



June 23, 2011

Mr. Tony Baker
7482 Patrick Trail
Elizabeth, CO 80107

RE: Response to Complaint Report – Baseline Water Sampling Request
Section 2 - Township 6 South – Range 64 West
Elbert County, Colorado; Complaint No. 200296310

Dear Mr. Baker:

In response to your request, the Colorado Oil and Gas Conservation Commission (COGCC) conducted an investigation to examine groundwater quality in the vicinity of your property in northwestern Elbert County. On May 5, 2011, Steven Lindblom of the COGCC and a COGCC contractor (Terracon) obtained groundwater samples from your domestic well (permit number 225003). The water samples were analyzed by TestAmerica Laboratories in Arvada, Colorado for organic and inorganic parameters and dissolved methane. This letter summarizes the analytical laboratory results of the water samples collected from these locations. A copy of the laboratory analytical report is included in Attachment 1. Field data forms as well as photographs of the sampling location and bacteria test kits are included as Attachment 2.

METHANE

Methane gas alone is physiologically inert and non-toxic to humans. Normal breath exhalation contains 1 to 99 parts per million of methane (parts per million [ppm] is the same units as milligrams per liter [mg/L]). The presence of methane in drinking water does not present a known health hazard to humans or other animals via ingestion; however, methane in domestic water supplies can be associated with undesirable and potentially serious side effects. The following discussion is provided as background information.

Methane gas dissolved in water “exsolves” when exposed to the atmosphere and dissipates rapidly because it is lighter than air. This is often responsible for the “fizzing” observed in water wells that contain methane gas. If the methane occurs at a high enough concentration and if it is allowed to accumulate in a confined space, such as a well pit, crawl space, closet, etc., an explosion hazard can be established. In addition, if methane concentrations in well water are high, bubbles of free gas form within the water and cause the well pump to cavitate and no longer bring water to the surface.

Methane gas is common in water wells in Colorado. It occurs naturally and the source of the methane is commonly from one or more of the sources listed below.

1. Methane is commonly found as a gas in coal or black shale seams in the subsurface.

2. Methane is often found as a byproduct of the decay of organic matter and the presence of bacteria in water wells can provide the conditions favorable for the production of methane either from the activity or decay of bacteria.

As the result of extensive testing for methane gas in water wells throughout Colorado, concentrations of methane gas below 1 mg/L are considered harmless, with concern for possible hazards from the methane increasing at concentrations in well water at or exceeding 7 mg/L.

Laboratory analysis for methane indicated that the concentration of dissolved methane in your domestic water well was 0.0074 mg/L.

VOLATILE ORGANIC COMPOUNDS

The Water Quality Control Commission (WQCC) of the Colorado Department of Public Health and Environment (CDPHE) has established drinking water standards for volatile organic compounds for the protection of human health. The analytical results from the water samples have been compared to applicable ground water and/or drinking water standards and are discussed below.

Volatile Organic Compounds: Often, water well impacts due to oil and gas exploration and production activities would be evidenced by elevated levels of volatile organic compounds (VOCs) including benzene, ethylbenzene, toluene, and xylenes (BTEX compounds). Some of these constituents have been classified by the U.S. Department of Health and Human Services as carcinogens while others have been shown to have other detrimental health effects. A target list of 66 volatile organic compounds was utilized during analysis of water from your domestic well.

None of the target list compounds were present above the laboratory reporting limit.

Semi-Volatile Organic Compounds (SVOCs): A target list of 64 semi-volatile organic compounds was utilized during analysis of water from your domestic well.

Of the 64 semi-volatile compounds, bis(2-ethylhexyl) phthalate was detected at a concentration of 2.2 parts per billion (parts per billion [ppb] is the same units as micrograms per liter [ug/L]). This is below the laboratory reporting limit of 9.5 ug/L, is below the EPA Drinking Water Limit of 6 ug/L and was also detected in the blank sample. The blank sample is a bottle of distilled water packaged at the laboratory and handled in the same manner as actual water samples as a method of quality control. The fact that this constituent was detected in the blank sample indicates that this detection reflects the introduction of this compound during laboratory analysis and is not present in your water well.

BACTERIAL ANALYSIS

Samples were collected from your domestic water well to analyze for the presence of sulfate and slime bacteria. Samples were tested for the presence of iron-related bacteria (IRB), sulfate reducing (SRB) and slime forming (SLYM) bacteria using Biological Activity Reaction Test

(BART) kits. The results of the tests are provided below and documented in photographs included in Attachment 2.

- **Iron-Related Bacteria (IRB):** Although not harmful, iron-related bacteria can become a nuisance by plugging the well pump, causing red staining on plumbing fixtures and laundered clothing, building up red, slimy accumulations on any surface the water touches, and causing what appears to be a sheen on standing water. Signs that may indicate an iron bacteria problem include “yellowish, red or orange colored water, rusty deposits in toilet tanks and strange smells resembling fuel oil, cucumbers or sewage. Sometimes the odor will only be apparent in the morning or after other extended periods of non-use” (CDPHE, Laboratory Services Division).

Slightly aggressive iron related bacteria were detected in the water sample collected from your domestic water well. IRB are present when an orange cloudy layer, at the bottom of the IRB tube (red cap) and foam at the top develop.

- **Sulfate-Reducing Bacteria (SRB):** Sulfate reducing bacteria are serious nuisance organisms in water since they can cause severe taste and odor problems. These bacteria reduce sulfate that occurs naturally in the water and generate hydrogen sulfide (H₂S) gas as they grow. In turn, the hydrogen sulfide (H₂S) gas is a nuisance because it smells like rotten eggs, initiates corrosion on metal surfaces and reacts with dissolved metals such as iron to generate black sulfide deposits.

Sulfate reducing bacteria were not detected in the water sample collected from your domestic well. SRB are present when black particulates develop at the bottom of the sample vial.

- **Slime Forming Bacteria (SLYM):** Although not usually harmful, Slime Forming Bacteria (SFB) can become a nuisance by plugging well pumps and causing slimy accumulations on plumbing fixtures and standing water. Slimes are often gelatinous in nature and may range in color from white, to red, or black. As slime bacteria mats grow they create an environment in which complex associations of other strains of bacteria can develop.

Slime forming bacteria were not detected in the water sample collected from your domestic well.

INORGANIC ANALYTICAL RESULTS

The WQCC has also established drinking water standards for inorganic constituents in groundwater. The analytical results from the water samples have been compared to applicable ground water and/or drinking water standards and are summarized below. Please keep in mind that these water standards were established for public drinking water supplies. People often use and consume ground water from private wells that can exceed these standards.

- **Total Dissolved Solids (TDS):** CDPHE has established a TDS standard for human drinking water of 500 milligrams per liter (mg/L). The standard is called the secondary maximum contaminant level (SMCL) and is based on the aesthetic quality of the water (such as taste and odor) and is intended as a guideline for public water supply systems and is not an enforceable standard. Although CDPHE does not have an agricultural standard for TDS, other agencies recommend concentrations below 2,000 mg/L for irrigation, and below 5,000 mg/L for most livestock watering. TDS concentrations are related to the presence of naturally occurring elements and chemical compounds such as chloride, sodium, potassium, calcium, magnesium, and sulfate.

The concentration of TDS measured in the water sample from your domestic well was 410 mg/L, which is below the CDPHE guideline of 500 mg/L.

- **Sodium (Na):** Although CDPHE does not have a standard for sodium, people on salt restricted diets should be aware of the sodium concentration in the water they drink. Drinking water with a concentration of sodium less than 20 mg/L is recommended by some for people on salt restricted diets or for people suffering from hypertension or heart disease. Sodium occurs naturally in ground water in many areas at concentrations that exceed the recommended level.

The concentration of sodium measured in the water sample from your domestic well was 68 mg/L, which is above the CDPHE guideline of 20 mg/L.

- **Chloride (Cl):** The CDPHE chloride standard (SMCL) for drinking water is 250 mg/L. Chloride concentrations in excess of 250 mg/L usually produce a noticeable taste in drinking water.

The concentration of chloride measured in the water sample from your domestic well was 39 mg/L, which is below the CDPHE guideline of 250 mg/L.

- **Total Nitrate (NO₃) + Nitrite (NO₂) as Nitrogen (N):** The CDPHE total nitrate (NO₃) + nitrite (NO₂) as nitrogen (N) standard for human drinking water is 10 mg/L. Nitrate and nitrite are common contaminants in ground water from agricultural sources, such as fertilizer and animal, including human, wastes. They are known to cause infant cyanosis or “blue baby disease” in humans and, at concentrations greater than 100 mg/L as nitrogen, may be dangerous to livestock. High concentrations of nitrate and nitrite in ground water are known to occur in agricultural areas in Colorado.

Nitrate/nitrite as nitrogen was detected at a concentration of 0.065 mg/L in the sample from your domestic well which is below the CDPHE standard of 10 mg/L.

- **Iron (Fe):** The CDPHE standard for iron in human drinking water is 0.3 mg/L (SMCL). Small amounts of iron are common in ground water. Iron may produce a brownish-red color in laundered clothing, can leave reddish stains on fixtures, and impart a metallic taste to beverages and food made with it. After a period of time iron deposits can build up in pressure tanks, water heaters, and pipelines, reducing the effective flow rate and efficiency of the water supply.

Dissolved iron was detected at a concentration of 0.27 mg/L in the sample from your domestic well, which is less than the CDPHE guideline of 0.3 mg/L.

- **Selenium (Se):** The CDPHE selenium standard for human drinking water is 0.05 mg/L. Excessive selenium (concentrations greater than 0.05 mg/L) can cause loss of hair and/or fingernails as well as adverse effects on the central nervous system. Selenium occurs naturally in the ground water in many areas of Colorado at concentrations that exceed the drinking water standard.

Dissolved selenium was not detected in the sample from your domestic well.

- **Fluoride (F):** CDPHE has established a fluoride standard for human drinking water of 4.0 mg/L. Where fluoride concentrations are in the range of 0.7 mg/L to 1.2 mg/L, health benefits such as reduced dental decay have been observed. Consumption of fluoride at concentrations of greater than 2.0 mg/L can result in mottling of teeth. Consumption of fluoride at concentrations greater than 4.0 mg/L can increase the risk of skeletal fluorosis or other adverse health effects.

The concentration of fluoride measured in the water sample from your domestic well was 0.45 mg/L, which is below the CDPHE guideline of 4.0 mg/L.

- Calcium (Ca), Magnesium (Mg), Manganese (Mn), Potassium (K), Bicarbonate (HCO_3), Carbonate (CO_3), pH, and Specific Conductance (Conductance) were also tested for in water from both wells. No primary standards exist for these parameters and a secondary standard (S) has only been established for manganese and pH. These results are summarized in the following table. Please note that Primary standard (P) is the CDPHE Human Health Standard and the Secondary standard (S) is the CDPHE secondary maximum contaminant level (SMCL).

Table 1. Baker Water Samples, May 2011
Concentrations in mg/L

PARAMETER	Domestic well (Permit #225003)	CDPHE Standard P –Primary S-Secondary
Calcium	53	NS
Magnesium	4.6	NS
Manganese	0.044	0.05 (S)
Potassium	5.5	NS
pH	7.97	6.5-8.5 (S)
Conductance (umhos/cm)	700	NS

NS – No standard

CDPHE – Colorado Department of Public Health and Environment

CONCLUSION

As noted in the discussion above and summarized in Table 1, the overall quality of water from samples collected from your water well is very good. None of the parameters tested exceeded the CDPHE established groundwater and drinking water standards with the exception of sodium, which exceeded the CDPHE secondary standard of 20 mg/L.

The Colorado Oil & Gas Conservation Commission has participated in the publication of a general information pamphlet on water supply wells which includes a simple well disinfection procedure to help control nuisance bacteria, should they ever become an issue. This brochure is available on the COGCC website (www.cogcc.state.co.us) on the Library Page under the heading Water Well Related Reports and Papers. In addition, the National Groundwater Association has sponsored a website (<http://www.wellowner.org/>) with resources and information for water well owners.

If you have any questions or would like to discuss these matters further, please contact me at the COGCC in Denver via e-mail (steven.lindblom@state.co.us) or by phone at 303-894-2100, extension 5114.

Respectfully,



Steven R. Lindblom, P.G.
Environmental Supervisor - Eastern Colorado

Attachments

ATTACHMENT 1

LABORATORY DATA PACKAGE

ANALYTICAL REPORT

Job Number: 280-15513-7

Job Description: Baker 1-Elbert CO

For:
Colorado Oil&Gas Conservation Commission
1120 Lincoln St.
Suite 801
Denver, CO 80203
Attention: Steven Lindblom



Approved for release.
Lori A Parsons
Project Manager I
6/14/2011 10:24 AM

Lori A Parsons
Project Manager I
lori.parsons@testamericainc.com
06/14/2011
Revision: 1

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.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



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CASE NARRATIVE

Client: Colorado Oil & Gas Conservation Commission

Project: Baker 1-Elbert CO

Report Number: 280-15513-7

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 05/05/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.1C.

The Chain-of-Custody did not request Total Dissolved Solids or Cation/Anion Balance. These analyses were logged per the pre-determined scope of the project. The client was notified on May 6, 2011.

Sample Trip Blank was received at the laboratory, but was not listed on the associated Chain-of-Custody. The sample was logged for method 8260B, per the sample containers received. The client was notified on May 6, 2011.

The Metals volume was received unpreserved, but was preserved by laboratory upon receipt. The client was notified on May 6, 2011.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples BAKER 1 (280-15513-13) and TRIP BLANK (280-15513-14) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/15/2011.

The MS/MSD associated with analytical batch 67551 was performed on an unrelated sample and exhibited a percent recovery in the MSD outside the control limits for Chloroform. The acceptable LCS analyses data indicated the analytical system was within control; therefore corrective action was deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample BAKER 1 (280-15513-13) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The sample was prepared on 05/11/2011 and analyzed on 05/15/2011.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 280-66871/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The method required MS/MSD could not be performed for analytical batch 67491, due to insufficient sample volume submitted. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

Refer to the QC report for details.

No other difficulties were encountered during the SVOC analysis.

All other quality control parameters were within the acceptance limits.

DISSOLVED GASES

Sample BAKER 1 (280-15513-13) was analyzed for dissolved gases in accordance with RSK_175. The sample was analyzed on 05/09/2011.

TestAmerica Denver's practice for the reporting of dual column data is to report the results from both columns, and the preferred result for any given target analyte from the analyst selected column. The preferred results for target analytes are reported as PRIMARY on the Sample Datasheets.

No difficulties were encountered during the dissolved gases analysis.

All quality control parameters were within the acceptance limits.

DISSOLVED METALS

Sample BAKER 1 (280-15513-13) was analyzed for dissolved metals in accordance with EPA SW-846 Method 6010B. The sample was prepared and analyzed on 05/10/2011.

No difficulties were encountered during the dissolved metals analysis.

All quality control parameters were within the acceptance limits.

ALKALINITY

Sample BAKER 1 (280-15513-13) was analyzed for Alkalinity in accordance with SM20 2320B. The sample was analyzed on 05/11/2011.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

SPECIFIC CONDUCTIVITY

Sample BAKER 1 (280-15513-13) was analyzed for specific conductivity in accordance with SM20 2510B. The sample was analyzed on 05/13/2011.

No difficulties were encountered during the conductivity analysis.

All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS

Sample BAKER 1 (280-15513-13) was analyzed for total dissolved solids in accordance with SM20 2540C. The sample was analyzed on 05/11/2011.

No difficulties were encountered during the TDS analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Sample BAKER 1 (280-15513-13) was analyzed for anions in accordance with EPA Method 300.0. The sample was analyzed on 05/09/2011.

Sample BAKER 1 (280-15513-13)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The Sample Duplicate analysis data associated with analytical batch 66638 was performed on an unrelated sample and exhibited RPD data outside the QC control limits for Sulfate. The acceptable LCS/LCSD analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

NITRATE-NITRITE AS NITROGEN

Sample BAKER 1 (280-15513-13) was analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The sample was analyzed on 05/07/2011.

The MS/MSD associated with analytical batch 66476 was performed on an unrelated sample and exhibited percent recoveries in the MS/MSD outside the control limits for Nitrate Nitrite as N. The acceptable LCS/LCSD analyses data indicated the analytical system was within control; therefore corrective action was deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the nitrate-nitrite analysis.

All other quality control parameters were within the acceptance limits.

CATION ANION BALANCE

Sample BAKER 1 (280-15513-13) was analyzed for Cation Anion Balance in accordance with Cation Anion Balance. The sample was analyzed on 05/16/2011.

No difficulties were encountered during the Cation Anion Balance analysis.

All quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Sample BAKER 1 (280-15513-13) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The sample was analyzed on 05/06/2011.

No difficulties were encountered during the pH analysis.

All other quality control parameters were within the acceptance limits.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-15513-7

SDG No.: _____

Instrument ID: MSV_P Analysis Batch Number: 65010Lab Sample ID: IC 280-65010/4 Client Sample ID: _____Date Analyzed: 04/29/11 13:06 Lab File ID: P7832.D GC Column: DB-624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	4.57	Analyte not Identified by the Data System	zhouh	04/30/11 07:49

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-15513-7

SDG No.: _____

Instrument ID: MSV_P Analysis Batch Number: 65010

Lab Sample ID: IC 280-65010/4 Client Sample ID: _____

Date Analyzed: 04/29/11 13:06 Lab File ID: P7832.D GC Column: DB-624 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION	
		REASON	ANALYST
Ethanol	4.57	Analyte not Identified by the Data System	zhouh
			04/30/11 07:49

up 5/57

8260B

SAMPLE SUMMARY

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-15513-13	BAKER 1	Water	05/05/2011 1040	05/05/2011 1557
280-15513-14TB	TRIP BLANK	Water	05/05/2011 0000	05/05/2011 1557

EXECUTIVE SUMMARY - Detections

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
280-15513-13	BAKER 1				
Bis(2-ethylhexyl) phthalate		2.2 J B	9.5	ug/L	8270C
Methane		7.4	5.0	ug/L	RSK-175
Bromide		0.48	0.20	mg/L	300.0
Chloride		39	3.0	mg/L	300.0
Fluoride		0.45 J	0.50	mg/L	300.0
Sulfate		150	25	mg/L	300.0
Nitrate Nitrite as N		0.065 J	0.10	mg/L	353.2
Total Anions		7.0		meq/L	SM 1030F
Total Cations		6.1		meq/L	SM 1030F
Percent Difference		-7.0		%	SM 1030F
Anion/Cation Balance		-7.0		%	SM 1030F
Total Alkalinity		140	5.0	mg/L	SM 2320B
Bicarbonate Alkalinity as CaCO3		140	5.0	mg/L	SM 2320B
Specific Conductance		700	2.0	umhos/cm	SM 2510B
Total Dissolved Solids		410	10	mg/L	SM 2540C
pH		7.97 HF	0.100	SU	SM 4500 H+ B
<i>Dissolved</i>					
Barium		12	10	ug/L	6010B
Calcium		53000	200	ug/L	6010B
Iron		27 J	100	ug/L	6010B
Magnesium		4600	200	ug/L	6010B
Manganese		44	10	ug/L	6010B
Potassium		5500	3000	ug/L	6010B
Sodium		68000	1000	ug/L	6010B

METHOD SUMMARY

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Liquid-Liquid Extraction (Continuous)	TAL DEN		SW846 3520C
Dissolved Gases (GC)	TAL DEN	RSK RSK-175	
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Total Recoverable or Dissolved Metals	TAL DEN		SW846 3005A
Sample Filtration	TAL DEN		FILTRATION
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: 280-15513-7

Method	Analyst	Analyst ID
SW846 8260B	Stapp, Jennifer L	JLS
SW846 8270C	Tinkham, Sarah A	SAT
RSK RSK-175	Smith, Matthew P	MPS
SW846 6010B	Harre, John K	JKH
MCAWW 300.0	Phan, Thu L	TLP
MCAWW 353.2	Stosak, Lara E	LES
SM SM 1030F	Sullivan, Roxanne	RS
SM SM 2320B	Allen, Andrew J	AJA
SM SM 2510B	Plumb, Paul M	PMP
SM SM 2540C	Domnick, Brandon J	BJD
SM SM 4500 H+ B	Ayala, Delaina	DA

Analytical Data

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Client Sample ID: BAKER 1

Lab Sample ID: 280-15513-13

Date Sampled: 05/05/2011 1040

Client Matrix: Water

Date Received: 05/05/2011 1557

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P8505.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1910			Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1910				

Analyte	Result (ug/L)	Qualifier	MDL	RL
cis-1,2-Dichloroethene	ND		0.15	1.0
cis-1,3-Dichloropropene	ND		0.16	1.0
m-Xylene & p-Xylene	ND		0.34	2.0
N-Propylbenzene	ND		0.16	1.0
n-Butylbenzene	ND		0.14	1.0
o-Xylene	ND		0.19	1.0
sec-Butylbenzene	ND		0.17	1.0
tert-Butylbenzene	ND		0.16	1.0
trans-1,2-Dichloroethene	ND		0.15	1.0
trans-1,3-Dichloropropene	ND		0.19	3.0
Acetone	ND		1.9	10
Benzene	ND		0.16	1.0
Bromobenzene	ND		0.17	1.0
Chlorobromomethane	ND		0.10	1.0
Dichlorobromomethane	ND		0.17	1.0
Bromoform	ND		0.19	1.0
Bromomethane	ND		0.21	2.0
Carbon tetrachloride	ND		0.19	1.0
Chlorobenzene	ND		0.17	1.0
Chlorodibromomethane	ND		0.17	1.0
Chloroethane	ND		0.41	2.0
Chloroform	ND		0.16	1.0
Chloromethane	ND		0.30	2.0
Dibromomethane	ND		0.17	1.0
Dichlorodifluoromethane	ND		0.31	2.0
Ethylbenzene	ND		0.16	1.0
Hexachlorobutadiene	ND		0.12	1.0
Isopropylbenzene	ND		0.19	1.0
Methyl tert-butyl ether	ND		0.25	5.0
Methylene Chloride	ND		0.32	2.0
Naphthalene	ND		0.22	1.0
Styrene	ND		0.17	1.0
Tetrachloroethene	ND		0.20	1.0
Toluene	ND		0.17	1.0
Trichloroethene	ND		0.16	1.0
Trichlorofluoromethane	ND		0.29	2.0
Vinyl chloride	ND		0.10	1.0
Xylenes, Total	ND		0.19	2.0
1,1-Dichloroethane	ND		0.22	1.0
1,1-Dichloroethene	ND		0.23	1.0
1,1-Dichloropropene	ND		0.19	1.0
1,1,1-Trichloroethane	ND		0.16	1.0
1,1,1,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,2-Dibromo-3-Chloropropane	ND		0.47	5.0

Analytical Data

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Client Sample ID: BAKER 1

Lab Sample ID: 280-15513-13

Date Sampled: 05/05/2011 1040

Client Matrix: Water

Date Received: 05/05/2011 1557

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P8505.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1910			Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1910				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dibromoethane	ND		0.18	1.0
1,2-Dichlorobenzene	ND		0.15	1.0
1,2-Dichloroethane	ND		0.13	1.0
1,2-Dichloroethene, Total	ND		0.24	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,2,3-Trichlorobenzene	ND		0.21	1.0
1,2,3-Trichloropropane	ND		0.33	2.5
1,2,4-Trichlorobenzene	ND		0.21	1.0
1,2,4-Trimethylbenzene	ND		0.15	1.0
1,3-Dichlorobenzene	ND		0.13	1.0
1,3-Dichloropropane	ND		0.22	1.0
1,3,5-Trimethylbenzene	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.16	1.0
2-Butanone (MEK)	ND		2.0	6.0
2-Chlorotoluene	ND		0.17	1.0
2-Hexanone	ND		1.7	5.0
2,2-Dichloropropane	ND		0.18	1.0
4-Chlorotoluene	ND		0.21	1.0
4-Isopropyltoluene	ND		0.20	1.0
4-Methyl-2-pentanone (MIBK)	ND		0.98	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 127
Toluene-d8 (Surr)	100		80 - 125
4-Bromofluorobenzene (Surr)	96		78 - 120
Dibromofluoromethane (Surr)	118		77 - 120

Analytical Data

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-15513-14TB

Date Sampled: 05/05/2011 0000

Client Matrix: Water

Date Received: 05/05/2011 1557

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P8506.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1931			Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1931				

Analyte	Result (ug/L)	Qualifier	MDL	RL
cis-1,2-Dichloroethene	ND		0.15	1.0
cis-1,3-Dichloropropene	ND		0.16	1.0
m-Xylene & p-Xylene	ND		0.34	2.0
N-Propylbenzene	ND		0.16	1.0
n-Butylbenzene	ND		0.14	1.0
o-Xylene	ND		0.19	1.0
sec-Butylbenzene	ND		0.17	1.0
tert-Butylbenzene	ND		0.16	1.0
trans-1,2-Dichloroethene	ND		0.15	1.0
trans-1,3-Dichloropropene	ND		0.19	3.0
Acetone	ND		1.9	10
Benzene	ND		0.16	1.0
Bromobenzene	ND		0.17	1.0
Chlorobromomethane	ND		0.10	1.0
Dichlorobromomethane	ND		0.17	1.0
Bromoform	ND		0.19	1.0
Bromomethane	ND		0.21	2.0
Carbon tetrachloride	ND		0.19	1.0
Chlorobenzene	ND		0.17	1.0
Chlorodibromomethane	ND		0.17	1.0
Chloroethane	ND		0.41	2.0
Chloroform	ND		0.16	1.0
Chloromethane	ND		0.30	2.0
Dibromomethane	ND		0.17	1.0
Dichlorodifluoromethane	ND		0.31	2.0
Ethylbenzene	ND		0.16	1.0
Hexachlorobutadiene	ND		0.12	1.0
Isopropylbenzene	ND		0.19	1.0
Methyl tert-butyl ether	ND		0.25	5.0
Methylene Chloride	ND		0.32	2.0
Naphthalene	ND		0.22	1.0
Styrene	ND		0.17	1.0
Tetrachloroethene	ND		0.20	1.0
Toluene	ND		0.17	1.0
Trichloroethene	ND		0.16	1.0
Trichlorofluoromethane	ND		0.29	2.0
Vinyl chloride	ND		0.10	1.0
Xylenes, Total	ND		0.19	2.0
1,1-Dichloroethane	ND		0.22	1.0
1,1-Dichloroethene	ND		0.23	1.0
1,1-Dichloropropene	ND		0.19	1.0
1,1,1-Trichloroethane	ND		0.16	1.0
1,1,1,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,2-Dibromo-3-Chloropropane	ND		0.47	5.0

Analytical Data

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-15513-14TB

Date Sampled: 05/05/2011 0000

Client Matrix: Water

Date Received: 05/05/2011 1557

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P8506.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1931			Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1931				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dibromoethane	ND		0.18	1.0
1,2-Dichlorobenzene	ND		0.15	1.0
1,2-Dichloroethane	ND		0.13	1.0
1,2-Dichloroethene, Total	ND		0.24	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,2,3-Trichlorobenzene	ND		0.21	1.0
1,2,3-Trichloropropane	ND		0.33	2.5
1,2,4-Trichlorobenzene	ND		0.21	1.0
1,2,4-Trimethylbenzene	ND		0.15	1.0
1,3-Dichlorobenzene	ND		0.13	1.0
1,3-Dichloropropane	ND		0.22	1.0
1,3,5-Trimethylbenzene	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.16	1.0
2-Butanone (MEK)	ND		2.0	6.0
2-Chlorotoluene	ND		0.17	1.0
2-Hexanone	ND		1.7	5.0
2,2-Dichloropropane	ND		0.18	1.0
4-Chlorotoluene	ND		0.21	1.0
4-Isopropyltoluene	ND		0.20	1.0
4-Methyl-2-pentanone (MIBK)	ND		0.98	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 127
Toluene-d8 (Surr)	100		80 - 125
4-Bromofluorobenzene (Surr)	91		78 - 120
Dibromofluoromethane (Surr)	103		77 - 120

Analytical Data

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Client Sample ID: BAKER 1

Lab Sample ID: 280-15513-13

Client Matrix: Water

Date Sampled: 05/05/2011 1040

Date Received: 05/05/2011 1557

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-67491	Instrument ID:	MSS_Y
Prep Method:	3520C	Prep Batch:	280-66871	Lab File ID:	Y0096.D
Dilution:	1.0			Initial Weight/Volume:	1055.6 mL
Analysis Date:	05/15/2011 1936			Final Weight/Volume:	1000 uL
Prep Date:	05/11/2011 1710			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Bis(2-chloroethoxy)methane	ND		0.92	9.5
Bis(2-chloroethyl)ether	ND		0.39	9.5
Bis(2-ethylhexyl) phthalate	2.2	J B	0.53	9.5
2,2'-oxybis[1-chloropropane]	ND		0.27	9.5
Acenaphthene	ND		0.27	3.8
Acenaphthylene	ND		0.46	3.8
Acetophenone	ND		0.23	9.5
Anthracene	ND		0.40	3.8
Atrazine	ND		0.69	9.5
Benzidine	ND		47	95
Benzo[a]anthracene	ND		0.33	3.8
Benzo[a]pyrene	ND		0.29	3.8
Benzo[b]fluoranthene	ND		0.50	3.8
Benzo[g,h,i]perylene	ND		0.47	3.8
Benzo[k]fluoranthene	ND		0.44	3.8
Butyl benzyl phthalate	ND		0.95	3.8
Caprolactam	ND		4.7	9.5
Carbazole	ND		0.41	3.8
Chrysene	ND		0.51	3.8
Di-n-butyl phthalate	ND		1.1	3.8
Di-n-octyl phthalate	ND		0.33	3.8
Dibenz(a,h)anthracene	ND		0.48	3.8
Dibenzofuran	ND		0.27	3.8
Diethyl phthalate	ND		0.36	3.8
Dimethyl phthalate	ND		0.20	3.8
Fluoranthene	ND		0.19	3.8
Fluorene	ND		0.29	3.8
Hexachlorobenzene	ND		0.63	9.5
Hexachlorobutadiene	ND		3.1	9.5
Hexachlorocyclopentadiene	ND		1.4	47
Hexachloroethane	ND		2.0	9.5
Indeno[1,2,3-cd]pyrene	ND		0.62	3.8
N-Nitrosodi-n-propylamine	ND		0.33	9.5
n-Nitrosodiphenylamine(as diphenylamine)	ND		0.42	9.5
Naphthalene	ND		0.27	3.8
Nitrobenzene	ND		0.77	9.5
Pentachlorophenol	ND		19	47
Phenanthrene	ND		0.25	3.8
Phenol	ND		1.9	9.5
Pyrene	ND		0.35	9.5
2-Chloronaphthalene	ND		0.25	3.8
2-Chlorophenol	ND		1.9	9.5
2-Methylnaphthalene	ND		0.27	3.8
2-Methylphenol	ND		0.93	9.5
2-Nitroaniline	ND		1.6	9.5
2-Nitrophenol	ND		0.37	9.5

Analytical Data

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Client Sample ID: BAKER 1

Lab Sample ID: 280-15513-13

Date Sampled: 05/05/2011 1040

Client Matrix: Water

Date Received: 05/05/2011 1557

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-67491	Instrument ID:	MSS_Y
Prep Method:	3520C	Prep Batch:	280-66871	Lab File ID:	Y0096.D
Dilution:	1.0			Initial Weight/Volume:	1055.6 mL
Analysis Date:	05/15/2011 1936			Final Weight/Volume:	1000 uL
Prep Date:	05/11/2011 1710			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2,4-Dichlorophenol	ND		0.61	9.5
2,4-Dimethylphenol	ND		0.55	9.5
2,4-Dinitrophenol	ND		9.5	28
2,4-Dinitrotoluene	ND		1.6	9.5
2,4,5-Trichlorophenol	ND		0.43	9.5
2,4,6-Trichlorophenol	ND		0.27	9.5
2,6-Dinitrotoluene	ND		1.8	9.5
3-Nitroaniline	ND		1.9	9.5
3,3'-Dichlorobenzidine	ND		1.9	47
4-Bromophenyl phenyl ether	ND		0.41	9.5
4-Chloro-3-methylphenol	ND		2.3	9.5
4-Chloroaniline	ND		2.0	9.5
4-Chlorophenyl phenyl ether	ND		1.6	9.5
3 & 4 Methylphenol	ND		0.24	9.5
4-Nitroaniline	ND		1.9	9.5
4-Nitrophenol	ND		1.2	9.5
4,6-Dinitro-2-methylphenol	ND		3.8	47
Cresols, Total	ND		0.24	9.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	79		48 - 120
2-Fluorophenol	79		51 - 120
2-Fluorobiphenyl	85		38 - 120
2,4,6-Tribromophenol	110		57 - 120
Terphenyl-d14	100		50 - 120
Phenol-d5	83		51 - 120

Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Client Sample ID: **BAKER 1**

Lab Sample ID: 280-15513-13

Date Sampled: 05/05/2011 1040

Client Matrix: Water

Date Received: 05/05/2011 1557

RSK-175 Dissolved Gases (GC)

Analysis Method: RSK-175

Analysis Batch: 280-66530

Instrument ID: GCV_J

N/A

N/A

Initial Weight/Volume: 18 mL

Dilution: 1.0

Final Weight/Volume: 18 mL

Analysis Date: 05/09/2011 1936

Injection Volume:

Prep Date: N/A

Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	7.4		0.22	5.0

Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Client Sample ID: **BAKER 1**

Lab Sample ID: 280-15513-13

Date Sampled: 05/05/2011 1040

Client Matrix: Water

Date Received: 05/05/2011 1557

RSK-175 Dissolved Gases (GC)

Analysis Method: RSK-175

Analysis Batch: 280-66530

Instrument ID: GCV_J

N/A

N/A

Initial Weight/Volume: 18 mL

Dilution: 1.0

Final Weight/Volume: 18 mL

Analysis Date: 05/09/2011 1936

Injection Volume:

Prep Date: N/A

Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	7.6		0.22	5.0

Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Client Sample ID: BAKER 1

Lab Sample ID: 280-15513-13

Date Sampled: 05/05/2011 1040

Client Matrix: Water

Date Received: 05/05/2011 1557

6010B Metals (ICP)-Dissolved

Analysis Method: 6010B

Analysis Batch: 280-66651

Instrument ID: MT_025

Prep Method: 3005A

Prep Batch: 280-66130

Lab File ID: 25A5051011.asc

Dilution: 1.0

Initial Weight/Volume: 50 mL

Analysis Date: 05/10/2011 1812

Final Weight/Volume: 50 mL

Prep Date: 05/10/2011 0730

Analyte	Result (ug/L)	Qualifier	MDL	RL
Arsenic	ND		4.4	15
Barium	12		0.58	10
Cadmium	ND		0.45	5.0
Calcium	53000		34	200
Chromium	ND		0.66	10
Iron	27	J	22	100
Lead	ND		2.6	9.0
Magnesium	4600		11	200
Manganese	44		0.25	10
Potassium	5500		240	3000
Selenium	ND		4.9	15
Silver	ND		0.93	10
Sodium	68000		92	1000

Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

General Chemistry

Client Sample ID: BAKER 1

Lab Sample ID: 280-15513-13

Client Matrix: Water

Date Sampled: 05/05/2011 1040

Date Received: 05/05/2011 1557

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.48		mg/L	0.11	0.20	1.0	300.0
	Analysis Batch: 280-66638	Analysis Date: 05/09/2011 1638					
Chloride	39		mg/L	0.25	3.0	1.0	300.0
	Analysis Batch: 280-66638	Analysis Date: 05/09/2011 1638					
Fluoride	0.45	J	mg/L	0.060	0.50	1.0	300.0
	Analysis Batch: 280-66638	Analysis Date: 05/09/2011 1638					
Sulfate	150		mg/L	1.2	25	5.0	300.0
	Analysis Batch: 280-66638	Analysis Date: 05/09/2011 2317					
Nitrate Nitrite as N	0.065	J	mg/L	0.019	0.10	1.0	353.2
	Analysis Batch: 280-66476	Analysis Date: 05/07/2011 1402					
Total Alkalinity	140		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-66927	Analysis Date: 05/11/2011 1822					
Bicarbonate Alkalinity as CaCO3	140		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-66927	Analysis Date: 05/11/2011 1822					
Carbonate Alkalinity as CaCO3	ND		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-66927	Analysis Date: 05/11/2011 1822					
Hydroxide Alkalinity	ND		mg/L	1.1	5.0	1.0	SM 2320B
	Analysis Batch: 280-66927	Analysis Date: 05/11/2011 1822					
Total Dissolved Solids	410		mg/L	4.7	10	1.0	SM 2540C
	Analysis Batch: 280-66668	Analysis Date: 05/11/2011 0748					
Analyte	Result	Qual	Units			Dil	Method
Total Anions	7.0		meq/L			1.0	SM 1030F
	Analysis Batch: 280-67456	Analysis Date: 05/16/2011 0924					
Total Cations	6.1		meq/L			1.0	SM 1030F
	Analysis Batch: 280-67456	Analysis Date: 05/16/2011 0924					
Percent Difference	-7.0		%			1.0	SM 1030F
	Analysis Batch: 280-67456	Analysis Date: 05/16/2011 0924					
Anion/Cation Balance	-7.0		%			1.0	SM 1030F
	Analysis Batch: 280-67456	Analysis Date: 05/16/2011 0924					
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Specific Conductance	700		umhos/cm	2.0	2.0	1.0	SM 2510B
	Analysis Batch: 280-67198	Analysis Date: 05/13/2011 1200					
pH	7.97	HF	SU	0.100	0.100	1.0	SM 4500 H+ B
	Analysis Batch: 280-66074	Analysis Date: 05/06/2011 1256					

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-15513-13	BAKER 1	118	105	100	96
280-15513-14	TRIP BLANK	103	97	100	91
MB 280-67551/5		104	96	100	91
LCS 280-67551/4		102	96	104	96
280-15513-G-11 MS		102	95	112	98
280-15513-G-11 MSD		110	105	114	101

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	77-120
DCA = 1,2-Dichloroethane-d4 (Surr)	70-127
TOL = Toluene-d8 (Surr)	80-125
BFB = 4-Bromofluorobenzene (Surr)	78-120

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
280-15513-13	BAKER 1	79	83	79	85	110	100
MB 280-66871/1-A		89	93	89	87	112	102
LCS 280-66871/2-A		75	79	76	75	110	97
LCSD 280-66871/3-A		78	83	79	71	115	98

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol	51-120
PHL = Phenol-d5	51-120
NBZ = Nitrobenzene-d5	48-120
FBP = 2-Fluorobiphenyl	38-120
TBP = 2,4,6-Tribromophenol	57-120
TPH = Terphenyl-d14	50-120

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-67551

Method: 8260B

Preparation: 5030B

Lab Sample ID:	MB 280-67551/5	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P8500.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1713	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1713				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
cis-1,2-Dichloroethene	ND		0.15	1.0
cis-1,3-Dichloropropene	ND		0.16	1.0
m-Xylene & p-Xylene	ND		0.34	2.0
N-Propylbenzene	ND		0.16	1.0
n-Butylbenzene	ND		0.14	1.0
o-Xylene	ND		0.19	1.0
sec-Butylbenzene	ND		0.17	1.0
tert-Butylbenzene	ND		0.16	1.0
trans-1,2-Dichloroethene	ND		0.15	1.0
trans-1,3-Dichloropropene	ND		0.19	3.0
Acetone	ND		1.9	10
Benzene	ND		0.16	1.0
Bromobenzene	ND		0.17	1.0
Chlorobromomethane	ND		0.10	1.0
Dichlorobromomethane	ND		0.17	1.0
Bromoform	ND		0.19	1.0
Bromomethane	ND		0.21	2.0
Carbon tetrachloride	ND		0.19	1.0
Chlorobenzene	ND		0.17	1.0
Chlorodibromomethane	ND		0.17	1.0
Chloroethane	ND		0.41	2.0
Chloroform	ND		0.16	1.0
Chloromethane	ND		0.30	2.0
Dibromomethane	ND		0.17	1.0
Dichlorodifluoromethane	ND		0.31	2.0
Ethylbenzene	ND		0.16	1.0
Hexachlorobutadiene	ND		0.12	1.0
Isopropylbenzene	ND		0.19	1.0
Methyl tert-butyl ether	ND		0.25	5.0
Methylene Chloride	ND		0.32	2.0
Naphthalene	ND		0.22	1.0
Styrene	ND		0.17	1.0
Tetrachloroethene	ND		0.20	1.0
Toluene	ND		0.17	1.0
Trichloroethene	ND		0.16	1.0
Trichlorofluoromethane	ND		0.29	2.0
Vinyl chloride	ND		0.10	1.0
Xylenes, Total	ND		0.19	2.0
1,1-Dichloroethane	ND		0.22	1.0
1,1-Dichloroethene	ND		0.23	1.0
1,1-Dichloropropene	ND		0.19	1.0
1,1,1-Trichloroethane	ND		0.16	1.0
1,1,1,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.27	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Method Blank - Batch: 280-67551

Method: 8260B

Preparation: 5030B

Lab Sample ID:	MB 280-67551/5	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P8500.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1713	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1713				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,2-Dibromo-3-Chloropropane	ND		0.47	5.0
1,2-Dibromoethane	ND		0.18	1.0
1,2-Dichlorobenzene	ND		0.15	1.0
1,2-Dichloroethane	ND		0.13	1.0
1,2-Dichloroethene, Total	ND		0.24	1.0
1,2-Dichloropropane	ND		0.18	1.0
1,2,3-Trichlorobenzene	ND		0.21	1.0
1,2,3-Trichloropropane	ND		0.33	2.5
1,2,4-Trichlorobenzene	ND		0.21	1.0
1,2,4-Trimethylbenzene	ND		0.15	1.0
1,3-Dichlorobenzene	ND		0.13	1.0
1,3-Dichloropropane	ND		0.22	1.0
1,3,5-Trimethylbenzene	ND		0.16	1.0
1,4-Dichlorobenzene	ND		0.16	1.0
2-Butanone (MEK)	ND		2.0	6.0
2-Chlorotoluene	ND		0.17	1.0
2-Hexanone	ND		1.7	5.0
2,2-Dichloropropane	ND		0.18	1.0
4-Chlorotoluene	ND		0.21	1.0
4-Isopropyltoluene	ND		0.20	1.0
4-Methyl-2-pentanone (MIBK)	ND		0.98	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	70 - 127
Toluene-d8 (Surr)	100	80 - 125
4-Bromofluorobenzene (Surr)	91	78 - 120
Dibromofluoromethane (Surr)	104	77 - 120

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Lab Control Sample - Batch: 280-67551

Method: 8260B

Preparation: 5030B

Lab Sample ID:	LCS 280-67551/4	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P8499.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1652	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1652				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
trans-1,2-Dichloroethene	5.00	5.20	104	80 - 120	
Benzene	5.00	5.01	100	77 - 120	
Dichlorobromomethane	5.00	5.27	105	78 - 120	
Carbon tetrachloride	5.00	4.79	96	80 - 120	
Chlorobenzene	5.00	5.11	102	78 - 120	
Chloroform	5.00	5.53	111	78 - 120	
Ethylbenzene	5.00	4.42	88	78 - 120	
Methylene Chloride	5.00	5.69	114	60 - 134	
Tetrachloroethene	5.00	5.19	104	77 - 120	
Toluene	5.00	4.78	96	73 - 120	
Trichloroethene	5.00	5.26	105	78 - 122	
1,1-Dichloroethane	5.00	5.27	105	77 - 120	
1,1-Dichloroethene	5.00	5.41	108	68 - 133	
1,1,1-Trichloroethane	5.00	5.12	102	78 - 120	
1,2-Dichloropropane	5.00	4.83	97	76 - 120	
1,3-Dichlorobenzene	5.00	4.94	99	75 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	70 - 127
Toluene-d8 (Surr)	104	80 - 125
4-Bromofluorobenzene (Surr)	96	78 - 120
Dibromofluoromethane (Surr)	102	77 - 120

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-67551

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	280-15513-G-11 MS	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P8502.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1806			Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1806				
Leach Date:	N/A				

MSD Lab Sample ID:	280-15513-G-11 MSD	Analysis Batch:	280-67551	Instrument ID:	MSV_P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P8503.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/15/2011 1827			Final Weight/Volume:	20 mL
Prep Date:	05/15/2011 1827				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
trans-1,2-Dichloroethene	98	111	80 - 120	12	24		
Benzene	99	104	77 - 120	5	20		
Dichlorobromomethane	101	114	78 - 120	12	20		
Carbon tetrachloride	92	111	80 - 120	18	21		
Chlorobenzene	105	106	78 - 120	0	20		
Chloroform	110	123	78 - 120	11	20		F
Ethylbenzene	90	82	78 - 120	9	26		
Methylene Chloride	110	122	60 - 134	10	20		
Tetrachloroethene	112	110	77 - 120	1	20		
Toluene	91	91	73 - 120	1	20		
Trichloroethene	99	103	78 - 122	4	20		
1,1-Dichloroethane	103	120	77 - 120	15	21		
1,1-Dichloroethene	106	118	68 - 133	11	20		
1,1,1-Trichloroethane	103	105	78 - 120	2	20		
1,2-Dichloropropane	91	98	76 - 120	7	20		
1,3-Dichlorobenzene	101	101	75 - 120	1	20		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	95		105		70 - 127		
Toluene-d8 (Surr)	112		114		80 - 125		
4-Bromofluorobenzene (Surr)	98		101		78 - 120		
Dibromofluoromethane (Surr)	102		110		77 - 120		

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-67551**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID: 280-15513-G-11 MS Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/15/2011 1806
Prep Date: 05/15/2011 1806
Leach Date: N/A

MSD Lab Sample ID: 280-15513-G-11 MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/15/2011 1827
Prep Date: 05/15/2011 1827
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
trans-1,2-Dichloroethene	ND	5.00	5.00	4.91	5.57
Benzene	ND	5.00	5.00	4.95	5.22
Dichlorobromomethane	ND	5.00	5.00	5.07	5.70
Carbon tetrachloride	ND	5.00	5.00	4.61	5.53
Chlorobenzene	ND	5.00	5.00	5.27	5.28
Chloroform	ND	5.00	5.00	5.52	6.13
Ethylbenzene	ND	5.00	5.00	4.52	4.12
Methylene Chloride	ND	5.00	5.00	5.51	6.09
Tetrachloroethene	ND	5.00	5.00	5.58	5.52
Toluene	ND	5.00	5.00	4.56	4.53
Trichloroethene	ND	5.00	5.00	4.97	5.16
1,1-Dichloroethane	ND	5.00	5.00	5.15	5.98
1,1-Dichloroethene	ND	5.00	5.00	5.30	5.91
1,1,1-Trichloroethane	ND	5.00	5.00	5.13	5.24
1,2-Dichloropropane	ND	5.00	5.00	4.57	4.88
1,3-Dichlorobenzene	ND	5.00	5.00	5.03	5.07

F

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-66871

Method: 8270C Preparation: 3520C

Lab Sample ID: MB 280-66871/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/15/2011 1659
Prep Date: 05/11/2011 1710
Leach Date: N/A

Analysis Batch: 280-67491
Prep Batch: 280-66871
Leach Batch: N/A
Units: ug/L

Instrument ID: MSS_Y
Lab File ID: Y0088.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1000 uL
Injection Volume: 0.5 uL

Analyte	Result	Qual	MDL	RL
Bis(2-chloroethoxy)methane	ND		0.97	10
Bis(2-chloroethyl)ether	ND		0.41	10
Bis(2-ethylhexyl) phthalate	2.38	J	0.56	10
2,2'-oxybis[1-chloropropane]	ND		0.28	10
Acenaphthene	ND		0.28	4.0
Acenaphthylene	ND		0.49	4.0
Acetophenone	ND		0.24	10
Anthracene	ND		0.42	4.0
Atrazine	ND		0.73	10
Benzidine	ND		50	100
Benzo[a]anthracene	ND		0.35	4.0
Benzo[a]pyrene	ND		0.31	4.0
Benzo[b]fluoranthene	ND		0.53	4.0
Benzo[g,h,i]perylene	ND		0.50	4.0
Benzo[k]fluoranthene	ND		0.46	4.0
Butyl benzyl phthalate	ND		1.0	4.0
Caprolactam	ND		5.0	10
Carbazole	ND		0.43	4.0
Chrysene	ND		0.54	4.0
Di-n-butyl phthalate	ND		1.2	4.0
Di-n-octyl phthalate	ND		0.35	4.0
Dibenz(a,h)anthracene	ND		0.51	4.0
Dibenzofuran	ND		0.29	4.0
Diethyl phthalate	ND		0.38	4.0
Dimethyl phthalate	ND		0.21	4.0
Fluoranthene	ND		0.20	4.0
Fluorene	ND		0.31	4.0
Hexachlorobenzene	ND		0.66	10
Hexachlorobutadiene	ND		3.3	10
Hexachlorocyclopentadiene	ND		1.5	50
Hexachloroethane	ND		2.1	10
Indeno[1,2,3-cd]pyrene	ND		0.65	4.0
N-Nitrosodi-n-propylamine	ND		0.35	10
n-Nitrosodiphenylamine(as diphenylamine)	ND		0.44	10
Naphthalene	ND		0.29	4.0
Nitrobenzene	ND		0.81	10
Pentachlorophenol	ND		20	50
Phenanthrene	ND		0.26	4.0
Phenol	ND		2.0	10
Pyrene	ND		0.37	10
2-Chloronaphthalene	ND		0.26	4.0
2-Chlorophenol	ND		2.0	10
2-Methylnaphthalene	ND		0.29	4.0
2-Methylphenol	ND		0.98	10
2-Nitroaniline	ND		1.7	10

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Method Blank - Batch: 280-66871

Method: 8270C

Preparation: 3520C

Lab Sample ID: MB 280-66871/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/15/2011 1659
 Prep Date: 05/11/2011 1710
 Leach Date: N/A

Analysis Batch: 280-67491
 Prep Batch: 280-66871
 Leach Batch: N/A
 Units: ug/L

Instrument ID: MSS_Y
 Lab File ID: Y0088.D
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1000 uL
 Injection Volume: 0.5 uL

Analyte	Result	Qual	MDL	RL
2-Nitrophenol	ND		0.39	10
2,4-Dichlorophenol	ND		0.64	10
2,4-Dimethylphenol	ND		0.58	10
2,4-Dinitrophenol	ND		10	30
2,4-Dinitrotoluene	ND		1.7	10
2,4,5-Trichlorophenol	ND		0.45	10
2,4,6-Trichlorophenol	ND		0.29	10
2,6-Dinitrotoluene	ND		1.9	10
3-Nitroaniline	ND		2.0	10
3,3'-Dichlorobenzidine	ND		2.0	50
4-Bromophenyl phenyl ether	ND		0.43	10
4-Chloro-3-methylphenol	ND		2.4	10
4-Chloroaniline	ND		2.1	10
4-Chlorophenyl phenyl ether	ND		1.7	10
3 & 4 Methylphenol	ND		0.25	10
4-Nitroaniline	ND		2.0	10
4-Nitrophenol	ND		1.2	10
4,6-Dinitro-2-methylphenol	ND		4.0	50
Cresols, Total	ND		0.25	10

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	89	48 - 120
2-Fluorophenol	89	51 - 120
2-Fluorobiphenyl	87	38 - 120
2,4,6-Tribromophenol	112	57 - 120
Terphenyl-d14	102	50 - 120
Phenol-d5	93	51 - 120

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-66871**

**Method: 8270C
Preparation: 3520C**

LCS Lab Sample ID:	LCS 280-66871/2-A	Analysis Batch:	280-67491	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-66871	Lab File ID:	Y0089.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/15/2011 1718	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/11/2011 1710			Injection Volume:	0.5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-66871/3-A	Analysis Batch:	280-67491	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-66871	Lab File ID:	Y0090.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/15/2011 1738	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	05/11/2011 1710			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Acenaphthene	83	85	45 - 120	2	30		
Anthracene	93	93	56 - 120	1	30		
Carbazole	93	95	48 - 120	3	30		
N-Nitrosodi-n-propylamine	81	84	50 - 120	4	30		
Pentachlorophenol	111	111	40 - 120	0	33		
Phenol	81	84	52 - 120	4	42		
Pyrene	96	96	56 - 120	0	30		
2-Chlorophenol	79	81	57 - 120	3	30		
2-Methylnaphthalene	77	80	32 - 120	3	32		
2-Methylphenol	78	81	50 - 120	3	30		
2,4-Dinitrotoluene	100	102	51 - 120	2	32		
2,4,5-Trichlorophenol	93	94	60 - 120	2	30		
2,4,6-Trichlorophenol	92	96	52 - 120	3	30		
4-Chloro-3-methylphenol	87	89	63 - 120	2	30		
4-Nitrophenol	101	102	49 - 124	0	35		
1,4-Dichlorobenzene	71	76	27 - 120	7	52		
1,2,4-Trichlorobenzene	70	74	23 - 120	5	42		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Nitrobenzene-d5	76	79	48 - 120
2-Fluorophenol	75	78	51 - 120
2-Fluorobiphenyl	75	71	38 - 120
2,4,6-Tribromophenol	110	115	57 - 120
Terphenyl-d14	97	98	50 - 120
Phenol-d5	79	83	51 - 120

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-66871

Method: 8270C
Preparation: 3520C

LCS Lab Sample ID: LCS 280-66871/2-A Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/15/2011 1718
Prep Date: 05/11/2011 1710
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-66871/3-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/15/2011 1738
Prep Date: 05/11/2011 1710
Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Acenaphthene	80.0	80.0	66.7	68.2
Anthracene	80.0	80.0	74.2	74.6
Carbazole	80.0	80.0	74.1	76.2
N-Nitrosodi-n-propylamine	80.0	80.0	65.2	67.5
Pentachlorophenol	80.0	80.0	88.9	89.2
Phenol	80.0	80.0	65.0	67.6
Pyrene	80.0	80.0	76.6	76.7
2-Chlorophenol	80.0	80.0	62.8	64.6
2-Methylnaphthalene	80.0	80.0	61.7	63.7
2-Methylphenol	80.0	80.0	62.7	64.7
2,4-Dinitrotoluene	80.0	80.0	80.4	81.9
2,4,5-Trichlorophenol	80.0	80.0	74.3	75.5
2,4,6-Trichlorophenol	80.0	80.0	74.0	76.5
4-Chloro-3-methylphenol	80.0	80.0	69.7	71.2
4-Nitrophenol	80.0	80.0	81.1	81.2
1,4-Dichlorobenzene	80.0	80.0	57.0	60.8
1,2,4-Trichlorobenzene	80.0	80.0	56.2	58.9

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-66530

Lab Sample ID: MB 280-66530/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/09/2011 1739
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-66530
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Method: RSK-175

Preparation: N/A

Instrument ID: GCV_J
 Lab File ID: 004F0601.D
 Initial Weight/Volume: 18 mL
 Final Weight/Volume: 18 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Methane	ND		0.22	5.0

Method Blank - Batch: 280-66530

Lab Sample ID: MB 280-66530/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 05/09/2011 1739
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 280-66530
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/L

Method: RSK-175

Preparation: N/A

Instrument ID: GCV_J
 Lab File ID: 004F0601.D
 Initial Weight/Volume: 18 mL
 Final Weight/Volume: 18 mL
 Injection Volume:
 Column ID: SECONDARY

Analyte	Result	Qual	MDL	RL
Methane	ND		0.22	5.0

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-66530**

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

LCS Lab Sample ID:	LCS 280-66530/2	Analysis Batch:	280-66530	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	002F0401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	18 mL
Analysis Date:	05/09/2011 1730	Units:	ug/L	Final Weight/Volume:	18 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-66530/3	Analysis Batch:	280-66530	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	003F0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	18 mL
Analysis Date:	05/09/2011 1734	Units:	ug/L	Final Weight/Volume:	18 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Methane	89	92	75 - 125	3	20		

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-66530**

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

LCS Lab Sample ID:	LCS 280-66530/2	Analysis Batch:	280-66530	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	002F0401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	18 mL
Analysis Date:	05/09/2011 1730	Units:	ug/L	Final Weight/Volume:	18 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

LCSD Lab Sample ID:	LCSD 280-66530/3	Analysis Batch:	280-66530	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	003F0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	18 mL
Analysis Date:	05/09/2011 1734	Units:	ug/L	Final Weight/Volume:	18 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Methane	91	94	75 - 125	3	20		

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-66530**

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

LCS Lab Sample ID: LCS 280-66530/2 Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1730
Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-66530/3
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1734
Prep Date: N/A
Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Methane	73.2	73.2	65.4	67.6

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-66530**

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

LCS Lab Sample ID: LCS 280-66530/2 Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1730
Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-66530/3
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1734
Prep Date: N/A
Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Methane	73.2	73.2	66.8	69.0

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-66530**

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

MS Lab Sample ID:	280-15431-W-1 MS	Analysis Batch:	280-66530	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	029F3101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	18 mL
Analysis Date:	05/09/2011 1940			Final Weight/Volume:	18 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-15431-AB-1 MSD	Analysis Batch:	280-66530	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	030F3201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	18 mL
Analysis Date:	05/09/2011 1945			Final Weight/Volume:	18 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Methane	100	105	52 - 145	5	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-66530**

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

MS Lab Sample ID:	280-15431-W-1 MS	Analysis Batch:	280-66530	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	029F3101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	18 mL
Analysis Date:	05/09/2011 1940			Final Weight/Volume:	18 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

MSD Lab Sample ID:	280-15431-AB-1 MSD	Analysis Batch:	280-66530	Instrument ID:	GCV_J
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	030F3201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	18 mL
Analysis Date:	05/09/2011 1945			Final Weight/Volume:	18 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Methane	102	107	52 - 145	5	20		

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-66530

Method: RSK-175

Preparation: N/A

MS Lab Sample ID: 280-15431-W-1 MS Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1940
Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-15431-AB-1 MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1945
Prep Date: N/A
Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Methane	0.23	J	73.2	73.2	73.4	77.4

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 280-66530

Method: RSK-175

Preparation: N/A

MS Lab Sample ID: 280-15431-W-1 MS Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1940
Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-15431-AB-1 MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1945
Prep Date: N/A
Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Methane	0.22	J	73.2	73.2	74.5	78.4

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-66130

Lab Sample ID: MB 280-66107/1-B
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/10/2011 1737
Prep Date: 05/10/2011 0730
Leach Date: N/A

Analysis Batch: 280-66651
Prep Batch: 280-66130
Leach Batch: N/A
Units: ug/L

Method: 6010B Preparation: 3005A Dissolved

Instrument ID: MT_025
Lab File ID: 25A5051011.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Arsenic	ND		4.4	15
Barium	ND		0.58	10
Cadmium	ND		0.45	5.0
Calcium	ND		34	200
Chromium	ND		0.66	10
Iron	ND		22	100
Lead	ND		2.6	9.0
Magnesium	ND		11	200
Manganese	ND		0.25	10
Potassium	ND		240	3000
Selenium	ND		4.9	15
Silver	ND		0.93	10
Sodium	ND		92	1000

Lab Control Sample - Batch: 280-66130

Lab Sample ID: LCS 280-66107/2-B
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/10/2011 1739
Prep Date: 05/10/2011 0730
Leach Date: N/A

Analysis Batch: 280-66651
Prep Batch: 280-66130
Leach Batch: N/A
Units: ug/L

Method: 6010B Preparation: 3005A Dissolved

Instrument ID: MT_025
Lab File ID: 25A5051011.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1000	1040	104	88 - 110	
Barium	2000	1970	98	90 - 112	
Cadmium	100	103	103	88 - 111	
Calcium	50000	46800	94	90 - 111	
Chromium	200	201	100	90 - 113	
Iron	1000	977	98	89 - 115	
Lead	500	500	100	89 - 110	
Magnesium	50000	47400	95	90 - 113	
Manganese	500	465	93	90 - 110	
Potassium	50000	48500	97	89 - 114	
Selenium	2000	2040	102	85 - 112	
Silver	50.0	49.4	99	86 - 115	
Sodium	50000	50100	100	90 - 115	

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-66130

Method: 6010B
Preparation: 3005A
Dissolved

MS Lab Sample ID: 280-15513-F-1-C MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/10/2011 1746
Prep Date: 05/10/2011 0730
Leach Date: N/A

Analysis Batch: 280-66651
Prep Batch: 280-66130
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25A5051011.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-15513-F-1-D MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/10/2011 1748
Prep Date: 05/10/2011 0730
Leach Date: N/A

Analysis Batch: 280-66651
Prep Batch: 280-66130
Leach Batch: N/A

Instrument ID: MT_025
Lab File ID: 25A5051011.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	106	104	84 - 124	2	25		
Barium	98	98	85 - 120	1	25		
Cadmium	104	101	82 - 119	2	25		
Calcium	96	94	48 - 153	1	25		
Chromium	100	99	73 - 135	2	25		
Iron	98	98	52 - 155	0	25		
Lead	98	98	89 - 121	0	25		
Magnesium	94	92	62 - 146	2	25		
Manganese	92	91	79 - 121	1	25		
Potassium	98	97	76 - 132	1	25		
Selenium	102	101	71 - 140	1	25		
Silver	100	98	75 - 141	3	25		
Sodium	102	99	70 - 203	1	40		

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-66130

Method: 6010B
Preparation: 3005A
Dissolved

MS Lab Sample ID: 280-15513-F-1-C MS Units: ug/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/10/2011 1746
Prep Date: 05/10/2011 0730
Leach Date: N/A

MSD Lab Sample ID: 280-15513-F-1-D MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/10/2011 1748
Prep Date: 05/10/2011 0730
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Arsenic	ND	1000	1000	1060	1040
Barium	130	2000	2000	2100	2080
Cadmium	ND	100	100	104	101
Calcium	35000	50000	50000	83300	82200
Chromium	ND	200	200	201	197
Iron	ND	1000	1000	981	976
Lead	ND	500	500	491	489
Magnesium	3500	50000	50000	50600	49700
Manganese	26	500	500	488	481
Potassium	4700	50000	50000	53600	53100
Selenium	ND	2000	2000	2040	2020
Silver	ND	50.0	50.0	50.2	48.9
Sodium	78000	50000	50000	129000	128000

Serial Dilution - Batch: 280-66130

Method: 6010B
Preparation: 3005A
Dissolved

Lab Sample ID: 280-15513-F-1-B SD ^5
Client Matrix: Water
Dilution: 5.0
Analysis Date: 05/10/2011 1744
Prep Date: 05/10/2011 0730
Leach Date: N/A

Analysis Batch: 280-66651
Prep Batch: 280-66130
Leach Batch: N/A
Units: ug/L

Instrument ID: MT_025
Lab File ID: 25A5051011.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Arsenic	ND	ND	NC	10	
Barium	130	130	0.20	10	
Cadmium	ND	ND	NC	10	
Calcium	35000	35900	1.6	10	
Chromium	ND	ND	NC	10	
Iron	ND	ND	NC	10	
Lead	ND	ND	NC	10	
Magnesium	3500	3620	2.0	10	
Manganese	26	27.0	2.7	10	J
Potassium	4700	4720	NC	10	J
Selenium	ND	ND	NC	10	
Silver	ND	ND	NC	10	
Sodium	78000	83000	6.2	10	

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-66638

Method: 300.0

Preparation: N/A

Lab Sample ID:	MB 280-66638/6	Analysis Batch:	280-66638	Instrument ID:	WC_IC6
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	115.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/09/2011 1023	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bromide	ND		0.11	0.20
Chloride	ND		0.25	3.0
Fluoride	ND		0.060	0.50
Sulfate	ND		0.23	5.0

Method Reporting Limit Check - Batch: 280-66638

Method: 300.0

Preparation: N/A

Lab Sample ID:	MRL 280-66638/3	Analysis Batch:	280-66638	Instrument ID:	WC_IC6
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/09/2011 0931	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	0.200	0.201	100	50 - 150	
Chloride	1.00	1.00	100	50 - 150	J
Fluoride	0.200	0.185	92	50 - 150	J
Sulfate	1.00	0.873	87	50 - 150	J

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-66638**

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

LCS Lab Sample ID:	LCS 280-66638/4	Analysis Batch:	280-66638	Instrument ID:	WC_IC6
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/09/2011 0948	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-66638/5	Analysis Batch:	280-66638	Instrument ID:	WC_IC6
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	114.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/09/2011 1005	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Bromide	96	99	90 - 110	3	10		
Chloride	101	101	90 - 110	0	10		
Fluoride	101	102	90 - 110	1	10		
Sulfate	100	101	90 - 110	0	10		

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-66638**

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

LCS Lab Sample ID:	LCS 280-66638/4	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-66638/5
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/09/2011 0948			Analysis Date:	05/09/2011 1005
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Bromide	5.00	5.00	4.81	4.96
Chloride	25.0	25.0	25.2	25.2
Fluoride	5.00	5.00	5.06	5.12
Sulfate	25.0	25.0	25.0	25.2

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-66638**

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

MS Lab Sample ID:	280-15440-A-1 MS	Analysis Batch:	280-66638	Instrument ID:	WC_IC6
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	141.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/09/2011 2006			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-15440-A-1 MSD	Analysis Batch:	280-66638	Instrument ID:	WC_IC6
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	142.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/09/2011 2024			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Bromide	100	100	80 - 120	1	20		
Chloride	102	103	80 - 120	1	20		
Fluoride	97	98	80 - 120	1	20		
Sulfate	99	101	80 - 120	1	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-66638**

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

MS Lab Sample ID:	280-15440-A-1 MS	Units:	mg/L	MSD Lab Sample ID:	280-15440-A-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/09/2011 2006			Analysis Date:	05/09/2011 2024
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
	Result/Qual					
Bromide	ND		5.00	5.00	4.98	5.02
Chloride	16		25.0	25.0	41.9	42.1
Fluoride	0.068	J	5.00	5.00	4.91	4.97
Sulfate	1.2	J	25.0	25.0	26.0	26.3

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Duplicate - Batch: 280-66638

Method: 300.0
Preparation: N/A

Lab Sample ID: 280-15440-A-1 DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/09/2011 1057
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-66638
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WC_IC6
Lab File ID: 117.TXT
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	16		16.4	0.08	15	
Fluoride	0.068	J	ND	NC	15	
Sulfate	1.2	J	0.715	47	15	J

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-66476

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-66476/108	Analysis Batch:	280-66476	Instrument ID:	WC_Alph 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0507ANXN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/07/2011 1215	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

Method Reporting Limit Check - Batch: 280-66476

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-66476/17	Analysis Batch:	280-66476	Instrument ID:	WC_Alph 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0507ANXN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	05/07/2011 0959	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	0.100	0.0851	85	50 - 150	J

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-66476

Method: 353.2
Preparation: N/A

LCS Lab Sample ID:	LCS 280-66476/142	Analysis Batch:	280-66476	Instrument ID:	WC_Alph 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0507ANXN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	05/07/2011 1314	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-66476/143	Analysis Batch:	280-66476	Instrument ID:	WC_Alph 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0507ANXN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	05/07/2011 1316	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrate Nitrite as N	106	106	90 - 110	0	10		

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-66476

Method: 353.2
Preparation: N/A

LCS Lab Sample ID: LCS 280-66476/142 Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2011 1314
Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-66476/143
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2011 1316
Prep Date: N/A
Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	5.30	5.29

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-66476

Method: 353.2
Preparation: N/A

MS Lab Sample ID: 280-15240-A-4 MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2011 1343
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-66476
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0507ANXN
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-15240-A-4 MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2011 1344
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-66476
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\0507ANXN
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrate Nitrite as N	116	116	72 - 113	1	17	F	F

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-66476

Method: 353.2
Preparation: N/A

MS Lab Sample ID: 280-15240-A-4 MS Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2011 1343
Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-15240-A-4 MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/07/2011 1344
Prep Date: N/A
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	0.13	4.00	4.00	4.76 F	4.79 F

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-67456

Method: SM 1030F

Preparation: N/A

Lab Sample ID:	MB 280-67456/1	Analysis Batch:	280-67456	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/16/2011 0914	Units:	%	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	NONE	NONE
Percent Difference	NC			
Anion/Cation Balance	NC			

Method Blank - Batch: 280-67456

Method: SM 1030F

Preparation: N/A

Lab Sample ID:	MB 280-67456/1	Analysis Batch:	280-67456	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/16/2011 0914	Units:	meq/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	NONE	NONE
Total Anions	0.000			
Total Cations	0.000			

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Method Blank - Batch: 280-66927

Method: SM 2320B

Preparation: N/A

Lab Sample ID:	MB 280-66927/6	Analysis Batch:	280-66927	Instrument ID:	WC_AT2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	051110b.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/11/2011 1615	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Alkalinity	ND		1.1	5.0
Bicarbonate Alkalinity as CaCO3	ND		1.1	5.0
Carbonate Alkalinity as CaCO3	ND		1.1	5.0
Hydroxide Alkalinity	ND		1.1	5.0

Lab Control Sample/

Method: SM 2320B

Lab Control Sample Duplicate Recovery Report - Batch: 280-66927

Preparation: N/A

LCS Lab Sample ID:	LCS 280-66927/4	Analysis Batch:	280-66927	Instrument ID:	WC_AT2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	051110b.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/11/2011 1557	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-66927/5	Analysis Batch:	280-66927	Instrument ID:	WC_AT2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	051110b.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	05/11/2011 1607	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Total Alkalinity	102	102	90 - 110	0	10		

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-66927

Method: SM 2320B
Preparation: N/A

LCS Lab Sample ID: LCS 280-66927/4 Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/11/2011 1557
Prep Date: N/A
Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-66927/5
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/11/2011 1607
Prep Date: N/A
Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Alkalinity	200	200	203	204

Duplicate - Batch: 280-66927

Method: SM 2320B
Preparation: N/A

Lab Sample ID: 280-15383-A-10 DU
Client Matrix: Water
Dilution: 1.0
Analysis Date: 05/11/2011 1632
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-66927
Prep Batch: N/A
Leach Batch: N/A
Units: mg/L

Instrument ID: WC_AT2
Lab File ID: 051110b.TXT
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Alkalinity	450	433	3	10	

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-67198

Method: SM 2510B

Preparation: N/A

Lab Sample ID:	MB 280-67198/5	Analysis Batch:	280-67198	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/13/2011 1200	Units:	umhos/cm	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Specific Conductance	ND		2.0	2.0

Lab Control Sample/

Method: SM 2510B

Lab Control Sample Duplicate Recovery Report - Batch: 280-67198

Preparation: N/A

LCS Lab Sample ID:	LCS 280-67198/3	Analysis Batch:	280-67198	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/13/2011 1200	Units:	umhos/cm	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-67198/4	Analysis Batch:	280-67198	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/13/2011 1200	Units:	umhos/cm	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Specific Conductance	100	99	90 - 110	0	10		

Laboratory Control/

Method: SM 2510B

Laboratory Duplicate Data Report - Batch: 280-67198

Preparation: N/A

LCS Lab Sample ID:	LCS 280-67198/3	Units:	umhos/cm	LCSD Lab Sample ID:	LCSD 280-67198/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/13/2011 1200			Analysis Date:	05/13/2011 1200
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Specific Conductance	1410	1410	1400	1400

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Duplicate - Batch: 280-67198

Method: SM 2510B

Preparation: N/A

Lab Sample ID:	280-15454-A-1 DU	Analysis Batch:	280-67198	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/13/2011 1200	Units:	umhos/cm	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Specific Conductance	600	597	0.7	10	

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Method Blank - Batch: 280-66668

Method: SM 2540C

Preparation: N/A

Lab Sample ID:	MB 280-66668/1	Analysis Batch:	280-66668	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	05/11/2011 0748	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Dissolved Solids	ND		4.7	10

Lab Control Sample/

Method: SM 2540C

Lab Control Sample Duplicate Recovery Report - Batch: 280-66668

Preparation: N/A

LCS Lab Sample ID:	LCS 280-66668/2	Analysis Batch:	280-66668	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	05/11/2011 0748	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-66668/3	Analysis Batch:	280-66668	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	05/11/2011 0748	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Total Dissolved Solids	95	95	86 - 110	1	20		

Laboratory Control/

Method: SM 2540C

Laboratory Duplicate Data Report - Batch: 280-66668

Preparation: N/A

LCS Lab Sample ID:	LCS 280-66668/2	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-66668/3
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/11/2011 0748			Analysis Date:	05/11/2011 0748
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Dissolved Solids	500	500	476	473

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Duplicate - Batch: 280-66668

Method: SM 2540C

Preparation: N/A

Lab Sample ID:	280-15500-C-1 DU	Analysis Batch:	280-66668	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	05/11/2011 0748	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	180	180	2	10	

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-66074

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

LCS Lab Sample ID:	LCS 280-66074/4	Analysis Batch:	280-66074	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	050611.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/06/2011 1216	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-66074/5	Analysis Batch:	280-66074	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	050611.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/06/2011 1216	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
pH	100	100	99 - 101	0	5		

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-66074

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

LCS Lab Sample ID:	LCS 280-66074/4	Units:	SU	LCSD Lab Sample ID:	LCSD 280-66074/5
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/06/2011 1216			Analysis Date:	05/06/2011 1216
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
pH	7.00	7.00	7.030	7.030

Duplicate - Batch: 280-66074

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

Lab Sample ID:	280-15430-D-1 DU	Analysis Batch:	280-66074	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	050611.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/06/2011 1220	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.63	7.660	0.4	5	HF

DATA REPORTING QUALIFIERS

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Lab Section	Qualifier	Description
GC/MS VOA		
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-67551					
LCS 280-67551/4	Lab Control Sample	T	Water	8260B	
MB 280-67551/5	Method Blank	T	Water	8260B	
280-15513-G-11 MS	Matrix Spike	T	Water	8260B	
280-15513-G-11 MSD	Matrix Spike Duplicate	T	Water	8260B	
280-15513-13	BAKER 1	T	Water	8260B	
280-15513-14TB	TRIP BLANK	T	Water	8260B	

Report Basis

T = Total

GC/MS Semi VOA

Prep Batch: 280-66871					
LCS 280-66871/2-A	Lab Control Sample	T	Water	3520C	
LCSD 280-66871/3-A	Lab Control Sample Duplicate	T	Water	3520C	
MB 280-66871/1-A	Method Blank	T	Water	3520C	
280-15513-13	BAKER 1	T	Water	3520C	
Analysis Batch:280-67491					
LCS 280-66871/2-A	Lab Control Sample	T	Water	8270C	280-66871
LCSD 280-66871/3-A	Lab Control Sample Duplicate	T	Water	8270C	280-66871
MB 280-66871/1-A	Method Blank	T	Water	8270C	280-66871
280-15513-13	BAKER 1	T	Water	8270C	280-66871

Report Basis

T = Total

GC VOA

Analysis Batch:280-66530					
LCS 280-66530/2	Lab Control Sample	T	Water	RSK-175	
LCSD 280-66530/3	Lab Control Sample Duplicate	T	Water	RSK-175	
MB 280-66530/4	Method Blank	T	Water	RSK-175	
280-15431-W-1 MS	Matrix Spike	T	Water	RSK-175	
280-15431-AB-1 MSD	Matrix Spike Duplicate	T	Water	RSK-175	
280-15513-13	BAKER 1	T	Water	RSK-175	

Report Basis

T = Total

TestAmerica Denver

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-66130					
LCS 280-66107/2-B	Lab Control Sample	D	Water	3005A	
MB 280-66107/1-B	Method Blank	D	Water	3005A	
280-15513-F-1-C MS	Matrix Spike	D	Water	3005A	
280-15513-F-1-D MSD	Matrix Spike Duplicate	D	Water	3005A	
280-15513-13	BAKER 1	D	Water	3005A	
Analysis Batch:280-66651					
LCS 280-66107/2-B	Lab Control Sample	D	Water	6010B	280-66130
MB 280-66107/1-B	Method Blank	D	Water	6010B	280-66130
280-15513-F-1-C MS	Matrix Spike	D	Water	6010B	280-66130
280-15513-F-1-D MSD	Matrix Spike Duplicate	D	Water	6010B	280-66130
280-15513-13	BAKER 1	D	Water	6010B	280-66130

Report Basis

D = Dissolved

Quality Control Results

Client: Colorado Oil&Gas Conservation Commission

Job Number: 280-15513-7

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-66074					
LCS 280-66074/4	Lab Control Sample	T	Water	SM 4500 H+ B	
LCSD 280-66074/5	Lab Control Sample Duplicate	T	Water	SM 4500 H+ B	
280-15430-D-1 DU	Duplicate	T	Water	SM 4500 H+ B	
280-15513-13	BAKER 1	T	Water	SM 4500 H+ B	
Analysis Batch:280-66476					
LCS 280-66476/142	Lab Control Sample	T	Water	353.2	
LCSD 280-66476/143	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-66476/108	Method Blank	T	Water	353.2	
280-15240-A-4 MS	Matrix Spike	T	Water	353.2	
280-15240-A-4 MSD	Matrix Spike Duplicate	T	Water	353.2	
280-15513-13	BAKER 1	T	Water	353.2	
Analysis Batch:280-66638					
LCS 280-66638/4	Lab Control Sample	T	Water	300.0	
LCSD 280-66638/5	Lab Control Sample Duplicate	T	Water	300.0	
MB 280-66638/6	Method Blank	T	Water	300.0	
280-15440-A-1 DU	Duplicate	T	Water	300.0	
280-15440-A-1 MS	Matrix Spike	T	Water	300.0	
280-15440-A-1 MSD	Matrix Spike Duplicate	T	Water	300.0	
280-15513-13	BAKER 1	T	Water	300.0	
Analysis Batch:280-66668					
LCS 280-66668/2	Lab Control Sample	T	Water	SM 2540C	
LCSD 280-66668/3	Lab Control Sample Duplicate	T	Water	SM 2540C	
MB 280-66668/1	Method Blank	T	Water	SM 2540C	
280-15500-C-1 DU	Duplicate	T	Water	SM 2540C	
280-15513-13	BAKER 1	T	Water	SM 2540C	
Analysis Batch:280-66927					
LCS 280-66927/4	Lab Control Sample	T	Water	SM 2320B	
LCSD 280-66927/5	Lab Control Sample Duplicate	T	Water	SM 2320B	
MB 280-66927/6	Method Blank	T	Water	SM 2320B	
280-15383-A-10 DU	Duplicate	T	Water	SM 2320B	
280-15513-13	BAKER 1	T	Water	SM 2320B	
Analysis Batch:280-67198					
LCS 280-67198/3	Lab Control Sample	T	Water	SM 2510B	
LCSD 280-67198/4	Lab Control Sample Duplicate	T	Water	SM 2510B	
MB 280-67198/5	Method Blank	T	Water	SM 2510B	
280-15454-A-1 DU	Duplicate	T	Water	SM 2510B	
280-15513-13	BAKER 1	T	Water	SM 2510B	

TestAmerica Denver

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-67456					
MB 280-67456/1	Method Blank	T	Water	SM 1030F	
280-15513-13	BAKER 1	T	Water	SM 1030F	

Report Basis

T = Total

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Laboratory Chronicle

Lab ID: 280-15513-13

Client ID: BAKER 1

Sample Date/Time: 05/05/2011 10:40

Received Date/Time: 05/05/2011 15:57

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-15513-I-13		280-67551		05/15/2011 19:10	1	TAL DEN	JLS
A:8260B	280-15513-I-13		280-67551		05/15/2011 19:10	1	TAL DEN	JLS
P:3520C	280-15513-B-13-A		280-67491	280-66871	05/11/2011 17:10	1	TAL DEN	SHD
A:8270C	280-15513-B-13-A		280-67491	280-66871	05/15/2011 19:36	1	TAL DEN	SAT
A:RSK-175	280-15513-K-13		280-66530		05/09/2011 19:36	1	TAL DEN	MPS
P:3005A	280-15513-F-13-B		280-66651	280-66130	05/10/2011 07:30	1	TAL DEN	CLI
A:6010B	280-15513-F-13-B		280-66651	280-66130	05/10/2011 18:12	1	TAL DEN	JKH
A:300.0	280-15513-D-13		280-66638		05/09/2011 16:38	1	TAL DEN	TLP
A:300.0	280-15513-D-13		280-66638		05/09/2011 23:17	5	TAL DEN	TLP
A:353.2	280-15513-E-13		280-66476		05/07/2011 14:02	1	TAL DEN	LES
A:SM 1030F	280-15513-A-13		280-67456		05/16/2011 09:24	1	TAL DEN	RS
A:SM 2320B	280-15513-C-13		280-66927		05/11/2011 18:22	1	TAL DEN	AJA
A:SM 2510B	280-15513-D-13		280-67198		05/13/2011 12:00	1	TAL DEN	PMP
A:SM 2540C	280-15513-D-13		280-66668		05/11/2011 07:48	1	TAL DEN	BJD
A:SM 4500 H+ B	280-15513-D-13		280-66074		05/06/2011 12:56	1	TAL DEN	DA

Lab ID: 280-15513-14

Client ID: TRIP BLANK

Sample Date/Time: 05/05/2011 00:00

Received Date/Time: 05/05/2011 15:57

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-15513-B-14		280-67551		05/15/2011 19:31	1	TAL DEN	JLS
A:8260B	280-15513-B-14		280-67551		05/15/2011 19:31	1	TAL DEN	JLS

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 280-67551/5		280-67551		05/15/2011 17:13	1	TAL DEN	JLS
A:8260B	MB 280-67551/5		280-67551		05/15/2011 17:13	1	TAL DEN	JLS
P:3520C	MB 280-66871/1-A		280-67491	280-66871	05/11/2011 17:10	1	TAL DEN	SHD
A:8270C	MB 280-66871/1-A		280-67491	280-66871	05/15/2011 16:59	1	TAL DEN	SAT
A:RSK-175	MB 280-66530/4		280-66530		05/09/2011 17:39	1	TAL DEN	MPS
P:3005A	MB 280-66107/1-B		280-66651	280-66130	05/10/2011 07:30	1	TAL DEN	CLI
A:6010B	MB 280-66107/1-B		280-66651	280-66130	05/10/2011 17:37	1	TAL DEN	JKH
A:300.0	MB 280-66638/6		280-66638		05/09/2011 10:23	1	TAL DEN	TLP
A:353.2	MB 280-66476/108		280-66476		05/07/2011 12:15	1	TAL DEN	LES
A:SM 1030F	MB 280-67456/1		280-67456		05/16/2011 09:14	1	TAL DEN	RS
A:SM 2320B	MB 280-66927/6		280-66927		05/11/2011 16:15	1	TAL DEN	AJA
A:SM 2510B	MB 280-67198/5		280-67198		05/13/2011 12:00	1	TAL DEN	PMP
A:SM 2540C	MB 280-66668/1		280-66668		05/11/2011 07:48	1	TAL DEN	BJD

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Laboratory Chronicle

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 280-67551/4		280-67551		05/15/2011 16:52	1	TAL DEN	JLS
A:8260B	LCS 280-67551/4		280-67551		05/15/2011 16:52	1	TAL DEN	JLS
P:3520C	LCS 280-66871/2-A		280-67491	280-66871	05/11/2011 17:10	1	TAL DEN	SHD
A:8270C	LCS 280-66871/2-A		280-67491	280-66871	05/15/2011 17:18	1	TAL DEN	SAT
A:RSK-175	LCS 280-66530/2		280-66530		05/09/2011 17:30	1	TAL DEN	MPS
P:3005A	LCS 280-66107/2-B		280-66651	280-66130	05/10/2011 07:30	1	TAL DEN	CLI
A:6010B	LCS 280-66107/2-B		280-66651	280-66130	05/10/2011 17:39	1	TAL DEN	JKH
A:300.0	LCS 280-66638/4		280-66638		05/09/2011 09:48	1	TAL DEN	TLP
A:353.2	LCS 280-66476/142		280-66476		05/07/2011 13:14	1	TAL DEN	LES
A:SM 2320B	LCS 280-66927/4		280-66927		05/11/2011 15:57	1	TAL DEN	AJA
A:SM 2510B	LCS 280-67198/3		280-67198		05/13/2011 12:00	1	TAL DEN	PMP
A:SM 2540C	LCS 280-66668/2		280-66668		05/11/2011 07:48	1	TAL DEN	BJD
A:SM 4500 H+ B	LCS 280-66074/4		280-66074		05/06/2011 12:16	1	TAL DEN	DA

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:3520C	LCSD 280-66871/3-A		280-67491	280-66871	05/11/2011 17:10	1	TAL DEN	SHD
A:8270C	LCSD 280-66871/3-A		280-67491	280-66871	05/15/2011 17:38	1	TAL DEN	SAT
A:RSK-175	LCSD 280-66530/3		280-66530		05/09/2011 17:34	1	TAL DEN	MPS
A:300.0	LCSD 280-66638/5		280-66638		05/09/2011 10:05	1	TAL DEN	TLP
A:353.2	LCSD 280-66476/143		280-66476		05/07/2011 13:16	1	TAL DEN	LES
A:SM 2320B	LCSD 280-66927/5		280-66927		05/11/2011 16:07	1	TAL DEN	AJA
A:SM 2510B	LCSD 280-67198/4		280-67198		05/13/2011 12:00	1	TAL DEN	PMP
A:SM 2540C	LCSD 280-66668/3		280-66668		05/11/2011 07:48	1	TAL DEN	BJD
A:SM 4500 H+ B	LCSD 280-66074/5		280-66074		05/06/2011 12:16	1	TAL DEN	DA

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 280-66638/3		280-66638		05/09/2011 09:31	1	TAL DEN	TLP
A:353.2	MRL 280-66476/17		280-66476		05/07/2011 09:59	1	TAL DEN	LES

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Laboratory Chronicle

Lab ID: MS

Client ID: N/A

Sample Date/Time: 05/05/2011 11:30

Received Date/Time: 05/05/2011 15:57

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-15513-G-11 MS		280-67551		05/15/2011 18:06	1	TAL DEN	JLS
A:8260B	280-15513-G-11 MS		280-67551		05/15/2011 18:06	1	TAL DEN	JLS
A:RSK-175	280-15431-W-1 MS		280-66530		05/09/2011 19:40	1	TAL DEN	MPS
P:3005A	280-15513-F-1-C MS		280-66651	280-66130	05/10/2011 07:30	1	TAL DEN	CLI
A:6010B	280-15513-F-1-C MS		280-66651	280-66130	05/10/2011 17:46	1	TAL DEN	JKH
A:300.0	280-15440-A-1 MS		280-66638		05/09/2011 20:06	1	TAL DEN	TLP
A:353.2	280-15240-A-4 MS		280-66476		05/07/2011 13:43	1	TAL DEN	LES

Lab ID: MSD

Client ID: N/A

Sample Date/Time: 05/05/2011 11:30

Received Date/Time: 05/05/2011 15:57

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-15513-G-11 MSD		280-67551		05/15/2011 18:27	1	TAL DEN	JLS
A:8260B	280-15513-G-11 MSD		280-67551		05/15/2011 18:27	1	TAL DEN	JLS
A:RSK-175	280-15431-AB-1 MSD		280-66530		05/09/2011 19:45	1	TAL DEN	MPS
P:3005A	280-15513-F-1-D MSD		280-66651	280-66130	05/10/2011 07:30	1	TAL DEN	CLI
A:6010B	280-15513-F-1-D MSD		280-66651	280-66130	05/10/2011 17:48	1	TAL DEN	JKH
A:300.0	280-15440-A-1 MSD		280-66638		05/09/2011 20:24	1	TAL DEN	TLP
A:353.2	280-15240-A-4 MSD		280-66476		05/07/2011 13:44	1	TAL DEN	LES

Lab ID: DU

Client ID: N/A

Sample Date/Time: 05/04/2011 12:30

Received Date/Time: 05/05/2011 09:37

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	280-15440-A-1 DU		280-66638		05/09/2011 10:57	1	TAL DEN	TLP
A:SM 2320B	280-15383-A-10 DU		280-66927		05/11/2011 16:32	1	TAL DEN	AJA
A:SM 2510B	280-15454-A-1 DU		280-67198		05/13/2011 12:00	1	TAL DEN	PMP
A:SM 2540C	280-15500-C-1 DU		280-66668		05/11/2011 07:48	1	TAL DEN	BJD
A:SM 4500 H+ B	280-15430-D-1 DU		280-66074		05/06/2011 12:20	1	TAL DEN	DA

Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Laboratory Chronicle

Lab ID: SD

Client ID: N/A

Sample Date/Time: 05/05/2011 09:45

Received Date/Time: 05/05/2011 15:57

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	280-15513-F-1-B SD ^5		280-66651	280-66130	05/10/2011 07:30	5	TAL DEN	CLI
A:6010B	280-15513-F-1-B SD ^5		280-66651	280-66130	05/10/2011 17:44	5	TAL DEN	JKH

Lab References:

TAL DEN = TestAmerica Denver

Certification Summary

Client: Colorado Oil&Gas Conservation Commision
Project/Site: Baker 1-Elbert CO

TestAmerica Job ID: 280-15513-7

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver		USDA		P330-08-00036
TestAmerica Denver	A2LA	DoD ELAP	0	2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025	0	2907.01
TestAmerica Denver	Alabama	State Program	4	
TestAmerica Denver	Alaska	Alaska UST	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Colorado	State Program	8	N/A
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAC	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Idaho	State Program	10	CO00026
TestAmerica Denver	Illinois	NELAC	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Louisiana	NELAC	6	30785
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Maryland	State Program	3	268
TestAmerica Denver	Minnesota	NELAC	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAC	1	205310
TestAmerica Denver	New Jersey	NELAC	2	CO004
TestAmerica Denver	New Mexico	State Program	6	N/A
TestAmerica Denver	New York	NELAC	2	11964
TestAmerica Denver	North Carolina	North Carolina DENR	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAC	10	CO200001
TestAmerica Denver	Pennsylvania	NELAC	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002
TestAmerica Denver	Tennessee	State Program	4	TN02944
TestAmerica Denver	Texas	NELAC	6	T104704183-08-TX
TestAmerica Denver	Utah	NELAC	8	QUAN5
TestAmerica Denver	Washington	State Program	10	C1284
TestAmerica Denver	West Virginia	West Virginia DEP	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS)
by Method 8260B

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\P.i\051511.B\P8505.D
 Lab Smp Id: 280-15513-I-13 Client Smp ID: BAKER 1
 Inj Date : 15-MAY-2011 19:10
 Operator : ZhouH Inst ID: P.i
 Smp Info : 280-15513-i-13,,PH<2
 Misc Info : 280-15513-I-13
 Comment :
 Method : \\DenSvr03\Public\chem\MSV\P.i\051511.B\8260B-H2O.m
 Meth Date : 15-May-2011 17:58 stappj Quant Type: ISTD
 Cal Date : 30-APR-2011 12:19 Cal File: P7863.D
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: TALS.sub
 Target Version: 4.14
 Processing Host: DENPC346

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

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====	=====
* 69 Fluorobenzene	96	7.159	7.158 (1.000)		1617379	12.5000	
* 95 Chlorobenzene-d5	119	9.447	9.446 (1.000)		277125	12.5000	
* 121 1,4-Dichlorobenzene-d4	152	11.199	11.198 (1.000)		302663	12.5000	
\$ 58 Dibromofluoromethane (Surr)	111	6.609	6.608 (0.923)		447487	12.9848	12.9848
\$ 64 1,2-Dichloroethane-d4	65	6.902	6.901 (0.964)		335487	11.5799	11.5799
\$ 83 Toluene-d8	98	8.382	8.381 (0.887)		1281211	11.0095	11.0095
\$ 106 4-Bromofluorobenzene (Surr)	95	10.284	10.283 (0.918)		332243	10.5050	10.5050
M 1 1,2-Dichloroethene (total)	96	Compound Not Detected.					
M 2 Xylene (total)	106	Compound Not Detected.					
5 dichlorodifluoromethane	85	Compound Not Detected.					
6 1,2-Dichlorotetrafluoroethane	85	Compound Not Detected.					
7 Chloromethane	50	Compound Not Detected.					
8 Vinyl Chloride	62	Compound Not Detected.					
9 Ethylene Oxide	43	Compound Not Detected.					
10 Bromomethane	94	Compound Not Detected.					
11 Chloroethane	64	Compound Not Detected.					
12 Dichlorofluoromethane	67	Compound Not Detected.					
14 Trichlorofluoromethane	101	Compound Not Detected.					
13 Ethanol	45	Compound Not Detected.					
15 1,2-dichloro-1,1,2-trifluoroe	117	Compound Not Detected.					
17 Ethyl Ether	59	Compound Not Detected.					
16 2,2-dichloro-1,1,1-trifluoroe	83	Compound Not Detected.					

Compounds	QUANT SIG						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====		=====	=====
19 Acrolein	56				Compound Not Detected.			
20 Acetone	43				Compound Not Detected.			
21 Trichlorotrifluoroethane	151				Compound Not Detected.			
22 2-propanol	45				Compound Not Detected.			
23 1,1-Dichloroethene	96				Compound Not Detected.			
27 Iodomethane	142				Compound Not Detected.			
26 Acetonitrile	41				Compound Not Detected.			
28 Methyl Acetate	43				Compound Not Detected.			
31 Carbon Disulfide	76				Compound Not Detected.			
29 Allyl Chloride	41				Compound Not Detected.			
30 tert-Butyl alcohol	59				Compound Not Detected.			
33 Methylene Chloride	84				Compound Not Detected.			
34 Acrylonitrile	53				Compound Not Detected.			
35 Methyl t-butyl ether	73				Compound Not Detected.			
36 trans-1,2-Dichloroethene	96				Compound Not Detected.			
40 Hexane	57				Compound Not Detected.			
42 Vinyl acetate	43				Compound Not Detected.			
43 Isopropyl ether	87				Compound Not Detected.			
44 1,1-Dichloroethane	63				Compound Not Detected.			
46 Chloroprene	53				Compound Not Detected.			
48 ETBE	59				Compound Not Detected.			
50 2-Butanone	43				Compound Not Detected.			
49 Ethyl Acetate	43				Compound Not Detected.			
52 cis-1,2-Dichloroethene	96				Compound Not Detected.			
51 Propionitrile	54				Compound Not Detected.			
53 2,2-Dichloropropane	77				Compound Not Detected.			
54 Methacrylonitrile	41				Compound Not Detected.			
55 Bromochloromethane	128				Compound Not Detected.			
56 Chloroform	83				Compound Not Detected.			
57 Tetrahydrofuran	42				Compound Not Detected.			
60 1,1,1-Trichloroethane	97				Compound Not Detected.			
59 Isobutanol	41				Compound Not Detected.			
61 Cyclohexane	56				Compound Not Detected.			
62 1,1-Dichloropropene	75				Compound Not Detected.			
63 Carbon Tetrachloride	117				Compound Not Detected.			
65 1,2-Dichloroethane	62				Compound Not Detected.			
67 Benzene	78				Compound Not Detected.			
66 TAME	73				Compound Not Detected.			
68 n-Butanol	56				Compound Not Detected.			
71 Trichloroethene	130				Compound Not Detected.			
72 2-Pentanone	43				Compound Not Detected.			
73 Methyl Methacrylate	100				Compound Not Detected.			
74 1,2-Dichloropropane	63				Compound Not Detected.			
75 Methyl Cyclohexane	55				Compound Not Detected.			
76 1,4-Dioxane	88				Compound Not Detected.			
77 Dibromomethane	93				Compound Not Detected.			
78 Bromodichloromethane	83				Compound Not Detected.			
79 2-nitropropane	41				Compound Not Detected.			
80 2-Chloroethyl vinyl ether	63				Compound Not Detected.			
81 cis-1,3-Dichloropropene	75				Compound Not Detected.			
82 4-Methyl-2-pentanone	43				Compound Not Detected.			
84 Toluene	91				Compound Not Detected.			
86 trans-1,3-Dichloropropene	75				Compound Not Detected.			
85 Ethyl methacrylate	69				Compound Not Detected.			

Compounds	QUANT SIG						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====		=====	=====
87 1,1,2-Trichloroethane	97				Compound Not Detected.			
88 2-Hexanone	43				Compound Not Detected.			
89 1,3-Dichloropropane	76				Compound Not Detected.			
90 Tetrachloroethene	164				Compound Not Detected.			
91 Dibromochloromethane	129				Compound Not Detected.			
92 Tetrahydrothiophene	60				Compound Not Detected.			
93 1,2-Dibromoethane	107				Compound Not Detected.			
94 1-Chlorohexane	91				Compound Not Detected.			
96 Chlorobenzene	112				Compound Not Detected.			
97 1,1,1,2-Tetrachloroethane	131				Compound Not Detected.			
98 Ethylbenzene	106				Compound Not Detected.			
99 m and p-Xylene	106				Compound Not Detected.			
101 o-Xylene	106				Compound Not Detected.			
100 Styrene	104				Compound Not Detected.			
102 Bromoform	173				Compound Not Detected.			
103 isopropyl benzene	105				Compound Not Detected.			
104 cis-1,4-dichloro-2-butene	53				Compound Not Detected.			
105 Cyclohexanone	55				Compound Not Detected.			
107 1,1,2,2-Tetrachloroethane	83				Compound Not Detected.			
108 t-1,4-Dichloro-2-butene	53				Compound Not Detected.			
109 1,2,3-Trichloropropane	110				Compound Not Detected.			
111 Bromobenzene	156				Compound Not Detected.			
110 n-Propylbenzene	120				Compound Not Detected.			
113 2-Chlorotoluene	126				Compound Not Detected.			
112 1,3,5-Trimethylbenzene	105				Compound Not Detected.			
114 4-Chlorotoluene	126				Compound Not Detected.			
115 tert-Butylbenzene	119				Compound Not Detected.			
116 1,2,4-Trimethylbenzene	105				Compound Not Detected.			
118 sec-Butylbenzene	134				Compound Not Detected.			
119 4-Isopropyltoluene	119				Compound Not Detected.			
120 1,3-Dichlorobenzene	146				Compound Not Detected.			
122 1,4-dichlorobenzene	146				Compound Not Detected.			
123 1,2,3-Trimethylbenzene	105				Compound Not Detected.			
124 n-Butylbenzene	91				Compound Not Detected.			
126 1,2-Dichlorobenzene	146				Compound Not Detected.			
127 1,2-Dibromo-3-chloropropane	157				Compound Not Detected.			
129 1,2,4-Trichlorobenzene	180				Compound Not Detected.			
130 Hexachlorobutadiene	225				Compound Not Detected.			
131 Naphthalene	128				Compound Not Detected.			
132 1,2,3-Trichlorobenzene	180				Compound Not Detected.			

Data File: P8505.D

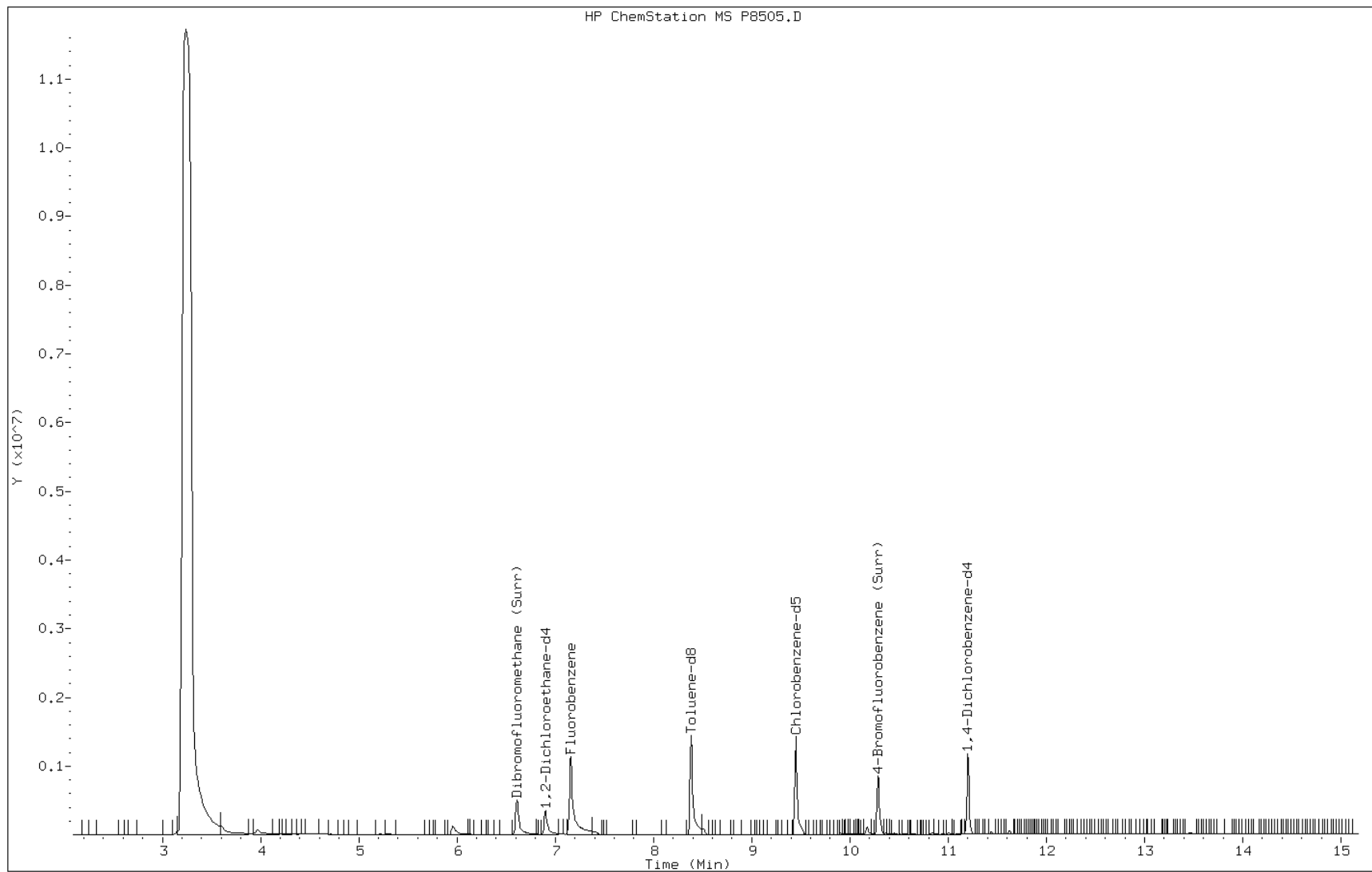
Date: 15-MAY-2011 19:10

Client ID: BAKER 1

Instrument: P.i

Sample Info: 280-15513-i-13,,PH<2

Operator: ZhouH



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\P.i\051511.B\P8506.D
 Lab Smp Id: 280-15513-B-14 Client Smp ID: TRIP BLANK
 Inj Date : 15-MAY-2011 19:31
 Operator : ZhouH Inst ID: P.i
 Smp Info : 280-15513-b-14,,PH<2
 Misc Info : 280-15513-B-14
 Comment :
 Method : \\DenSvr03\Public\chem\MSV\P.i\051511.B\8260B-H2O.m
 Meth Date : 15-May-2011 17:58 stappj Quant Type: ISTD
 Cal Date : 30-APR-2011 12:19 Cal File: P7863.D
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: TALS.sub
 Target Version: 4.14
 Processing Host: DENPC346

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

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====	=====
* 69 Fluorobenzene	96	7.159	7.158 (1.000)		1761211	12.5000	
* 95 Chlorobenzene-d5	119	9.447	9.446 (1.000)		284659	12.5000	
* 121 1,4-Dichlorobenzene-d4	152	11.206	11.198 (1.000)		315066	12.5000	
\$ 58 Dibromofluoromethane (Surr)	111	6.608	6.608 (0.923)		425583	11.3407	11.3407
\$ 64 1,2-Dichloroethane-d4	65	6.902	6.901 (0.964)		336665	10.6715	10.6715
\$ 83 Toluene-d8	98	8.382	8.381 (0.887)		1310947	10.9669	10.9669
\$ 106 4-Bromofluorobenzene (Surr)	95	10.291	10.283 (0.918)		330272	10.0316	10.0316
M 1 1,2-Dichloroethene (total)	96	Compound Not Detected.					
M 2 Xylene (total)	106	Compound Not Detected.					
5 dichlorodifluoromethane	85	Compound Not Detected.					
6 1,2-Dichlorotetrafluoroethane	85	Compound Not Detected.					
7 Chloromethane	50	Compound Not Detected.					
8 Vinyl Chloride	62	Compound Not Detected.					
9 Ethylene Oxide	43	Compound Not Detected.					
10 Bromomethane	94	Compound Not Detected.					
11 Chloroethane	64	Compound Not Detected.					
12 Dichlorofluoromethane	67	Compound Not Detected.					
14 Trichlorofluoromethane	101	Compound Not Detected.					
13 Ethanol	45	Compound Not Detected.					
15 1,2-dichloro-1,1,2-trifluoroe	117	Compound Not Detected.					
17 Ethyl Ether	59	Compound Not Detected.					
16 2,2-dichloro-1,1,1-trifluoroe	83	Compound Not Detected.					

Compounds	QUANT	SIG					CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====	=====	=====
19 Acrolein	56		Compound	Not	Detected.			
20 Acetone	43		Compound	Not	Detected.			
21 Trichlorotrifluoroethane	151		Compound	Not	Detected.			
22 2-propanol	45		Compound	Not	Detected.			
23 1,1-Dichloroethene	96		Compound	Not	Detected.			
27 Iodomethane	142		Compound	Not	Detected.			
26 Acetonitrile	41		Compound	Not	Detected.			
28 Methyl Acetate	43		Compound	Not	Detected.			
31 Carbon Disulfide	76		Compound	Not	Detected.			
29 Allyl Chloride	41		Compound	Not	Detected.			
30 tert-Butyl alcohol	59		Compound	Not	Detected.			
33 Methylene Chloride	84		Compound	Not	Detected.			
34 Acrylonitrile	53		Compound	Not	Detected.			
35 Methyl t-butyl ether	73		Compound	Not	Detected.			
36 trans-1,2-Dichloroethene	96		Compound	Not	Detected.			
40 Hexane	57		Compound	Not	Detected.			
42 Vinyl acetate	43		Compound	Not	Detected.			
43 Isopropyl ether	87		Compound	Not	Detected.			
44 1,1-Dichloroethane	63		Compound	Not	Detected.			
46 Chloroprene	53		Compound	Not	Detected.			
48 ETBE	59		Compound	Not	Detected.			
50 2-Butanone	43		Compound	Not	Detected.			
49 Ethyl Acetate	43		Compound	Not	Detected.			
52 cis-1,2-Dichloroethene	96		Compound	Not	Detected.			
51 Propionitrile	54		Compound	Not	Detected.			
53 2,2-Dichloropropane	77		Compound	Not	Detected.			
54 Methacrylonitrile	41		Compound	Not	Detected.			
55 Bromochloromethane	128		Compound	Not	Detected.			
56 Chloroform	83		Compound	Not	Detected.			
57 Tetrahydrofuran	42		Compound	Not	Detected.			
60 1,1,1-Trichloroethane	97		Compound	Not	Detected.			
59 Isobutanol	41		Compound	Not	Detected.			
61 Cyclohexane	56		Compound	Not	Detected.			
62 1,1-Dichloropropene	75		Compound	Not	Detected.			
63 Carbon Tetrachloride	117		Compound	Not	Detected.			
65 1,2-Dichloroethane	62		Compound	Not	Detected.			
67 Benzene	78		Compound	Not	Detected.			
66 TAME	73		Compound	Not	Detected.			
68 n-Butanol	56		Compound	Not	Detected.			
71 Trichloroethene	130		Compound	Not	Detected.			
72 2-Pentanone	43		Compound	Not	Detected.			
73 Methyl Methacrylate	100		Compound	Not	Detected.			
74 1,2-Dichloropropane	63		Compound	Not	Detected.			
75 Methyl Cyclohexane	55		Compound	Not	Detected.			
76 1,4-Dioxane	88		Compound	Not	Detected.			
77 Dibromomethane	93		Compound	Not	Detected.			
78 Bromodichloromethane	83		Compound	Not	Detected.			
79 2-nitropropane	41		Compound	Not	Detected.			
80 2-Chloroethyl vinyl ether	63		Compound	Not	Detected.			
81 cis-1,3-Dichloropropene	75		Compound	Not	Detected.			
82 4-Methyl-2-pentanone	43		Compound	Not	Detected.			
84 Toluene	91		Compound	Not	Detected.			
86 trans-1,3-Dichloropropene	75		Compound	Not	Detected.			
85 Ethyl methacrylate	69		Compound	Not	Detected.			

Compounds	QUANT SIG						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====		=====	=====
87 1,1,2-Trichloroethane	97				Compound Not Detected.			
88 2-Hexanone	43				Compound Not Detected.			
89 1,3-Dichloropropane	76				Compound Not Detected.			
90 Tetrachloroethene	164				Compound Not Detected.			
91 Dibromochloromethane	129				Compound Not Detected.			
92 Tetrahydrothiophene	60				Compound Not Detected.			
93 1,2-Dibromoethane	107				Compound Not Detected.			
94 1-Chlorohexane	91				Compound Not Detected.			
96 Chlorobenzene	112				Compound Not Detected.			
97 1,1,1,2-Tetrachloroethane	131				Compound Not Detected.			
98 Ethylbenzene	106				Compound Not Detected.			
99 m and p-Xylene	106				Compound Not Detected.			
101 o-Xylene	106				Compound Not Detected.			
100 Styrene	104				Compound Not Detected.			
102 Bromoform	173				Compound Not Detected.			
103 isopropyl benzene	105				Compound Not Detected.			
104 cis-1,4-dichloro-2-butene	53				Compound Not Detected.			
105 Cyclohexanone	55				Compound Not Detected.			
107 1,1,2,2-Tetrachloroethane	83				Compound Not Detected.			
108 t-1,4-Dichloro-2-butene	53				Compound Not Detected.			
109 1,2,3-Trichloropropane	110				Compound Not Detected.			
111 Bromobenzene	156				Compound Not Detected.			
110 n-Propylbenzene	120				Compound Not Detected.			
113 2-Chlorotoluene	126				Compound Not Detected.			
112 1,3,5-Trimethylbenzene	105				Compound Not Detected.			
114 4-Chlorotoluene	126				Compound Not Detected.			
115 tert-Butylbenzene	119				Compound Not Detected.			
116 1,2,4-Trimethylbenzene	105				Compound Not Detected.			
118 sec-Butylbenzene	134				Compound Not Detected.			
119 4-Isopropyltoluene	119				Compound Not Detected.			
120 1,3-Dichlorobenzene	146				Compound Not Detected.			
122 1,4-dichlorobenzene	146				Compound Not Detected.			
123 1,2,3-Trimethylbenzene	105				Compound Not Detected.			
124 n-Butylbenzene	91				Compound Not Detected.			
126 1,2-Dichlorobenzene	146				Compound Not Detected.			
127 1,2-Dibromo-3-chloropropane	157				Compound Not Detected.			
129 1,2,4-Trichlorobenzene	180				Compound Not Detected.			
130 Hexachlorobutadiene	225				Compound Not Detected.			
131 Naphthalene	128				Compound Not Detected.			
132 1,2,3-Trichlorobenzene	180				Compound Not Detected.			

Data File: P8506.D

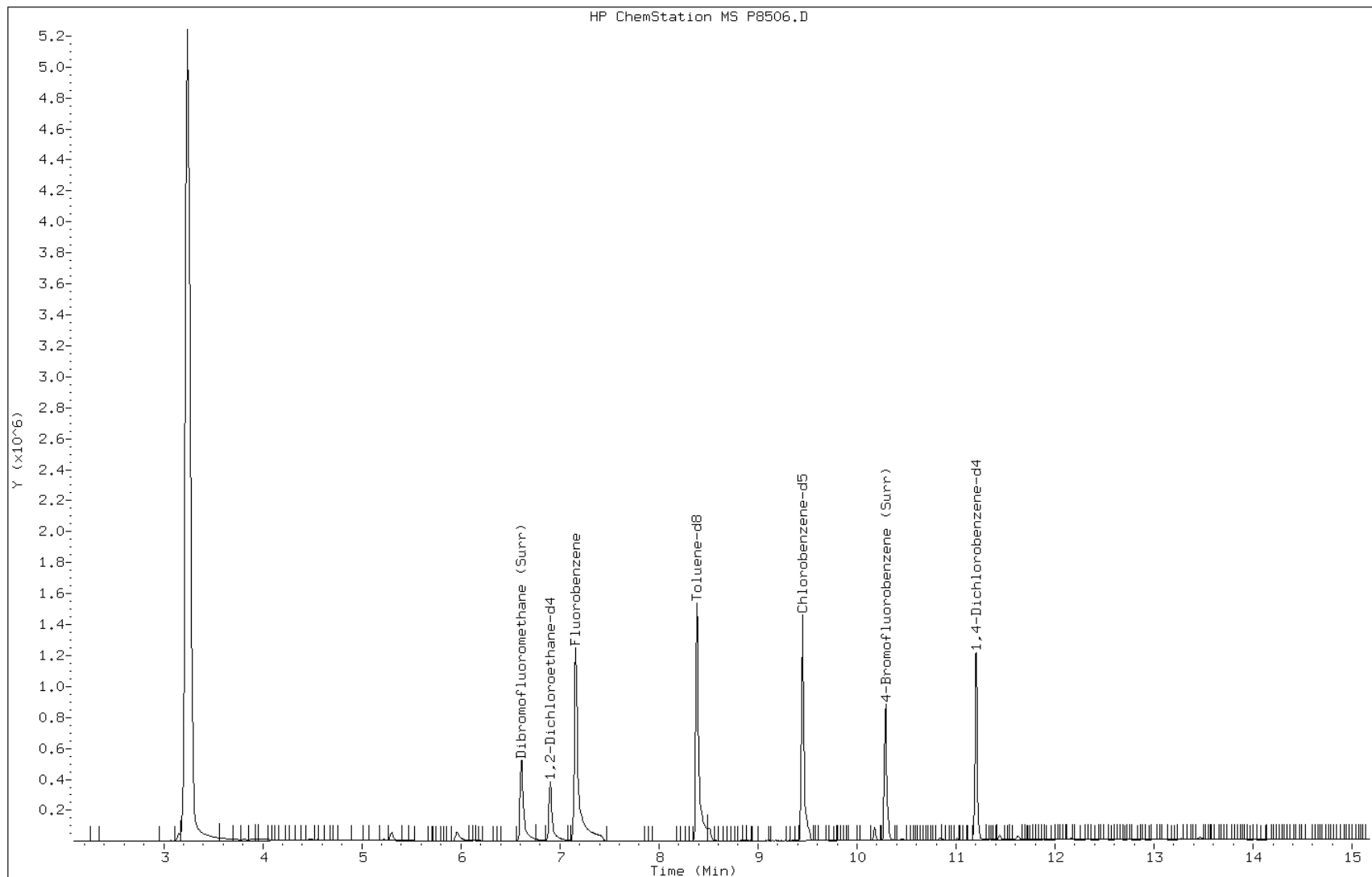
Date: 15-MAY-2011 19:31

Client ID: TRIP BLANK

Instrument: P.i

Sample Info: 280-15513-b-14,,PH<2

Operator: ZhouH



Method 8270C

Semivolatile Organic Compounds
(GC/MS) by Method 8270C

TestAmerica

BNA ANALYSIS QUANTITATION REPORT

Data file : \\DenSvr03\Public\chem\MSS\Y.i\051511.B\Y0096.D
Lab Smp Id: 280-15513-B-13-A Client Smp ID: BAKER 1
Inj Date : 15-MAY-2011 19:36
Operator : TINKHAMS Inst ID: Y.i
Smp Info : 280-15513-B-13-A
Misc Info : 280-15513-B-13-A
Comment : SOP#CORP-MS-0001DEN, revision1.1
Method : \\DenSvr03\Public\chem\MSS\Y.i\051511.B\8270C.m
Meth Date : 15-May-2011 17:06 Y.i Quant Type: ISTD
Cal Date : 09-MAY-2011 14:20 Cal File: Y9875.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: H.sub
Target Version: 4.14
Processing Host: DENPC293

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

Name	Value	Description
DF	1.000	Dilution Factor
Vf	1000.000	final volume at end of extraction (uL)
Vs	1055.600	volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
*****	----	----	-----	-----	-----	-----	-----
* 26 1,4-Dichlorobenzene-d4	152	4.619	4.618	(1.000)	255681	40.0000	
* 58 Naphthalene-d8	136	5.829	5.829	(1.000)	992205	40.0000	
* 96 Acenaphthene-d10	164	7.539	7.539	(1.000)	614469	40.0000	
* 135 Phenanthrene-d10	188	8.802	8.802	(1.000)	1098014	40.0000	
* 166 Chrysene-d12	240	10.835	10.835	(1.000)	1250745	40.0000	
* 179 Perylene-d12	264	12.063	12.069	(1.000)	1213570	40.0000	
\$ 8 2-Fluorophenol	112	3.455	3.450	(0.748)	999807	119.147	112.871
\$ 15 Phenol-d5	99	4.237	4.237	(0.917)	1291045	124.894	118.315
\$ 43 Nitrobenzene-d5	82	5.136	5.136	(0.881)	787323	79.4966	75.3094
\$ 81 2-Fluorobiphenyl	172	6.875	6.875	(0.912)	1669743	84.5098	80.0585
\$ 118 2,4,6-Tribromophenol	330	8.232	8.232	(1.092)	469778	165.074	156.379
\$ 154 Terphenyl-d14	244	9.995	9.995	(0.922)	2514353	100.116	94.8431
\$ 29 1,2-Dichlorobenzene-d4	152	4.765	4.760	(1.032)	491511	75.9560	71.9553
\$ 22 2-Chlorophenol-d4	132	4.407	4.407	(0.954)	1157288	124.436	117.881
6 Pyridine	79				Compound Not Detected.		
5 N-Nitrosodimethylamine	74				Compound Not Detected.		
18 Aniline	93				Compound Not Detected.		
16 Phenol	94				Compound Not Detected.		
20 Bis(2-chloroethyl) ether	93				Compound Not Detected.		
23 2-Chlorophenol	128				Compound Not Detected.		
25 1,3-Dichlorobenzene	146				Compound Not Detected.		
27 1,4-Dichlorobenzene	146				Compound Not Detected.		

						CONCENTRATIONS		
		QUANT SIG					ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/L)	
=====	=====	=====	=====	=====	=====	=====	=====	
28 Benzyl alcohol	108	Compound	Not	Detected.				
30 1,2-Dichlorobenzene	146	Compound	Not	Detected.				
32 2-Methylphenol	108	Compound	Not	Detected.				
35 1H-Indene	116	Compound	Not	Detected.				
34 2,2'-oxybis(1-chloropropane)	45	Compound	Not	Detected.				
138 3-Methylphenol	108	Compound	Not	Detected.				
36 4-Methylphenol	108	Compound	Not	Detected.				
139 3 & 4-Methylphenol	108	Compound	Not	Detected.				
37 N-nitrosodi-n-propylamine	70	Compound	Not	Detected.				
38 Acetophenone	105	Compound	Not	Detected.				
41 Hexachloroethane	117	Compound	Not	Detected.				
44 Nitrobenzene	77	Compound	Not	Detected.				
47 Isophorone	82	Compound	Not	Detected.				
49 2-Nitrophenol	139	Compound	Not	Detected.				
50 2,4-Dimethylphenol	107	Compound	Not	Detected.				
52 Bis(2-chloroethoxy)methane	93	Compound	Not	Detected.				
53 Benzoic acid	122	Compound	Not	Detected.				
54 2,4-Dichlorophenol	162	Compound	Not	Detected.				
57 1,2,4-Trichlorobenzene	180	Compound	Not	Detected.				
59 Naphthalene	128	Compound	Not	Detected.				
60 4-Chloroaniline	127	Compound	Not	Detected.				
62 Hexachlorobutadiene	225	Compound	Not	Detected.				
68 4-Chloro-3-methylphenol	107	Compound	Not	Detected.				
71 2-Methylnaphthalene	142	Compound	Not	Detected.				
72 1-Methylnaphthalene	142	Compound	Not	Detected.				
74 Hexachlorocyclopentadiene	237	Compound	Not	Detected.				
78 2,4,6-Trichlorophenol	196	Compound	Not	Detected.				
80 2,4,5-Trichlorophenol	196	Compound	Not	Detected.				
86 2-Chloronaphthalene	162	Compound	Not	Detected.				
88 2-Nitroaniline	65	Compound	Not	Detected.				
91 Dimethyl phthalate	163	Compound	Not	Detected.				
93 2,6-Dinitrotoluene	165	Compound	Not	Detected.				
94 Acenaphthylene	152	Compound	Not	Detected.				
95 3-Nitroaniline	138	Compound	Not	Detected.				
97 Acenaphthene	153	Compound	Not	Detected.				
98 2,4-Dinitrophenol	184	Compound	Not	Detected.				
99 4-Nitrophenol	109	Compound	Not	Detected.				
101 2,4-Dinitrotoluene	165	Compound	Not	Detected.				
102 Dibenzofuran	168	Compound	Not	Detected.				
107 Diethyl phthalate	149	Compound	Not	Detected.				
109 4-Chlorophenyl phenyl ether	204	Compound	Not	Detected.				
110 Fluorene	166	Compound	Not	Detected.				
112 4-Nitroaniline	138	Compound	Not	Detected.				
113 4,6-Dinitro-2-methylphenol	198	Compound	Not	Detected.				
115 N-nitrosodiphenylamine	169	Compound	Not	Detected.				
116 Azobenzene	77	Compound	Not	Detected.				
234 1,2-DPH(as Azobenzene)	77	Compound	Not	Detected.				
124 4-Bromophenyl phenyl ether	248	Compound	Not	Detected.				
125 Hexachlorobenzene	284	Compound	Not	Detected.				
129 Pentachlorophenol	266	Compound	Not	Detected.				
136 Phenanthrene	178	Compound	Not	Detected.				
137 Anthracene	178	Compound	Not	Detected.				
140 Carbazole	167	Compound	Not	Detected.				
143 Di-n-butyl phthalate	149	Compound	Not	Detected.				

Compounds	QUANT SIG	CONCENTRATIONS					
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====	=====
149 Fluoranthene	202				Compound Not Detected.		
151 Benzidine	184				Compound Not Detected.		
152 Pyrene	202				Compound Not Detected.		
159 Butyl benzyl phthalate	149				Compound Not Detected.		
164 3 3'-Dichlorobenzidine	252				Compound Not Detected.		
165 Benzo(a)anthracene	228				Compound Not Detected.		
167 Chrysene	228				Compound Not Detected.		
162 Bis(2-ethylhexyl) phthalate	149	10.700	10.712	(0.988)	3923	2.36870	2.24393(a)
168 Di-n-octyl phthalate	149				Compound Not Detected.		
171 Benzo(b)fluoranthene	252				Compound Not Detected.		
172 Benzo(k)fluoranthene	252				Compound Not Detected.		
178 Benzo(a)pyrene	252				Compound Not Detected.		
186 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.		
185 Dibenz(a,h)anthracene	278				Compound Not Detected.		
188 Benzo(g,h,i)perylene	276				Compound Not Detected.		
19 Methyl Styrene	118				Compound Not Detected.		
141 Alachlor	188				Compound Not Detected.		
127 Atrazine	200				Compound Not Detected.		
67 Caprolactam	55				Compound Not Detected.		
79 2,3-Dichlorobenzeneamine	161				Compound Not Detected.		
21 Decane	43				Compound Not Detected.		
56 n-Dodecane	43				Compound Not Detected.		
83 Tetradecane	43				Compound Not Detected.		
105 Hexadecane	57				Compound Not Detected.		
128 n-Octadecane	85				Compound Not Detected.		
144 n-Eicosane	43				Compound Not Detected.		
150 n-docosane	43				Compound Not Detected.		
4 1,4-Dioxane	88				Compound Not Detected.		
158 Famphur	218				Compound Not Detected.		

QC Flag Legend

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

Data File: Y0096.D

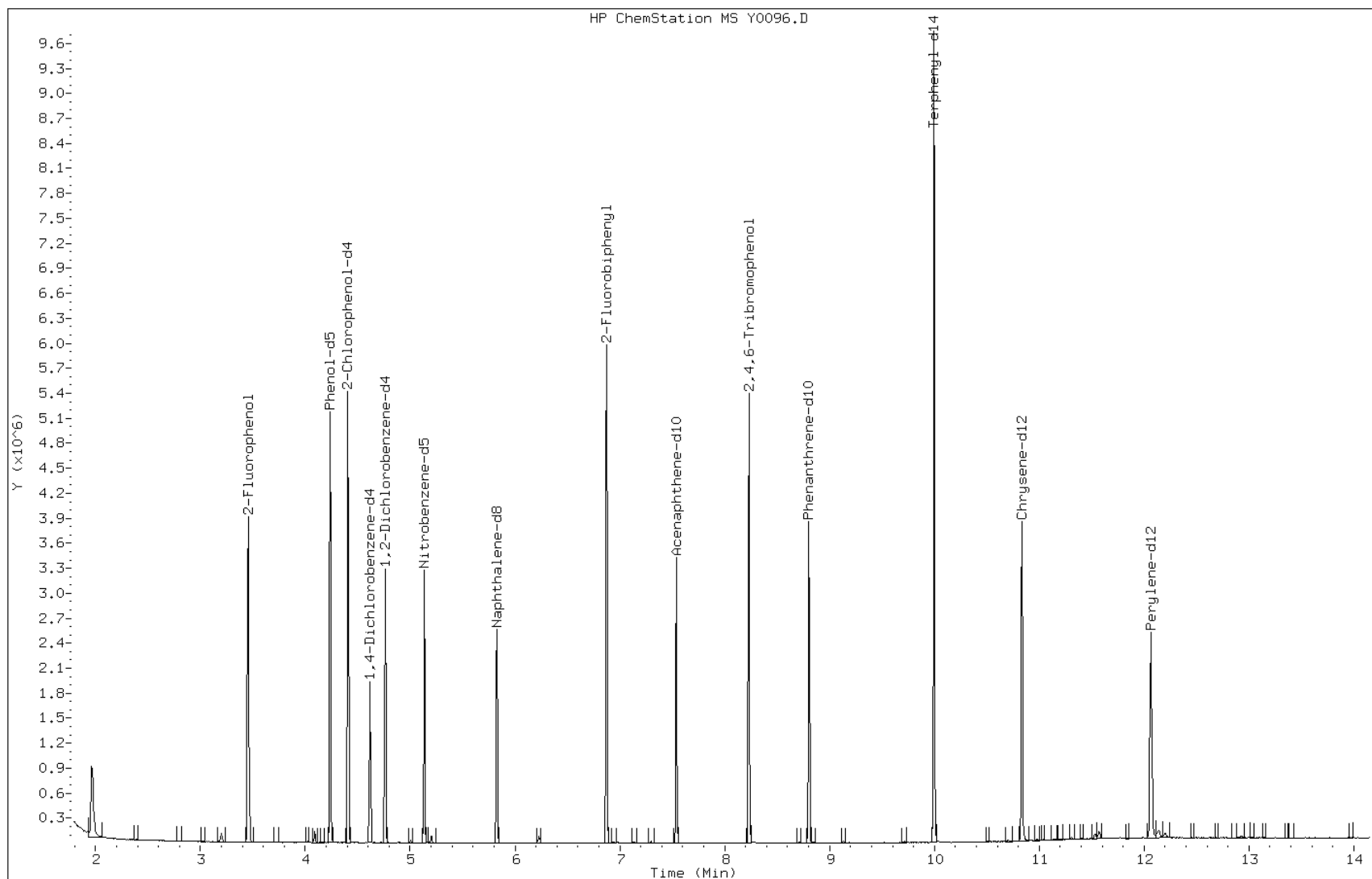
Date: 15-MAY-2011 19:36

Client ID: BAKER 1

Instrument: Y.i

Sample Info: 280-15513-B-13-A

Operator: TINKHAMS



Data File: Y0096.D

Date: 15-MAY-2011 19:36

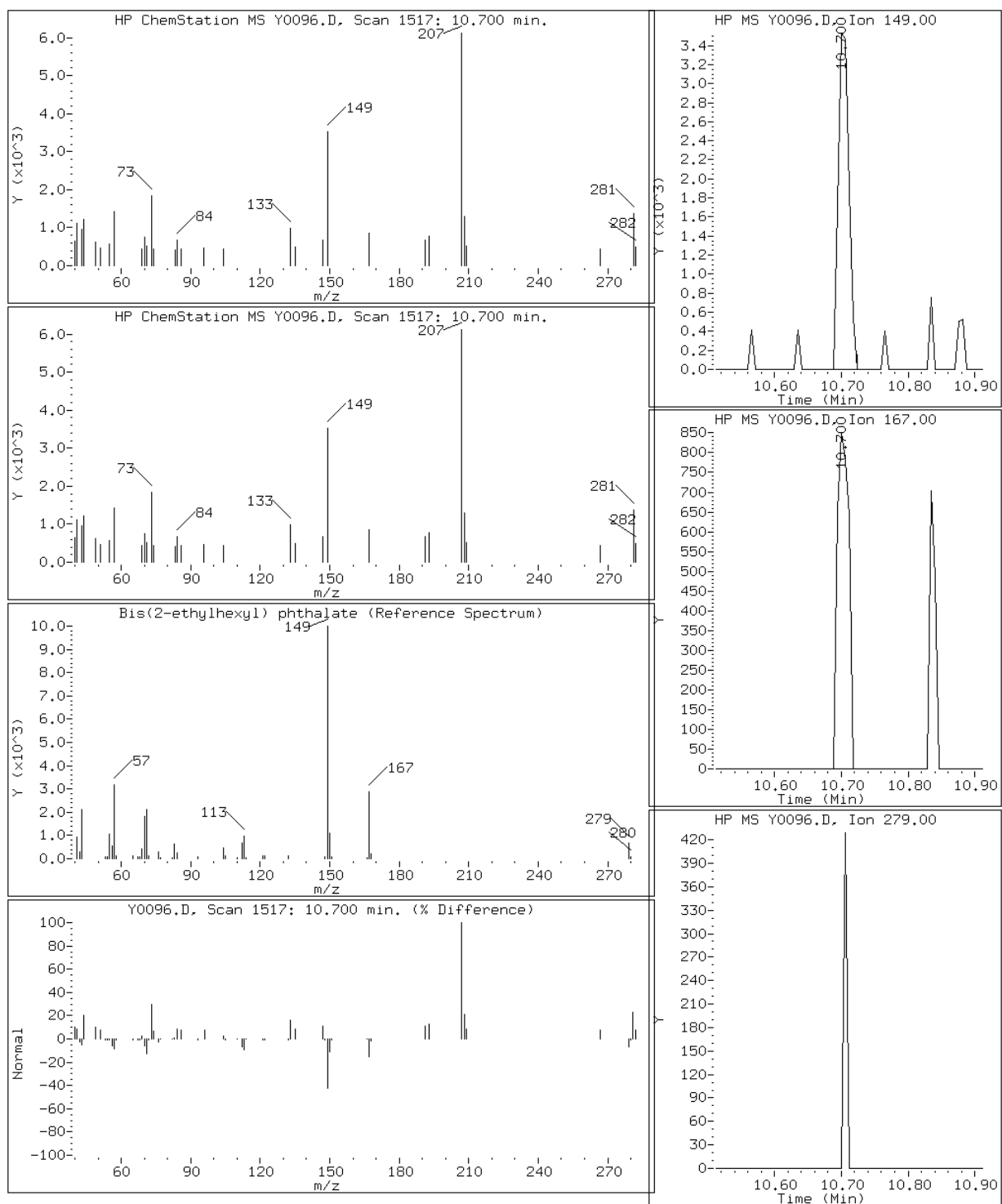
Client ID: BAKER 1

Instrument: Y.i

Sample Info: 280-15513-B-13-A

Operator: TINKHAMS

162 Bis(2-ethylhexyl) phthalate



Method RSK-175

Dissolved Gases (GC) by Method
RSK_175

TestAmerica

RSK-175 Dissolved Gasses in Water

Data file : \\DenSvr03\Public\chem\GCV\GC_J.i\0509111.B\028F3001.D
Lab Smp Id: 280-15513-K-13 Client Smp ID: BAKER 1
Inj Date : 09-MAY-2011 19:36
Operator : mps Inst ID: GC_J.i
Smp Info : 280-15513-K-13
Misc Info : 280-15513-K-13
Comment : SOP: DV-GC-0025
Method : \\DenSvr03\Public\chem\GCV\GC_J.i\0509111.B\RSK-1_8PT.m
Meth Date : 10-May-2011 10:00 SmithM Quant Type: ESTD
Cal Date : 27-APR-2011 16:51 Cal File: 007F0901.D
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175_8pt.sub
Target Version: 4.14
Processing Host: DENPC290

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	1.243	1.244	-0.001	10204	7.36673	7.367
2 Ethene	Compound Not Detected.					
3 Ethane	Compound Not Detected.					
4 Acetylene	Compound Not Detected.					

Data File: 028F3001.D

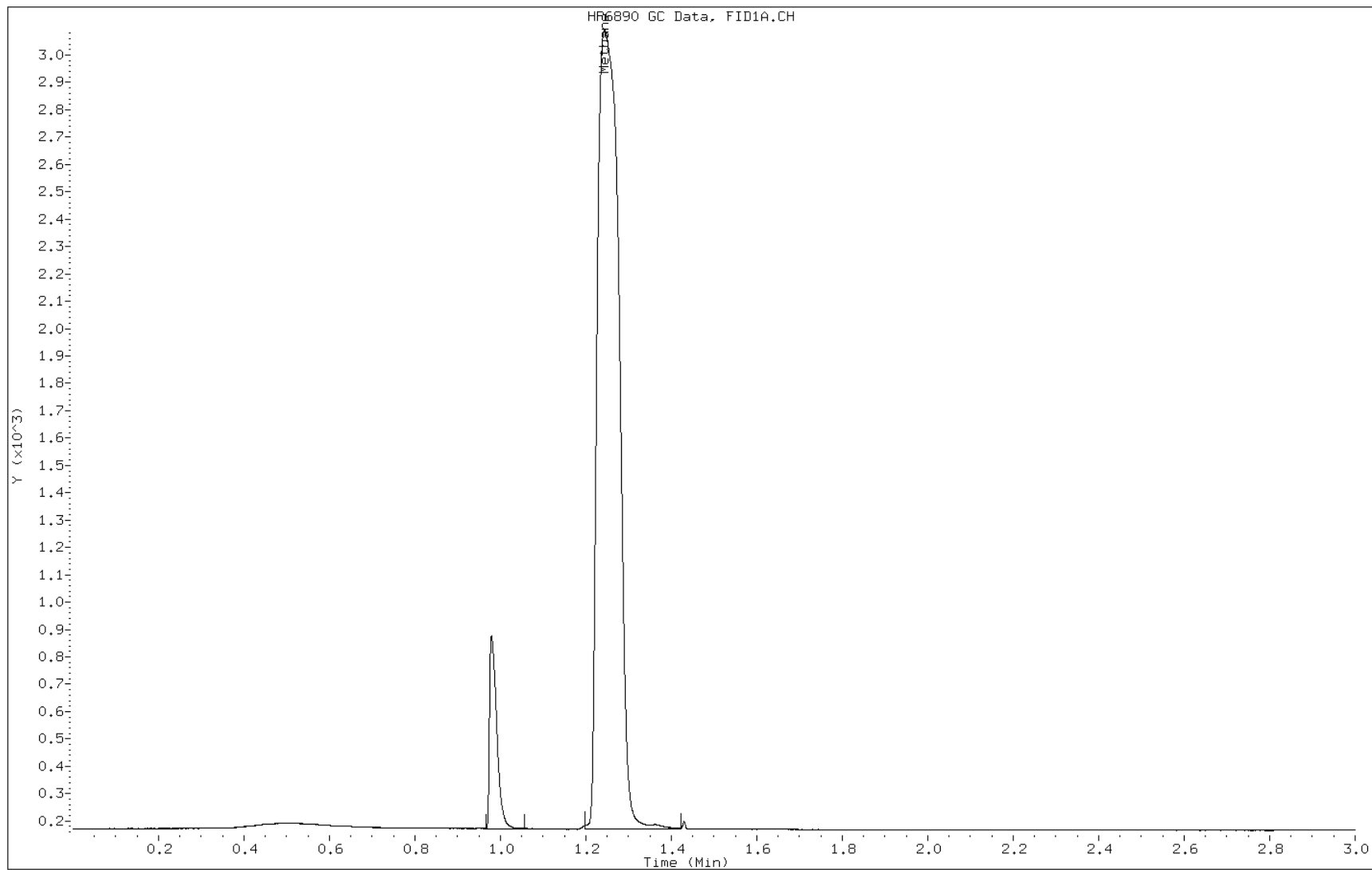
Date: 09-MAY-2011 19:36

Client ID: BAKER 1

Instrument: GC_J.i

Sample Info: 280-15513-K-13

Operator: mps



TestAmerica

RSK-175 Dissolved Gasses in Water

Data file : \\DenSvr03\Public\chem\GCV\GC_J.i\0509112.B\028F3001.D
Lab Smp Id: 280-15513-K-13 Client Smp ID: BAKER 1
Inj Date : 09-MAY-2011 19:36
Operator : mps Inst ID: GC_J.i
Smp Info : 280-15513-K-13
Misc Info : 280-15513-K-13
Comment : SOP: DV-GC-0025
Method : \\DenSvr03\Public\chem\GCV\GC_J.i\0509112.B\RSK-2_8PT.m
Meth Date : 10-May-2011 10:03 SmithM Quant Type: ESTD
Cal Date : 27-APR-2011 16:51 Cal File: 007F0901.D
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175_8pt.sub
Target Version: 4.14
Processing Host: DENPC290

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	1.670	1.670	0.000	6245	7.58823	7.588
2 Ethene	Compound Not Detected.					
3 AcetyleneEthane	Compound Not Detected.					

Data File: 028F3001.D

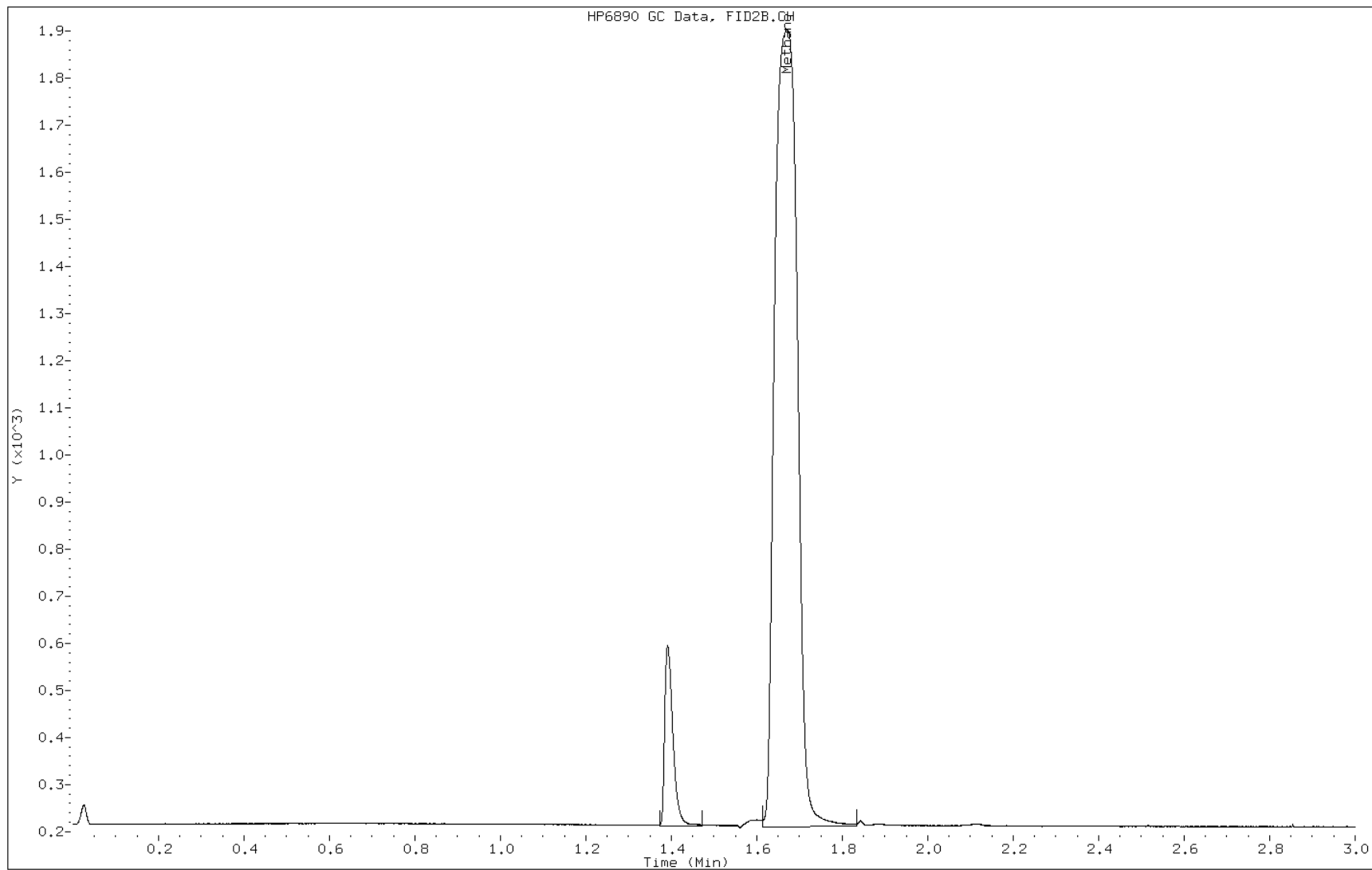
Date: 09-MAY-2011 19:36

Client ID: BAKER 1

Instrument: GC_J.i

Sample Info: 280-15513-K-13

Operator: mps



Shipping and Receiving Documents

Login Sample Receipt Checklist

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-15513-7

Login Number: 15513

List Source: TestAmerica Denver

List Number: 1

Creator: Bindel, Aaron M

Question	Answer	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	EACH COOLER CONTAINED A TB NOT ON COC
Is the Field Sampler's name present on COC?	True	
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	
Sample Preservation Verified.	False	MTLS BOTTLE RCVD UNPRES; WILL SEND TO LAB TO FILTER AND PRES
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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT 2

FIELD DATA FORMS AND BACTERIA TESTS

Residential Water Well Field Data Form

Project Name: COSCO - Environmental Support
 Project Number: 20029310
 Is there a holding tank for the well? No
 Do you have a water softener/treatment system? No
 Do you have an in-line filter? No
 Sampling point upstream of pressure tank and treatment system? No
 Location of well: Approximately 50 feet west of house
 Type of pump (if submersible, section): Submersible
 Casing material and diameter: unknown
 Depth to Static Water Table (fluctuations): unknown
 Description of area around well: arid grass, landscape rocks and driveway
 Location and description of sample point: Spigot off of well
 Pump start time: 10:20 AM

Complaint #: 20029310
 Permit No: 225003
 Owner: Tony Baker
 Address: 1462 Peoria Trail
 Location: NESE 2 6S 64W
 Date: 05/05/2011
 Weather: Sunny, warm

Time	Volume Purged (gal)	pH (SI Units)	Spec Cond (µmhos)	DO (mg/L)	Turbidity (NTU)	Temperature (°C)	Clarity	Other (GSP, etc)
10:23 AM	15	-	-	-	-	-	-	-
10:26 AM	30	-	-	-	-	-	-	-
10:30 AM	60	-	-	-	-	-	-	-
10:33 AM	90	8.00	529	4.07	<5	14.27	Clear	-62.2
10:34 AM	70	8.01	524	5.18	-	13.89	-	-76.8
10:36 AM	75	8.01	532	3.76	-	14.18	-	-87.4
10:38 AM	80	8.00	532	5.33	-	14.07	-	-76.8

NA = not analyzed; odors (if any); effluence (if any); produced sediment (if any); evidence of bacterial fouling (biofilms or biofilms).

Field Sample ID: Baker 1 Collection Time: 10:40 AM Number of Containers: 12 x BART

Analyte	# of Containers	Container Size	Type	Analytical Method	Preservative	Sampler
Dissolved Methane	3	40 ml	vial	RSK175	4°C	JG/ AK
Trace Metals (Ca, Na, Fe, Al, Cr, Cd, Pb, Mn, Mg, K, Se)	1	500 ml	HDPE	6010B	4°C	
Major cations and anions, Br, Cl, F, SO ₄	1	250 ml	HDPE	300	4°C	
BTEX, MTBE	3	40 ml	vial	8021	HCL 4°C	
Total Dissolved Solids	1	500 ml	poly	TDS_W	4°C	
Specific Conductance at 25°C	-	-	-	2510B	4°C	
NO ₃ , NO ₂	1	500 ml	Amber	353.2	H ₂ SO ₄ , 4°C	
pH	-	-	-	150.1	4°C	
SVOs	1	1 L	Amber	8270C	4°C	
Alkalinity (Carbonate/Bicarbonate)	1	250 ml	poly	CARBIBICAR	4°C	
Duplicate Sample Collected?	Yes	No	No	X		

Duplicate ID: None

GPS Coordinates

Latitude: 39°33'24.2" (39.556722) Longitude: 104°51'02.7" (104.517417)

Comments: PBS was on-site to film sampling procedures

Terracon Consultants, Inc. • 10625 West I-70 Frontage Road North, Suite 3 • Wheat Ridge, Colorado 80033



Bart Test Results



Results after 7 Days:

- Green Capped Vial – Test for Slime Forming Bacteria – Absent
- Black Capped Vial – Test for Sulfate Reducing Bacteria – Absent
- Red Capped Vial - Test for Iron Related Bacteria - Slightly Present