limit Check	T	Water	300.0	
280-1078-A-1 DU	Duplicate	T	Water	300.0	
280-1078-A-1 MS	Matrix Spike	T	Water	300.0	
280-1078-A-1 MSD	Matrix Spike Duplicate	T	Water	300.0	
280-1099-1	ANDROVICH	T	Water	300.0	
Analysis Batch:280-6636					
LCS 280-6636/3	Lab Control Sample	T	Water	SM 2510B	
LCSD 280-6636/4	Lab Control Sample Duplicate	T	Water	SM 2510B	
MB 280-6636/5	Method Blank	T	Water	SM 2510B	
280-1099-1	ANDROVICH	T	Water	SM 2510B	
280-1107-A-1 DU	Duplicate	T	Water	SM 2510B	
Analysis Batch:280-6776					
LCS 280-6776/2	Lab Control Sample	T	Water	SM 2540C	
LCSD 280-6776/3	Lab Control Sample Duplicate	T	Water	SM 2540C	
MB 280-6776/1	Method Blank	T	Water	SM 2540C	
280-1099-1	ANDROVICH	T	Water	SM 2540C	
280-1107-A-1 DU	Duplicate	T	Water	SM 2540C	
Analysis Batch:280-6819					
LCS 280-6819/4	Lab Control Sample	T	Water	SM 2320B	
LCSD 280-6819/5	Lab Control Sample Duplicate	T	Water	SM 2320B	
MB 280-6819/6	Method Blank	T	Water	SM 2320B	
280-1076-A-3 DU	Duplicate	T	Water	SM 2320B	
280-1099-1	ANDROVICH	T	Water	SM 2320B	

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-7446					
LCS 280-7446/18	Lab Control Sample	T	Water	353.2	
LCS 280-7446/97	Lab Control Sample	T	Water	353.2	
LCSD 280-7446/19	Lab Control Sample Duplicate	T	Water	353.2	
LCSD 280-7446/98	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-7446/17	Method Blank	T	Water	353.2	
MB 280-7446/96	Method Blank	T	Water	353.2	
280-1076-B-1 MS	Matrix Spike	T	Water	353.2	
280-1076-B-1 MSD	Matrix Spike Duplicate	T	Water	353.2	
280-1099-1	ANDROVICH	T	Water	353.2	
Analysis Batch:280-7935					
280-1099-1	ANDROVICH	T	Water	SM 1030F	

Report Basis

T = Total

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Surrogate Recovery Report

8021B Aromatic and Halogenated VOCs by Gas Chromatography using PID or ELCD

Client Matrix: Water

Lab Sample ID	Client Sample ID	TFT1 %Rec
280-1099-1	ANDROVICH	97
280-1099-2	TRIP BLANK	97
MB 280-7007/4		103
LCS 280-7007/2		99
LCSD 280-7007/3		95
280-1110-G-1 MS		98
280-1110-G-1 MSD		101

Surrogate	Acceptance Limits
TFT = a,a,a-Trifluorotoluene	85-115

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method Blank - Batch: 280-7007

Lab Sample ID: MB 280-7007/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1132
Date Prepared: 03/09/2010 1132

Analysis Batch: 280-7007
Prep Batch: N/A
Units: ug/L

Method: 8021B Preparation: 5030B

Instrument ID: GCV_H
Lab File ID: 113B0501.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
Injection Volume: 5 mL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
Methyl tert-butyl ether	ND		5.0
Toluene	ND		0.50
m-Xylene & p-Xylene	ND		0.50
o-Xylene	ND		0.50
Surrogate	% Rec	Acceptance Limits	
a,a,a-Trifluorotoluene	103	85 - 115	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-1099-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-7007**

**Method: 8021B
Preparation: 5030B**

LCS Lab Sample ID: LCS 280-7007/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1030
Date Prepared: 03/09/2010 1030

Analysis Batch: 280-7007
Prep Batch: N/A
Units: ug/L

Instrument ID: GCV_H
Lab File ID: 111B0301.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
Injection Volume: 5 mL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 280-7007/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1101
Date Prepared: 03/09/2010 1101

Analysis Batch: 280-7007
Prep Batch: N/A
Units: ug/L

Instrument ID: GCV_H
Lab File ID: 112B0401.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
Injection Volume: 5 mL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	109	112	75 - 117	2	45		
Ethylbenzene	109	106	79 - 115	3	46		
Methyl tert-butyl ether	101	102	70 - 130	1	30		
Toluene	114	114	77 - 115	0	45		
m-Xylene & p-Xylene	114	110	79 - 116	4	46		
o-Xylene	113	113	79 - 116	0	46		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
a,a,a-Trifluorotoluene	99		95		85 - 115		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-7007**

**Method: 8021B
Preparation: 5030B**

LCS Lab Sample ID: LCS 280-7007/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1030
Date Prepared: 03/09/2010 1030

Units: ug/L

LCSD Lab Sample ID: LCSD 280-7007/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1101
Date Prepared: 03/09/2010 1101

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Benzene	20.0	20.0	21.8	22.4
Ethylbenzene	20.0	20.0	21.7	21.1
Methyl tert-butyl ether	20.0	20.0	20.1	20.4
Toluene	20.0	20.0	22.8	22.7
m-Xylene & p-Xylene	40.0	40.0	45.6	43.9
o-Xylene	20.0	20.0	22.5	22.6

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-1099-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-7007

Method: 8021B
Preparation: 5030B

MS Lab Sample ID: 280-1110-G-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1453
Date Prepared: 03/09/2010 1453

Analysis Batch: 280-7007
Prep Batch: N/A

Instrument ID: GCV_H
Lab File ID: 203B1101.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
Injection Volume: 5 mL
Column ID: PRIMARY

MSD Lab Sample ID: 280-1110-G-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1320
Date Prepared: 03/09/2010 1320

Analysis Batch: 280-7007
Prep Batch: N/A

Instrument ID: GCV_H
Lab File ID: 116B0801.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
Injection Volume: 5 mL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	109	113	75 - 117	4	45		
Ethylbenzene	109	107	79 - 115	2	46		
Methyl tert-butyl ether	101	101	70 - 130	0	30		
Toluene	113	113	77 - 115	0	45		
m-Xylene & p-Xylene	110	108	79 - 116	2	46		
o-Xylene	111	109	79 - 116	1	46		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
a,a,a-Trifluorotoluene	98	101	85 - 115

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-1099-1

**Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-7007**

**Method: 8021B
Preparation: 5030B**

MS Lab Sample ID: 280-1110-G-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1453
Date Prepared: 03/09/2010 1453

Units: ug/L

MSD Lab Sample ID: 280-1110-G-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1320
Date Prepared: 03/09/2010 1320

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Benzene	1.8	20.0	20.0	23.5	24.4
Ethylbenzene	ND	20.0	20.0	21.8	21.4
Methyl tert-butyl ether	ND	20.0	20.0	20.3	20.2
Toluene	ND	20.0	20.0	22.7	22.7
m-Xylene & p-Xylene	ND	40.0	40.0	44.5	43.5
o-Xylene	ND	20.0	20.0	22.1	21.8

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method Blank - Batch: 280-7167

Lab Sample ID: MB 280-7167/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1541
Date Prepared: N/A

Analysis Batch: 280-7167
Prep Batch: N/A
Units: ug/L

Method: RSK-175 Preparation: N/A

Instrument ID: GCV_J
Lab File ID: 006F0601.D
Initial Weight/Volume:
Final Weight/Volume: 18 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
Dissolved Methane	ND		5.0

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-7167

Method: RSK-175 Preparation: N/A

LCS Lab Sample ID: LCS 280-7167/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1532
Date Prepared: N/A

Analysis Batch: 280-7167
Prep Batch: N/A
Units: ug/L

Instrument ID: GCV_J
Lab File ID: 004F0401.D
Initial Weight/Volume:
Final Weight/Volume: 18 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 280-7167/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1537
Date Prepared: N/A

Analysis Batch: 280-7167
Prep Batch: N/A
Units: ug/L

Instrument ID: GCV_J
Lab File ID: 005F0501.D
Initial Weight/Volume:
Final Weight/Volume: 18 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dissolved Methane	93	101	75 - 125	8	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-7167**

**Method: RSK-175
Preparation: N/A**

LCS Lab Sample ID: LCS 280-7167/2 Units: ug/L
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1532
Date Prepared: N/A

LCSD Lab Sample ID: LCSD 280-7167/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1537
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Dissolved Methane	73.0	73.0	68.0	73.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method Blank - Batch: 280-6690

Lab Sample ID: MB 280-6438/1-F
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1750
Date Prepared: 03/10/2010 0730

Analysis Batch: 280-7116
Prep Batch: 280-6690
Units: ug/L

Method: 6010B Preparation: 3005A Dissolved

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	ND		15
Cadmium	ND		5.0
Calcium	ND		200
Chromium	ND		10
Iron	ND		100
Lead	ND		9.0
Potassium	ND		3000
Selenium	ND		15
Sodium	ND		1000

Method Blank - Batch: 280-6690

Lab Sample ID: MB 280-6438/1-F
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 0212
Date Prepared: 03/10/2010 0730

Analysis Batch: 280-7274
Prep Batch: 280-6690
Units: ug/L

Method: 6010B Preparation: 3005A Dissolved

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Magnesium	ND		200
Manganese	ND		10

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-1099-1

Lab Control Sample - Batch: 280-6690

Method: 6010B
Preparation: 3005A
Dissolved

Lab Sample ID: LCS 280-6438/2-F
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1752
Date Prepared: 03/10/2010 0730

Analysis Batch: 280-7116
Prep Batch: 280-6690
Units: ug/L

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1000	1010	101	88 - 110	
Cadmium	100	99.7	100	88 - 111	
Calcium	50000	48800	98	90 - 111	
Chromium	200	197	99	90 - 113	
Iron	1000	1000	100	89 - 115	
Lead	500	505	101	89 - 110	
Potassium	50000	51400	103	89 - 114	
Selenium	2000	1990	99	85 - 112	
Sodium	50000	54800	110	90 - 115	

Lab Control Sample - Batch: 280-6690

Method: 6010B
Preparation: 3005A
Dissolved

Lab Sample ID: LCS 280-6438/2-F
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 0215
Date Prepared: 03/10/2010 0730

Analysis Batch: 280-7274
Prep Batch: 280-6690
Units: ug/L

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Magnesium	50000	49200	98	90 - 113	
Manganese	500	493	99	90 - 110	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-6690**

**Method: 6010B
Preparation: 3005A
Dissolved**

MS Lab Sample ID: 280-1099-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1759
Date Prepared: 03/10/2010 0730

Analysis Batch: 280-7116
Prep Batch: 280-6690

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-1099-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/11/2010 1801
Date Prepared: 03/10/2010 0730

Analysis Batch: 280-7116
Prep Batch: 280-6690

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	102	102	84 - 124	0	25		
Cadmium	101	100	82 - 119	1	25		
Calcium	99	96	48 - 153	3	25		
Chromium	99	98	73 - 135	1	25		
Iron	103	97	52 - 155	5	25		
Lead	100	99	89 - 121	1	25		
Potassium	110	105	76 - 132	4	25		
Selenium	101	99	71 - 140	2	25		
Sodium	137	115	70 - 203	2	40	4	4

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-6690

Method: 6010B

Preparation: 3005A

Dissolved

MS Lab Sample ID: 280-1099-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 0222
Date Prepared: 03/10/2010 0730

Analysis Batch: 280-7274
Prep Batch: 280-6690

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-1099-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 0224
Date Prepared: 03/10/2010 0730

Analysis Batch: 280-7274
Prep Batch: 280-6690

Instrument ID: MT_025
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Magnesium	99	96	62 - 146	4	25		
Manganese	99	96	79 - 121	4	25		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-1099-1

Matrix Spike/

Matrix Spike Duplicate Data Report - Batch: 280-6690

Method: 6010B

Preparation: 3005A

Dissolved

MS Lab Sample ID: 280-1099-1 Units: ug/L
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 03/11/2010 1759
 Date Prepared: 03/10/2010 0730

MSD Lab Sample ID: 280-1099-1
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 03/11/2010 1801
 Date Prepared: 03/10/2010 0730

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Arsenic	ND	1000	1000	1020	1020
Cadmium	ND	100	100	101	99.9
Calcium	1900	50000	50000	51500	49800
Chromium	ND	200	200	197	195
Iron	170	1000	1000	1200	1150
Lead	ND	500	500	499	496
Potassium	ND	50000	50000	56700	54500
Selenium	ND	2000	2000	2010	1980
Sodium	380000	50000	50000	451000 4	440000 4

Matrix Spike/

Matrix Spike Duplicate Data Report - Batch: 280-6690

Method: 6010B

Preparation: 3005A

Dissolved

MS Lab Sample ID: 280-1099-1 Units: ug/L
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 03/13/2010 0222
 Date Prepared: 03/10/2010 0730

MSD Lab Sample ID: 280-1099-1
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 03/13/2010 0224
 Date Prepared: 03/10/2010 0730

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Magnesium	560	50000	50000	50300	48400
Manganese	ND	500	500	503	484

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method Blank - Batch: 280-6439

Method: 300.0

Preparation: N/A

Lab Sample ID: MB 280-6439/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1137
Date Prepared: N/A

Analysis Batch: 280-6439
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Bromide	ND		0.20
Chloride	ND		3.0
Fluoride	ND		0.50
Sulfate	ND		5.0

Method Reporting Limit Check - Batch: 280-6439

Method: 300.0

Preparation: N/A

Lab Sample ID: MRL 280-6439/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1049
Date Prepared: N/A

Analysis Batch: 280-6439
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	0.200	0.200	100	50 - 150	
Chloride	1.00	ND	103	50 - 150	
Fluoride	0.200	ND	100	50 - 150	
Sulfate	1.00	ND	101	50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-1099-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-6439**

**Method: 300.0
Preparation: N/A**

LCS Lab Sample ID: LCS 280-6439/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1105
Date Prepared: N/A

Analysis Batch: 280-6439
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 280-6439/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1121
Date Prepared: N/A

Analysis Batch: 280-6439
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Bromide	94	94	90 - 110	0	10		
Chloride	95	95	90 - 110	0	10		
Fluoride	99	98	90 - 110	1	10		
Sulfate	96	95	90 - 110	0	10		

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-6439**

**Method: 300.0
Preparation: N/A**

LCS Lab Sample ID: LCS 280-6439/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1105
Date Prepared: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-6439/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1121
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Bromide	5.00	5.00	4.72	4.72
Chloride	25.0	25.0	23.8	23.7
Fluoride	5.00	5.00	4.95	4.92
Sulfate	25.0	25.0	23.9	23.8

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-6439**

**Method: 300.0
Preparation: N/A**

MS Lab Sample ID: 280-1078-A-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1304
Date Prepared: N/A

Analysis Batch: 280-6439
Prep Batch: N/A

Instrument ID: WC_IC7
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-1078-A-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1320
Date Prepared: N/A

Analysis Batch: 280-6439
Prep Batch: N/A

Instrument ID: WC_IC7
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Bromide	88	92	80 - 120	5	20		
Chloride	104	108	80 - 120	3	20		
Fluoride	112	114	80 - 120	2	20		
Sulfate	96	100	80 - 120	3	20		

**Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 280-6439**

**Method: 300.0
Preparation: N/A**

MS Lab Sample ID: 280-1078-A-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1304
Date Prepared: N/A

Units: mg/L

MSD Lab Sample ID: 280-1078-A-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1320
Date Prepared: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Bromide	ND	5.00	5.00	4.39	4.60
Chloride	5.3	25.0	25.0	31.4	32.3
Fluoride	ND	5.00	5.00	5.65	5.78
Sulfate	6.9	25.0	25.0	31.0	31.8

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Duplicate - Batch: 280-6439

Method: 300.0

Preparation: N/A

Lab Sample ID: 280-1078-A-1 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/05/2010 1248
Date Prepared: N/A

Analysis Batch: 280-6439
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_IC7
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Bromide	ND	ND	NC	15	
Chloride	5.3	5.31	0	15	
Fluoride	ND	ND	NC	15	
Sulfate	6.9	6.94	1	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method Blank - Batch: 280-7446

Lab Sample ID: MB 280-7446/17
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1207
Date Prepared: N/A

Analysis Batch: 280-7446
Prep Batch: N/A
Units: mg/L

Method: 353.2 Preparation: N/A

Instrument ID: WC_Alph 2
Lab File ID: C:\FLOW_4\0313NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Nitrate Nitrite as N	ND		0.10

Method Blank - Batch: 280-7446

Lab Sample ID: MB 280-7446/96
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1405
Date Prepared: N/A

Analysis Batch: 280-7446
Prep Batch: N/A
Units: mg/L

Method: 353.2 Preparation: N/A

Instrument ID: WC_Alph 2
Lab File ID: C:\FLOW_4\0313NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Nitrate Nitrite as N	ND		0.10

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-7446**

**Method: 353.2
Preparation: N/A**

LCS Lab Sample ID: LCS 280-7446/18
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1208
Date Prepared: N/A

Analysis Batch: 280-7446
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alph 2
Lab File ID: C:\FLOW_4\0313NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 4 mL

LCSD Lab Sample ID: LCSD 280-7446/19
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1210
Date Prepared: N/A

Analysis Batch: 280-7446
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alph 2
Lab File ID: C:\FLOW_4\0313NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 4 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrate Nitrite as N	102	102	90 - 110	0	10		

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-7446**

**Method: 353.2
Preparation: N/A**

LCS Lab Sample ID: LCS 280-7446/97
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1407
Date Prepared: N/A

Analysis Batch: 280-7446
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alph 2
Lab File ID: C:\FLOW_4\0313NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 4 mL

LCSD Lab Sample ID: LCSD 280-7446/98
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1408
Date Prepared: N/A

Analysis Batch: 280-7446
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_Alph 2
Lab File ID: C:\FLOW_4\0313NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 4 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrate Nitrite as N	100	100	90 - 110	0	10		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-7446**

**Method: 353.2
Preparation: N/A**

LCS Lab Sample ID: LCS 280-7446/18
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1208
Date Prepared: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-7446/19
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1210
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	5.08	5.08

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-7446**

**Method: 353.2
Preparation: N/A**

LCS Lab Sample ID: LCS 280-7446/97
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1407
Date Prepared: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-7446/98
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1408
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	5.01	5.00

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-1099-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-7446

Method: 353.2
Preparation: N/A

MS Lab Sample ID: 280-1076-B-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1217
Date Prepared: N/A

Analysis Batch: 280-7446
Prep Batch: N/A

Instrument ID: WC_Alph 2
Lab File ID: C:\FLOW_4\0313NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-1076-B-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1219
Date Prepared: N/A

Analysis Batch: 280-7446
Prep Batch: N/A

Instrument ID: WC_Alph 2
Lab File ID: C:\FLOW_4\0313NXN.RST
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrate Nitrite as N	98	95	72 - 113	1	17		

Matrix Spike/ Matrix Spike Duplicate Data Report - Batch: 280-7446

Method: 353.2
Preparation: N/A

MS Lab Sample ID: 280-1076-B-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1217
Date Prepared: N/A

Units: mg/L

MSD Lab Sample ID: 280-1076-B-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/13/2010 1219
Date Prepared: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	5.1	4.00	4.00	9.00	8.87

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method Blank - Batch: 280-6819

Method: SM 2320B

Preparation: N/A

Lab Sample ID: MB 280-6819/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1748
Date Prepared: N/A

Analysis Batch: 280-6819
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Total Alkalinity	ND		5.0
Bicarbonate Alkalinity as CaCO3	ND		5.0
Carbonate Alkalinity as CaCO3	ND		5.0

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-6819

Method: SM 2320B

Preparation: N/A

LCS Lab Sample ID: LCS 280-6819/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1729
Date Prepared: N/A

Analysis Batch: 280-6819
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 280-6819/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1740
Date Prepared: N/A

Analysis Batch: 280-6819
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Total Alkalinity	100	109	90 - 110	8	10		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-6819

Method: SM 2320B
Preparation: N/A

LCS Lab Sample ID: LCS 280-6819/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1729
Date Prepared: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-6819/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1740
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Alkalinity	200	200	201	218

Duplicate - Batch: 280-6819

Method: SM 2320B
Preparation: N/A

Lab Sample ID: 280-1076-A-3 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1820
Date Prepared: N/A

Analysis Batch: 280-6819
Prep Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Alkalinity	180	195	8	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method Blank - Batch: 280-6636

Method: SM 2510B

Preparation: N/A

Lab Sample ID: MB 280-6636/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1200
Date Prepared: N/A

Analysis Batch: 280-6636
Prep Batch: N/A
Units: umhos/cm

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1 mL

Analyte	Result	Qual	RL
Specific Conductance	ND		2.0

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-6636

Method: SM 2510B

Preparation: N/A

LCS Lab Sample ID: LCS 280-6636/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1200
Date Prepared: N/A

Analysis Batch: 280-6636
Prep Batch: N/A
Units: umhos/cm

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1 mL

LCSD Lab Sample ID: LCSD 280-6636/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1200
Date Prepared: N/A

Analysis Batch: 280-6636
Prep Batch: N/A
Units: umhos/cm

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Specific Conductance	100	100	90 - 110	0	10		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-6636

Method: SM 2510B
Preparation: N/A

LCS Lab Sample ID: LCS 280-6636/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1200
Date Prepared: N/A

Units: umhos/cm

LCSD Lab Sample ID: LCSD 280-6636/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1200
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Specific Conductance	1410	1410	1410	1410

Duplicate - Batch: 280-6636

Method: SM 2510B
Preparation: N/A

Lab Sample ID: 280-1107-A-1 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/09/2010 1200
Date Prepared: N/A

Analysis Batch: 280-6636
Prep Batch: N/A
Units: umhos/cm

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Specific Conductance	530	523	1	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Method Blank - Batch: 280-6776

Method: SM 2540C

Preparation: N/A

Lab Sample ID: MB 280-6776/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/10/2010 0754
Date Prepared: N/A

Analysis Batch: 280-6776
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL
Total Dissolved Solids	ND		10

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-6776

Method: SM 2540C

Preparation: N/A

LCS Lab Sample ID: LCS 280-6776/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/10/2010 0754
Date Prepared: N/A

Analysis Batch: 280-6776
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 280-6776/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/10/2010 0754
Date Prepared: N/A

Analysis Batch: 280-6776
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Total Dissolved Solids	94	97	86 - 110	3	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-6776

Method: SM 2540C
Preparation: N/A

LCS Lab Sample ID: LCS 280-6776/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/10/2010 0754
Date Prepared: N/A

Units: mg/L

LCSD Lab Sample ID: LCSD 280-6776/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/10/2010 0754
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Dissolved Solids	500	500	471	486

Duplicate - Batch: 280-6776

Method: SM 2540C
Preparation: N/A

Lab Sample ID: 280-1107-A-1 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/10/2010 0754
Date Prepared: N/A

Analysis Batch: 280-6776
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	300	293	4	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-6384

Method: SM 4500 H+ B
Preparation: N/A

LCS Lab Sample ID: LCS 280-6384/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/06/2010 1043
Date Prepared: N/A

Analysis Batch: 280-6384
Prep Batch: N/A
Units: SU

Instrument ID: WC_pH Probe
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

LCSD Lab Sample ID: LCSD 280-6384/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/06/2010 1044
Date Prepared: N/A

Analysis Batch: 280-6384
Prep Batch: N/A
Units: SU

Instrument ID: WC_pH Probe
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
pH adj. to 25 deg C	100	100	99 - 101	0	5		

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-6384

Method: SM 4500 H+ B
Preparation: N/A

LCS Lab Sample ID: LCS 280-6384/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/06/2010 1043
Date Prepared: N/A

Units: SU

LCSD Lab Sample ID: LCSD 280-6384/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/06/2010 1044
Date Prepared: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
pH adj. to 25 deg C	7.00	7.00	7.020	7.020

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Duplicate - Batch: 280-6384

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID: 280-1099-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/06/2010 1047
Date Prepared: N/A

Analysis Batch: 280-6384
Prep Batch: N/A
Units: SU

Instrument ID: WC_pH Probe
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C	8.69	8.690	0	5	HF

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Laboratory Chronicle

Lab ID: 280-1099-1

Client ID: ANDROVICH

Sample Date/Time: 03/05/2010 10:45

Received Date/Time: 03/05/2010 12:03

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-1099-C-1		280-7007		03/09/2010 15:25	1	TAL DEN	BER
A:8021B	280-1099-C-1		280-7007		03/09/2010 15:25	1	TAL DEN	BER
A:RSK-175	280-1099-G-1		280-7167		03/11/2010 16:53	100	TAL DEN	BER
P:3005A	280-1099-D-1-B		280-7116	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	280-1099-D-1-B		280-7116	280-6690	03/11/2010 17:54	1	TAL DEN	JKH
P:3005A	280-1099-D-1-B		280-7274	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	280-1099-D-1-B		280-7274	280-6690	03/13/2010 02:17	1	TAL DEN	LT
A:300.0	280-1099-A-1		280-6439		03/05/2010 18:06	1	TAL DEN	EK
A:300.0	280-1099-A-1		280-6439		03/05/2010 18:30	5	TAL DEN	EK
A:353.2	280-1099-C-1		280-7446		03/13/2010 14:10	1	TAL DEN	RG
A:SM 1030F	280-1099-A-1		280-7935		03/19/2010 11:14	1	TAL DEN	RS
A:SM 2320B	280-1099-A-1		280-6819		03/09/2010 20:07	1	TAL DEN	MRD
A:SM 2510B	280-1099-A-1		280-6636		03/09/2010 12:00	1	TAL DEN	BHP
A:SM 2540C	280-1099-A-1		280-6776		03/10/2010 07:54	1	TAL DEN	BJD
A:SM 4500 H+ B	280-1099-B-1		280-6384		03/06/2010 10:45	1	TAL DEN	LEJ

Lab ID: 280-1099-1 MS

Client ID: ANDROVICH

Sample Date/Time: 03/05/2010 10:45

Received Date/Time: 03/05/2010 12:03

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	280-1099-D-1-C MS		280-7116	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	280-1099-D-1-C MS		280-7116	280-6690	03/11/2010 17:59	1	TAL DEN	JKH
P:3005A	280-1099-D-1-C MS		280-7274	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	280-1099-D-1-C MS		280-7274	280-6690	03/13/2010 02:22	1	TAL DEN	LT

Lab ID: 280-1099-1 MSD

Client ID: ANDROVICH

Sample Date/Time: 03/05/2010 10:45

Received Date/Time: 03/05/2010 12:03

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	280-1099-D-1-E MSD		280-7116	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	280-1099-D-1-E MSD		280-7116	280-6690	03/11/2010 18:01	1	TAL DEN	JKH
P:3005A	280-1099-D-1-E MSD		280-7274	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	280-1099-D-1-E MSD		280-7274	280-6690	03/13/2010 02:24	1	TAL DEN	LT

Lab ID: 280-1099-1 DU

Client ID: ANDROVICH

Sample Date/Time: 03/05/2010 10:45

Received Date/Time: 03/05/2010 12:03

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 4500 H+ B	280-1099-B-1 DU		280-6384		03/06/2010 10:47	1	TAL DEN	LEJ

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Laboratory Chronicle

Lab ID: 280-1099-2

Client ID: TRIP BLANK

Sample Date/Time: 03/05/2010 00:00

Received Date/Time: 03/05/2010 12:03

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-1099-C-2		280-7007		03/09/2010 15:56	1	TAL DEN	BER
A:8021B	280-1099-C-2		280-7007		03/09/2010 15:56	1	TAL DEN	BER

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 280-7007/4		280-7007		03/09/2010 11:32	1	TAL DEN	BER
A:8021B	MB 280-7007/4		280-7007		03/09/2010 11:32	1	TAL DEN	BER
A:RSK-175	MB 280-7167/4		280-7167		03/11/2010 15:41	1	TAL DEN	BER
P:3005A	MB 280-6438/1-F		280-7116	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	MB 280-6438/1-F		280-7116	280-6690	03/11/2010 17:50	1	TAL DEN	JKH
P:3005A	MB 280-6438/1-F		280-7274	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	MB 280-6438/1-F		280-7274	280-6690	03/13/2010 02:12	1	TAL DEN	LT
A:300.0	MB 280-6439/6		280-6439		03/05/2010 11:37	1	TAL DEN	EK
A:353.2	MB 280-7446/17		280-7446		03/13/2010 12:07	1	TAL DEN	RG
A:353.2	MB 280-7446/96		280-7446		03/13/2010 14:05	1	TAL DEN	RG
A:SM 2320B	MB 280-6819/6		280-6819		03/09/2010 17:48	1	TAL DEN	MRD
A:SM 2510B	MB 280-6636/5		280-6636		03/09/2010 12:00	1	TAL DEN	BHP
A:SM 2540C	MB 280-6776/1		280-6776		03/10/2010 07:54	1	TAL DEN	BJD

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 280-7007/2		280-7007		03/09/2010 10:30	1	TAL DEN	BER
A:8021B	LCS 280-7007/2		280-7007		03/09/2010 10:30	1	TAL DEN	BER
A:RSK-175	LCS 280-7167/2		280-7167		03/11/2010 15:32	1	TAL DEN	BER
P:3005A	LCS 280-6438/2-F		280-7116	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	LCS 280-6438/2-F		280-7116	280-6690	03/11/2010 17:52	1	TAL DEN	JKH
P:3005A	LCS 280-6438/2-F		280-7274	280-6690	03/10/2010 07:30	1	TAL DEN	JW
A:6010B	LCS 280-6438/2-F		280-7274	280-6690	03/13/2010 02:15	1	TAL DEN	LT
A:300.0	LCS 280-6439/4		280-6439		03/05/2010 11:05	1	TAL DEN	EK
A:353.2	LCS 280-7446/18		280-7446		03/13/2010 12:08	1	TAL DEN	RG
A:353.2	LCS 280-7446/97		280-7446		03/13/2010 14:07	1	TAL DEN	RG
A:SM 2320B	LCS 280-6819/4		280-6819		03/09/2010 17:29	1	TAL DEN	MRD
A:SM 2510B	LCS 280-6636/3		280-6636		03/09/2010 12:00	1	TAL DEN	BHP
A:SM 2540C	LCS 280-6776/2		280-6776		03/10/2010 07:54	1	TAL DEN	BJD
A:SM 4500 H+ B	LCS 280-6384/6		280-6384		03/06/2010 10:43	1	TAL DEN	LEJ

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Laboratory Chronicle

Lab ID: LCSD

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCSD 280-7007/3		280-7007		03/09/2010 11:01	1	TAL DEN	BER
A:8021B	LCSD 280-7007/3		280-7007		03/09/2010 11:01	1	TAL DEN	BER
A:RSK-175	LCSD 280-7167/3		280-7167		03/11/2010 15:37	1	TAL DEN	BER
A:300.0	LCSD 280-6439/5		280-6439		03/05/2010 11:21	1	TAL DEN	EK
A:353.2	LCSD 280-7446/19		280-7446		03/13/2010 12:10	1	TAL DEN	RG
A:353.2	LCSD 280-7446/98		280-7446		03/13/2010 14:08	1	TAL DEN	RG
A:SM 2320B	LCSD 280-6819/5		280-6819		03/09/2010 17:40	1	TAL DEN	MRD
A:SM 2510B	LCSD 280-6636/4		280-6636		03/09/2010 12:00	1	TAL DEN	BHP
A:SM 2540C	LCSD 280-6776/3		280-6776		03/10/2010 07:54	1	TAL DEN	BJD
A:SM 4500 H+ B	LCSD 280-6384/7		280-6384		03/06/2010 10:44	1	TAL DEN	LEJ

Lab ID: MRL

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	MRL 280-6439/3		280-6439		03/05/2010 10:49	1	TAL DEN	EK

Lab ID: MS

Client ID: N/A

Sample Date/Time: 03/04/2010 12:45

Received Date/Time: 03/06/2010 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-1110-G-1 MS		280-7007		03/09/2010 14:53	1	TAL DEN	BER
A:8021B	280-1110-G-1 MS		280-7007		03/09/2010 14:53	1	TAL DEN	BER
A:300.0	280-1078-A-1 MS		280-6439		03/05/2010 13:04	1	TAL DEN	EK
A:353.2	280-1076-B-1 MS		280-7446		03/13/2010 12:17	1	TAL DEN	RG

Lab ID: MSD

Client ID: N/A

Sample Date/Time: 03/04/2010 12:45

Received Date/Time: 03/06/2010 10:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-1110-G-1 MSD		280-7007		03/09/2010 13:20	1	TAL DEN	BER
A:8021B	280-1110-G-1 MSD		280-7007		03/09/2010 13:20	1	TAL DEN	BER
A:300.0	280-1078-A-1 MSD		280-6439		03/05/2010 13:20	1	TAL DEN	EK
A:353.2	280-1076-B-1 MSD		280-7446		03/13/2010 12:19	1	TAL DEN	RG

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Laboratory Chronicle

Lab ID: DU

Client ID: N/A

Sample Date/Time: 03/04/2010 08:29

Received Date/Time: 03/05/2010 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	280-1078-A-1 DU		280-6439		03/05/2010 12:48	1	TAL DEN	EK
A:SM 2320B	280-1076-A-3 DU		280-6819		03/09/2010 18:20	1	TAL DEN	MRD
A:SM 2510B	280-1107-A-1 DU		280-6636		03/09/2010 12:00	1	TAL DEN	BHP
A:SM 2540C	280-1107-A-1 DU		280-6776		03/10/2010 07:54	1	TAL DEN	BJD

Lab References:

TAL DEN = TestAmerica Denver

Method 8021B

Volatile Organic Compounds (GC) by
Method 8021B

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-1099-1
 SDG No.: _____
 Client Sample ID: ANDROVICH Lab Sample ID: 280-1099-1
 Matrix: Water Lab File ID: 204B1201.D
 Analysis Method: 8021B Date Collected: 03/05/2010 10:45
 Sample wt/vol: 5(mL) Date Analyzed: 03/09/2010 15:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX 502.2 (60) ID: 0.53(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7007 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.50	0.065
100-41-4	Ethylbenzene	ND		0.50	0.10
1634-04-4	Methyl tert-butyl ether	ND		5.0	0.46
108-88-3	Toluene	ND		0.50	0.17
179601-23-1	m-Xylene & p-Xylene	ND		0.50	0.19
95-47-6	o-Xylene	ND		0.50	0.23

CAS NO.	SURROGATE	%REC	LIMITS	Q
98-08-8	a,a,a-Trifluorotoluene	97	85-115	

TestAmerica

VOLATILE REPORT SOW 3/90

Data file : \\DenSvr03\Public\chem\GCV\GC_H.i\0309101.B\204B1201.D
 Lab Smp Id: 280-1099-H-1 Client Smp ID: ANDROVICH
 Inj Date : 09-MAR-2010 15:25
 Operator : BR Inst ID: GC_H.i
 Smp Info : 280-1099-h-1
 Misc Info : 280-1099-H-1
 Comment : REV. OLMO1.1.1
 Method : \\DenSvr03\Public\chem\GCV\GC_H.i\0309101.B\H1.m
 Meth Date : 09-Mar-2010 16:52 reamb Quant Type: ISTD
 Cal Date : 23-FEB-2010 11:14 Cal File: 112B0601.D
 Als bottle: 204
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: Arom.A.01.sub
 Target Version: 4.14
 Processing Host: DENPC252

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	5.000	final purge volume (ml)
Vs	5.000	vlm of sample added to purge vessel (ml)
Cpnd Variable		Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/L)
1 Methyl tert-butylether				Compound Not Detected.		
2 Benzene				Compound Not Detected.		
\$ 3 Trifluorotoluene	7.260	7.260	(0.640)	21410	29.0716	29.0716
4 Toluene				Compound Not Detected.		
* 5 1-Chloro-4-fluorobenzene	11.346	11.336	(1.000)	27976	30.0000	
6 Chlorobenzene				Compound Not Detected.		
7 Ethylbenzene				Compound Not Detected.		
8 m+p-Xylene				Compound Not Detected.		
9 o-Xylene				Compound Not Detected.		
11 1,3-Dichlorobenzene				Compound Not Detected.		
12 1,4-Dichlorobenzene				Compound Not Detected.		
13 1,2-Dichlorobenzene	16.806	16.813	(1.481)	428	0.31716	0.317164(a)
M 16 Total Xylene				Compound Not Detected.		

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).

Data File: 204B1201.D

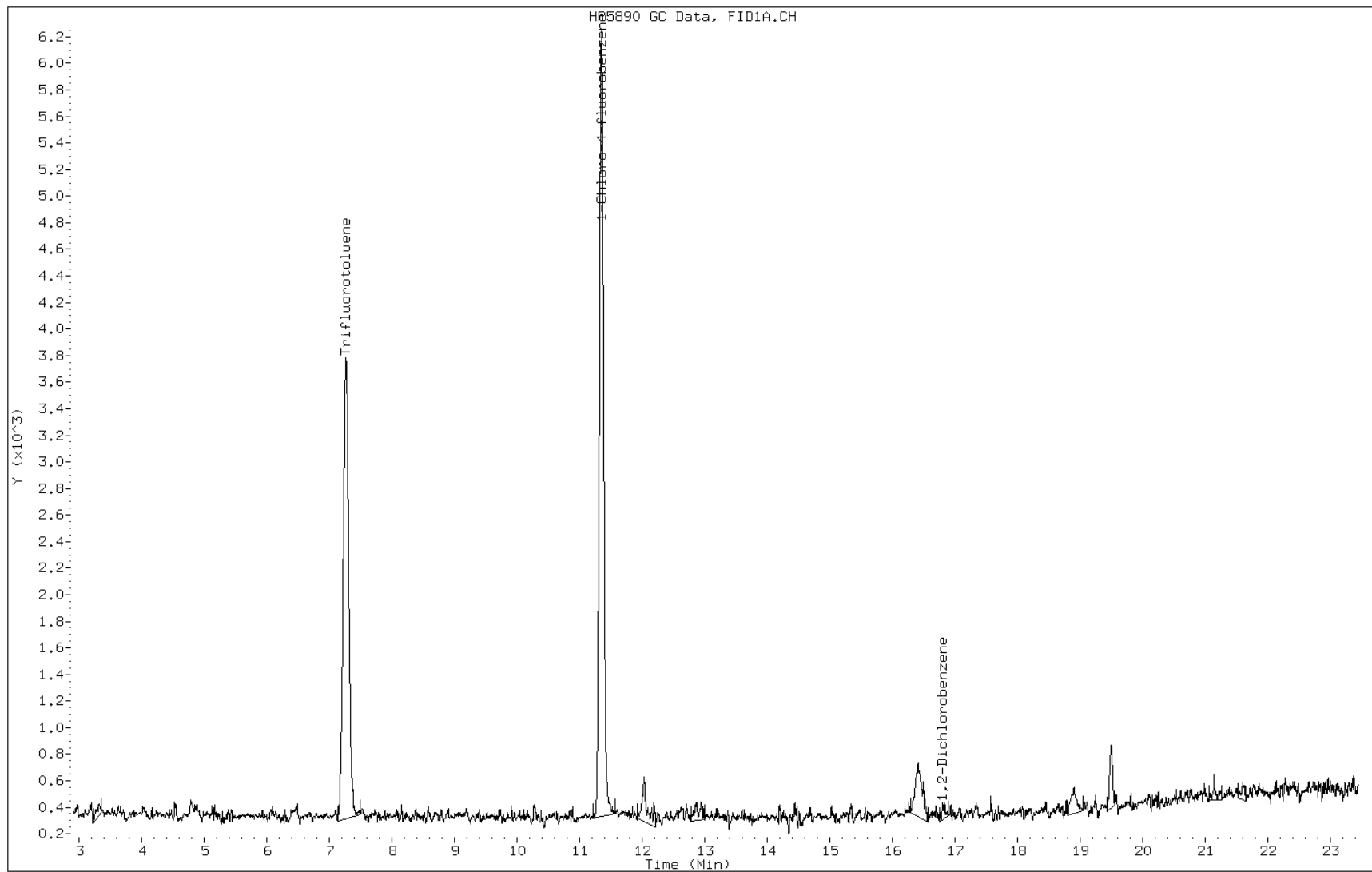
Date: 09-MAR-2010 15:25

Client ID: ANDROVICH

Instrument: GC_H.i

Sample Info: 280-1099-h-1

Operator: BR



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-1099-1
 SDG No.: _____
 Client Sample ID: TRIP BLANK Lab Sample ID: 280-1099-2
 Matrix: Water Lab File ID: 205B1301.D
 Analysis Method: 8021B Date Collected: 03/05/2010 00:00
 Sample wt/vol: 5(mL) Date Analyzed: 03/09/2010 15:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX 502.2 (60) ID: 0.53(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7007 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		0.50	0.065
100-41-4	Ethylbenzene	ND		0.50	0.10
1634-04-4	Methyl tert-butyl ether	ND		5.0	0.46
108-88-3	Toluene	ND		0.50	0.17
179601-23-1	m-Xylene & p-Xylene	ND		0.50	0.19
95-47-6	o-Xylene	ND		0.50	0.23

CAS NO.	SURROGATE	%REC	LIMITS	Q
98-08-8	a,a,a-Trifluorotoluene	97	85-115	

TestAmerica

VOLATILE REPORT SOW 3/90

Data file : \\DenSvr03\Public\chem\GCV\GC_H.i\0309101.B\205B1301.D
Lab Smp Id: 280-1099-C-2 Client Smp ID: TRIP BLANK
Inj Date : 09-MAR-2010 15:56
Operator : BR Inst ID: GC_H.i
Smp Info : 280-1099-c-2
Misc Info : 280-1099-C-2
Comment : REV. OLM01.1.1
Method : \\DenSvr03\Public\chem\GCV\GC_H.i\0309101.B\H1.m
Meth Date : 09-Mar-2010 16:52 reamb Quant Type: ISTD
Cal Date : 23-FEB-2010 11:14 Cal File: 112B0601.D
Als bottle: 205
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: Arom.A.01.sub
Target Version: 4.14
Processing Host: DENPC252

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	5.000	final purge volume (ml)
Vs	5.000	vlm of sample added to purge vessel (ml)
Cpnd Variable		Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/L)
1 Methyl tert-butylether				Compound Not Detected.		
2 Benzene				Compound Not Detected.		
\$ 3 Trifluorotoluene	7.270	7.260	(0.641)	21868	29.0098	29.0098
4 Toluene				Compound Not Detected.		
* 5 1-Chloro-4-fluorobenzene	11.343	11.336	(1.000)	28634	30.0000	
6 Chlorobenzene				Compound Not Detected.		
7 Ethylbenzene				Compound Not Detected.		
8 m+p-Xylene				Compound Not Detected.		
9 o-Xylene				Compound Not Detected.		
11 1,3-Dichlorobenzene				Compound Not Detected.		
12 1,4-Dichlorobenzene				Compound Not Detected.		
13 1,2-Dichlorobenzene				Compound Not Detected.		
M 16 Total Xylene				Compound Not Detected.		

Data File: 205B1301.D

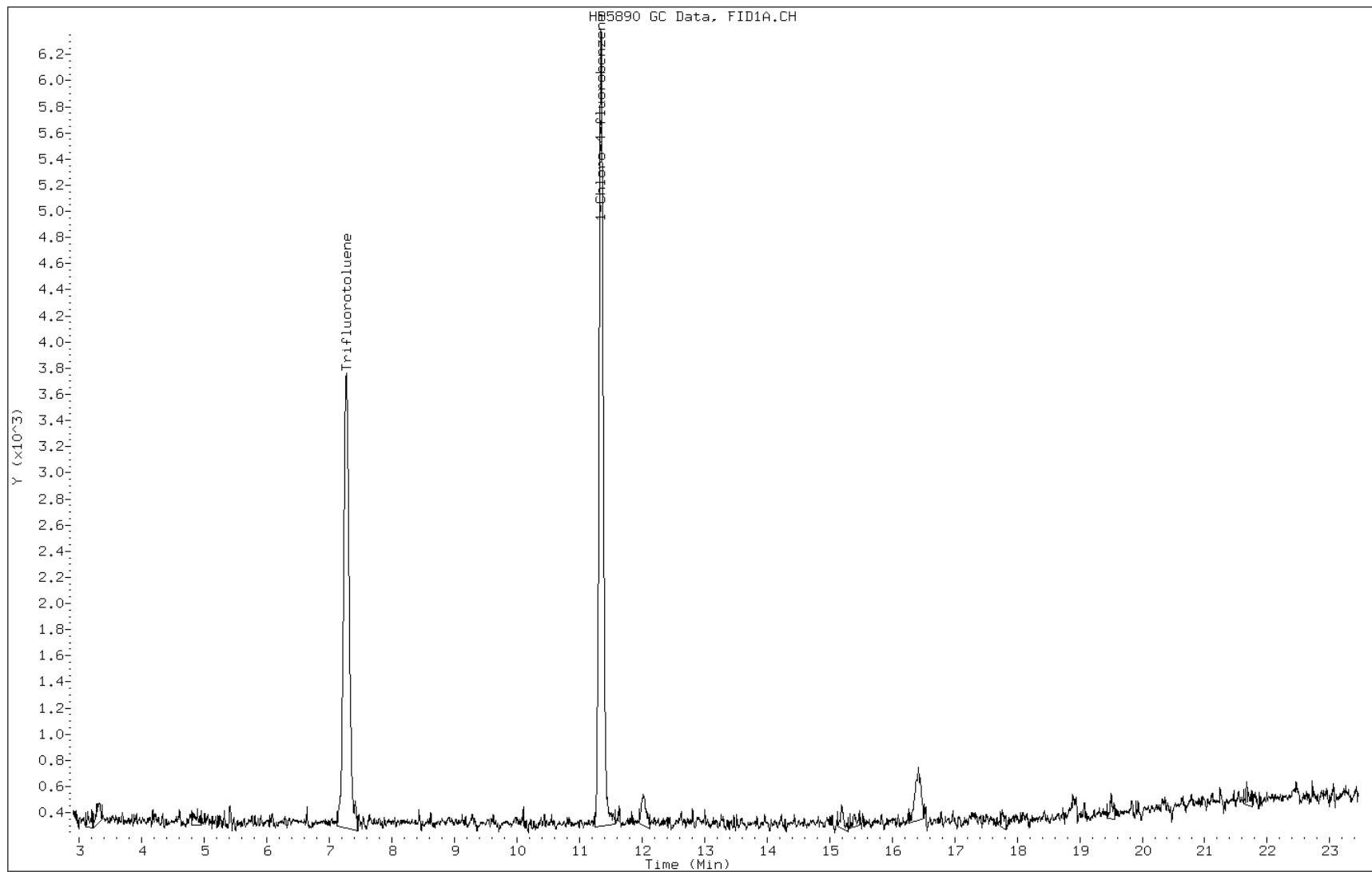
Date: 09-MAR-2010 15:56

Client ID: TRIP BLANK

Instrument: GC_H.i

Sample Info: 280-1099-c-2

Operator: BR



Method RSK-175

Dissolved Gases (GC) by Method
RSK_175

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-1099-1
SDG No.: _____
Client Sample ID: ANDROVICH Lab Sample ID: 280-1099-1
Matrix: Water Lab File ID: 019F1901.D
Analysis Method: RSK-175 Date Collected: 03/05/2010 10:45
Sample wt/vol: _____ Date Analyzed: 03/11/2010 16:53
Soil Aliquot Vol: _____ Dilution Factor: 100
Soil Extract Vol.: _____ GC Column: RT-VPLOT ID: 0.32 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 7167 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Dissolved Methane	27000		500	22

TestAmerica

RSK-175 Dissolved Gasses in Water

Data file : \\DenSvr03\Public\chem\GCV\GC_J.i\0311101.B\019F1901.D
Lab Smp Id: 280-1099-G-1 Client Smp ID: ANDROVICH
Inj Date : 11-MAR-2010 16:53
Operator : BR Inst ID: GC_J.i
Smp Info : 280-1099-g-1
Misc Info : 280-1099-G-1
Comment : SOP: DV-GC-0025
Method : \\DenSvr03\Public\chem\GCV\GC_J.i\0311101.B\RSK-1_7PT.m
Meth Date : 11-Mar-2010 17:01 reamb Quant Type: ESTD
Cal Date : 26-FEB-2010 10:24 Cal File: 009F0901.D
Als bottle: 19
Dil Factor: 100.00000
Integrator: Falcon Compound Sublist: RSK175.01.sub
Target Version: 4.14
Processing Host: DENPC252

Concentration Formula: Amt * DF * 1 * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	====	=====	=====	=====	=====	=====
1 Methane	1.292	1.287	0.005	381855	265.517	26550
2 Ethene	Compound Not Detected.					
3 Ethane	1.687	1.685	0.002	646	0.45636	45.64(a)
4 Acetylene	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: 019F1901.D

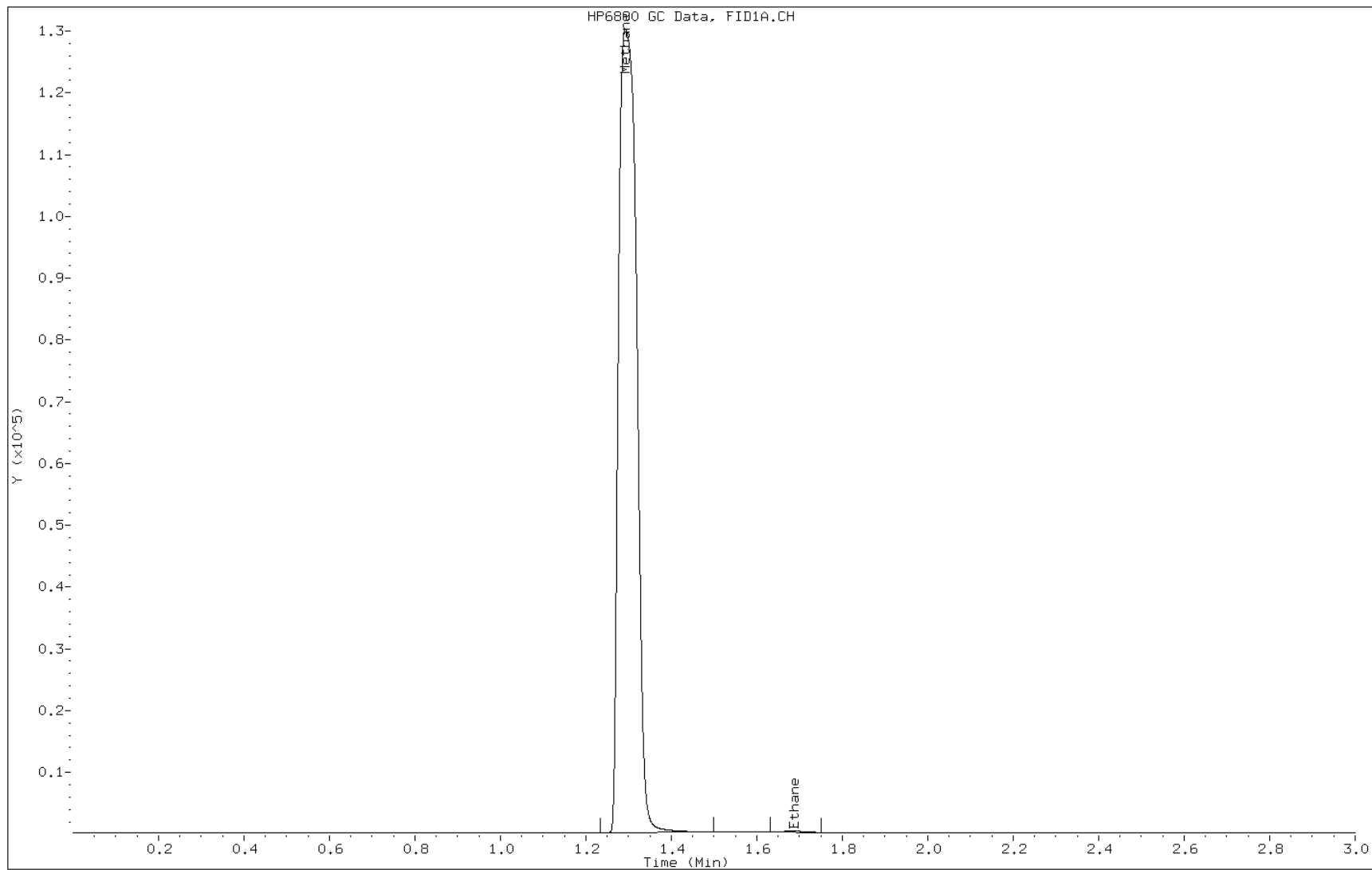
Date: 11-MAR-2010 16:53

Client ID: ANDROVICH

Instrument: GC_J.i

Sample Info: 280-1099-g-1

Operator: BR



Shipping and Receiving Documents

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124-280 (0508)

Client Terracon / COSCC
Address _____

Project Manager
Bob Chesson (COCG)
Telephone Number (Area Code)/Fax Number

Date	3/5/10
Lab Number	

Chain of Custody Number
120573

03/24/2010

[illegible]

Login Sample Receipt Check List

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-1099-1

Login Number: 1099

List Source: TestAmerica Denver

Creator: Miller, Lisa

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	recvd 3 trip blanks
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	