

**3R - 087**

**MONITORING  
REPORT**

**04/18/2005**



10601 Lomas NE, Suite 106  
Albuquerque, NM 87112  
(505) 237-8440

2006 MAR 31 PM 1 02

3R0087

March 27, 2006

Mr. Glen Von Gonten  
State of New Mexico  
Oil Conservation Division  
Environmental Bureau  
1220 South Saint Francis Drive  
Santa Fe, NM 87505

**RE: (I) ConocoPhillips Federal #15  
2005 Site Activities Report  
Gila Street, Farmington, New Mexico**

Dear Mr. Von Gonten:

Enclosed please find a copy of the above-referenced document as compiled by Maxim Technologies, for the Federal #15 site.

Please do not hesitate to contact me at (505) 237-8440 if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink that reads "Kelly E. Henderson".

Kelly E. Henderson  
Project Manager/Geologist

Enclosures (1)

**2005 ANNUAL GROUNDWATER AND SITE  
ACTIVITIES REPORT** 3 R 0087

**FEDERAL #15  
FARMINGTON, NEW MEXICO**

**Prepared for:**



600 North Dairy Ashford  
Houston, TX 77079

**Prepared by:**



10601 Lomas NE, Suite 106  
Albuquerque, NM 87112  
Maxim Project No. 5690070.100

March 3, 2006

## TABLE OF CONTENTS

1.0	SITE ACTIVITIES SUMMARY .....	1
2.0	GROUNDWATER SAMPLING METHODOLOGY AND RESULTS .....	2
2.1	Groundwater Monitoring Methodology .....	2
2.2	Groundwater Sampling Analytical Results .....	2

## FIGURES

1. Site Location Map
2. Site Layout Map with Approximate Location of Soil Excavation Area
- 3a. Groundwater Elevation Contour Map (January 2005)
- 3b. Groundwater Elevation Contour Map (October 2005)

## TABLES

1. Groundwater Elevations
2. Groundwater Laboratory Analytical Data

## APPENDICES

- Appendix A. Soil Laboratory Analytical Report
- Appendix B. Soil Boring Logs and Monitor Well Completion Diagrams
- Appendix C. Groundwater Laboratory Analytical Reports

## **2005 ANNUAL SITE ACTIVITIES AND GROUNDWATER MONITORING REPORT FEDERAL #15, FARMINGTON, NEW MEXICO**

### **1.0 SITE ACTIVITIES SUMMARY**

This report presents the results of groundwater monitoring, a summary of vacuum truck pumping events, and details of monitoring well installation that took place during 2005 at the ConocoPhillips Federal #15 Site in Farmington, New Mexico, by Maxim Technologies (Maxim).

The site is located on the north side of Gila Street. The closest cross street is Main Street, located approximately 0.5 mile to the west of the site. The site consists of gas production well and associated equipment and installations. The location and general features of the Federal #15 site are shown on Figures 1 and 2, respectively.

On Saturday, October 23, 2004 a release was discovered at the site. It was estimated that up to 15 BBL of condensate was unaccounted for. Approximately 1,500 cubic yards of affected soil were excavated and replaced with clean fill during the week of October 25, 2004. Figure 2 illustrates the approximate location of the excavated area. Neal Goates of ConocoPhillips submitted a Release Notification and Corrective Action document, Form C-141, and associated summary report detailing the release and subsequent soil excavation activities in an email to Denny Foust with the New Mexico Oil Conservation Division (NMOCD) on February 20, 2006. These documents are included in Appendix A. ConocoPhillips requests confirmation of closure for the soil remediation portion of the project from the NMOCD. Form C-141 requires a signature from NMOCD in order to confirm closure.

Following soil remediation activities, four, 2-inch PVC groundwater monitoring wells were installed on November 16 and 17, 2004 by Biosphere Environmental Sciences and Technologies, LLC to depths of approximately 20 feet below ground surface (bgs). An additional, downgradient monitoring well, MW-5, was installed to a depth of approximately 17.5 feet bgs on the property south of the site on October 19, 2005 by Spectrum Drilling under the supervision of Maxim. Groundwater was encountered between 10 and 13 feet bgs during drilling and measured at approximately 9 feet bgs following well completion. Soil samples were collected from the auger at depths of 6 to 10 feet bgs and 10 to 15 feet bgs. All samples were below laboratory detection limits for benzene, ethylbenzene, toluene, xylenes and semi volatiles. The laboratory analytical report for the soil samples is located in Appendix B. Boring logs and well completion diagrams for all wells are included as Appendix C.

On July 7, 2005 approximately 145 gallons of fluid was pumped from MW-2 using a vacuum truck operated by Foutz and Bursom of Farmington, New Mexico. On October 19, 2005 approximately 588 gallons of fluid were pumped from MW-2 using a vacuum truck operated by Riley Industrial Services of Farmington, New Mexico. Fluids were disposed of in the onsite waste water sump.

On January 18<sup>th</sup>, and October 19<sup>th</sup> and 20<sup>th</sup>, 2005 Maxim was onsite to conduct groundwater sampling events. Monitoring wells, MW-1, MW-2, MW-3, and MW-4 were developed on January 17<sup>th</sup> and sampled on January 18<sup>th</sup> and October 19<sup>th</sup>. Monitoring well MW-5 was developed on October 19<sup>th</sup> and sampled on October 20<sup>th</sup>. Top of monitoring well casing elevations for MW-1, MW-2, MW-3, and MW-4 were recorded by NCE Surveys of Farmington, New Mexico on February 4, 2005. Top of monitoring well casing elevation for MW-5 was determined by Maxim on October 20, 2005.

## **2.0 GROUNDWATER SAMPLING METHODOLOGY AND RESULTS**

The following describes the groundwater monitoring methodology and results:

### **2.1 Groundwater Monitoring Methodology**

On January 17, 2005 monitoring wells MW-1, MW-2, MW-3, and MW-4 were purged until water was clear of visible sediment. Approximately 20 gallons of water were removed from each well. The purged water was disposed of in the waste water sump located on site (Figure 2). On October 19, 2005, monitoring well MW-5 was purged until water was clear of visible sediment. Approximately 80 gallons of water were removed.

On January 18, and October 19 and 20, 2005 monitoring wells were purged of at least three casing volumes of water. A 1.5-inch dedicated, clear, poly-vinyl, disposable bailer was used in each well to collect groundwater samples. The samples were placed in laboratory prepared bottles, packed on ice, and shipped with chain of custody documentation to Severn Trent Laboratories located in Denver, Colorado. The samples were analyzed for presence of benzene, toluene, ethyl-benzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B, semi-volatile organic compounds (SVOCs) by EPA Method 8270C, and chloride by EPA Method 9056.

Groundwater levels were recorded before well development and sampling. The water levels collected prior to sampling during each event were used to create the groundwater elevation contour maps shown as Figures 3a and 3b. Table I presents the groundwater levels and the top of casing survey results used to calculate the groundwater elevations at the site.

### **2.2 Groundwater Sampling Analytical Results**

#### **January 18, 2005 Groundwater Sampling Analytical Results**

The samples collected from monitor wells MW-2 and MW-3 contained concentrations of benzene above the New Mexico Water Quality Control Commission (NMWQCC) standard of 10 µg/L, at 1,200 micrograms per liter (µ/L) and 190 µg/L, respectively. The sample collected from MW-4 contained benzene below the NMWQCC standard at 2.8 µg/L. The sample collected from MW-1 did not contain detectable benzene.

The sample collected from MW-2 contained concentrations of toluene and xylenes of 3,300 µg/L and 3,500 µg/L, respectively. The NMWQCC standards for toluene and xylenes are 750 µg/L and 620 µg/L, respectively. All other samples were non-detect for toluene and xylenes.

The sample collected from MW-2 contained a concentration of ethyl-benzene at 380 µg/L, below the NMWQCC standard of 750 µg/L. All other samples were non-detect for ethyl-benzene.

The sample collected from MW-2 contained a total naphthalenes concentration of 157 µg/L. The NMWQCC standard for total naphthalenes is 30 µg/L. All other samples were non-detect for total naphthalenes.

All samples contained chloride concentrations below the NMWQCC standard of 250 mg/L (milligrams per liter). Chloride concentrations ranged from 34 mg/L in MW-3 to 85 mg/L in MW-1.

### **October 19 and 20, 2005 Groundwater Sampling Analytical Results**

The samples collected from monitor wells MW-2 and MW-4 contained concentrations of benzene above the New Mexico Water Quality Control Commission (NMWQCC) standard of 10 micrograms per liter (µg/L), at 1,100 µg/L and 23 µg/L, respectively. The samples collected from MW-1, MW-3, and MW-5 did not contain detectable benzene.

The sample collected from MW-2 contained concentrations of toluene and xylenes of 410 µg/L and 470 µg/L, respectively. The sample collected from MW-4 contained concentrations of toluene and xylenes of 2.2 µg/L and 4.3 µg/L, respectively. The NMWQCC standards for toluene and xylenes are 750 µg/L and 620 µg/L, respectively. All other samples were non-detect for toluene and xylenes.

The sample collected from MW-2 contained a concentration of ethyl-benzene at 160 µg/L, below the NMWQCC standard of 750 µg/L. All other samples were non-detect for ethyl-benzene.

The sample collected from MW-2 contained a total naphthalenes (naphthalene plus 1 and 2 methylnaphthalene) concentration of 44 µg/L. The NMWQCC standard for total naphthalenes is 30 µg/L. All other samples were non-detect for total naphthalenes.

All samples contained chloride concentrations below the NMWQCC standard of 250 mg/L (milligrams per liter). Chloride concentrations ranged from 39 mg/L in MW-1 to 73 mg/L in MW-5.

The laboratory analytical reports for the groundwater sampling events of January and October 2005 are located in Appendix D.

## **FIGURES**

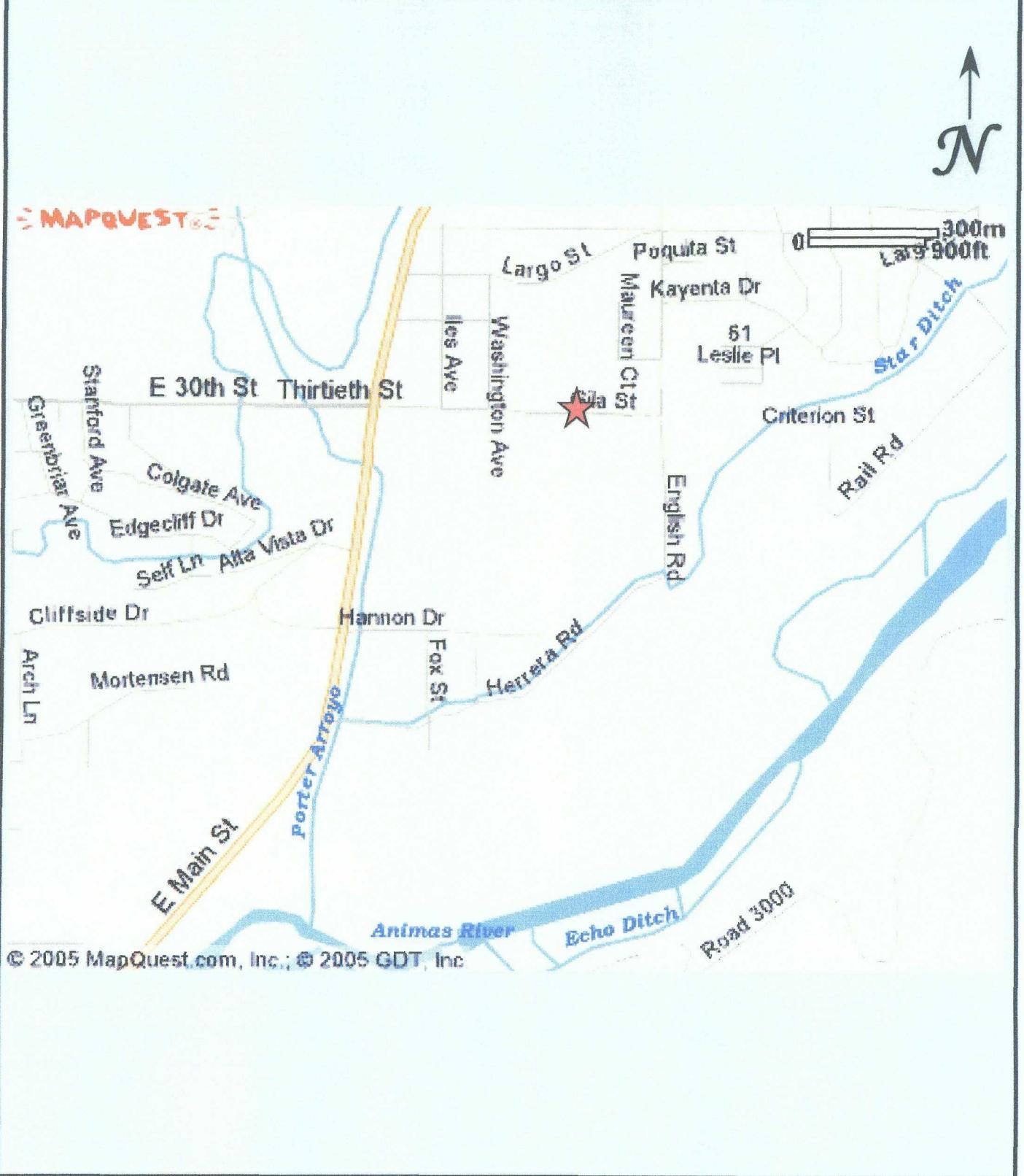


Figure 1. Site Location Map  
ConocoPhillips  
Federal #15  
Farmington, New Mexico 87401

= Approximate ConocoPhillips  
Federal #15 Site Location

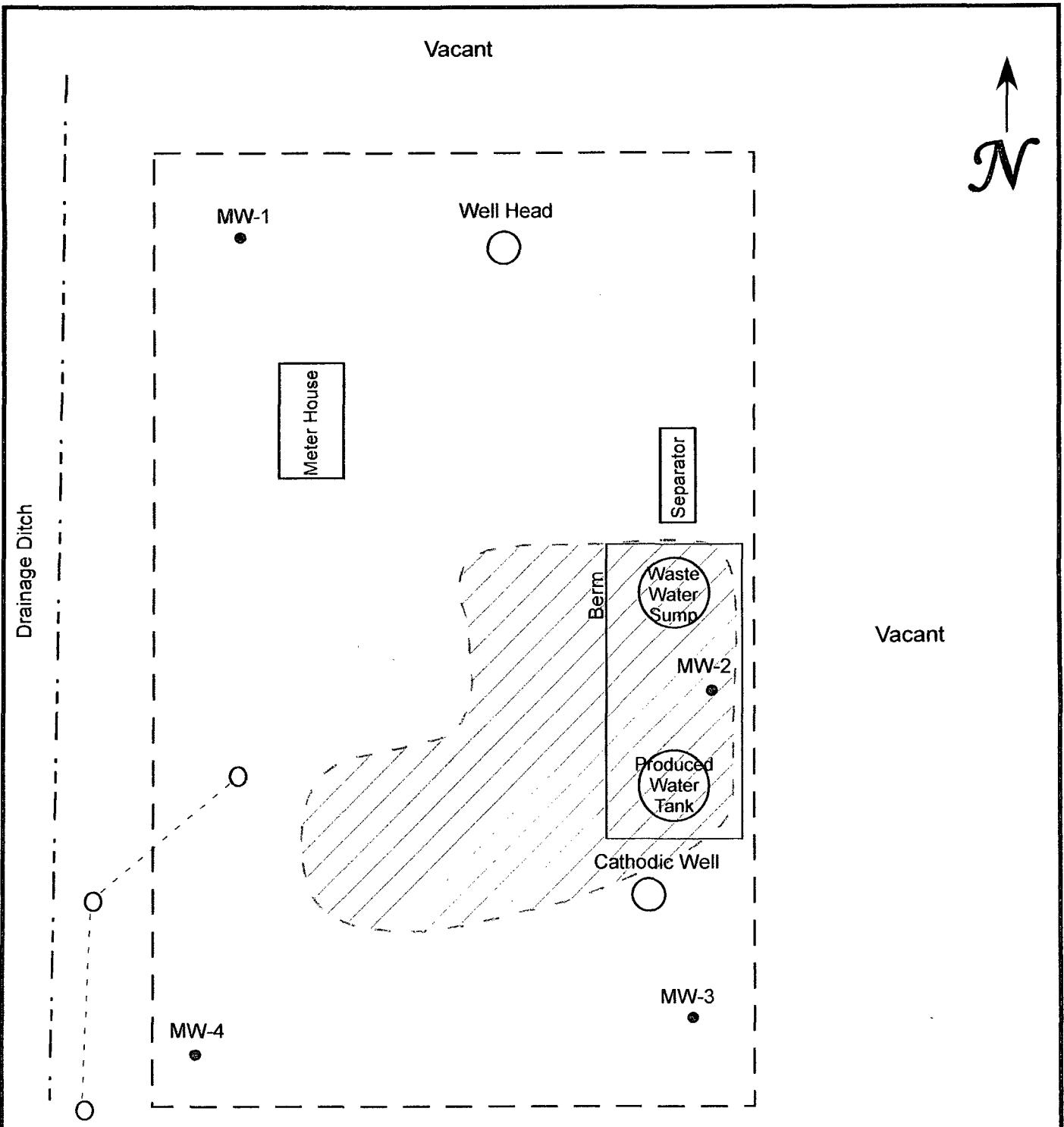


Figure 2. Site Map  
 ConocoPhillips  
 Federal #15 Unit A  
 Farmington, New Mexico 87401

- Monitoring Well
- - - Overhead Electric Line
- ██████ Approximate Excavation Area

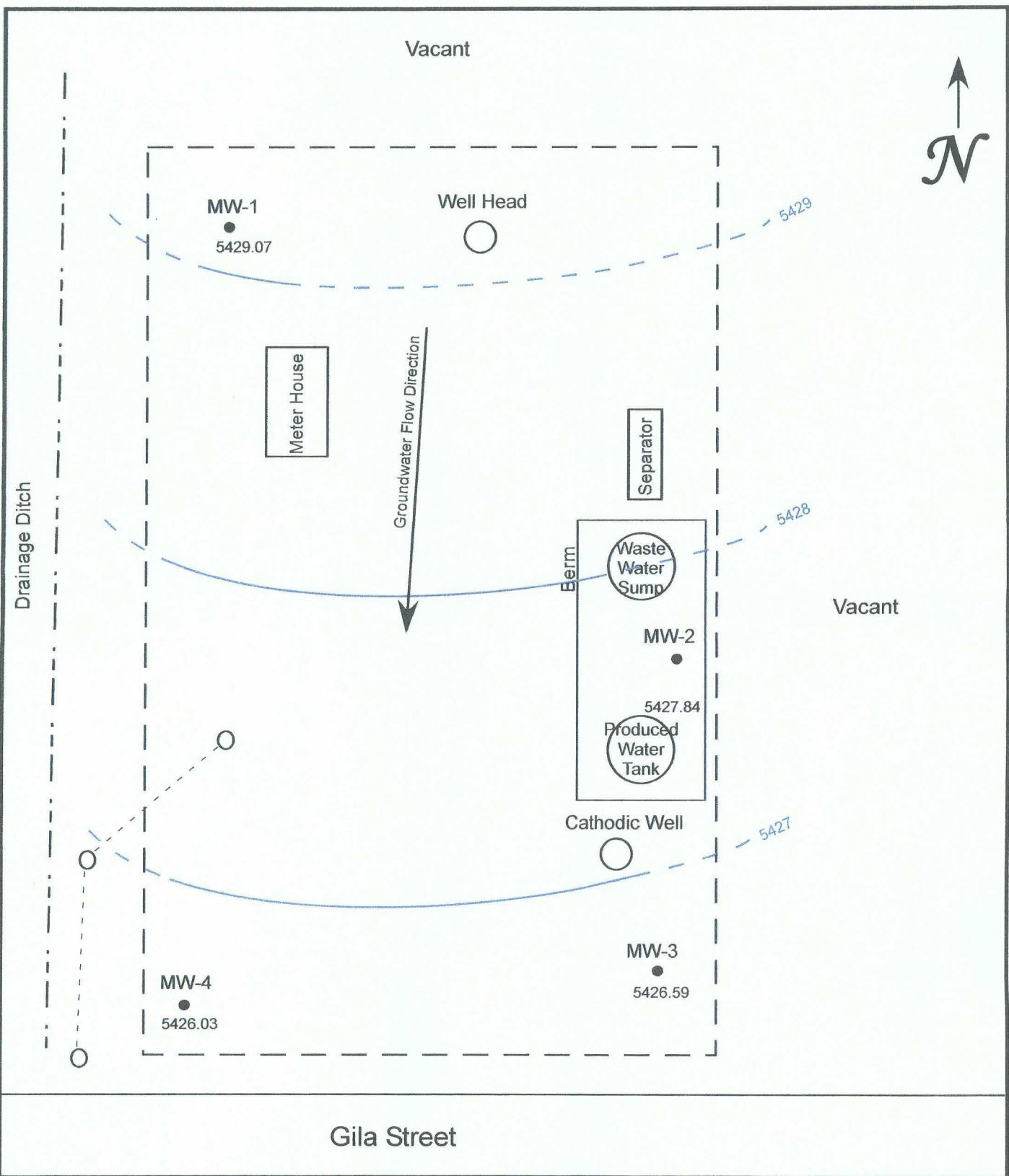
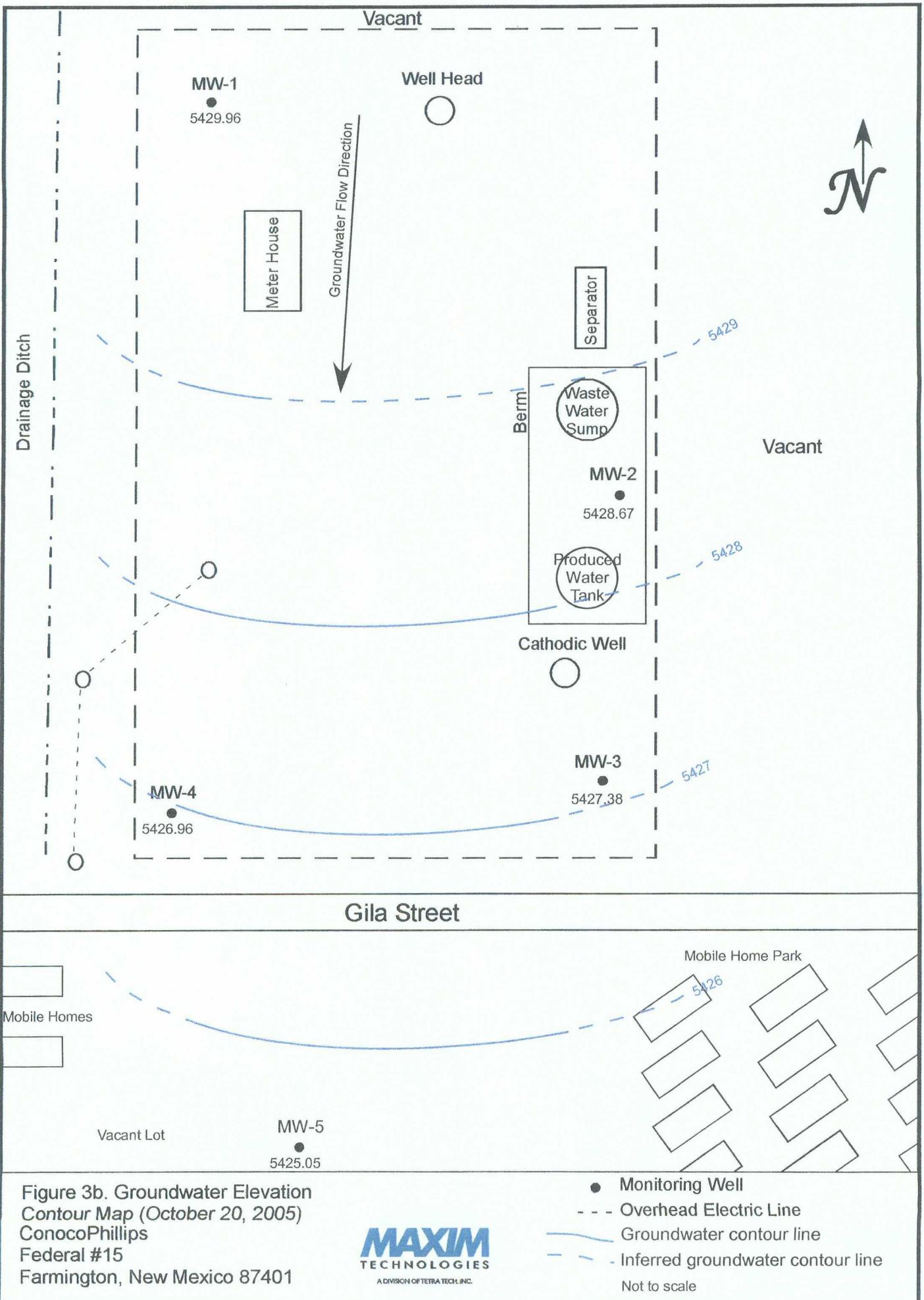


Figure 3a. Groundwater Elevation  
Contour Map (January 18, 2005)  
ConocoPhillips  
Federal #15 Unit A  
Farmington, New Mexico 87401

- Monitoring Well
- - - Overhead Electric Line
- Groundwater contour line
- - Inferred groundwater contour line



## **TABLES**

**Table 1. ConocoPhillips Federal #15 Groundwater Elevation Table**

Well ID	Date Installed	Total Depth (ft. bgs)	Screen Interval (ft)	Date Measured	Groundwater Level (ft TOC)	Elevation (ft. msl) (TOC)	Groundwater Elevation (ft msl)
MW-1	11/17/2004	20	5 - 20	1/18/2005	8.92	5437.99	5429.07
MW-2	11/17/2004	20	5 - 20	1/18/2005	9.49	5437.33	5427.84
MW-3	11/22/2004	20	5 - 20	1/18/2005	8.54	5435.13	5426.59
MW-4	11/22/2004	20	5 - 20	1/18/2005	8.65	5434.68	5426.03
MW-5	10/19/2005	17.5	3.5-17.5	10/20/2005	9.11	5434.16	5425.05

ft. = Feet

msl = Mean sea level

TOC = Top of casing

bgs = below ground surface

**Table 2. Federal #15 Groundwater Laboratory Analytical Data**

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	2-Methylmaphthalene (µg/L)	1-Methylnaphthalene (µg/L)	Naphthalene (µg/L)	Total Naphthalene (µg/L)	Chloride (mg/L)
MW-1	1/18/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	85
	10/18/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	39
MW-2	1/18/2005	1200	3300	380	3500	72	34	51	157	41
Duplicate	1300	3700	410	3800	--	--	--	--	--	--
MW-3	10/19/2005	1100	410	160	470	18	11	15	44	60
Duplicate	1100	500	150	610	--	--	--	--	--	--
MW-4	1/18/2005	190	<5.0	<5.0	<10	<10	<10	<10	<10	34
	10/19/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	42
MW-5	1/18/2005	2.8	<1.0	<1.0	<2.0	<10	<10	<10	<10	37
	10/19/2005	23	2.2	<1.0	4.3	<10	<10	<10	<10	51
	10/20/2005	<1.0	<1.0	<1.0	<2.0	<10	<10	<10	<10	73
NMWQCC Standards		10 (µg/L)	750 (µg/L)	750 (µg/L)	620 (µg/L)	NE	NE	30 (µg/L)	30 (µg/L)	250 mg/L

NMWQCC = New Mexico Water Quality Control Commission

mg/L = milligrams per liter (parts per million)

µg/L = micrograms per liter (parts per billion)

NE=Not Established

-- = Not Analyzed

## **APPENDIX A**

**Release Notification and Corrective Action Form C-141 for Closure  
and Associated Soil Remediation Summary Report**

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
**District II**  
 1301 W. Grand Avenue, Artesia, NM 88210  
**District III**  
 1000 Rio Brazos Road, Aztec, NM 87410  
**District IV**  
 1220 S. St. Francis Dr., Santa Fe, NM 87505

**State of New Mexico**  
**Energy Minerals and Natural Resources**

**Oil Conservation Division**  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

**Form C-141**  
 Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

### Release Notification and Corrective Action

#### OPERATOR

Initial Report  Final Report

Name of Company	ConocoPhillips Company	Contact	Neal Goates
Address	5525 Hwy. 64, Farmington, NM 87401	Telephone No.	832-379-6427
Facility Name	Federal #15	Facility Type	Producing Gas Well API # 30-045-20078
Surface Owner	Private	Mineral Owner	Federal Lease No. NM-73982

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	1	T29N	R13W	1040'	North	360'	East	San Juan

Latitude 36.75963 Longitude 108.14885

#### NATURE OF RELEASE

Type of Release - <b>Condensate</b>	Volume of Release - ~ 15 BBL	Volume Recovered - <b>none</b>
Source of Release: <b>Leaking 300 BBL condensate tank</b>	Date and Hour of Occurrence <b>10/23/04 – 12:00 p.m.</b>	Date and Hour of Discovery <b>10/23/04 – 12:00 p.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Denny Foust – OCD – 10/25/04 via email</b>	
By Whom? <b>Monica Olson</b>	Date and Hour – <b>10/25/04 – 3:45 p.m.</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* **A ConocoPhillips lease operator received a call from passers-by on Saturday, October 23<sup>rd</sup> of a spill on the Federal #15, located off of Gila Street near Halliburton/Walgreens in Farmington. Upon inspection, a ring of paraffin / condensate was found on the grade band on which the 300 BBL condensate tank sits, and appeared to be about a 3 BBL spill. The well was shut in.**

Upon site investigation on Monday, October 25<sup>th</sup> 2004 hand digging with a shovel showed an affected area of 21' x 21' x 3' deep (at least), which calculates to a 15 BBL spill. A One-Call was submitted, and digging was completed in October 2004.

Describe Area Affected and Cleanup Action Taken.\* **No fluids appeared to leave the location. Soil stained from this spill was excavated and brought to the Envirotech landfarm for remediation. See attached summary report.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <u>Neal Goates</u>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Neal Goates		Approved by District Supervisor:	
Title: Site Manager		Approval Date:	Expiration Date:
E-mail Address: n.goates@conocophillips.com		Conditions of Approval:	
Date: 2-17-06 Phone: 832-379-6427		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

B.  
E.  
S.  
T.



Biosphere Environmental Sciences & Technologies, LLC

5101 N. College Blvd. Suite 5061

Phone: (505) 566-3703 Fax: (505) 566-3698

Email: fmcd\_best@hotmail.com

## Federal Com #15, Unit L, Section 15, Township 30 North, Range 11 West. Summary

### Introduction:

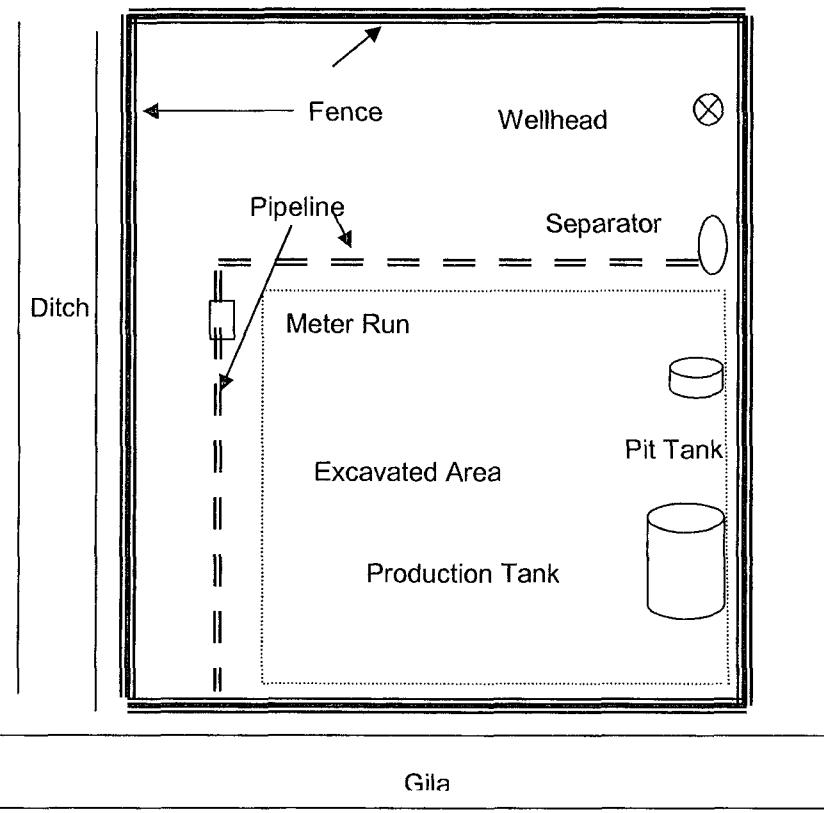
*Biosphere Environmental Sciences & Technologies L.L.C. (B.E.S.T.)* was contacted by ConocoPhillips San Juan Business Unit to oversee the removal of hydrocarbon impacted soils from the Federal Com #15. The soils were impacted due to failure of a steel production tank. During excavation, **B.E.S.T.** encountered evidence of a historical pit. Groundwater was encountered at approximately 10 to 12 feet below the ground surface.

### Summary of Field Activities:

Excavation began on October 27, 2004. Excavation of hydrocarbon impacted soils was provided by High Desert Roustabout, Welding, and Construction.

Soils were listed as sandy to clay loam. River rock was encountered within 6-ft. Black and gray staining occurred from approximately 4-ft to total depth at 10-12 feet. Samples were extracted and analyzed utilizing headspace method. A photoionization device (PID) was utilized for the headspace analysis. Results of the headspace analysis varied from 2400 parts per million (ppm) to over 4250 ppm throughout the excavation. Impacted soils were excavated to approximately 1-2 feet below groundwater. Lateral excavation was limited due to equipment and pipelines and edge of location (Gila Street on south side and fencing along east side). All excavated soil was transported to Envirotech Landfarm located on US Hwy 550. Clean fill dirt was transported back and utilized as fill material. See attached diagram.

Federal Com #15  
ConocoPhillips  
**B.E.S.T.**



## **APPENDIX B**

**Soil Laboratory Analytical Results**

SEVERN  
TRENT

STL

**STL Denver**  
4955 Yarrow Street  
Arvada, CO 80002

Tel: 303 736 0100 Fax: 303 431 7171  
[www.stl-inc.com](http://www.stl-inc.com)

## AMENDED ANALYTICAL REPORT

**Federal Com #15**

WO# 6845MAX005

Lot #: D5J210462

Ms. Kelly Henderson

Maxim Technologies  
10601 Lomas NE  
Suite 106  
Albuquerque, NM 87112

Severn Trent Laboratories



Donna Rydberg  
Project Manager

November 3, 2005  
Reissued Report Date – November 7, 2005

# Table Of Contents

## *Standard Deliverables*

Report Contents	Total Number of Pages
<p><b>Standard Deliverables</b></p> <p><i>The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.</i></p> <ul style="list-style-type: none"><li>• Table of Contents</li><li>• Case Narrative</li><li>• Executive Summary – Detection Highlights</li><li>• Methods Summary</li><li>• Method/Analyst Summary</li><li>• Sample Summary</li><li>• Analytical Results</li><li>• QC Data Association Summary</li><li>• QC Evaluation and/or Data Reports</li><li>• Chain-of-Custody</li></ul>	<div style="border: 1px solid black; padding: 5px; text-align: center;">31</div>

## **Case Narrative**

**D5J210462**

The following amended report contains the analytical result for two samples submitted to STL Denver on October 21, 2005, according to documented sample acceptance procedures. At the request of the client the data was reissued without qualified data, "J" flags.

The results included in this report have been reviewed for compliance with STL's Quality Assurance/Quality Control (QA/QC) plan.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. 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 concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The test results shown in this report meet all requirements of NELAC. Any exceptions are noted below.

### **Supplemental QC Information**

#### **Sample Arrival and Receipt**

The samples presented in this report were received at the laboratory at a temperature of 2.8°C. Sample containers were received in acceptable condition.

#### **Method 8260B – GC/MS Volatiles**

No anomalies were observed.

#### **Method 8270C/PAH - GC/MS Semivolatiles**

No anomalies were observed.

#### **General Chemistry**

No anomalies were observed.

## **EXECUTIVE SUMMARY - Detection Highlights**

**D5J210462**

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING LIMIT</b>	<b>UNITS</b>	<b>ANALYTICAL METHOD</b>
<b>NO DETECTABLE PARAMETERS</b>				

## METHODS SUMMARY

D5J210462

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Chloride	SW846 9056	SW846 9056
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3550B
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

### References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

## METHOD / ANALYST SUMMARY

D5J210462

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 8260B	Dan Appelhans	001008
SW846 8270C	Mike G. Hoffman	001880
SW846 9056	Ewa Kudla	001167

### References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

D5J210462

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HNDLC	001	MW-5 (6-10)	10/19/05	16:30
HNDLK	002	MW-5 (10-15)	10/19/05	17:00

## NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

**Maxim Technologies, Inc.**

**Client Sample ID: MW-5 (6-10)**

**GC/MS Volatiles**

**Lot-Sample #....: D5J210462-001 Work Order #....: HNDLC1AA Matrix.....: SOLID**  
**Date Sampled....: 10/19/05 16:30 Date Received...: 10/21/05**  
**Prep Date.....: 10/25/05 Analysis Date...: 10/25/05**  
**Prep Batch #....: 5299551 Analysis Time...: 20:59**  
**Dilution Factor: 1 Method.....: SW846 8260B**

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Benzene	ND	5.0	ug/kg	0.090
Ethylbenzene	ND	5.0	ug/kg	0.090
Toluene	ND	5.0	ug/kg	0.080
Xylenes (total)	ND	5.0	ug/kg	0.030

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Dibromofluoromethane	90	(10 - 179)
1,2-Dichloroethane-d4	84	(60 - 143)
4-Bromofluorobenzene	100	(59 - 129)
Toluene-d8	102	(68 - 134)

**Maxim Technologies, Inc.**

**Client Sample ID: MW-5 (10-15)**

**GC/MS Volatiles**

**Lot-Sample #....:** D5J210462-002    **Work Order #....:** HNDLK1AA    **Matrix.....:** SOLID  
**Date Sampled....:** 10/19/05 17:00    **Date Received...:** 10/21/05  
**Prep Date.....:** 10/25/05    **Analysis Date...:** 10/25/05  
**Prep Batch #....:** 5299551    **Analysis Time...:** 21:23  
**Dilution Factor:** 1

**Method.....:** SW846 8260B

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING</b>		
		<b>LIMIT</b>	<b>UNITS</b>	<b>MDL</b>
Benzene	ND	5.0	ug/kg	0.090
Ethylbenzene	ND	5.0	ug/kg	0.090
Toluene	ND	5.0	ug/kg	0.080
Xylenes (total)	ND	5.0	ug/kg	0.030

<b>SURROGATE</b>	<b>PERCENT</b>	<b>RECOVERY</b>	
		<b>RECOVERY</b>	<b>LIMITS</b>
Dibromofluoromethane	92	(10 - 179)	
1,2-Dichloroethane-d4	84	(60 - 143)	
4-Bromofluorobenzene	102	(59 - 129)	
Toluene-d8	102	(68 - 134)	

## Maxim Technologies, Inc.

Client Sample ID: MW-5 (6-10)

## GC/MS Semivolatiles

Lot-Sample #....: D5J210462-001 Work Order #....: HNDLC1AD Matrix.....: SOLID  
 Date Sampled....: 10/19/05 16:30 Date Received...: 10/21/05  
 Prep Date.....: 10/24/05 Analysis Date...: 10/28/05  
 Prep Batch #....: 5297653 Analysis Time...: 19:47  
 Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acenaphthene	ND	330	ug/kg	17
Acenaphthylene	ND	330	ug/kg	17
Anthracene	ND	330	ug/kg	17
Benzo(a)anthracene	ND	330	ug/kg	20
Benzo(b)fluoranthene	ND	330	ug/kg	53
Benzo(k)fluoranthene	ND	330	ug/kg	40
Benzo(ghi)perylene	ND	330	ug/kg	16
Benzo(a)pyrene	ND	330	ug/kg	20
Chrysene	ND	330	ug/kg	27
Dibenz(a,h)anthracene	ND	330	ug/kg	19
Fluoranthene	ND	330	ug/kg	36
Fluorene	ND	330	ug/kg	18
Indeno(1,2,3-cd)pyrene	ND	330	ug/kg	22
2-Methylnaphthalene	ND	330	ug/kg	19
1-Methylnaphthalene	ND	330	ug/kg	22
Naphthalene	ND	330	ug/kg	31
Phenanthrene	ND	330	ug/kg	17
Pyrene	ND	330	ug/kg	130

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
		(10 - 112)	(10 - 128)
2-Fluorophenol	60	(10 - 112)	(10 - 128)
Phenol-d5	62	(17 - 105)	(17 - 105)
Nitrobenzene-d5	58	(14 - 107)	(14 - 107)
2-Fluorobiphenyl	58	(10 - 112)	(10 - 112)
2,4,6-Tribromophenol	58	(10 - 128)	(10 - 128)
Terphenyl-d14	61	(10 - 135)	(10 - 135)

**Maxim Technologies, Inc.**

**Client Sample ID: MW-5 (10-15)**

**GC/MS Semivolatiles**

**Lot-Sample #....:** D5J210462-002    **Work Order #....:** HNDLK1AD    **Matrix.....:** SOLID  
**Date Sampled....:** 10/19/05 17:00    **Date Received...:** 10/21/05  
**Prep Date.....:** 10/24/05    **Analysis Date...:** 10/28/05  
**Prep Batch #....:** 5297653    **Analysis Time...:** 20:27  
**Dilution Factor:** 1

**Method.....:** SW846 8270C

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING</b>		
		<b>LIMIT</b>	<b>UNITS</b>	<b>MDL</b>
Acenaphthene	ND	330	ug/kg	17
Acenaphthylene	ND	330	ug/kg	17
Anthracene	ND	330	ug/kg	17
Benzo(a)anthracene	ND	330	ug/kg	20
Benzo(b)fluoranthene	ND	330	ug/kg	53
Benzo(k)fluoranthene	ND	330	ug/kg	40
Benzo(ghi)perylene	ND	330	ug/kg	16
Benzo(a)pyrene	ND	330	ug/kg	20
Chrysene	ND	330	ug/kg	27
Dibenz(a,h)anthracene	ND	330	ug/kg	19
Fluoranthene	ND	330	ug/kg	36
Fluorene	ND	330	ug/kg	18
Indeno(1,2,3-cd)pyrene	ND	330	ug/kg	22
2-Methylnaphthalene	ND	330	ug/kg	19
1-Methylnaphthalene	ND	330	ug/kg	22
Naphthalene	ND	330	ug/kg	31
Phenanthrene	ND	330	ug/kg	17
Pyrene	ND	330	ug/kg	130

<b>SURROGATE</b>	<b>PERCENT RECOVERY</b>	<b>RECOVERY LIMITS</b>	
		(10 - 112)	(17 - 105)
2-Fluorophenol	51	(14 - 107)	
Phenol-d5	53	(10 - 112)	
Nitrobenzene-d5	51	(10 - 128)	
2-Fluorobiphenyl	50	(10 - 135)	
2,4,6-Tribromophenol	53		
Terphenyl-d14	57		

**Maxim Technologies, Inc.**

**Client Sample ID: MW-5 (6-10)**

**General Chemistry**

**Lot-Sample #....: D5J210462-001    Work Order #....: HNDLC                  Matrix.....: SOLID**  
**Date Sampled...: 10/19/05 16:30    Date Received...: 10/21/05**

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Chloride	ND	30	mg/kg	SW846 9056	10/25-10/26/05	5299126
		Dilution Factor: 1		Analysis Time...: 03:40		MDL.....: 1.4

**Maxim Technologies, Inc.**

**Client Sample ID: MW-5 (10-15)**

**General Chemistry**

**Lot-Sample #....: D5J210462-002    Work Order #....: HNDLK                      Matrix.....: SOLID  
Date Sampled...: 10/19/05 17:00    Date Received...: 10/21/05**

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
	ND	30	mg/kg	SW846 9056	<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Chloride				Dilution Factor: 1                          Analysis Time...: 04:26	10/25-10/26/05	5299126
						MDL.....: 1.4

# QC DATA ASSOCIATION SUMMARY

D5J210462

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 9056		5299126	5299320
	SOLID	SW846 8260B		5299551	5300234
	SOLID	SW846 8270C		5297653	5297332
002	SOLID	SW846 9056		5299126	5299320
	SOLID	SW846 8260B		5299551	5300234
	SOLID	SW846 8270C		5297653	5297332

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: D5J210462  
MB Lot-Sample #: D5J260000-551  
  
Analysis Date...: 10/25/05  
Dilution Factor: 1

Work Order #....: HNQQP1AA  
  
Prep Date.....: 10/25/05  
Prep Batch #....: 5299551

Matrix.....: SOLID  
  
Analysis Time..: 12:39

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT	RECOVERY
		LIMITS
Dibromofluoromethane	94	(10 - 179)
1,2-Dichloroethane-d4	89	(60 - 143)
4-Bromofluorobenzene	105	(59 - 129)
Toluene-d8	107	(68 - 134)

NOTE(S) :

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

PARAMETER	PERCENT	RECOVERY	RPD	RPD	METHOD
	RECOVERY	LIMITS		LIMITS	
1,1-Dichloroethene	97	(77 - 143)			SW846 8260B
	98	(77 - 143)	0.76	(0-20)	SW846 8260B
Chlorobenzene	99	(74 - 114)			SW846 8260B
	96	(74 - 114)	2.5	(0-20)	SW846 8260B
Trichloroethene	94	(78 - 118)			SW846 8260B
	94	(78 - 118)	0.080	(0-20)	SW846 8260B
Benzene	100	(76 - 116)			SW846 8260B
	98	(76 - 116)	2.4	(0-20)	SW846 8260B
Toluene	102	(72 - 113)			SW846 8260B
	99	(72 - 113)	2.2	(0-20)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	92	(75 - 121)
	91	(75 - 121)
1,2-Dichloroethane-d4	93	(58 - 140)
	92	(58 - 140)
4-Bromofluorobenzene	109	(76 - 127)
	110	(76 - 127)
Toluene-d8	114	(80 - 126)
	113	(80 - 126)

**NOTE (S) :**

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

Bold print denotes control parameters

**LABORATORY CONTROL SAMPLE DATA REPORT**

## GC/MS Volatiles

PARAMETER	SPIKE	MEASURED		PERCENT		METHOD
	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	
1,1-Dichloroethene	50.0	48.6	ug/kg	97		SW846 8260B
	50.0	48.9	ug/kg	98	0.76	SW846 8260B
Chlorobenzene	50.0	49.4	ug/kg	99		SW846 8260B
	50.0	48.2	ug/kg	96	2.5	SW846 8260B
Trichloroethene	50.0	47.2	ug/kg	94		SW846 8260B
	50.0	47.2	ug/kg	94	0.080	SW846 8260B
Benzene	50.0	50.0	ug/kg	100		SW846 8260B
	50.0	48.8	ug/kg	98	2.4	SW846 8260B
Toluene	50.0	50.8	ug/kg	102		SW846 8260B
	50.0	49.7	ug/kg	99	2.2	SW846 8260B

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Dibromofluoromethane	92	(75 - 121)
1, 2-Dichloroethane-d4	91	(75 - 121)
4-Bromofluorobenzene	93	(58 - 140)
Toluene-d8	92	(58 - 140)
	109	(76 - 127)
	110	(76 - 127)
	114	(80 - 126)
	113	(80 - 126)

**NOTE (S) :**

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

**Bold print** denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D5J210462      Work Order #...: HM1RM1AP-MS      Matrix.....: SOLID  
 MS Lot-Sample #: D5J180333-003      HM1RM1AQ-MSD  
 Date Sampled...: 10/18/05 13:05 Date Received...: 10/18/05  
 Prep Date.....: 10/25/05      Analysis Date...: 10/25/05  
 Prep Batch #...: 5299551      Analysis Time...: 17:53  
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	LIMITS	METHOD
1,1-Dichloroethene	81	(32 - 146)	4.6	(0-30)	SW846 8260B
	78	(32 - 146)			SW846 8260B
Chlorobenzene	84	(31 - 129)	7.2	(0-29)	SW846 8260B
	79	(31 - 129)			SW846 8260B
Trichloroethene	84	(34 - 132)	3.6	(0-49)	SW846 8260B
	81	(34 - 132)			SW846 8260B
Benzene	88	(41 - 130)	4.2	(0-25)	SW846 8260B
	84	(41 - 130)			SW846 8260B
Toluene	84	(30 - 130)	6.5	(0-31)	SW846 8260B
	79	(30 - 130)			SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(10 - 179)
	91	(10 - 179)
1,2-Dichloroethane-d4	87	(60 - 143)
	88	(60 - 143)
4-Bromofluorobenzene	103	(59 - 129)
	104	(59 - 129)
Toluene-d8	106	(68 - 134)
	104	(68 - 134)

**NOTE(S) :**

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

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

**MATRIX SPIKE SAMPLE DATA REPORT**

**GC/MS Volatiles**

**Client Lot #....:** D5J210462      **Work Order #....:** HM1RM1AP-MS      **Matrix.....:** SOLID  
**MS Lot-Sample #:** D5J180333-003                                    **HM1RM1AQ-MSD**  
**Date Sampled....:** 10/18/05 13:05      **Date Received...:** 10/18/05  
**Prep Date.....:** 10/25/05      **Analysis Date...:** 10/25/05  
**Prep Batch #....:** 5299551      **Analysis Time...:** 17:53  
**Dilution Factor:** 1

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	METHOD
<b>1,1-Dichloroethene</b>	ND	51.5	41.9	ug/kg	81	4.6	SW846 8260B
	ND	51.5	40.0	ug/kg	78	7.2	SW846 8260B
<b>Chlorobenzene</b>	ND	51.5	43.5	ug/kg	84	3.6	SW846 8260B
	ND	51.5	40.5	ug/kg	79	4.2	SW846 8260B
<b>Trichloroethene</b>	ND	51.5	43.1	ug/kg	84	6.5	SW846 8260B
	ND	51.5	41.6	ug/kg	81	6.5	SW846 8260B
<b>Benzene</b>	ND	51.5	45.1	ug/kg	88	4.2	SW846 8260B
	ND	51.5	43.3	ug/kg	84	6.5	SW846 8260B
<b>Toluene</b>	ND	51.5	43.6	ug/kg	84	6.5	SW846 8260B
	ND	51.5	40.8	ug/kg	79	6.5	SW846 8260B

SURROGATE	PERCENT	RECOVERY	LIMITS
	RECOVERY		
Dibromofluoromethane	91	(10 - 179)	
	91	(10 - 179)	
1,2-Dichloroethane-d4	87	(60 - 143)	
	88	(60 - 143)	
4-Bromofluorobenzene	103	(59 - 129)	
	104	(59 - 129)	
Toluene-d8	106	(68 - 134)	
	104	(68 - 134)	

**NOTE (S) :**

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

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

## METHOD BLANK REPORT

## GC/MS Semivolatiles

Client Lot #....: D5J210462  
 MB Lot-Sample #: D5J240000-653  
 Analysis Date...: 10/28/05  
 Dilution Factor: 1

Work Order #....: HNHCG1AA  
 Prep Date.....: 10/24/05  
 Prep Batch #: 5297653

Matrix.....: SOLID  
 Analysis Time...: 16:51

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	METHOD
Acenaphthene	ND	330	ug/kg	SW846 8270C
Acenaphthylene	ND	330	ug/kg	SW846 8270C
Anthracene	ND	330	ug/kg	SW846 8270C
Benzo(a)anthracene	ND	330	ug/kg	SW846 8270C
Benzo(b)fluoranthene	ND	330	ug/kg	SW846 8270C
Benzo(k)fluoranthene	ND	330	ug/kg	SW846 8270C
Benzo(ghi)perylene	ND	330	ug/kg	SW846 8270C
Benzo(a)pyrene	ND	330	ug/kg	SW846 8270C
Chrysene	ND	330	ug/kg	SW846 8270C
Dibenz(a,h)anthracene	ND	330	ug/kg	SW846 8270C
Fluoranthene	ND	330	ug/kg	SW846 8270C
Fluorene	ND	330	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	330	ug/kg	SW846 8270C
2-Methylnaphthalene	ND	330	ug/kg	SW846 8270C
1-Methylnaphthalene	ND	330	ug/kg	SW846 8270C
Naphthalene	ND	330	ug/kg	SW846 8270C
Phenanthrene	ND	330	ug/kg	SW846 8270C
Pyrene	ND	330	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
2-Fluorophenol	73	(10 - 112)	
Phenol-d5	75	(17 - 105)	
Nitrobenzene-d5	71	(14 - 107)	
2-Fluorobiphenyl	67	(10 - 112)	
2,4,6-Tribromophenol	65	(10 - 128)	
Terphenyl-d14	74	(10 - 135)	

## NOTE(S) :

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Semivolatiles

Client Lot #....: D5J210462      Work Order #....: HNHCG1AC      Matrix.....: SOLID  
 LCS Lot-Sample#: D5J240000-653  
 Prep Date.....: 10/24/05      Analysis Date...: 10/28/05  
 Prep Batch #....: 5297653      Analysis Time...: 14:41  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
4-Chloro-3-methylphenol	79	(51 - 94)	<b>SW846</b> 8270C
2-Chlorophenol	73	(47 - 95)	<b>SW846</b> 8270C
Acenaphthene	70	(49 - 90)	<b>SW846</b> 8270C
1,4-Dichlorobenzene	63	(46 - 86)	<b>SW846</b> 8270C
2,4-Dinitrotoluene	74	(50 - 96)	<b>SW846</b> 8270C
4-Nitrophenol	70	(40 - 91)	<b>SW846</b> 8270C
N-Nitrosodi-n-propyl- amine	66	(46 - 88)	<b>SW846</b> 8270C
Pentachlorophenol	63	(27 - 93)	<b>SW846</b> 8270C
Phenol	72	(46 - 95)	<b>SW846</b> 8270C
1,2,4-Trichloro- benzene	65	(45 - 89)	<b>SW846</b> 8270C
Pyrene	68	(51 - 101)	<b>SW846</b> 8270C

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>LIMITS</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
2-Fluorophenol	69		(52 - 91)
Phenol-d5	71		(52 - 92)
Nitrobenzene-d5	68		(50 - 90)
2-Fluorobiphenyl	65		(49 - 89)
2,4,6-Tribromophenol	65		(45 - 97)
Terphenyl-d14	69		(55 - 107)

NOTE(S) :

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

**Client Lot #....:** D5J210462    **Work Order #....:** HNHCG1AC    **Matrix.....:** SOLID  
**LCS Lot-Sample#:** D5J240000-653  
**Prep Date.....:** 10/24/05    **Analysis Date...:** 10/28/05  
**Prep Batch #....:** 5297653    **Analysis Time..:** 14:41  
**Dilution Factor:** 1

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>PERCENT</u>		
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>UNITS</u>	<u>RECOVERY</u>	<u>METHOD</u>
4-Chloro-3-methylphenol	5020	3980	ug/kg	79	SW846 8270C
2-Chlorophenol	5020	3660	ug/kg	73	SW846 8270C
Acenaphthene	3340	2330	ug/kg	70	SW846 8270C
1,4-Dichlorobenzene	3340	2090	ug/kg	63	SW846 8270C
2,4-Dinitrotoluene	3340	2490	ug/kg	74	SW846 8270C
4-Nitrophenol	5020	3500	ug/kg	70	SW846 8270C
N-Nitrosodi-n-propyl-amine	3340	2200	ug/kg	66	SW846 8270C
Pentachlorophenol	5020	3150	ug/kg	63	SW846 8270C
Phenol	5020	3600	ug/kg	72	SW846 8270C
1,2,4-Trichlorobenzene	3340	2190	ug/kg	65	SW846 8270C
Pyrene	3340	2290	ug/kg	68	SW846 8270C
<u>SURROGATE</u>		<u>PERCENT</u>	<u>RECOVERY</u>		
		<u>RECOVERY</u>	<u>LIMITS</u>		
2-Fluorophenol	69	(52 - 91)			
Phenol-d5	71	(52 - 92)			
Nitrobenzene-d5	68	(50 - 90)			
2-Fluorobiphenyl	65	(49 - 89)			
2,4,6-Tribromophenol	65	(45 - 97)			
Terphenyl-d14	69	(55 - 107)			

**NOTE(S) :**

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #....: D5J210462      Work Order #....: HNDLK1AE-MS      Matrix.....: SOLID  
 MS Lot-Sample #: D5J210462-002      HNDLK1AF-MSD  
 Date Sampled...: 10/19/05 17:00      Date Received...: 10/21/05  
 Prep Date.....: 10/24/05      Analysis Date...: 10/28/05  
 Prep Batch #....: 5297653      Analysis Time...: 15:01  
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
4-Chloro-3-methylphenol	72	(34 - 101)			SW846 8270C
	57	(34 - 101)	22	(0-74)	SW846 8270C
2-Chlorophenol	55	(21 - 105)			SW846 8270C
	46	(21 - 105)	19	(0-72)	SW846 8270C
Acenaphthene	59	(34 - 98)			SW846 8270C
	47	(34 - 98)	21	(0-71)	SW846 8270C
1,4-Dichlorobenzene	47	(31 - 87)			SW846 8270C
	38	(31 - 87)	22	(0-74)	SW846 8270C
2,4-Dinitrotoluene	71	(34 - 108)			SW846 8270C
	60	(34 - 108)	16	(0-82)	SW846 8270C
4-Nitrophenol	74	(15 - 114)			SW846 8270C
	60	(15 - 114)	20	(0-100)	SW846 8270C
N-Nitrosodi-n-propyl-amine	51	(36 - 91)			SW846 8270C
	43	(36 - 91)	17	(0-71)	SW846 8270C
Pentachlorophenol	67	(15 - 97)			SW846 8270C
	53	(15 - 97)	22	(0-100)	SW846 8270C
Phenol	55	(33 - 96)			SW846 8270C
	46	(33 - 96)	17	(0-68)	SW846 8270C
1,2,4-Trichlorobenzene	50	(33 - 91)			SW846 8270C
	40	(33 - 91)	22	(0-70)	SW846 8270C
Pyrene	72	(13 - 123)			SW846 8270C
	57	(13 - 123)	22	(0-74)	SW846 8270C
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS			
2-Fluorophenol	52	(10 - 112)			
	43	(10 - 112)			
Phenol-d5	55	(17 - 105)			
	46	(17 - 105)			
Nitrobenzene-d5	53	(14 - 107)			
	44	(14 - 107)			
2-Fluorobiphenyl	51	(10 - 112)			
	42	(10 - 112)			
2,4,6-Tribromophenol	63	(10 - 128)			
	52	(10 - 128)			

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #....: D5J210462      Work Order #....: HNDLK1AE-MS      Matrix.....: SOLID  
MS Lot-Sample #: D5J210462-002                                    HNDLK1AF-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Terphenyl-d14	67	(10 - 135)
	55	(10 - 135)

NOTE(S) :

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #....: D5J210462      Work Order #....: HNDLK1AE-MS      Matrix.....: SOLID  
 MS Lot-Sample #: D5J210462-002      HNDLK1AF-MSD  
 Date Sampled....: 10/19/05 17:00      Date Received...: 10/21/05  
 Prep Date.....: 10/24/05      Analysis Date...: 10/28/05  
 Prep Batch #....: 5297653      Analysis Time...: 15:01  
 Dilution Factor: 1

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
<b>4-Chloro-3-methylphenol</b>	ND	4870	3510	ug/kg	72		SW846 8270C
	ND	4900	2800	ug/kg	57	22	SW846 8270C
<b>2-Chlorophenol</b>	ND	4870	2700	ug/kg	55		SW846 8270C
	ND	4900	2230	ug/kg	46	19	SW846 8270C
<b>Acenaphthene</b>	ND	3250	1900	ug/kg	59		SW846 8270C
	ND	3270	1540	ug/kg	47	21	SW846 8270C
<b>1,4-Dichlorobenzene</b>	ND	3250	1530	ug/kg	47		SW846 8270C
	ND	3270	1230	ug/kg	38	22	SW846 8270C
<b>2,4-Dinitrotoluene</b>	ND	3250	2300	ug/kg	71		SW846 8270C
	ND	3270	1970	ug/kg	60	16	SW846 8270C
<b>4-Nitrophenol</b>	ND	4870	3580	ug/kg	74		SW846 8270C
	ND	4900	2930	ug/kg	60	20	SW846 8270C
<b>N-Nitrosodi-n-propyl-amine</b>	ND	3250	1660	ug/kg	51		SW846 8270C
	ND	3270	1400	ug/kg	43	17	SW846 8270C
<b>Pentachlorophenol</b>	ND	4870	3250	ug/kg	67		SW846 8270C
	ND	4900	2620	ug/kg	53	22	SW846 8270C
<b>Phenol</b>	ND	4870	2690	ug/kg	55		SW846 8270C
	ND	4900	2270	ug/kg	46	17	SW846 8270C
<b>1,2,4-Trichloro-benzene</b>	ND	3250	1620	ug/kg	50		SW846 8270C
	ND	3270	1300	ug/kg	40	22	SW846 8270C
<b>Pyrene</b>	ND	3250	2330	ug/kg	72		SW846 8270C
	ND	3270	1870	ug/kg	57	22	SW846 8270C

SURROGATE	PERCENT		RECOVERY LIMITS
	RECOVERY		
2-Fluorophenol	52		(10 - 112)
	43		(10 - 112)
Phenol-d5	55		(17 - 105)
	46		(17 - 105)
Nitrobenzene-d5	53		(14 - 107)
	44		(14 - 107)
2-Fluorobiphenyl	51		(10 - 112)
	42		(10 - 112)
2,4,6-Tribromophenol	63		(10 - 128)
	52		(10 - 128)

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D5J210462      Work Order #...: HNDLK1AE-MS      Matrix.....: SOLID  
MS Lot-Sample #: D5J210462-002                                    HNDLK1AF-MSD

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Terphenyl-d14	67	(10 - 135)
	55	(10 - 135)

NOTE (S) :

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

Bold print denotes control parameters

**METHOD BLANK REPORT**

**General Chemistry**

**Client Lot #....: D5J210462**

**Matrix.....: SOLID**

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	PREP	ANALYSIS DATE	BATCH #
		LIMIT	UNITS	Work Order #: HNNCN1AA					
Chloride	ND	30	mg/kg	SW846 9056	Dilution Factor: 1	D5J260000-126	10/25/05	5299126	
					Analysis Time..: 21:48				

**NOTE (S) :**

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

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

General Chemistry

**Lot-Sample #....: D5J210462**

**Matrix.....: SOLID**

PARAMETER	PERCENT	RECOVERY	RPD				PREPARATION-	PREP
	RECOVERY	LIMITS	RPD	LIMITS	METHOD		ANALYSIS DATE	BATCH #
Chloride		WO#: HNNCN1AC-LCS/HNNCN1AD-LCSD		LCS	Lot-Sample#:	D5J260000-126		
	103	(89 - 109)		SW846 9056		10/25/05	5299126	
	102	(89 - 109) 0.97 (0-10)		SW846 9056		10/25/05	5299126	
		Dilution Factor: 1		Analysis Time...: 20:47				

**NOTE (S) :**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

## General Chemistry

Lot-Sample #....: D5J210462

Matrix.....: SOLID

PARAMETER	SPIKE	MEASURED		PERCNT			METHOD	PREPARATION-	PREP
	AMOUNT	AMOUNT	UNITS	RECVRY	RPD				
Chloride		WO#: HNNCN1AC-LCS/HNNCN1AD-LCSD			LCS	Lot-Sample#:	D5J260000-126		
	200	206	mg/kg	103		SW846	9056	10/25/05	5299126
	200	204	mg/kg	102	0.97	SW846	9056	10/25/05	5299126
				Dilution Factor: 1			Analysis Time...: 20:47		

NOTE(S) :

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

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: D5J210462

Matrix.....: SOLID

Date Sampled...: 10/19/05 16:30 Date Received...: 10/21/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-	PREP
			WO#:	HNDLC1AE-MS/HNDLC1AF-MSD	MS	ANALYSIS DATE	BATCH #
Chloride	100	(89 - 109)		SW846 9056		10/25-10/26/05	5299126
	95	(89 - 109)	4.9	(0-10)	SW846 9056	10/25-10/26/05	5299126
			Dilution Factor:	1			
			Analysis Time...:	03:55			

NOTE(S) :

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #....: D5J210462

Matrix.....: SOLID

Date Sampled...: 10/19/05 16:30 Date Received..: 10/21/05

PARAMETER	SAMPLE	SPIKE	MEASRD		PERCNT			PREPARATION-	PREP	ANALYSIS DATE	BATCH #
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD				
Chloride											
			WO#:	HNDLC1AE-MS/HNDLC1AF-MSD		MS	Lot-Sample #:	D5J210462-001			
	ND	250	252	mg/kg	100		SW846	9056	10/25-10/26/05	5299126	
	ND	250	240	mg/kg	95	4.9	SW846	9056	10/25-10/26/05	5299126	
			Dilution Factor: 1				Analysis Time..: 03:55				

NOTE (S) :

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

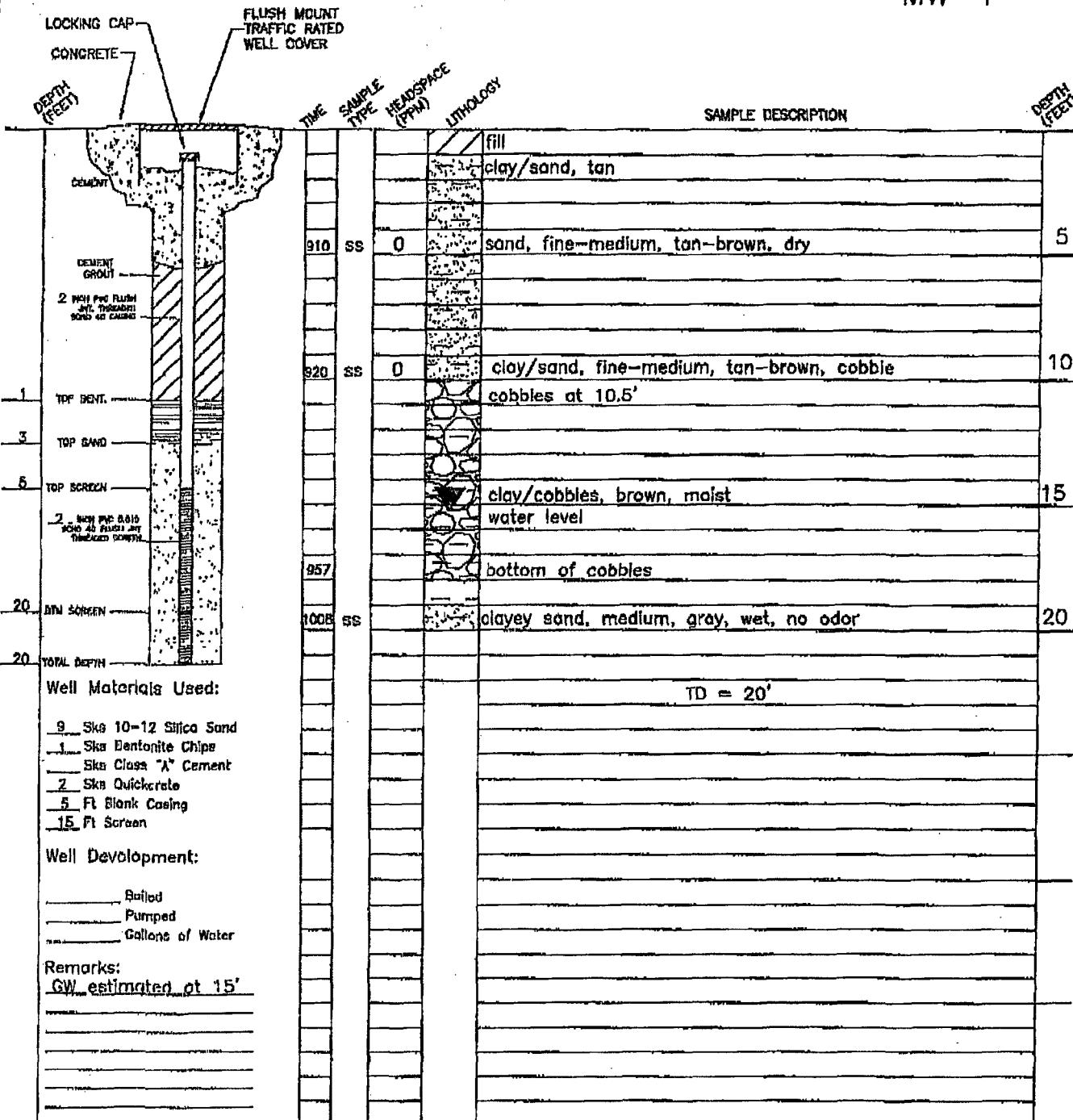


## **APPENDIX C**

Soil Boring Logs and Monitor Well Completion Diagrams

**BELLOW GRADE WELL COMPLETION  
DIAGRAM / LITHOLOGY LOG**

MW-1



DRILLER: KELLY PADILLA  
HELPER: Farrell Chee/Jerold Joe  
DRILLING COMPANY: ENVIROTECH  
DRILLING METHOD: HSA

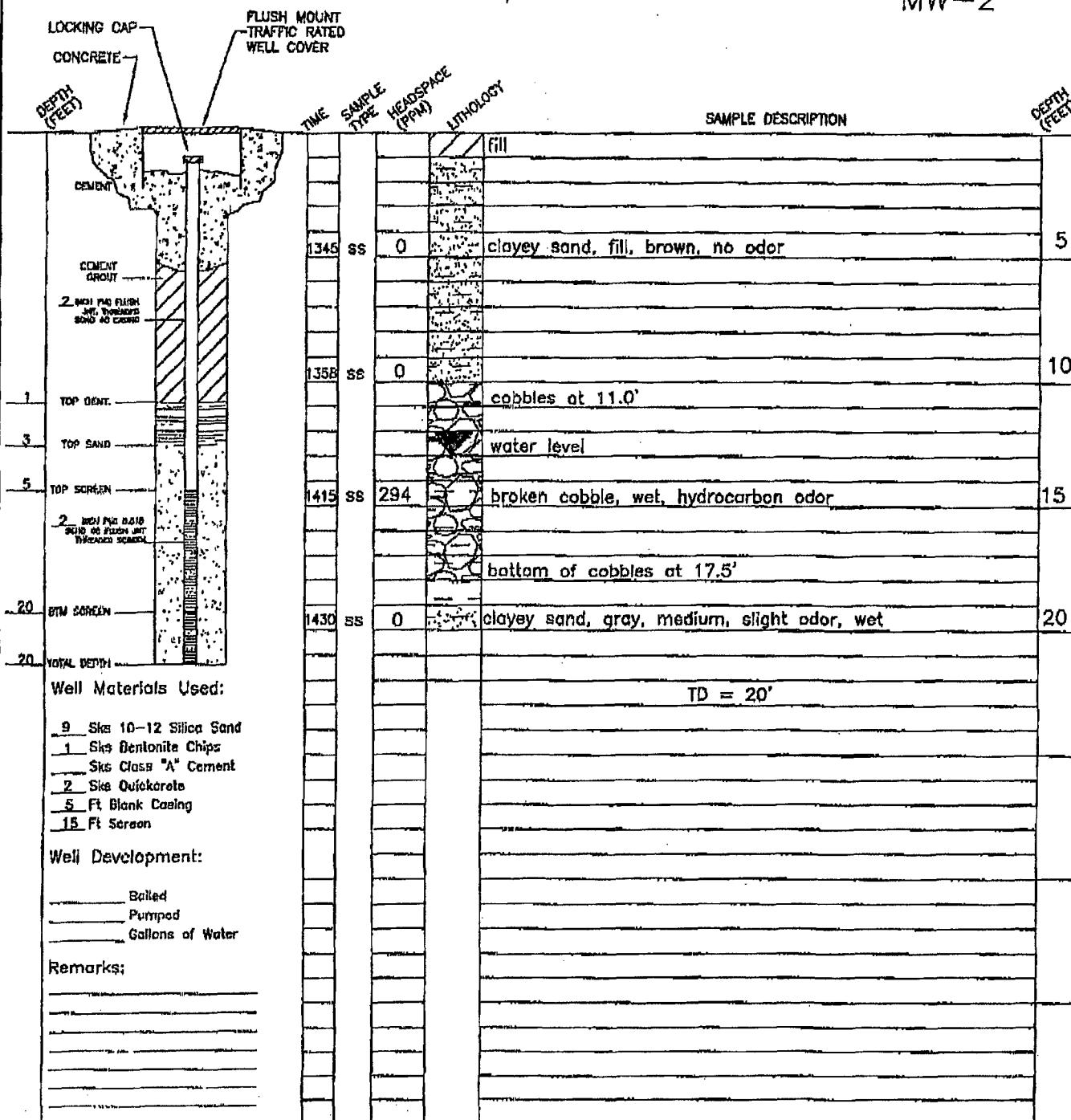
BIT SIZE: 7 7/8  
TOTAL BORING DEPTH: 20'  
DATE STARTED: 11/17/04  
SAMPLER TYPE: ss

LOCATION: Fed Comp 15 Unit A  
ELEVATION:  
DATE COMPLETED 11/17/04  
GEOLOGIST: Jack Collins

Conoco Phillips Fed Comp 15 Unit A Farmington, New Mexico		<b>ENVIROTECH INC.</b> ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 FARMINGTON, NEW MEXICO 87401 (505) 632-0615 BorLog.dwg	MW-1			
REVISIONS BY _____ DATE _____	Project No. B6052-189	DATE 11/23/04	DRAWN	TCR	PAGE 1 SCALE NONE	APPROVED CJC

BELOW GRADE WELL COMPLETION  
DIAGRAM / LITHOLOGY LOG

MW-2



DRILLER: KELLY PADILLA

BIT SIZE: 7 7/8

LOCATION: Fed Comp 15 Unit A

HELPER: Farrell Chee/Jerold Joe

TOTAL BORING DEPTH: 20'

ELEVATION:

DRILLING COMPANY: ENVIROTECH

DATE STARTED: 11/17/04

DATE COMPLETED 11/17/04

DRILLING METHOD: HSA

SAMPLER, TYPE: SS

GEOLOGIST: Jack Collins

Conoco Phillips  
Fed Comp 15 Unit A  
Farmington, New Mexico

ENVIROTECH INC.

MW-2

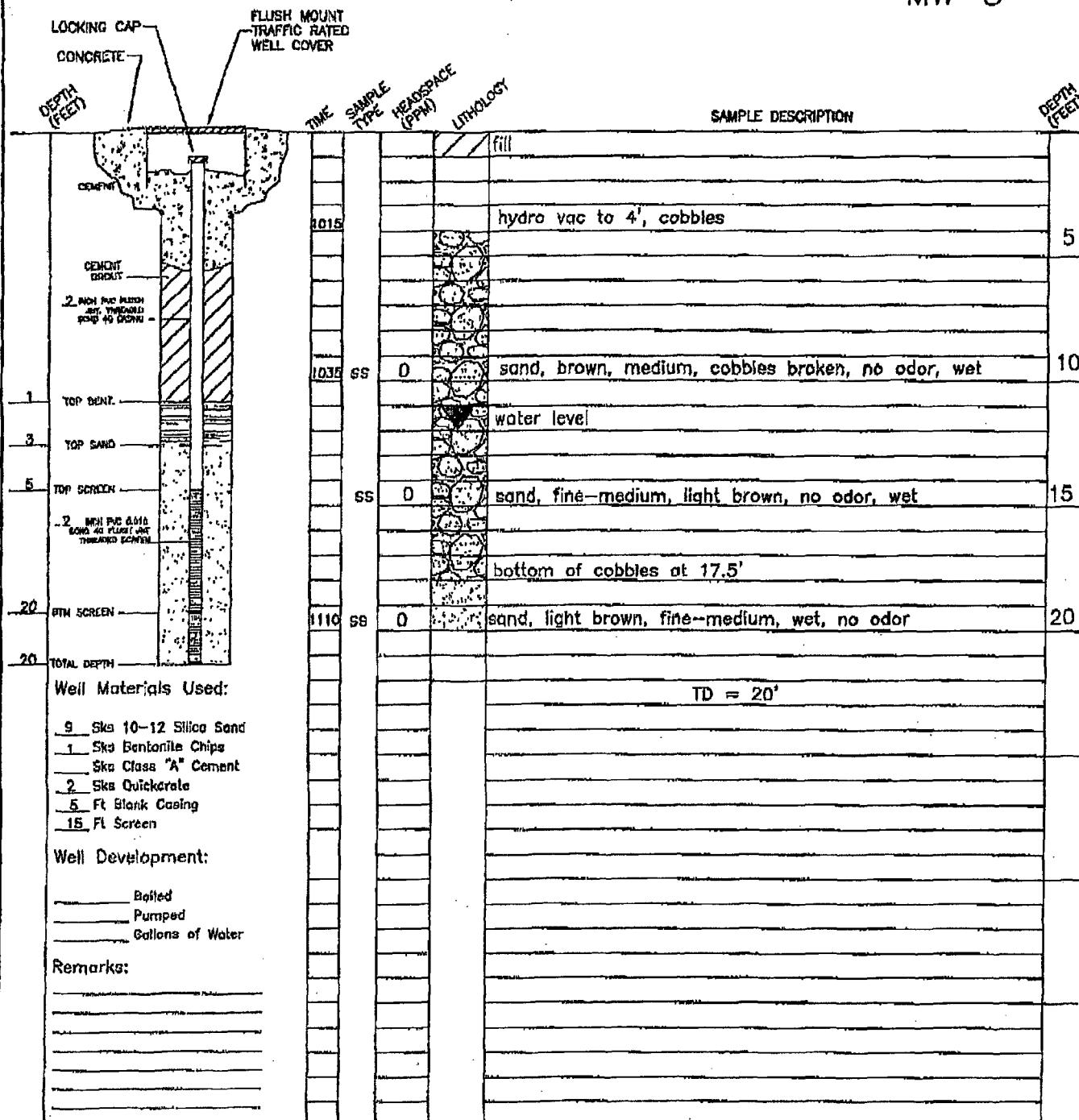
REVISIONS  
BY DATE \_\_\_\_\_  
BY DATE \_\_\_\_\_

Project No. 96052-189

ENVIRONMENTAL SCIENTISTS & ENGINEERS  
5796 U.S. HIGHWAY 64  
FARMINGTON, NEW MEXICO 87401  
(505) 632-0615  
BioGrdLog.dwgDATE 11/23/04 DRAWN TCR PAGE 1  
SCALE NONE APPROVED CJO OF 1

BELOW GRADE WELL COMPLETION  
DIAGRAM / LITHOLOGY LOG

MW-3



DRILLER: KELLY PADILLA

BIT SIZE: 7 7/8

LOCATION: Fed Comp 15 Unit A

HELPER: Farrell Chee/Jerald Joe

TOTAL BORING DEPTH: 20'

ELEVATION:

DRILLING COMPANY: ENVIROTECH

DATE STARTED: 11/22/04

DATE COMPLETED 11/22/04

DRILLING METHOD: HSA

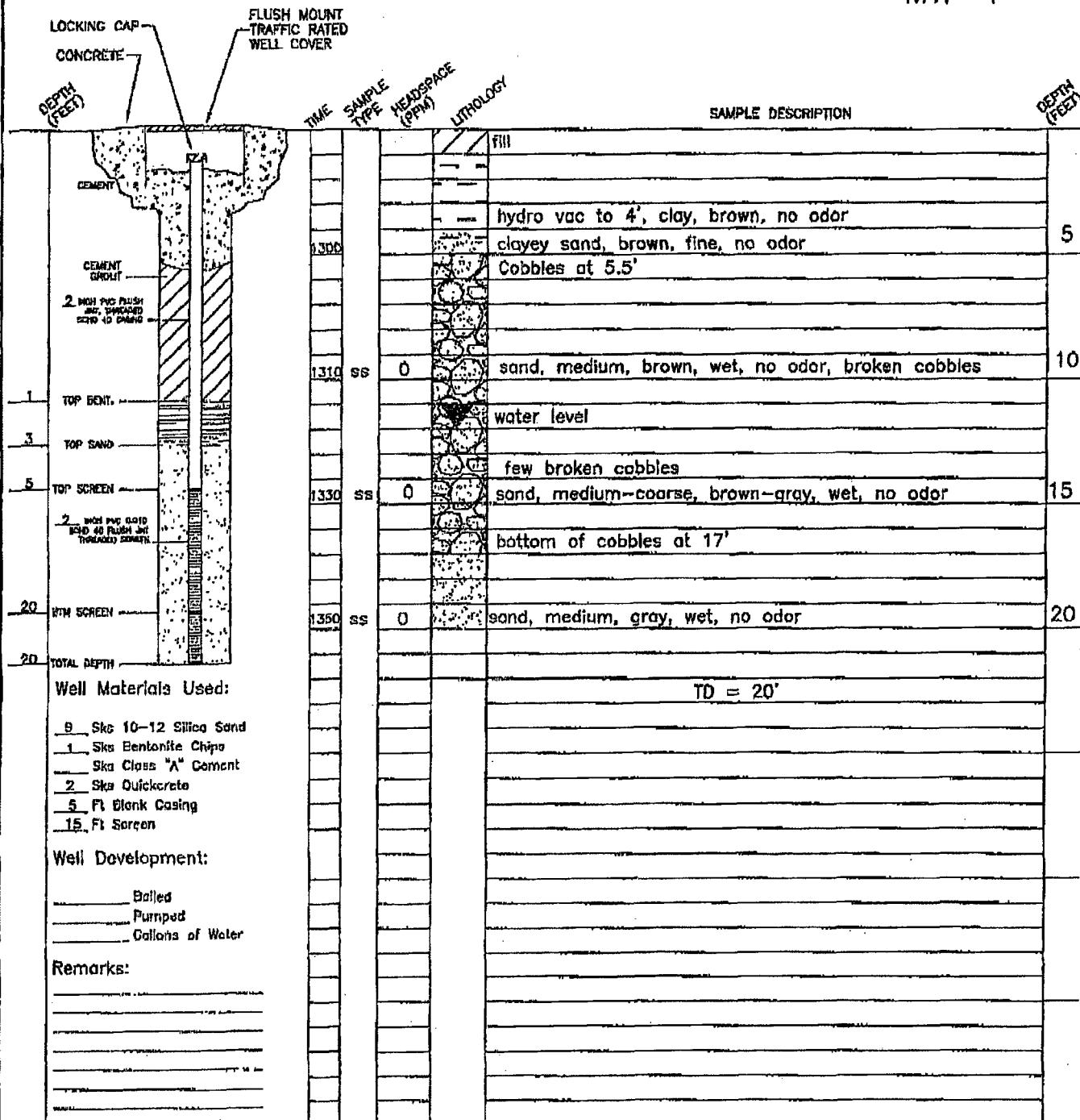
SAMPLER TYPE: SS

GEOLOGIST: Tami Ross

Conoco Phillips Fed Comp 15 Unit A Farmington, New Mexico		ENVIROTECH INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS 5706 U.S. HIGHWAY 64 FARMINGTON, NEW MEXICO 87401 (505) 632-0615 E-mail: <a href="mailto:EnviroTech@juno.com">EnviroTech@juno.com</a>	MW-3			
REVISIONS BY _____ BY _____	DATE _____ DATE _____	Project No. 96052-1B9	DATE 11/23/04 SCALE NONE	DRAWN CJC APPROVED CJC	PAGE 1 OF 1	

**BELLOW GRADE WELL COMPLETION  
DIAGRAM / LITHOLOGY LOG**

MW-4



DRILLER: KELLY PADILLA

HELPER: Farrell, Chee/Jerold, Joe

DRILLING COMPANY; ENVIROTECH

DRILLING METHOD: HSA

BIT SIZE: 7 7/8

TOTAL BORING DEPTH: 20'

DATE STARTED: 11/22/04

SAMPLER TYPE: SS

LOCATION: Fed Comp 15 Unit A

**ELEVATION:**

DATE COMPLETED 11/22/04

GEOLOGIST: Tomi Ross

Conoco Phillips Fed Comp 15 Unit A Farmington, New Mexico	 ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 FARMINGTON, NEW MEXICO 87401 (505) 632-0615 BisCredLog4mg	MW-4
REVISIONS BY    DATE _____ BY    DATE _____	Project No. 96052-189	DATE <u>11/23/04</u> DRAWN <u>TCR</u> SCALE <u>NONE</u> APPROVED <u>CJC</u>
		PAGE <u>1</u> OF <u>1</u>

PROJECT NAME: Federal #15  
 LOCATION: ConocoPhillips Federal #15  
 DRILLED BY: Spectrum  
 DATE: HOLE STARTED: 10/19/06  
 DATE: COMPLETED: 10/19/06  
 REMARKS: bgs = below ground surface  
 NA=Not Applicable, NS=No Sample  
 MW=Monitoring Well,  
 msl = mean sea level  
 TOC = Top of Casing

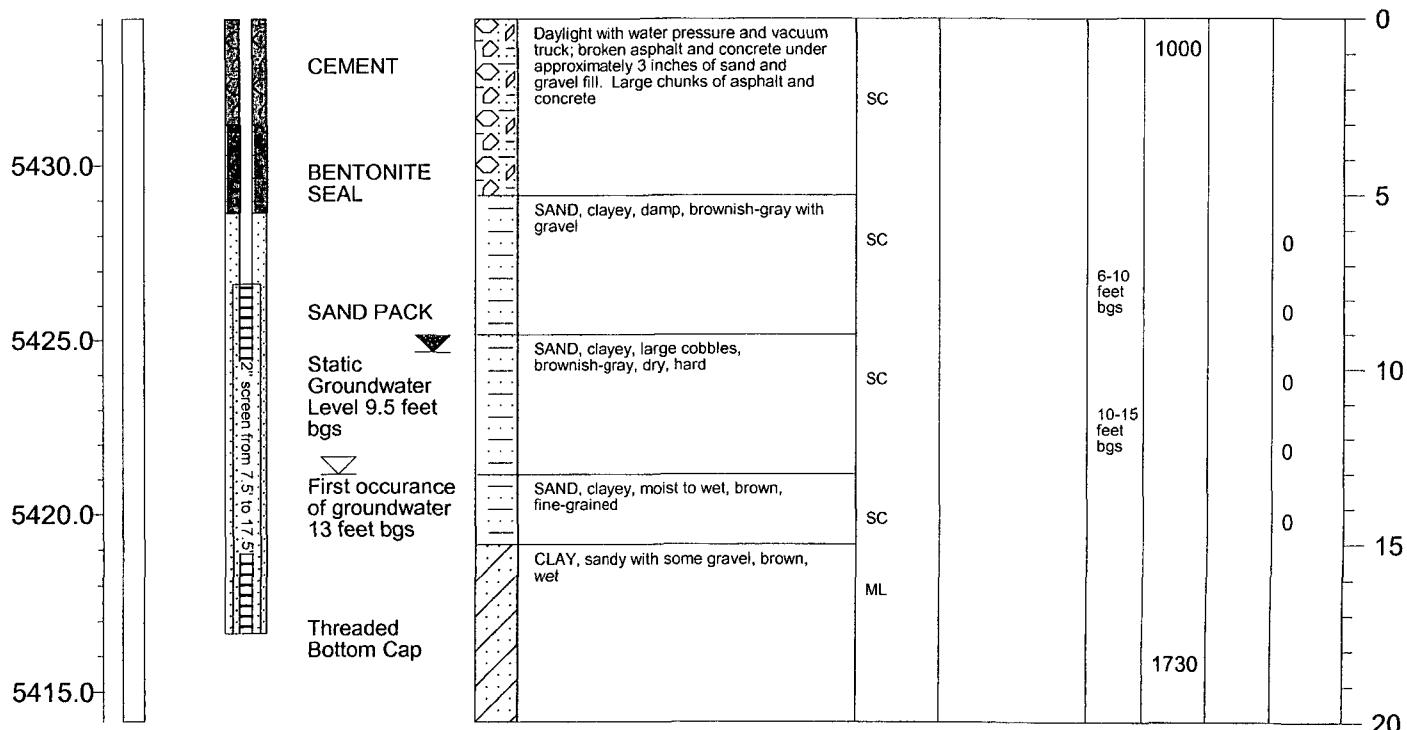
MONITORING WELL NO. MW-5  
 FIELD LOGGED BY: Kelly Henderson  
 ELEVATION: GROUND SURFACE (msl): Not Measured (ft)  
 GROUNDWATER (below TOC): 9.5 (ft)  
 DRILL TYPE: Hollow Stem Auger/Air Hammer  
 BORE HOLE DIAMETER: 8 (in)

#### WELL COMPLETION INFORMATION

Measuring Point Description: Top of Casing (TOC)  
 Measuring Point Elevation (feet): 5434.16 ft msl  
 Static Water Level (feet): 9.5  
 First Occurrence of Groundwater (feet): 13  
 Well Development: Water Extraction Until Visibly Free of Sediment  
 Well Cap: expandable locking

Type of Casing: PVC  
 Casing Diameter: 2 inches  
 Slot Size: 0.010  
 Total Well Depth (feet bgs): 17.5

ELEVATION (msl) - ft	SAMPLE INTERVAL ID #	COMPLETION DIAGRAM	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
----------------------	----------------------	--------------------	--------------------------------	-------------	------------	------------	------	------------	------------------	------------------



## **APPENDIX D**

Groundwater Laboratory Analytical Reports



**STL**

**STL Denver**  
4955 Yarrow Street  
Arvada, CO 80002

Tel: 303 736 0100 Fax: 303 431 7171  
[www.stl-inc.com](http://www.stl-inc.com)

## **ANALYTICAL REPORT**

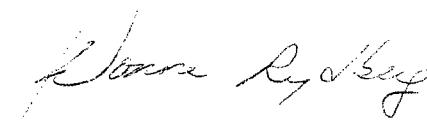
**Federal Com #15**  
WO# 6845MAX001

Lot #: D5A190333

Mr. Clyde Yancey

Maxim Technologies  
10601 Lomas NE  
Suite 106  
Albuquerque, NM 87112

Severn Trent Laboratories



Donna Rydberg  
Project Manager

January 27, 2005

# Table Of Contents

## *Standard Deliverables*

Report Contents	Total Number of Pages
<b><i>Standard Deliverables</i></b> <i>The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.</i>	<div style="border: 1px solid black; padding: 5px; text-align: center;">45</div>
<ul style="list-style-type: none"><li>• Table of Contents</li><li>• Case Narrative</li><li>• Executive Summary – Detection Highlights</li><li>• Methods Summary</li><li>• Method/Analyst Summary</li><li>• Lot Sample Summary</li><li>• Analytical Results</li><li>• QC Data Association Summary</li><li>• Chain-of-Custody</li></ul>	

## Case Narrative

D5A190333

The following report contains the analytical result for five samples and a Trip Blank submitted to STL Denver on January 19, 2005, according to documented sample acceptance procedures.

The results included in this report have been reviewed for compliance with STL's Quality Assurance/Quality Control (QA/QC) plan.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. 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 concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The test results shown in this report meet all requirements of NELAC. Any exceptions are noted below.

### **Supplemental QC Information**

#### Sample Arrival and Receipt

The samples presented in this report were received at the laboratory at a temperature of 4.4°C. Sample containers were received in acceptable condition.

#### Method 8260B – GC/MS Volatiles

Samples D5A190333-003, -004 and -005 were analyzed at a dilution for Method 8260B to bring target compounds within the linear calibration range of the instrument. Reporting limits were raised accordingly.

No other anomalies were observed.

#### Method 8270C/PAH - GC/MS Semivolatiles

A MS/MSD were not requested and they could not be performed for Method 8270C due to insufficient sample volume. The associated LCS/LCSD and Method Blank were within control limits.

No other anomalies were observed.

Lot D5A190333 continued

General Chemistry – Method 300.0A Chloride

Sample D5A190333-001 was analyzed at a dilution due to high analyte concentrations. Reporting limits were raised accordingly.

The percent recoveries for chloride in the MS and MSD were estimated due to concentrations exceeding the instrument calibration range.

No other anomalies were observed.

# EXECUTIVE SUMMARY - Detection Highlights

D5A190333

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>MW-1 01/18/05 11:20 001</b>				
Chloride	85 Q	15	mg/L	MCAWW 300.0A
<b>MW-4 01/18/05 12:15 002</b>				
Benzene	2.8	1.0	ug/L	SW846 8260B
Chloride	37	3.0	mg/L	MCAWW 300.0A
<b>MW-3 01/18/05 12:50 003</b>				
Benzene	190	5.0	ug/L	SW846 8260B
Chloride	34	3.0	mg/L	MCAWW 300.0A
<b>MW-2 01/18/05 13:30 004</b>				
2-Methylnaphthalene	72	10	ug/L	SW846 8270C
1-Methylnaphthalene	34	10	ug/L	SW846 8270C
Naphthalene	51	10	ug/L	SW846 8270C
Benzene	1200	67	ug/L	SW846 8260B
Ethylbenzene	380	67	ug/L	SW846 8260B
Toluene	3300	67	ug/L	SW846 8260B
Xylenes (total)	3500	130	ug/L	SW846 8260B
Chloride	41	3.0	mg/L	MCAWW 300.0A
<b>DUPLICATE 01/18/05 13:45 005</b>				
Benzene	1300	67	ug/L	SW846 8260B
Ethylbenzene	410	67	ug/L	SW846 8260B
Toluene	3700	67	ug/L	SW846 8260B
Xylenes (total)	3800	130	ug/L	SW846 8260B

# ANALYTICAL METHODS SUMMARY

DSA190333

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Chloride	MCAWW 300.0A
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Volatile Organics by GC/MS	SW846 8260B

## References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

## METHOD / ANALYST SUMMARY

D5A190333

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 300.0A	Andrita Scofield	004409
SW846 8260B	Dan Appelhans	001008
SW846 8260B	Joann Peterson	011674
SW846 8270C	Barbara Sullivan	001128

### References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical  
Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

D5A190333

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
G2WEN	001	MW-1	01/18/05	11:20
G2WE4	002	MW-4	01/18/05	12:15
G2WE5	003	MW-3	01/18/05	12:50
G2WE6	004	MW-2	01/18/05	13:30
G2WE7	005	DUPLICATE	01/18/05	13:45
G2WE8	006	TRIP BLANK	01/18/05	13:55

## NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

**ConocoPhillips**

**Client Sample ID: MW-1**

**GC/MS Volatiles**

Lot-Sample #....: D5A190333-001 Work Order #....: G2WEN1AA Matrix.....: WATER  
Date Sampled...: 01/18/05 11:20 Date Received...: 01/19/05  
Prep Date.....: 01/25/05 Analysis Date...: 01/25/05  
Prep Batch #....: 5026272 Analysis Time...: 18:19  
Dilution Factor: 1

Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	93	(73 - 118)
1,2-Dichloroethane-d4	95	(62 - 128)
4-Bromofluorobenzene	88	(78 - 118)
Toluene-d8	108	(77 - 117)

## ConocoPhillips

Client Sample ID: MW-1

## GC/MS Semivolatiles

Lot-Sample #....: D5A190333-001    Work Order #....: G2WEN1AC    Matrix.....: WATER  
 Date Sampled...: 01/18/05 11:20    Date Received...: 01/19/05  
 Prep Date.....: 01/19/05    Analysis Date...: 01/23/05  
 Prep Batch #....: 5019443    Analysis Time...: 16:55  
 Dilution Factor: 1  
 Method.....: SW846 8270C

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
1-Methylnaphthalene	ND	10	ug/L
Naphthalene	ND	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	78	(33 - 106)
Phenol-d5	82	(40 - 105)
Nitrobenzene-d5	79	(48 - 108)
2-Fluorobiphenyl	65	(39 - 93 )
2,4,6-Tribromophenol	84	(31 - 122)
Terphenyl-d14	94	(20 - 123)

**ConocoPhillips**

**Client Sample ID: MW-1**

**General Chemistry**

**Lot-Sample #....: D5A190333-001    Work Order #....: G2WEN                      Matrix.....: WATER**  
**Date Sampled....: 01/18/05 11:20    Date Received...: 01/19/05**

<b>PARAMETER</b>	<b>RESULT</b>	<b>RL</b>	<b>UNITS</b>	<b>METHOD</b>	<b>PREPARATION-</b>	<b>PREP</b>
					<b>ANALYSIS DATE</b>	<b>BATCH #</b>
<b>Chloride</b>	<b>85 Q</b>	<b>15</b>	<b>mg/L</b>	<b>MCAWW 300.0A</b>	<b>01/24-01/25/05</b>	<b>5025235</b>
		Dilution Factor: 5		Analysis Time..: 00:06		

**NOTE(S) :**

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

## ConocoPhillips

Client Sample ID: MW-4

## GC/MS Volatiles

Lot-Sample #....: D5A190333-002    Work Order #....: G2WE41AA    Matrix.....: WATER  
 Date Sampled....: 01/18/05 12:15    Date Received...: 01/19/05  
 Prep Date.....: 01/25/05    Analysis Date...: 01/25/05  
 Prep Batch #....: 5026272    Analysis Time...: 18:44  
 Dilution Factor: 1

Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Benzene	2.8	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	93	(73 - 118)
1,2-Dichloroethane-d4	94	(62 - 128)
4-Bromofluorobenzene	88	(78 - 118)
Toluene-d8	103	(77 - 117)

## ConocoPhillips

Client Sample ID: MW-4

## GC/MS Semivolatiles

Lot-Sample #....: D5A190333-002    Work Order #....: G2WE41AC    Matrix.....: WATER  
 Date Sampled....: 01/18/05 12:15    Date Received...: 01/19/05  
 Prep Date.....: 01/19/05    Analysis Date...: 01/23/05  
 Prep Batch #....: 5019443    Analysis Time...: 17:18  
 Dilution Factor: 1  
 Method.....: SW846 8270C

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a, h)anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1, 2, 3-cd)pyrene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
1-Methylnaphthalene	ND	10	ug/L
Naphthalene	ND	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	73	(33 - 106)
Phenol-d5	76	(40 - 105)
Nitrobenzene-d5	73	(48 - 108)
2-Fluorobiphenyl	62	(39 - 93 )
2, 4, 6-Tribromophenol	73	(31 - 122)
Terphenyl-d14	76	(20 - 123)

ConocoPhillips

Client Sample ID: MW-4

General Chemistry

Lot-Sample #....: D5A190333-002    Work Order #....: G2WE4    Matrix.....: WATER  
Date Sampled...: 01/18/05 12:15    Date Received..: 01/19/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Chloride	37	3.0	mg/L	MCAWW 300.0A	01/24-01/25/05	5025235

Dilution Factor: 1                          Analysis Time.: 01:12

## ConocoPhillips

Client Sample ID: MW-3

## GC/MS Volatiles

Lot-Sample #....: D5A190333-003    Work Order #....: G2WE51AA    Matrix.....: WATER  
 Date Sampled....: 01/18/05 12:50    Date Received...: 01/19/05  
 Prep Date.....: 01/26/05    Analysis Date...: 01/26/05  
 Prep Batch #....: 5027118    Analysis Time...: 12:02  
 Dilution Factor: 5  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	190	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
Xylenes (total)	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 118)
1,2-Dichloroethane-d4	114	(62 - 128)
4-Bromofluorobenzene	97	(78 - 118)
Toluene-d8	101	(77 - 117)

## ConocoPhillips

Client Sample ID: MW-3

## GC/MS Semivolatiles

Lot-Sample #....: D5A190333-003    Work Order #....: G2WE51AC    Matrix.....: WATER  
 Date Sampled...: 01/18/05 12:50    Date Received...: 01/19/05  
 Prep Date.....: 01/19/05    Analysis Date...: 01/23/05  
 Prep Batch #....: 5019443    Analysis Time...: 17:41  
 Dilution Factor: 1

Method.....: SW846 8270C

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo (a) anthracene	ND	10	ug/L
Benzo (b) fluoranthene	ND	10	ug/L
Benzo (k) fluoranthene	ND	10	ug/L
Benzo (ghi) perylene	ND	10	ug/L
Benzo (a) pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz (a, h) anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno (1, 2, 3-cd) pyrene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
1-Methylnaphthalene	ND	10	ug/L
Naphthalene	ND	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	65	(33 - 106)
Phenol-d5	69	(40 - 105)
Nitrobenzene-d5	73	(48 - 108)
2-Fluorobiphenyl	58	(39 - 93 )
2, 4, 6-Tribromophenol	60	(31 - 122)
Terphenyl-d14	74	(20 - 123)

**ConocoPhillips**

**Client Sample ID: MW-3**

**General Chemistry**

**Lot-Sample #....: D5A190333-003      Work Order #....: G2WE5      Matrix.....: WATER**  
**Date Sampled...: 01/18/05 12:50      Date Received...: 01/19/05**

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Chloride	34	3.0	mg/L	MCAWW 300.0A	01/24-01/25/05	5025235
		Dilution Factor: 1		Analysis Time...: 02:02		

ConocoPhillips

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #....: D5A190333-004    Work Order #....: G2WE61AA    Matrix.....: WATER  
Date Sampled....: 01/18/05 13:30    Date Received...: 01/19/05  
Prep Date.....: 01/25/05    Analysis Date...: 01/25/05  
Prep Batch #....: 5026272    Analysis Time...: 19:35  
Dilution Factor: 66.67

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	1200	67	ug/L
Ethylbenzene	380	67	ug/L
Toluene	3300	67	ug/L
Xylenes (total)	3500	130	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 118)
1,2-Dichloroethane-d4	90	(62 - 128)
4-Bromofluorobenzene	89	(78 - 118)
Toluene-d8	105	(77 - 117)

## ConocoPhillips

Client Sample ID: MW-2

## GC/MS Semivolatiles

Lot-Sample #....: D5A190333-004    Work Order #....: G2WE61AC    Matrix.....: WATER  
 Date Sampled....: 01/18/05 13:30    Date Received...: 01/19/05  
 Prep Date.....: 01/19/05    Analysis Date...: 01/23/05  
 Prep Batch #....: 5019443    Analysis Time...: 18:04  
 Dilution Factor: 1

Method.....: SW846 8270C

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
<b>2-Methylnaphthalene</b>	<b>72</b>	<b>10</b>	<b>ug/L</b>
<b>1-Methylnaphthalene</b>	<b>34</b>	<b>10</b>	<b>ug/L</b>
Naphthalene	51	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	56	(33 - 106)
Phenol-d5	82	(40 - 105)
Nitrobenzene-d5	77	(48 - 108)
2-Fluorobiphenyl	74	(39 - 93 )
2,4,6-Tribromophenol	85	(31 - 122)
Terphenyl-d14	76	(20 - 123)

ConocoPhillips

Client Sample ID: MW-2

General Chemistry

Lot-Sample #....: D5A190333-004    Work Order #....: G2WE6    Matrix.....: WATER  
Date Sampled....: 01/18/05 13:30    Date Received...: 01/19/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP	BATCH #
					ANALYSIS DATE	01/24-01/25/05	
Chloride	41	3.0	mg/L	MCAWW 300.0A	Analysis Time...: 02:51		5025235

Dilution Factor: 1

Analysis Time...: 02:51

## ConocoPhillips

Client Sample ID: DUPLICATE

## GC/MS Volatiles

Lot-Sample #....: D5A190333-005 Work Order #....: G2WE71AA Matrix.....: WATER  
Date Sampled....: 01/18/05 13:45 Date Received...: 01/19/05  
Prep Date.....: 01/25/05 Analysis Date...: 01/25/05  
Prep Batch #....: 5026272 Analysis Time...: 20:01  
Dilution Factor: 66.67

Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Benzene	1300	67	ug/L
Ethylbenzene	410	67	ug/L
Toluene	3700	67	ug/L
Xylenes (total)	3800	130	ug/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	93	(73 - 118)
1,2-Dichloroethane-d4	93	(62 - 128)
4-Bromofluorobenzene	90	(78 - 118)
Toluene-d8	98	(77 - 117)

**ConocoPhillips**

**Client Sample ID: TRIP BLANK**

**GC/MS Volatiles**

**Lot-Sample #....: D5A190333-006 Work Order #....: G2WE81AA Matrix.....: WATER**  
**Date Sampled....: 01/18/05 13:55 Date Received...: 01/19/05**  
**Prep Date.....: 01/25/05 Analysis Date...: 01/25/05**  
**Prep Batch #....: 5026272 Analysis Time...: 20:27**  
**Dilution Factor: 1**  
**Method.....: SW846 8260B**

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>
		<u>LIMIT</u>
		<u>UNITS</u>
Benzene	ND	1.0 ug/L
Ethylbenzene	ND	1.0 ug/L
Toluene	ND	1.0 ug/L
Xylenes (total)	ND	2.0 ug/L

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Dibromofluoromethane	92	(73 - 118)
1,2-Dichloroethane-d4	93	(62 - 128)
4-Bromofluorobenzene	89	(78 - 118)
Toluene-d8	102	(77 - 117)

# QC DATA ASSOCIATION SUMMARY

D5A190333

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 300.0A		5025235	5025153
	WATER	SW846 8260B		5026272	5026165
	WATER	SW846 8270C		5019443	
002	WATER	MCAWW 300.0A		5025235	5025153
	WATER	SW846 8260B		5026272	5026165
	WATER	SW846 8270C		5019443	
003	WATER	MCAWW 300.0A		5025235	5025153
	WATER	SW846 8260B		5027118	5027060
	WATER	SW846 8270C		5019443	
004	WATER	MCAWW 300.0A		5025235	5025153
	WATER	SW846 8260B		5026272	5026165
	WATER	SW846 8270C		5019443	
005	WATER	SW846 8260B		5026272	5026165
006	WATER	SW846 8260B		5026272	5026165

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D5A190333  
MB Lot-Sample #: D5A260000-272  
  
Analysis Date..: 01/25/05  
Dilution Factor: 1

Work Order #...: G28K61AA  
  
Prep Date.....: 01/25/05  
Prep Batch #...: 5026272

Matrix.....: WATER  
  
Analysis Time.: 13:30

PARAMETER

Benzene  
Ethylbenzene  
Toluene  
Xylenes (total)

RESULT	REPORTING		
	LIMIT	UNITS	METHOD
ND	1.0	ug/L	SW846 8260B
ND	1.0	ug/L	SW846 8260B
ND	1.0	ug/L	SW846 8260B
ND	2.0	ug/L	SW846 8260B

SURROGATE

Dibromofluoromethane  
1,2-Dichloroethane-d4  
4-Bromofluorobenzene  
Toluene-d8

RECOVERY	PERCENT	RECOVERY
	LIMITS	
94	(73 - 118)	
94	(62 - 128)	
91	(78 - 118)	
104	(77 - 117)	

NOTE(S) :

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

**Client Lot #....:** D5A190333      **Work Order #....:** G28K61AC      **Matrix.....:** WATER  
**LCS Lot-Sample#:** D5A260000-272  
**Prep Date.....:** 01/25/05      **Analysis Date..:** 01/25/05  
**Prep Batch #....:** 5026272      **Analysis Time..:** 13:58  
**Dilution Factor:** 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
1,1-Dichloroethene	113	(66 - 132)	SW846 8260B
Chlorobenzene	101	(78 - 118)	SW846 8260B
Benzene	113	(75 - 120)	SW846 8260B
Trichloroethene	102	(79 - 122)	SW846 8260B
Toluene	116	(78 - 118)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	90	(73 - 118)
1,2-Dichloroethane-d4	92	(62 - 128)
4-Bromofluorobenzene	87	(78 - 118)
Toluene-d8	102	(77 - 117)

NOTE (S) :

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

**Bold print denotes control parameters**

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

**Client Lot #....:** D5A190333      **Work Order #....:** G28K61AC      **Matrix.....:** WATER  
**LCS Lot-Sample#:** D5A260000-272  
**Prep Date.....:** 01/25/05      **Analysis Date...:** 01/25/05  
**Prep Batch #....:** 5026272      **Analysis Time..:** 13:58  
**Dilution Factor:** 1

<u>PARAMETER</u>	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	UNITS	PERCENT <u>RECOVERY</u>	METHOD
1,1-Dichloroethene	10.0	11.3	ug/L	113	SW846 8260B
Chlorobenzene	10.0	10.1	ug/L	101	SW846 8260B
Benzene	10.0	11.3	ug/L	113	SW846 8260B
Trichloroethene	10.0	10.2	ug/L	102	SW846 8260B
Toluene	10.0	11.6	ug/L	116	SW846 8260B

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Dibromofluoromethane	90	(73 - 118)
1,2-Dichloroethane-d4	92	(62 - 128)
4-Bromofluorobenzene	87	(78 - 118)
Toluene-d8	102	(77 - 117)

**NOTE (S) :**

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: D5A190333      Work Order #....: G22111A5-MS      Matrix.....: WATER  
 MS Lot-Sample #: D5A210359-005      G22111A6-MSD  
 Date Sampled...: 01/20/05 09:05      Date Received...: 01/21/05  
 Prep Date.....: 01/25/05      Analysis Date...: 01/25/05  
 Prep Batch #:....: 5026272      Analysis Time...: 14:57  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>			
1,1-Dichloroethene	<b>110</b>	(66 - 132)			<b>SW846 8260B</b>
	111	(66 - 132)	0.34	(0-26)	<b>SW846 8260B</b>
Chlorobenzene	<b>104</b>	(78 - 118)			<b>SW846 8260B</b>
	105	(78 - 118)	1.4	(0-20)	<b>SW846 8260B</b>
Benzene	<b>106</b>	(75 - 120)			<b>SW846 8260B</b>
	111	(75 - 120)	4.5	(0-21)	<b>SW846 8260B</b>
Trichloroethene	<b>98</b>	(79 - 122)			<b>SW846 8260B</b>
	101	(79 - 122)	3.4	(0-23)	<b>SW846 8260B</b>
Toluene	<b>112</b>	(78 - 118)			<b>SW846 8260B</b>
	113	(78 - 118)	0.43	(0-22)	<b>SW846 8260B</b>

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Dibromofluoromethane	90	(73 - 118)
	92	(73 - 118)
1,2-Dichloroethane-d4	88	(62 - 128)
	90	(62 - 128)
4-Bromofluorobenzene	89	(78 - 118)
	86	(78 - 118)
Toluene-d8	106	(77 - 117)
	103	(77 - 117)

**NOTE(S) :**

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

Bold print denotes control parameters

**MATRIX SPIKE SAMPLE DATA REPORT**

**GC/MS Volatiles**

**Client Lot #....:** D5A190333      **Work Order #....:** G22111A5-MS      **Matrix.....:** WATER  
**MS Lot-Sample #:** D5A210359-005      G22111A6-MSD  
**Date Sampled....:** 01/20/05 09:05      **Date Received...:** 01/21/05  
**Prep Date.....:** 01/25/05      **Analysis Date...:** 01/25/05  
**Prep Batch #....:** 5026272      **Analysis Time...:** 14:57  
**Dilution Factor:** 1

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	METHOD
1,1-Dichloroethene	ND	<b>10.0</b>	11.0	ug/L	110		SW846 8260B
	ND	<b>10.0</b>	11.1	ug/L	111	0.34	SW846 8260B
Chlorobenzene	ND	<b>10.0</b>	10.4	ug/L	104		SW846 8260B
	ND	<b>10.0</b>	10.5	ug/L	105	1.4	SW846 8260B
Benzene	ND	<b>10.0</b>	10.8	ug/L	106		SW846 8260B
	ND	<b>10.0</b>	11.3	ug/L	111	4.5	SW846 8260B
Trichloroethene	ND	<b>10.0</b>	9.99	ug/L	98		SW846 8260B
	ND	<b>10.0</b>	10.3	ug/L	101	3.4	SW846 8260B
Toluene	ND	<b>10.0</b>	11.5	ug/L	112		SW846 8260B
	ND	<b>10.0</b>	11.5	ug/L	113	0.43	SW846 8260B

SURROGATE	PERCENT		RECOVERY	LIMITS
	RECOVERY			
Dibromofluoromethane	90		(73 - 118)	
	92		(73 - 118)	
1,2-Dichloroethane-d4	88		(62 - 128)	
	90		(62 - 128)	
4-Bromofluorobenzene	89		(78 - 118)	
	86		(78 - 118)	
Toluene-d8	106		(77 - 117)	
	103		(77 - 117)	

**NOTE(S) :**

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

Bold print denotes control parameters

**METHOD BLANK REPORT**

**GC/MS Volatiles**

Client Lot #....: D5A190333  
MB Lot-Sample #: D5A270000-118  
Analysis Date...: 01/26/05  
Dilution Factor: 1

Work Order #....: G29071AA  
Prep Date.....: 01/26/05  
Prep Batch #: 5027118

Matrix.....: WATER  
Analysis Time.: 11:12

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT	RECOVERY	
		RECOVERY	LIMITS
Dibromofluoromethane	107	(73	- 118)
1, 2-Dichloroethane-d4	120	(62	- 128)
4-Bromofluorobenzene	104	(78	- 118)
Toluene-d8	107	(77	- 117)

**NOTE(S) :**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: D5A190333      Work Order #....: G29071AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D5A270000-118      G29071AD-LCSD  
 Prep Date.....: 01/26/05      Analysis Date...: 01/26/05  
 Prep Batch #....: 5027118      Analysis Time...: 10:25  
 Dilution Factor: 1

<u>PARAMETER</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>	RPD <u>RPD</u>	LIMITS	METHOD
<b>1,1-Dichloroethene</b>	<b>100</b>	(66 - 132)	<b>3.8</b>	(0-26)	<b>SW846 8260B</b>
	97	(66 - 132)			<b>SW846 8260B</b>
<b>Chlorobenzene</b>	<b>97</b>	(78 - 118)	1.2	(0-20)	<b>SW846 8260B</b>
	99	(78 - 118)			<b>SW846 8260B</b>
<b>Benzene</b>	<b>102</b>	(75 - 120)	1.2	(0-21)	<b>SW846 8260B</b>
	100	(75 - 120)			<b>SW846 8260B</b>
<b>Trichloroethene</b>	<b>100</b>	(79 - 122)	0.97	(0-23)	<b>SW846 8260B</b>
	99	(79 - 122)			<b>SW846 8260B</b>
<b>Toluene</b>	<b>96</b>	(78 - 118)	0.060	(0-22)	<b>SW846 8260B</b>
	96	(78 - 118)			<b>SW846 8260B</b>

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
<b>Dibromofluoromethane</b>	105	(73 - 118)
	104	(73 - 118)
<b>1,2-Dichloroethane-d4</b>	115	(62 - 128)
	114	(62 - 128)
<b>4-Bromofluorobenzene</b>	100	(78 - 118)
	99	(78 - 118)
<b>Toluene-d8</b>	102	(77 - 117)
	102	(77 - 117)

NOTE (S) :

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: D5A190333      Work Order #....: G29071AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D5A270000-118      G29071AD-LCSD  
 Prep Date.....: 01/26/05      Analysis Date...: 01/26/05  
 Prep Batch #...: 5027118      Analysis Time..: 10:25  
 Dilution Factor: 1

<u>PARAMETER</u>	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	UNITS	PERCENT <u>RECOVERY</u>	RPD	METHOD
1,1-Dichloroethene	10.0	10.0	ug/L	100		SW846 8260B
	10.0	9.65	ug/L	97	3.8	SW846 8260B
Chlorobenzene	10.0	9.75	ug/L	97		SW846 8260B
	10.0	9.86	ug/L	99	1.2	SW846 8260B
Benzene	10.0	10.2	ug/L	102		SW846 8260B
	10.0	10.0	ug/L	100	1.2	SW846 8260B
Trichloroethene	10.0	9.95	ug/L	100		SW846 8260B
	10.0	9.85	ug/L	99	0.97	SW846 8260B
Toluene	10.0	9.58	ug/L	96		SW846 8260B
	10.0	9.57	ug/L	96	0.060	SW846 8260B

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Dibromofluoromethane	105	(73 - 118)
	104	(73 - 118)
1,2-Dichloroethane-d4	115	(62 - 128)
	114	(62 - 128)
4-Bromofluorobenzene	100	(78 - 118)
	99	(78 - 118)
Toluene-d8	102	(77 - 117)
	102	(77 - 117)

NOTE(S) :

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: D5A190333      Work Order #....: G2WE51AE-MS      Matrix.....: WATER  
 MS Lot-Sample #: D5A190333-003      G2WE51AF-MSD  
 Date Sampled....: 01/18/05 12:50      Date Received...: 01/19/05  
 Prep Date.....: 01/26/05      Analysis Date...: 01/26/05  
 Prep Batch #....: 5027118      Analysis Time...: 15:28  
 Dilution Factor: 5

PARAMETER	PERCENT	RECOVERY	RPD	LIMITS	METHOD
	RECOVERY	LIMITS			
1,1-Dichloroethene	100	(66 - 132)			SW846 8260B
	101	(66 - 132)	0.96	(0-26)	SW846 8260B
Chlorobenzene	104	(78 - 118)			SW846 8260B
	108	(78 - 118)	3.9	(0-20)	SW846 8260B
Benzene	104	(75 - 120)			SW846 8260B
	114	(75 - 120)	2.1	(0-21)	SW846 8260B
Trichloroethene	105	(79 - 122)			SW846 8260B
	109	(79 - 122)	4.2	(0-23)	SW846 8260B
Toluene	104	(78 - 118)			SW846 8260B
	108	(78 - 118)	3.0	(0-22)	SW846 8260B

SURROGATE	PERCENT	RECOVERY	LIMITS
	RECOVERY	LIMITS	
Dibromofluoromethane	104	(73 - 118)	
	104	(73 - 118)	
1,2-Dichloroethane-d4	114	(62 - 128)	
	114	(62 - 128)	
4-Bromofluorobenzene	97	(78 - 118)	
	102	(78 - 118)	
Toluene-d8	102	(77 - 117)	
	103	(77 - 117)	

**NOTE (S) :**

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: D5A190333      Work Order #....: G2WE51AE-MS      Matrix.....: WATER  
 MS Lot-Sample #: D5A190333-003      G2WE51AF-MSD  
 Date Sampled....: 01/18/05 12:50      Date Received...: 01/19/05  
 Prep Date.....: 01/26/05      Analysis Date...: 01/26/05  
 Prep Batch #....: 5027118      Analysis Time...: 15:28  
 Dilution Factor: 5

<u>PARAMETER</u>	<u>SAMPLE</u>	<u>SPIKE</u>	<u>MEASRD</u>	<u>UNITS</u>	<u>PERCNT</u>		
	<u>AMOUNT</u>	<u>AMT</u>	<u>AMOUNT</u>	<u>ug/L</u>	<u>RECVRY</u>	<u>RPD</u>	<u>METHOD</u>
1,1-Dichloroethene	ND	50.0	50.1	ug/L	100		SW846 8260B
	ND	50.0	50.6	ug/L	101	0.96	SW846 8260B
Chlorobenzene	ND	50.0	52.1	ug/L	104		SW846 8260B
	ND	50.0	54.1	ug/L	108	3.9	SW846 8260B
Benzene	190	50.0	246	ug/L	104		SW846 8260B
	190	50.0	251	ug/L	114	2.1	SW846 8260B
Trichloroethene	ND	50.0	52.5	ug/L	105		SW846 8260B
	ND	50.0	54.7	ug/L	109	4.2	SW846 8260B
Toluene	ND	50.0	53.2	ug/L	104		SW846 8260B
	ND	50.0	54.8	ug/L	108	3.0	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Dibromofluoromethane	104	(73 - 118)
	104	(73 - 118)
1,2-Dichloroethane-d4	114	(62 - 128)
	114	(62 - 128)
4-Bromofluorobenzene	97	(78 - 118)
	102	(78 - 118)
Toluene-d8	102	(77 - 117)
	103	(77 - 117)

NOTE(S) :

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

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #....: D5A190333  
MB Lot-Sample #: D5A190000-443

Analysis Date...: 01/23/05  
Dilution Factor: 1

Work Order #....: G2WK01AA

Prep Date.....: 01/19/05  
Prep Batch #....: 5019443

Matrix.....: WATER

Analysis Time..: 14:37

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	METHOD
Acenaphthene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Benzo(a)anthracene	ND	10	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
1-Methylnaphthalene	ND	10	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
2-Fluorophenol	80	(33 - 106)	
Phenol-d5	83	(40 - 105)	
Nitrobenzene-d5	81	(48 - 108)	
2-Fluorobiphenyl	64	(39 - 93)	
2,4,6-Tribromophenol	76	(31 - 122)	
Terphenyl-d14	99	(20 - 123)	

NOTE(S) :

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Semivolatiles

Client Lot #....: D5A190333      Work Order #....: G2WK01AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D5A190000-443      G2WK01AD-LCSD  
 Prep Date.....: 01/19/05      Analysis Date...: 01/23/05  
 Prep Batch #....: 5019443      Analysis Time...: 15:00  
 Dilution Factor: 1

<u>PARAMETER</u>	PERCENT RECOVERY	RECOVERY <u>LIMITS</u>	RPD	LIMITS	<u>METHOD</u>
					SW846 8270C
4-Chloro-3-methylphenol	72	(59 ~ 106)	4.2	(0-28)	SW846 8270C
	76	(59 ~ 106)			SW846 8270C
2-Chlorophenol	72	(59 ~ 103)			SW846 8270C
	76	(59 ~ 103)	5.5	(0-38)	SW846 8270C
Acenaphthene	69	(52 ~ 102)			SW846 8270C
	73	(52 ~ 102)	6.1	(0-28)	SW846 8270C
1,4-Dichlorobenzene	54	(43 ~ 91)			SW846 8270C
	55	(43 ~ 91)	1.7	(0-50)	SW846 8270C
2,4-Dinitrotoluene	72	(50 ~ 111)			SW846 8270C
	72	(50 ~ 111)	0.72	(0-30)	SW846 8270C
4-Nitrophenol	63	(38 ~ 116)			SW846 8270C
	64	(38 ~ 116)	2.0	(0-53)	SW846 8270C
N-Nitrosodi-n-propyl- amine	71	(51 ~ 99)			SW846 8270C
	75	(51 ~ 99)	6.1	(0-27)	SW846 8270C
Pentachlorophenol	61	(41 ~ 113)			SW846 8270C
	64	(41 ~ 113)	5.1	(0-50)	SW846 8270C
Phenol	72	(57 ~ 103)			SW846 8270C
	75	(57 ~ 103)	4.2	(0-36)	SW846 8270C
1,2,4-Trichloro- benzene	57	(42 ~ 94)			SW846 8270C
	60	(42 ~ 94)	6.2	(0-44)	SW846 8270C
Pyrene	87	(47 ~ 112)			SW846 8270C
	89	(47 ~ 112)	1.8	(0-33)	SW846 8270C

<u>SURROGATE</u>	PERCENT RECOVERY	RECOVERY
		<u>LIMITS</u>
2-Fluorophenol	73	(55 ~ 95)
	76	(55 ~ 95)
Phenol-d5	77	(58 ~ 97)
	80	(58 ~ 97)
Nitrobenzene-d5	74	(55 ~ 100)
	78	(55 ~ 100)
2-Fluorobiphenyl	54	(40 ~ 93)
	52	(40 ~ 93)
2,4,6-Tribromophenol	72	(51 ~ 107)
	75	(51 ~ 107)
Terphenyl-d14	95	(49 ~ 111)

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #....: D5A190333      Work Order #....: G2WK01AC-LCS      Matrix.....: WATER  
LCS Lot-Sample#: D5A190000-443                                    G2WK01AD-LCSD

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
	95	(49 - 111)

**NOTE(S) :**

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

Bold print denotes control parameters

**LABORATORY CONTROL SAMPLE DATA REPORT**

**GC/MS Semivolatiles**

Client Lot #....: D5A190333      Work Order #....: G2WK01AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D5A190000-443      G2WK01AD-LCSD  
 Prep Date.....: 01/19/05      Analysis Date...: 01/23/05  
 Prep Batch #:....: 5019443      Analysis Time...: 15:00  
 Dilution Factor: 1

PARAMETER	SPIKE	MEASURED	PERCENT	METHOD
	AMOUNT	AMOUNT	RECOVERY	
4-Chloro-3-methylphenol	150	109	72	SW846 8270C
	150	113	76	SW846 8270C
2-Chlorophenol	150	108	72	SW846 8270C
	150	114	76	SW846 8270C
Acenaphthene	100	68.8	69	SW846 8270C
	100	73.2	73	SW846 8270C
1,4-Dichlorobenzene	100	54.4	54	SW846 8270C
	100	55.4	55	SW846 8270C
2,4-Dinitrotoluene	100	72.4	72	SW846 8270C
	100	71.8	72	SW846 8270C
4-Nitrophenol	150	94.3	63	SW846 8270C
	150	96.2	64	SW846 8270C
N-Nitrosodi-n-propyl-amine	100	70.7	71	SW846 8270C
	100	75.2	75	SW846 8270C
Pentachlorophenol	150	91.1	61	SW846 8270C
	150	95.9	64	SW846 8270C
Phenol	150	108	72	SW846 8270C
	150	113	75	SW846 8270C
1,2,4-Trichlorobenzene	100	56.7	57	SW846 8270C
	100	60.3	60	SW846 8270C
Pyrene	100	87.1	87	SW846 8270C
	100	88.7	89	SW846 8270C
<b>SURROGATE</b>		PERCENT	RECOVERY	
		RECOVERY	LIMITS	
2-Fluorophenol		73	(55 - 95)	
		76	(55 - 95)	
Phenol-d5		77	(58 - 97)	
		80	(58 - 97)	
Nitrobenzene-d5		74	(55 - 100)	
		78	(55 - 100)	
2-Fluorobiphenyl		54	(40 - 93)	
		52	(40 - 93)	
2,4,6-Tribromophenol		72	(51 - 107)	
		75	(51 - 107)	
Terphenyl-d14		95	(49 - 111)	

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D5A190333      Work Order #...: G2WK01AC-LCS      Matrix.....: WATER  
LCS Lot-Sample#: D5A190000-443                                    G2WK01AD-LCSD

<u>SURROGATE</u>	PERCENT	RECOVERY
	<u>RECOVERY</u>	<u>LIMITS</u>
	95	(49 - 111)

**NOTE (S) :**

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

Bold print denotes control parameters

METHOD BLANK REPORT

General Chemistry

Client Lot #...: D5A190333

Matrix.....: WATER

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	PREP
		LIMIT	UNITS				
Chloride	ND	Work Order #:	G26QT1AA	MB Lot-Sample #:	D5A250000-235		
		3.0	mg/L	MCAWW 300.0A		01/24/05	5025235
		Dilution Factor: 1					
		Analysis Time..: 15:51					

NOTE(S) :

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

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**General Chemistry**

**Lot-Sample #....:** D5A190333

**Matrix.....:** WATER

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	PREP
	RECOVERY	LIMITS	RPD		LIMITS	ANALYSIS DATE
Chloride		WO#:G26QT1AC-LCS/G26QT1AD-LCSD		LCS	Lot-Sample#:	D5A250000-235
	102	(90 - 110)		MCAWW 300.0A	01/24/05	5025235
	102	(90 - 110) 0.09 (0-10)		MCAWW 300.0A	01/24/05	5025235
		Dilution Factor: 1		Analysis Time...: 15:18		

**NOTE(S) :**

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

## LABORATORY CONTROL SAMPLE DATA REPORT

## General Chemistry

Lot-Sample #....: D5A190333

Matrix.....: WATER

PARAMETER	SPIKE	MEASURED	PERCNT			METHOD	PREPARATION-	PREP
	AMOUNT	AMOUNT	UNITS	RECVRY	RPD		ANALYSIS DATE	BATCH #
Chloride			WO#: G26QT1AC-LCS/G26QT1AD-LCSD			LCS	Lot-Sample#: D5A250000-235	
	20.0	20.5	mg/L	102		MCAWW 300.0A	01/24/05	5025235
	20.0	20.5	mg/L	102	0.09	MCAWW 300.0A	01/24/05	5025235
			Dilution Factor:	1		Analysis Time...: 15:18		

NOTE(S) :

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

## MATRIX SPIKE SAMPLE EVALUATION REPORT

## General Chemistry

Client Lot #....: D5A190333

Matrix.....: WATER

Date Sampled....: 01/17/05 06:00 Date Received..: 01/17/05

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	PREP	
	RECOVERY	LIMITS	RPD		ANALYSIS DATE	BATCH #	
Chloride		WO#: G2P9G1CH-MS/G2P9G1CJ-MSD		MS Lot-Sample #:	D5A170175-001		
	104 I	(80 - 120)		MCAWW 300.0A	01/24/05	5025235	
	104 I	(80 - 120)	0.29 (0-20)	MCAWW 300.0A	01/24/05	5025235	
				Dilution Factor: 1			
				Analysis Time...: 19:26			

NOTE(S) :

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

I Estimated result. Result concentration exceeds the calibration range.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: D5A190333

Matrix.....: WATER

Date Sampled...: 01/17/05 06:00 Date Received..: 01/17/05

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT	PREPARATION-	PREP			
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD	ANALYSIS DATE	BATCH #
Chloride				WO#: G2P9G1CH-MS/G2P9G1CJ-MSD	MS	Lot-Sample #:	D5A170175-001		
	1500	1250	2820 I	mg/L	104		MCAWW 300.0A	01/24/05	5025235
	1500	1250	2830 I	mg/L	104	0.29	MCAWW 300.0A	01/24/05	5025235

Dilution Factor: 1  
Analysis Time.: 19:26

NOTE(S) :

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

I Estimated result. Result concentration exceeds the calibration range.

# Chain of Custody Record

**SEVERN  
TRENT**

**STL Denver**

4955 Yarrow Street  
Arvada, CO 80002

**Severn Trent Laboratories, Inc.**

STL-4124 (0901)	Client <b>Maxxim Technologies</b>	Project Manager <b>Clayde Yannick</b>	Date <b>1-18-65</b>	Chain of Custody Number <b>316571</b>
Address <b>1601 Lomas NE, Suite 166</b>	Telephone Number (Area Code)/Fax Number <b>(505) 237-8440 / 8656</b>	Lab Number <b>1</b>	Page <b>1</b>	of <b>1</b>
City <b>Albuquerque</b>	State <b>NM</b>	Zip Code <b>87112</b>	Site Contact <b>Kelly Henderson</b>	Carrier/Mailbox Number <b>Donna Rydberg</b>
Project Name and Location (State)				

Contract/Purchase Order/Quote No.

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives			
			UHPC	Soil	Sed.	Aquous	UHPC	NaOH	ZnAc2	HOAc
MW - 1	1-18-65	11:20	X				X	X	X	
MW - 4	1-18-65	12:15	X				X	X	X	
MW - 3	1-18-65	12:30	X				X	X	X	
MW - 2	1-18-65	13:30	X				X	X	X	
Duplicate	1-18-65	13:45	X				X			
Top Blank	1-18-65	13:55	X				X			

Possible Hazard Identification

Non-Hazard    Flammable

Skin Irritant

Poison B

Unknown

Poison A

21 Days

Other

Turn Around Time Required

24 Hours

48 Hours

7 Days

14 Days

21 Days

Other

1. Relinquished By

**Kelly C. Henderson**

Date  
**1-18-65**

Time  
**16:06**

1. Received By

**J. M. H. H.**

Date  
**1-18-65**

Time  
**16:06**

2. Received By

**J. M. H. H.**

Date  
**1-18-65**

Time  
**16:06**

3. Received By

**J. M. H. H.**

Date  
**1-18-65**

Time  
**16:06**

Sample Disposal

Return To Client

Disposal By Lab

Archive For

Months

(A fee may be assessed if samples are retained longer than 1 month)

QC Requirements (Specify)	Date <b>1-18-65</b>	Time <b>05:30</b>

Comments  
**3**

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

STL Denver  
Sample Receiving Checklist

Lot #: DSA190333

Date/Time Received: 11/19/05

0930

Company Name & Sampling Site: MAXIM TECHNOLOGIES

PM to Complete This Section: Yes  No

Residual chlorine check required:

Quarantined: Yes  No

Quote #: 24203

Special Instructions:

Time Zone:

• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): ✓ \_\_\_\_\_

Temperatures (°C): 4.9 \_\_\_\_\_

N/A Yes No

Initials LL

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Chain of custody present? If no, document on CUR.
- 3. Bottles broken and/or are leaking? If yes, document on CUR.
- 4. Multiphasic samples obvious? If yes, document on CUR.
- 5. Proper container & preservatives used? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR.
- 6. pH of all samples checked and meet requirements? If no, document on CUR.
- 7. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 8. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 9. Were VOA samples without headspace? If no, document on CUR.
- 10. Were VOA vials preserved? Preservative  HCl  41°C  Sodium Thiosulfate  Ascorbic Acid   11. Did samples require preservation with sodium thiosulfate?
- 12. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 13. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 14. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 15. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 16. Are analyses with short holding times requested?
- 17. Was a quick Turn Around (TAT) requested?

*STL Denver*  
**Sample Receiving Checklist**

Lot # DSA 190333

**Login Checks:**

N/A Yes No

*Initials*

- 18. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 19. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 20. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 21. Were special log in instructions read and followed?
- 22. Were AFCEE metals logged for refrigerated storage?
- 23. Were tests logged checked against the COC? Which samples were confirmed? 081 486
- 24. Was a Rush form completed for quick TAT?
- 25. Was a Short Hold form completed for any short holds?
- 26. Is "Strict ICOC" required?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

**Labeling and Storage Checks:**

*Initials*

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box and to the ICOC? See #27
- 33. Were AFCEE metals stored refrigerated?
- 34. Were "Strict ICOC" copies given to satellite storage areas?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

SEVERN  
TRENT

STL

STL Denver  
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Arvada, CO 80002

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[www.stl-inc.com](http://www.stl-inc.com)

## AMENDED ANALYTICAL REPORT

Federal Com #15

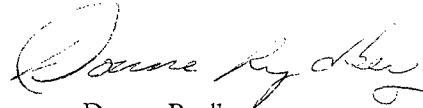
WO# 6845MAX005

Lot #: D5J210459

Ms. Kelly Henderson

Maxim Technologies  
10601 Lomas NE  
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Albuquerque, NM 87112

Severn Trent Laboratories



Donna Rydberg  
Project Manager

November 7, 2005

# Table Of Contents

## *Standard Deliverables*

### Report Contents

Total Number  
of Pages

#### **Standard Deliverables**

*The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.*

44

- Table of Contents
- Case Narrative
- Executive Summary – Detection Highlights
- Methods Summary
- Method/Analyst Summary
- Lot Sample Summary
- Analytical Results
- QC Data Association Summary
- Chain-of-Custody

## Case Narrative

**D5J210459**

The following report contains the analytical result for six samples and a Trip Blank submitted to STL Denver on October 21, 2005, according to documented sample acceptance procedures.

The results included in this report have been reviewed for compliance with STL's Quality Assurance/Quality Control (QA/QC) plan.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. 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 concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The test results shown in this report meet all requirements of NELAC. Any exceptions are noted below.

### **Supplemental QC Information**

#### **Sample Arrival and Receipt**

The samples presented in this report were received at the laboratory at temperatures of 2.8°C and 4.7°C. Sample containers were received in acceptable condition.

#### **Method 8260B – GC/MS Volatiles**

Samples D5J210459-003 and -006 were analyzed at a dilution to bring target compounds within the linear calibration range of the instrument. Reporting limits were raised accordingly.

No other anomalies were observed.

#### **Method 8270C/PAH - GC/MS Semivolatiles**

A MS/MSD was not requested and they could not be performed due to insufficient sample volume. The associated LCS and Method Blank are in control. Data was accepted.

No other anomalies were observed.

#### **General Chemistry**

Each sample was analyzed at the lowest dilution possible. In some cases, due to interference or analytes present above the linear calibration curve, samples must be analyzed at a dilution. For samples analyzed at a dilution, the reporting limits are adjusted relative to the dilution required. Samples analyzed at a dilution due to high analyte content are flagged "Q".

No other anomalies were observed.

# EXECUTIVE SUMMARY - Detection Highlights

D5J210459

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>MW-5 10/20/05 11:00 001</b>				
Chloride	73 Q	15	mg/L	SW846 9056
<b>MW-1 10/19/05 11:00 002</b>				
Chloride	39	3.0	mg/L	SW846 9056
<b>MW-2 10/19/05 12:45 003</b>				
2-Methylnaphthalene	18	10	ug/L	SW846 8270C
1-Methylnaphthalene	11	10	ug/L	SW846 8270C
Naphthalene	15	10	ug/L	SW846 8270C
Benzene	1100	40	ug/L	SW846 8260B
Ethylbenzene	160	40	ug/L	SW846 8260B
Toluene	410	40	ug/L	SW846 8260B
Xylenes (total)	570	80	ug/L	SW846 8260B
Chloride	60 Q	15	mg/L	SW846 9056
<b>MW-3 10/19/05 11:30 004</b>				
Chloride	42	3.0	mg/L	SW846 9056
<b>MW-4 10/19/05 12:00 005</b>				
Benzene	23	1.0	ug/L	SW846 8260B
Toluene	2.2	1.0	ug/L	SW846 8260B
Xylenes (total)	4.3	2.0	ug/L	SW846 8260B
Chloride	51 Q	15	mg/L	SW846 9056
<b>DUPPLICATE 10/19/05 13:00 006</b>				
Benzene	1100	40	ug/L	SW846 8260B
Ethylbenzene	150	40	ug/L	SW846 8260B
Toluene	500	40	ug/L	SW846 8260B
Xylenes (total)	610	80	ug/L	SW846 8260B

## METHODS SUMMARY

D5J210459

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Chloride	SW846 9056	SW846 9056
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3520C
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

### References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# METHOD / ANALYST SUMMARY

D5J210459

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
SW846 8260B	Daniel Kiekel	011370
SW846 8270C	Mike G. Hoffman	001880
SW846 9056	Andrita Scofield	004409

## **References:**

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

D5J210459

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HNDKA	001	MW-5	10/20/05	11:00
HNG9C	002	MW-1	10/19/05	11:00
HNG9D	003	MW-2	10/19/05	12:45
HNG9E	004	MW-3	10/19/05	11:30
HNG9F	005	MW-4	10/19/05	12:00
HNG9G	006	DUPLICATE	10/19/05	13:00
HNG9H	007	TRIP BLANK	10/19/05	12:30

## NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

**Maxim Technologies, Inc.**

**Client Sample ID: MW-5**

**GC/MS Volatiles**

**Lot-Sample #....:** D5J210459-001    **Work Order #....:** HNDKA1AA    **Matrix.....:** WATER  
**Date Sampled....:** 10/20/05 11:00    **Date Received...:** 10/21/05  
**Prep Date.....:** 10/31/05    **Analysis Date...:** 11/01/05  
**Prep Batch #....:** 5305650    **Analysis Time...:** 00:50  
**Dilution Factor:** 1  
**Method.....:** SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Benzene	ND	1.0	ug/L	0.16
Ethylbenzene	ND	1.0	ug/L	0.16
Toluene	ND	1.0	ug/L	0.17
Xylenes (total)	ND	2.0	ug/L	0.19

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Dibromofluoromethane	102	(79 - 119)
1,2-Dichloroethane-d4	103	(65 - 126)
4-Bromofluorobenzene	101	(75 - 115)
Toluene-d8	100	(78 - 118)

## Maxim Technologies, Inc.

Client Sample ID: MW-1

## GC/MS Volatiles

Lot-Sample #....: D5J210459-002 Work Order #....: HNG9C1AA Matrix.....: WATER  
 Date Sampled....: 10/19/05 11:00 Date Received...: 10/21/05  
 Prep Date.....: 10/31/05 Analysis Date...: 11/01/05  
 Prep Batch #....: 5305650 Analysis Time...: 01:10  
 Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.16
Ethylbenzene	ND	1.0	ug/L	0.16
Toluene	ND	1.0	ug/L	0.17
Xylenes (total)	ND	2.0	ug/L	0.19

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Dibromofluoromethane	100	(79	- 119)
1,2-Dichloroethane-d4	99	(65	- 126)
4-Bromofluorobenzene	107	(75	- 115)
Toluene-d8	101	(78	- 118)

Maxim Technologies, Inc.

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #....: D5J210459-003 Work Order #....: HNG9D1AA Matrix.....: WATER  
Date Sampled...: 10/19/05 12:45 Date Received...: 10/21/05  
Prep Date.....: 11/01/05 Analysis Date...: 11/01/05  
Prep Batch #....: 5305659 Analysis Time...: 19:19  
Dilution Factor: 40 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Benzene	1100	40	ug/L	6.4
Ethylbenzene	160	40	ug/L	6.4
Toluene	410	40	ug/L	6.8
Xylenes (total)	570	80	ug/L	7.6

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Dibromofluoromethane	90	(79 - 119)	
1,2-Dichloroethane-d4	98	(65 - 126)	
4-Bromofluorobenzene	93	(75 - 115)	
Toluene-d8	107	(78 - 118)	

## Maxim Technologies, Inc.

Client Sample ID: MW-3

## GC/MS Volatiles

Lot-Sample #....: D5J210459-004 Work Order #....: HNG9E1AA Matrix.....: WATER  
 Date Sampled....: 10/19/05 11:30 Date Received...: 10/21/05  
 Prep Date.....: 10/31/05 Analysis Date...: 11/01/05  
 Prep Batch #....: 5305650 Analysis Time...: 01:51  
 Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.16
Ethylbenzene	ND	1.0	ug/L	0.16
Toluene	ND	1.0	ug/L	0.17
Xylenes (total)	ND	2.0	ug/L	0.19

SURROGATE	PERCENT		RECOVERY
	RECOVERY	LIMITS	
Dibromofluoromethane	106	(79 - 119)	
1,2-Dichloroethane-d4	108	(65 - 126)	
4-Bromofluorobenzene	112	(75 - 115)	
Toluene-d8	109	(78 - 118)	

**Maxim Technologies, Inc.**

**Client Sample ID: MW-4**

**GC/MS Volatiles**

**Lot-Sample #....:** D5J210459-005    **Work Order #....:** HNG9F1AA    **Matrix.....:** WATER  
**Date Sampled....:** 10/19/05 12:00    **Date Received...:** 10/21/05  
**Prep Date.....:** 10/31/05    **Analysis Date...:** 11/01/05  
**Prep Batch #....:** 5305650    **Analysis Time...:** 02:12  
**Dilution Factor:** 1

**Method.....:** SW846 8260B

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING</b>		
		<b>LIMIT</b>	<b>UNITS</b>	<b>MDL</b>
Benzene	23	1.0	ug/L	0.16
Ethylbenzene	ND	1.0	ug/L	0.16
Toluene	2.2	1.0	ug/L	0.17
Xylenes (total)	4.3	2.0	ug/L	0.19

<b>SURROGATE</b>	<b>PERCENT</b>	<b>RECOVERY</b>
	<b>RECOVERY</b>	<b>LIMITS</b>
Dibromofluoromethane	99	(79 - 119)
1,2-Dichloroethane-d4	102	(65 - 126)
4-Bromofluorobenzene	110	(75 - 115)
Toluene-d8	110	(78 - 118)

## Maxim Technologies, Inc.

Client Sample ID: DUPLICATE

## GC/MS Volatiles

Lot-Sample #....: D5J210459-006 Work Order #....: HNG9G1AA Matrix.....: WATER  
 Date Sampled....: 10/19/05 13:00 Date Received...: 10/21/05  
 Prep Date.....: 11/01/05 Analysis Date...: 11/01/05  
 Prep Batch #....: 5305659 Analysis Time...: 19:39  
 Dilution Factor: 40

Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Benzene	1100	40	ug/L	6.4
Ethylbenzene	150	40	ug/L	6.4
Toluene	500	40	ug/L	6.8
Xylenes (total)	610	80	ug/L	7.6

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	
		<u>RECOVERY</u>	<u>LIMITS</u>
Dibromofluoromethane	92	(79 - 119)	
1,2-Dichloroethane-d4	97	(65 - 126)	
4-Bromofluorobenzene	93	(75 - 115)	
Toluene-d8	107	(78 - 118)	

Maxim Technologies, Inc.

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #....: D5J210459-007 Work Order #....: HNG9H1AA Matrix.....: WATER  
Date Sampled....: 10/19/05 12:30 Date Received...: 10/21/05  
Prep Date.....: 11/01/05 Analysis Date...: 11/01/05  
Prep Batch #....: 5305659 Analysis Time...: 19:59  
Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Benzene	ND	1.0	ug/L	0.16
Ethylbenzene	ND	1.0	ug/L	0.16
Toluene	ND	1.0	ug/L	0.17
Xylenes (total)	ND	2.0	ug/L	0.19

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Dibromofluoromethane	94	(79	- 119)
1,2-Dichloroethane-d4	102	(65	- 126)
4-Bromofluorobenzene	89	(75	- 115)
Toluene-d8	105	(78	- 118)

**Maxim Technologies, Inc.**

Client Sample ID: MW-5

**GC/MS Semivolatiles**

Lot-Sample #....: D5J210459-001    Work Order #....: HNDKA1AC    Matrix.....: WATER  
Date Sampled....: 10/20/05 11:00    Date Received...: 10/21/05  
Prep Date.....: 10/25/05    Analysis Date...: 10/28/05  
Prep Batch #....: 5298620    Analysis Time...: 17:10  
Dilution Factor: 1  
Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibenz(a,h)anthracene	ND	10	ug/L	1.4
Acenaphthene	ND	10	ug/L	1.7
Acenaphthylene	ND	10	ug/L	1.8
Anthracene	ND	10	ug/L	1.9
Benzo(a)anthracene	ND	10	ug/L	1.7
Benzo(b)fluoranthene	ND	10	ug/L	1.4
Benzo(k)fluoranthene	ND	10	ug/L	2.1
Benzo(ghi)perylene	ND	10	ug/L	2.0
Benzo(a)pyrene	ND	10	ug/L	1.3
Chrysene	ND	10	ug/L	2.0
Fluoranthene	ND	10	ug/L	1.8
Fluorene	ND	10	ug/L	1.7
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	1.5
2-Methylnaphthalene	ND	10	ug/L	1.6
1-Methylnaphthalene	ND	10	ug/L	1.7
Naphthalene	ND	10	ug/L	1.5
Phenanthrene	ND	10	ug/L	2.0
Pyrene	ND	10	ug/L	2.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	64	(45 - 92 )
Phenol-d5	72	(49 - 98 )
Nitrobenzene-d5	70	(50 - 99 )
2-Fluorobiphenyl	61	(43 - 91 )
2,4,6-Tribromophenol	71	(48 - 113)
Terphenyl-d14	77	(10 - 150)

## Maxim Technologies, Inc.

Client Sample ID: MW-1

## GC/MS Semivolatiles

Lot-Sample #....: D5J210459-002    Work Order #....: HNG9C1AC    Matrix.....: WATER  
 Date Sampled...: 10/19/05 11:00    Date Received...: 10/21/05  
 Prep Date.....: 10/25/05    Analysis Date...: 10/28/05  
 Prep Batch #....: 5298620    Analysis Time...: 17:30  
 Dilution Factor: 1

Method.....: SW846 8270C

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Dibenz(a, h)anthracene	ND	10	ug/L	1.4
Acenaphthene	ND	10	ug/L	1.7
Acenaphthylene	ND	10	ug/L	1.8
Anthracene	ND	10	ug/L	1.9
Benzo(a)anthracene	ND	10	ug/L	1.7
Benzo(b)fluoranthene	ND	10	ug/L	1.4
Benzo(k)fluoranthene	ND	10	ug/L	2.1
Benzo(ghi)perylene	ND	10	ug/L	2.0
Benzo(a)pyrene	ND	10	ug/L	1.3
Chrysene	ND	10	ug/L	2.0
Fluoranthene	ND	10	ug/L	1.8
Fluorene	ND	10	ug/L	1.7
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	1.5
2-Methylnaphthalene	ND	10	ug/L	1.6
1-Methylnaphthalene	ND	10	ug/L	1.7
Naphthalene	ND	10	ug/L	1.5
Phenanthrene	ND	10	ug/L	2.0
Pyrene	ND	10	ug/L	2.1

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	69	(45 - 92 )
Phenol-d5	78	(49 - 98 )
Nitrobenzene-d5	76	(50 - 99 )
2-Fluorobiphenyl	66	(43 - 91 )
2,4,6-Tribromophenol	78	(48 - 113)
Terphenyl-d14	81	(10 - 150)

## Maxim Technologies, Inc.

Client Sample ID: MW-2

## GC/MS Semivolatiles

Lot-Sample #....: D5J210459-003    Work Order #....: HNG9D1AC    Matrix.....: WATER  
 Date Sampled....: 10/19/05 12:45    Date Received...: 10/21/05  
 Prep Date.....: 10/25/05    Analysis Date...: 10/28/05  
 Prep Batch #....: 5298620    Analysis Time...: 17:50  
 Dilution Factor: 1  
 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Dibenz(a,h)anthracene	ND	10	ug/L	1.4
Acenaphthene	ND	10	ug/L	1.7
Acenaphthylene	ND	10	ug/L	1.8
Anthracene	ND	10	ug/L	1.9
Benzo(a)anthracene	ND	10	ug/L	1.7
Benzo(b)fluoranthene	ND	10	ug/L	1.4
Benzo(k)fluoranthene	ND	10	ug/L	2.1
Benzo(ghi)perylene	ND	10	ug/L	2.0
Benzo(a)pyrene	ND	10	ug/L	1.3
Chrysene	ND	10	ug/L	2.0
Fluoranthene	ND	10	ug/L	1.8
Fluorene	ND	10	ug/L	1.7
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	1.5
2-Methylnaphthalene	18	10	ug/L	1.6
1-Methylnaphthalene	11	10	ug/L	1.7
Naphthalene	15	10	ug/L	1.5
Phenanthrene	ND	10	ug/L	2.0
Pyrene	ND	10	ug/L	2.1

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
2-Fluorophenol	72	(45	- 92 )
Phenol-d5	84	(49	- 98 )
Nitrobenzene-d5	81	(50	- 99 )
2-Fluorobiphenyl	67	(43	- 91 )
2,4,6-Tribromophenol	81	(48	- 113)
Terphenyl-d14	75	(10	- 150)

**Maxim Technologies, Inc.**

**Client Sample ID: MW-3**

**GC/MS Semivolatiles**

**Lot-Sample #....:** D5J210459-004    **Work Order #....:** HNG9E1AC    **Matrix.....:** WATER  
**Date Sampled....:** 10/19/05 11:30    **Date Received...:** 10/21/05  
**Prep Date.....:** 10/25/05    **Analysis Date...:** 10/28/05  
**Prep Batch #....:** 5298620    **Analysis Time...:** 18:09  
**Dilution Factor:** 1

**Method.....:** SW846 8270C

<b>PARAMETER</b>	<b>RESULT</b>	<b>REPORTING</b>		
		<b>LIMIT</b>	<b>UNITS</b>	<b>MDL</b>
Dibenz(a, h)anthracene	ND	10	ug/L	1.4
Acenaphthene	ND	10	ug/L	1.7
Acenaphthylene	ND	10	ug/L	1.8
Anthracene	ND	10	ug/L	1.9
Benzo(a)anthracene	ND	10	ug/L	1.7
Benzo(b)fluoranthene	ND	10	ug/L	1.4
Benzo(k)fluoranthene	ND	10	ug/L	2.1
Benzo(ghi)perylene	ND	10	ug/L	2.0
Benzo(a)pyrene	ND	10	ug/L	1.3
Chrysene	ND	10	ug/L	2.0
Fluoranthene	ND	10	ug/L	1.8
Fluorene	ND	10	ug/L	1.7
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	1.5
2-Methylnaphthalene	ND	10	ug/L	1.6
1-Methylnaphthalene	ND	10	ug/L	1.7
Naphthalene	ND	10	ug/L	1.5
Phenanthrene	ND	10	ug/L	2.0
Pyrene	ND	10	ug/L	2.1

<b>SURROGATE</b>	<b>PERCENT RECOVERY</b>	<b>RECOVERY</b>
		<b>LIMITS</b>
2-Fluorophenol	70	(45 - 92 )
Phenol-d5	76	(49 - 98 )
Nitrobenzene-d5	76	(50 - 99 )
2-Fluorobiphenyl	63	(43 - 91 )
2,4,6-Tribromophenol	72	(48 - 113)
Terphenyl-d14	80	(10 - 150)

## Maxim Technologies, Inc.

Client Sample ID: MW-4

## GC/MS Semivolatiles

Lot-Sample #....: D5J210459-005    Work Order #....: HNG9F1AC    Matrix.....: WATER  
 Date Sampled....: 10/19/05 12:00    Date Received...: 10/21/05  
 Prep Date.....: 10/25/05    Analysis Date...: 10/28/05  
 Prep Batch #....: 5298620    Analysis Time..: 18:29  
 Dilution Factor: 1  
 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dibenz(a, h)anthracene	ND	10	ug/L	1.4
Acenaphthene	ND	10	ug/L	1.7
Acenaphthylene	ND	10	ug/L	1.8
Anthracene	ND	10	ug/L	1.9
Benzo(a)anthracene	ND	10	ug/L	1.7
Benzo(b)fluoranthene	ND	10	ug/L	1.4
Benzo(k)fluoranthene	ND	10	ug/L	2.1
Benzo(ghi)perylene	ND	10	ug/L	2.0
Benzo(a)pyrene	ND	10	ug/L	1.3
Chrysene	ND	10	ug/L	2.0
Fluoranthene	ND	10	ug/L	1.8
Fluorene	ND	10	ug/L	1.7
Indeno(1, 2, 3-cd)pyrene	ND	10	ug/L	1.5
2-Methylnaphthalene	ND	10	ug/L	1.6
1-Methylnaphthalene	ND	10	ug/L	1.7
Naphthalene	ND	10	ug/L	1.5
Phenanthrene	ND	10	ug/L	2.0
Pyrene	ND	10	ug/L	2.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	65	(45 - 92 )
Phenol-d5	72	(49 - 98 )
Nitrobenzene-d5	73	(50 - 99 )
2-Fluorobiphenyl	60	(43 - 91 )
2, 4, 6-Tribromophenol	70	(48 - 113)
Terphenyl-d14	76	(10 - 150)

Maxim Technologies, Inc.

Client Sample ID: MW-5

General Chemistry

Lot-Sample #....: D5J210459-001    Work Order #....: HNDKA    Matrix.....: WATER  
Date Sampled...: 10/20/05 11:00    Date Received...: 10/21/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Chloride	73 Q	15	mg/L	SW846 9056	10/28-10/29/05	5302100
		Dilution Factor: 5		Analysis Time...: 12:09		MDL.....: 0.50

NOTE(S) :

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

Maxim Technologies, Inc.

Client Sample ID: MW-1

General Chemistry

Lot-Sample #...: D5J210459-002    Work Order #...: HNG9C    Matrix.....: WATER  
Date Sampled...: 10/19/05 11:00    Date Received..: 10/21/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Chloride	39	3.0	mg/L	SW846 9056	10/28/05	5302100

Dilution Factor: 1                          Analysis Time...: 22:27                          MDL.....: 0.10

**Maxim Technologies, Inc.**

**Client Sample ID: MW-2**

**General Chemistry**

**Lot-Sample #....: D5J210459-003    Work Order #....: HNG9D                  Matrix.....: WATER**  
**Date Sampled....: 10/19/05 12:45    Date Received...: 10/21/05**

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Chloride	60 Q	15	mg/L	SW846 9056	10/28/05	5302100
		Dilution Factor: 5		Analysis Time..: 23:29		MDL.....: 0.50

**NOTE (S) :**

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

Maxim Technologies, Inc.

Client Sample ID: MW-3

General Chemistry

Lot-Sample #....: D5J210459-004 Work Order #....: HNG9E Matrix.....: WATER  
Date Sampled....: 10/19/05 11:30 Date Received...: 10/21/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Chloride	42	3.0	mg/L	SW846 9056	10/28-10/29/05	5302100

Dilution Factor: 1 Analysis Time..: 00:30 MDL.....: 0.10

**Maxim Technologies, Inc.**

**Client Sample ID: MW-4**

**General Chemistry**

**Lot-Sample #....: D5J210459-005      Work Order #....: HNG9F      Matrix.....: WATER**  
**Date Sampled....: 10/19/05 12:00      Date Received...: 10/21/05**

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Chloride	51 Q	15	mg/L	SW846 9056	10/28-10/29/05	5302100

Dilution Factor: 5

Analysis Time...: 01:31

MDL.....: 0.50

**NOTE(S) :**

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

# QC DATA ASSOCIATION SUMMARY

D5J210459

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 9056		5302100	5302060
	WATER	SW846 8260B		5305650	5305348
	WATER	SW846 8270C		5298620	
002	WATER	SW846 9056		5302100	5302060
	WATER	SW846 8260B		5305650	5305348
	WATER	SW846 8270C		5298620	
003	WATER	SW846 9056		5302100	5302060
	WATER	SW846 8260B		5305659	5306460
	WATER	SW846 8270C		5298620	
004	WATER	SW846 9056		5302100	5302060
	WATER	SW846 8260B		5305650	5305348
	WATER	SW846 8270C		5298620	
005	WATER	SW846 9056		5302100	5302060
	WATER	SW846 8260B		5305650	5305348
	WATER	SW846 8270C		5298620	
006	WATER	SW846 8260B		5305659	5306460
007	WATER	SW846 8260B		5305659	5306460

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: D5J210459  
MB Lot-Sample #: D5K010000-650  
  
Analysis Date...: 10/31/05  
Dilution Factor: 1

Work Order #....: HN5M71AA

Matrix.....: WATER

Prep Date.....: 10/31/05  
Prep Batch #....: 5305650

Analysis Time...: 18:58

REPORTING				
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	97	(79 - 119)
1,2-Dichloroethane-d4	95	(65 - 126)
4-Bromofluorobenzene	100	(75 - 115)
Toluene-d8	100	(78 - 118)

NOTE(S) :

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: D5J210459      Work Order #....: HN5M71AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D5K010000-650      HN5M71AD-LCSD  
 Prep Date.....: 10/31/05      Analysis Date...: 10/31/05  
 Prep Batch #....: 5305650      Analysis Time...: 18:17  
 Dilution Factor: 1

PARAMETER	PERCENT	RECOVERY	RPD	LIMITS	METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
1,1-Dichloroethene	88	(68 - 133)			SW846 8260B
	94	(68 - 133)	6.1	(0-20)	SW846 8260B
Chlorobenzene	89	(78 - 118)			SW846 8260B
	94	(78 - 118)	4.9	(0-20)	SW846 8260B
Trichloroethene	92	(78 - 122)			SW846 8260B
	97	(78 - 122)	5.2	(0-20)	SW846 8260B
Benzene	93	(77 - 118)			SW846 8260B
	96	(77 - 118)	3.9	(0-20)	SW846 8260B
Toluene	89	(73 - 120)			SW846 8260B
	94	(73 - 120)	5.8	(0-20)	SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	94	(79 - 119)
	96	(79 - 119)
1,2-Dichloroethane-d4	91	(65 - 126)
	96	(65 - 126)
4-Bromofluorobenzene	97	(75 - 115)
	101	(75 - 115)
Toluene-d8	101	(78 - 118)
	100	(78 - 118)

NOTE(S) :

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

PARAMETER	SPIKE	MEASURED		PERCENT		METHOD
	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	
1,1-Dichloroethene	10.0	8.84	ug/L	88		SW846 8260B
	10.0	9.40	ug/L	94	6.1	SW846 8260B
Chlorobenzene	10.0	8.92	ug/L	89		SW846 8260B
	10.0	9.37	ug/L	94	4.9	SW846 8260B
Trichloroethene	10.0	9.25	ug/L	92		SW846 8260B
	10.0	9.75	ug/L	97	5.2	SW846 8260B
Benzene	10.0	9.27	ug/L	93		SW846 8260B
	10.0	9.64	ug/L	96	3.9	SW846 8260B
Toluene	10.0	8.85	ug/L	89		SW846 8260B
	10.0	9.38	ug/L	94	5.8	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	94	(79 - 119)
	96	(79 - 119)
1, 2-Dichloroethane-d4	91	(65 - 126)
	96	(65 - 126)
4-Bromofluorobenzene	97	(75 - 115)
	101	(75 - 115)
Toluene-d8	101	(78 - 118)
	100	(78 - 118)

**NOTE (S) :**

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

**Bold print** denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: D5J210459      Work Order #....: HNC4Q1AV-MS      Matrix.....: WATER  
 MS Lot-Sample #: D5J210377-004      HNC4Q1AW-MSD  
 Date Sampled....: 10/19/05 10:55      Date Received...: 10/21/05  
 Prep Date.....: 10/31/05      Analysis Date...: 10/31/05  
 Prep Batch #....: 5305650      Analysis Time...: 19:40  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
1,1-Dichloroethene	95	(68 - 133)			SW846 8260B
	98	(68 - 133)	3.5	(0-20)	SW846 8260B
Chlorobenzene	95	(78 - 118)			SW846 8260B
	96	(78 - 118)	0.60	(0-20)	SW846 8260B
Trichloroethene	97	(78 - 122)			SW846 8260B
	102	(78 - 122)	4.6	(0-20)	SW846 8260B
Benzene	94	(77 - 118)			SW846 8260B
	101	(77 - 118)	7.7	(0-20)	SW846 8260B
Toluene	101	(73 - 120)			SW846 8260B
	98	(73 - 120)	2.8	(0-20)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	94	(79 - 119)
	97	(79 - 119)
1,2-Dichloroethane-d4	91	(65 - 126)
	94	(65 - 126)
4-Bromofluorobenzene	103	(75 - 115)
	101	(75 - 115)
Toluene-d8	105	(78 - 118)
	103	(78 - 118)

NOTE(S) :

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT			METHOD
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	
1,1-Dichloroethene	ND	10.0	9.46	ug/L	95		SW846 8260B
	ND	10.0	9.80	ug/L	98	3.5	SW846 8260B
Chlorobenzene	ND	10.0	9.53	ug/L	95		SW846 8260B
	ND	10.0	9.59	ug/L	96	0.60	SW846 8260B
Trichloroethene	ND	10.0	9.70	ug/L	97		SW846 8260B
	ND	10.0	10.2	ug/L	102	4.6	SW846 8260B
Benzene	ND	10.0	9.35	ug/L	94		SW846 8260B
	ND	10.0	10.1	ug/L	101	7.7	SW846 8260B
Toluene	ND	10.0	10.1	ug/L	101		SW846 8260B
	ND	10.0	9.85	ug/L	98	2.8	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Dibromofluoromethane	94	(79 - 119)
	97	(79 - 119)
1,2-Dichloroethane-d4	91	(65 - 126)
	94	(65 - 126)
4-Bromofluorobenzene	103	(75 - 115)
	101	(75 - 115)
Toluene-d8	105	(78 - 118)
	103	(78 - 118)

**NOTE (S) :**

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

**Bold print** denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: D5J210459  
MB Lot-Sample #: D5K010000-659  
Analysis Date...: 11/01/05  
Dilution Factor: 1

Work Order #....: HN85L1AA  
Prep Date.....: 11/01/05  
Prep Batch #....: 5305659

Matrix.....: WATER  
Analysis Time..: 16:54

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	95	(79 - 119)
1,2-Dichloroethane-d4	105	(65 - 126)
4-Bromofluorobenzene	90	(75 - 115)
Toluene-d8	106	(78 - 118)

NOTE(S) :

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

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

## GC/MS Volatiles

PARAMETER	PERCENT	RECOVERY	RPD	METHOD
	RECOVERY	LIMITS	RPD	
1,1-Dichloroethene	92	(68 - 133)		SW846 8260B
	97	(68 - 133)	5.6	(0-20) SW846 8260B
Chlorobenzene	92	(78 - 118)		SW846 8260B
	99	(78 - 118)	6.9	(0-20) SW846 8260B
Trichloroethene	83	(78 - 122)		SW846 8260B
	88	(78 - 122)	5.4	(0-20) SW846 8260B
Benzene	94	(77 - 118)		SW846 8260B
	100	(77 - 118)	6.0	(0-20) SW846 8260B
Toluene	97	(73 - 120)		SW846 8260B
	103	(73 - 120)	6.0	(0-20) SW846 8260B

<u>SURROGATE</u>	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(79 - 119)
	94	(79 - 119)
1,2-Dichloroethane-d4	100	(65 - 126)
	103	(65 - 126)
4-Bromofluorobenzene	88	(75 - 115)
	89	(75 - 115)
Toluene-d8	104	(78 - 118)
	105	(78 - 118)

**NOTE (S) :**

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

**Bold print** denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: D5J210459      Work Order #....: HN85L1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D5K010000-659      HN85L1AD-LCSD  
 Prep Date.....: 11/01/05      Analysis Date...: 11/01/05  
 Prep Batch #....: 5305659      Analysis Time..: 16:13  
 Dilution Factor: 1

PARAMETER	SPIKE	MEASURED		PERCENT	RPD	METHOD
	AMOUNT	AMOUNT	UNITS	RECOVERY		
1,1-Dichloroethene	10.0	9.19	ug/L	92		SW846 8260B
	10.0	9.72	ug/L	97	5.6	SW846 8260B
Chlorobenzene	10.0	9.23	ug/L	92		SW846 8260B
	10.0	9.89	ug/L	99	6.9	SW846 8260B
Trichloroethene	10.0	8.29	ug/L	83		SW846 8260B
	10.0	8.75	ug/L	88	5.4	SW846 8260B
Benzene	10.0	9.37	ug/L	94		SW846 8260B
	10.0	9.95	ug/L	100	6.0	SW846 8260B
Toluene	10.0	9.70	ug/L	97		SW846 8260B
	10.0	10.3	ug/L	103	6.0	SW846 8260B

SURROGATE	SPIKE	PERCENT	RECOVERY
	AMOUNT	RECOVERY	LIMITS
Dibromofluoromethane	10.0	93	(79 - 119)
	10.0	94	(79 - 119)
1,2-Dichloroethane-d4	10.0	100	(65 - 126)
	10.0	103	(65 - 126)
4-Bromofluorobenzene	10.0	88	(75 - 115)
	10.0	89	(75 - 115)
Toluene-d8	10.0	104	(78 - 118)
	10.0	105	(78 - 118)

NOTE(S) :

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #...: D5J210459      Work Order #...: HNKEX1AG-MS      Matrix.....: WATER  
 MS Lot-Sample #: D5J250300-001      HNKEX1AH-MSD  
 Date Sampled...: 10/19/05 09:00 Date Received...: 10/25/05  
 Prep Date.....: 11/01/05      Analysis Date...: 11/01/05  
 Prep Batch #...: 5305659      Analysis Time...: 21:41  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
1,1-Dichloroethene	<b>88</b>	(68 - 133)			SW846 8260B
	86	(68 - 133)	1.6	(0-20)	SW846 8260B
Chlorobenzene	<b>89</b>	(78 - 118)			SW846 8260B
	94	(78 - 118)	5.0	(0-20)	SW846 8260B
Trichloroethene	<b>81</b>	(78 - 122)			SW846 8260B
	84	(78 - 122)	3.4	(0-20)	SW846 8260B
Benzene	<b>91</b>	(77 - 118)			SW846 8260B
	96	(77 - 118)	5.3	(0-20)	SW846 8260B
Toluene	<b>92</b>	(73 - 120)			SW846 8260B
	101	(73 - 120)	9.0	(0-20)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	93	(79 - 119)
	92	(79 - 119)
1,2-Dichloroethane-d4	97	(65 - 126)
	96	(65 - 126)
4-Bromofluorobenzene	90	(75 - 115)
	88	(75 - 115)
Toluene-d8	100	(78 - 118)
	103	(78 - 118)

NOTE(S) :

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

Bold print denotes control parameters

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: D5J210459      Work Order #....: HNKEX1AG-MS      Matrix.....: WATER  
 MS Lot-Sample #: D5J250300-001      HNKEX1AH-MSD  
 Date Sampled....: 10/19/05 09:00      Date Received...: 10/25/05  
 Prep Date.....: 11/01/05      Analysis Date...: 11/01/05  
 Prep Batch #....: 5305659      Analysis Time...: 21:41  
 Dilution Factor: 1

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT			METHOD
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	
1,1-Dichloroethene	ND	10.0	8.78	ug/L	88		SW846 8260B
	ND	10.0	8.64	ug/L	86	1.6	SW846 8260B
Chlorobenzene	ND	10.0	8.95	ug/L	89		SW846 8260B
	ND	10.0	9.40	ug/L	94	5.0	SW846 8260B
Trichloroethene	ND	10.0	8.15	ug/L	81		SW846 8260B
	ND	10.0	8.43	ug/L	84	3.4	SW846 8260B
Benzene	ND	10.0	9.13	ug/L	91		SW846 8260B
	ND	10.0	9.63	ug/L	96	5.3	SW846 8260B
Toluene	ND	10.0	9.53	ug/L	92		SW846 8260B
	ND	10.0	10.4	ug/L	101	9.0	SW846 8260B

SURROGATE	PERCENT	RECOVERY	RECOVERY
	RECOVERY	LIMITS	LIMITS
Dibromofluoromethane	93	(79 - 119)	
	92	(79 - 119)	
1,2-Dichloroethane-d4	97	(65 - 126)	
	96	(65 - 126)	
4-Bromofluorobenzene	90	(75 - 115)	
	88	(75 - 115)	
Toluene-d8	100	(78 - 118)	
	103	(78 - 118)	

**NOTE (S) :**

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

Bold print denotes control parameters

**METHOD BLANK REPORT**

**GC/MS Semivolatiles**

Client Lot #....: D5J210459  
 MB Lot-Sample #: D5J250000-620  
 Analysis Date...: 10/28/05  
 Dilution Factor: 1

Work Order #....: HNK091AA

Matrix.....: WATER

Prep Date.....: 10/25/05  
 Prep Batch #: 5298620

Analysis Time...: 16:07

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	METHOD
Acenaphthene	ND	10	ug/L	SW846 8270C
Acenaphthylene	ND	10	ug/L	SW846 8270C
Anthracene	ND	10	ug/L	SW846 8270C
Benzo(a)anthracene	ND	10	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	10	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	10	ug/L	SW846 8270C
Benzo(a)pyrene	ND	10	ug/L	SW846 8270C
Chrysene	ND	10	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	10	ug/L	SW846 8270C
Fluoranthene	ND	10	ug/L	SW846 8270C
Fluorene	ND	10	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	SW846 8270C
2-Methylnaphthalene	ND	10	ug/L	SW846 8270C
Naphthalene	ND	10	ug/L	SW846 8270C
Phenanthrene	ND	10	ug/L	SW846 8270C
Pyrene	ND	10	ug/L	SW846 8270C
1-Methylnaphthalene	ND	10	ug/L	SW846 8270C

SURROGATE	PERCENT	RECOVERY	
		RECOVERY	LIMITS
2-Fluorophenol	72	(45 - 92)	
Phenol-d5	81	(49 - 98)	
Nitrobenzene-d5	79	(50 - 99)	
2-Fluorobiphenyl	66	(43 - 91)	
2,4,6-Tribromophenol	72	(48 - 113)	
Terphenyl-d14	77	(10 - 150)	

**NOTE(S) :**

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

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Semivolatiles

Client Lot #....: D5J210459  
 LCS Lot-Sample#: D5J250000-620  
 Prep Date.....: 10/25/05  
 Prep Batch #....: 5298620  
 Dilution Factor: 1

Work Order #....: HNK091AC

Matrix.....: WATER

Analysis Date...: 10/28/05  
 Analysis Time...: 13:23

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Acenaphthene	76	(53 - 95)	SW846 8270C
Pyrene	84	(54 - 111)	SW846 8270C
4-Chloro-3-methylphenol	86	(55 - 101)	SW846 8270C
2-Chlorophenol	82	(53 - 99)	SW846 8270C
1,4-Dichlorobenzene	62	(47 - 87)	SW846 8270C
2,4-Dinitrotoluene	82	(54 - 106)	SW846 8270C
4-Nitrophenol	78	(46 - 109)	SW846 8270C
N-Nitrosodi-n-propyl-amine	72	(51 - 91)	SW846 8270C
Pentachlorophenol	71	(45 - 109)	SW846 8270C
Phenol	79	(50 - 101)	SW846 8270C
1,2,4-Trichlorobenzene	65	(43 - 90)	SW846 8270C

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	70	(54 - 94)
Phenol-d5	78	(55 - 101)
Nitrobenzene-d5	77	(56 - 97)
2-Fluorobiphenyl	65	(43 - 95)
2,4,6-Tribromophenol	73	(54 - 110)
Terphenyl-d14	82	(57 - 121)

NOTE(S) :

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

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Semivolatiles

Client Lot #....: D5J210459      Work Order #....: HNK091AC      Matrix.....: WATER  
 LCS Lot-Sample#: D5J250000-620  
 Prep Date.....: 10/25/05      Analysis Date...: 10/28/05  
 Prep Batch #....: 5298620      Analysis Time...: 13:23  
 Dilution Factor: 1

<u>PARAMETER</u>	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	UNITS	PERCENT <u>RECOVERY</u>	METHOD
Acenaphthene	100	75.5	ug/L	76	<b>SW846</b> 8270C
Pyrene	100	84.0	ug/L	84	<b>SW846</b> 8270C
4-Chloro-3-methylphenol	150	129	ug/L	86	<b>SW846</b> 8270C
2-Chlorophenol	150	122	ug/L	82	<b>SW846</b> 8270C
1,4-Dichlorobenzene	100	62.4	ug/L	62	<b>SW846</b> 8270C
2,4-Dinitrotoluene	100	82.3	ug/L	82	<b>SW846</b> 8270C
4-Nitrophenol	150	117	ug/L	78	<b>SW846</b> 8270C
N-Nitrosodi-n-propyl- amine	100	72.4	ug/L	72	<b>SW846</b> 8270C
Pentachlorophenol	150	106	ug/L	71	<b>SW846</b> 8270C
Phenol	150	119	ug/L	79	<b>SW846</b> 8270C
1,2,4-Trichloro- benzene	100	65.0	ug/L	65	<b>SW846</b> 8270C

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
2-Fluorophenol	70	(54 - 94)
Phenol-d5	78	(55 - 101)
Nitrobenzene-d5	77	(56 - 97)
2-Fluorobiphenyl	65	(43 - 95)
2,4,6-Tribromophenol	73	(54 - 110)
Terphenyl-d14	82	(57 - 121)

NOTE (S) :

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

Bold print denotes control parameters

METHOD BLANK REPORT

General Chemistry

Client Lot #....: D5J210459

Matrix.....: WATER

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	PREP
		LIMIT	UNITS	Work Order #: HN0EN1AA MB Lot-Sample #:			
Chloride	ND	3.0	mg/L	SW846 9056	10/28/05	D5J290000-100	5302100
				Dilution Factor: 1			
				Analysis Time...: 18:38			

NOTE(S) :

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #....: D5J210459

Matrix.....: WATER

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	PREP	ANALYSIS DATE	BATCH #
	RECOVERY	LIMITS	RPD		LIMITS	WO#: HN0EN1AC-LCS/HN0EN1AD-LCSD		
Chloride	101	(89 - 109)		SW846 9056		10/28/05	5302100	
	100	(89 - 109)	0.99 (0-10)	SW846 9056		10/28/05	5302100	

Dilution Factor: 1      Analysis Time...: 18:07

NOTE(S) :

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

## LABORATORY CONTROL SAMPLE DATA REPORT

## General Chemistry

Lot-Sample #....: D5J210459

Matrix.....: WATER

PARAMETER	SPIKE	MEASURED		PERCNT			METHOD	PREPARATION-	PREP
	AMOUNT	AMOUNT	UNITS	RECVRY	RPD				
Chloride				WO#:	HN0EN1AC-LCS/HN0EN1AD-LCSD	LCS	Lot-Sample#:	D5J290000-100	
	20.0	20.2	mg/L	101		SW846	9056	10/28/05	5302100
	20.0	20.0	mg/L	100	0.99	SW846	9056	10/28/05	5302100
				Dilution Factor: 1			Analysis Time...: 18:07		

NOTE(S) :

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

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #....: D5J210459

Matrix.....: WATER

Date Sampled...: 10/20/05 09:07 Date Received..: 10/22/05

PARAMETER	PERCENT	RECOVERY	RPD		METHOD	PREPARATION-	PREP
	RECOVERY	LIMITS	RPD	LIMITS		ANALYSIS DATE	BATCH #
Chloride			WO#: HNER61AP-MS/HNER61AQ-MSD		MS	Lot-Sample #: D5J220179-001	
	97	(80 - 120)			SW846 9056	10/28/05	5302098
	97	(80 - 120)	0.0	(0-20)	SW846 9056	10/28/05	5302098
			Dilution Factor: 1				
			Analysis Time...: 19:08				

NOTE(S) :

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #....: D5J210459

Matrix.....: WATER

Date Sampled....: 10/20/05 09:07 Date Received..: 10/22/05

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT			METHOD	PREPARATION-	PREP	BATCH #
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD		ANALYSIS	DATE	
Chloride				WO#: HNER61AP-MS/HNER61AQ-MSD	MS	Lot-Sample #:	D5J220179-001			
	84	125	205	mg/L	97		SW846 9056	10/28/05	5302098	
	84	125	205	mg/L	97	0.0	SW846 9056	10/28/05	5302098	
				Dilution Factor: 1						
				Analysis Time..: 19:08						

NOTE(S) :

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

**Chain of  
Custody Record**

**SEVERN  
TRENT**

**STL**

**STL Denver**  
4955 Yarrow Street  
Arvada, CO 80002

STL-4124 (0901)

Client **MARIN Technologies** Date **10-19-05** Chain of Custody Number **324285**

Address **16611 Lovers Ln**

City **AZ** State **NA** Zip Code **87112**

Project Manager **W. C. Miller**  
Telephone Number (Area Code)/Fax Number **505.975.2663 / 313656**

Date **10-19-05**  
Lab Number

Page **1** of **1**

Project Name and Location (State) **Federal 15 Corcoran Phillips Farming**  
Contract/Purchase Order/Quote No. **6610601 / N/A**

Site Contact **Villa Medina Dennis Project**  
Carrier/Waybill Number **Freight**

Analysis (Attach list if  
more space is needed)

Sample I.D. No. and Description  
(Containers for each sample may be combined on one line)

Date **10-19-05** Time **11:00** Matrix **Q44**  
Air **X** Aqueous **X** Sed. **X** Soil **X**  
Unpres. **X** H<sub>2</sub>SO<sub>4</sub> **X** HNO<sub>3</sub> **X**  
HCl **X** NaOH **X** ZnAc/NaOH **X**  
P260 **X** P414 **X** chlonec **X**

Containers & Preservatives

Special Instructions/  
Conditions of Receipt

Sample I.D. No. and Description  
(Containers for each sample may be combined on one line)

Date **10-19-05** Time **10:45** Matrix **Q44**  
Air **X** Aqueous **X** Sed. **X** Soil **X**  
Unpres. **X** H<sub>2</sub>SO<sub>4</sub> **X** HNO<sub>3</sub> **X**  
HCl **X** NaOH **X** ZnAc/NaOH **X**  
P260 **X** P414 **X** chlonec **X**

Containers & Preservatives

Sample I.D. No. and Description  
(Containers for each sample may be combined on one line)

Date **10-19-05** Time **11:30** Matrix **Q44**  
Air **X** Aqueous **X** Sed. **X** Soil **X**  
Unpres. **X** H<sub>2</sub>SO<sub>4</sub> **X** HNO<sub>3</sub> **X**  
HCl **X** NaOH **X** ZnAc/NaOH **X**  
P260 **X** P414 **X** chlonec **X**

Containers & Preservatives

Sample I.D. No. and Description  
(Containers for each sample may be combined on one line)

Date **10-19-05** Time **12:00** Matrix **Q44**  
Air **X** Aqueous **X** Sed. **X** Soil **X**  
Unpres. **X** H<sub>2</sub>SO<sub>4</sub> **X** HNO<sub>3</sub> **X**  
HCl **X** NaOH **X** ZnAc/NaOH **X**  
P260 **X** P414 **X** chlonec **X**

Containers & Preservatives

Sample I.D. No. and Description  
(Containers for each sample may be combined on one line)

Date **10-19-05** Time **13:10** Matrix **Q44**  
Air **X** Aqueous **X** Sed. **X** Soil **X**  
Unpres. **X** H<sub>2</sub>SO<sub>4</sub> **X** HNO<sub>3</sub> **X**  
HCl **X** NaOH **X** ZnAc/NaOH **X**  
P260 **X** P414 **X** chlonec **X**

Containers & Preservatives

Sample I.D. No. and Description  
(Containers for each sample may be combined on one line)

Date **10-19-05** Time **12:30** Matrix **Q44**  
Air **X** Aqueous **X** Sed. **X** Soil **X**  
Unpres. **X** H<sub>2</sub>SO<sub>4</sub> **X** HNO<sub>3</sub> **X**  
HCl **X** NaOH **X** ZnAc/NaOH **X**  
P260 **X** P414 **X** chlonec **X**

Containers & Preservatives

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client

Sample Disposal  
 Disposal By Lab  Archive For \_\_\_\_\_ Months \_\_\_\_\_  
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_

QC Requirements (Specify)

1. Relinquished By **Villa C. Hernandez**

Date **10-20-05** Time **9:00** Received By **SCJ**

Date **10-20-05** Time **10:20** Received By **SCJ**

2. Relinquished By

Date  Time  Received By

Date  Time  Received By

3. Relinquished By

Date  Time  Received By

Date  Time  Received By

Comments

**Only one Amber (PVC) bottle for MW-2 due to breakage.**

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stars with the Sample; PINK Field Copy

4/7/02  
TR2  
9/1/02

# Chain of Custody Record

**SEVERN STT**

**TRENT**

**Severn Trent Laboratories, Inc.**

**STL Denver**  
4955 Yarrow Street  
Arvada, CO 80002

STL-4124  
(0901)

Client

MKIM

Address

16601 Lomis, NE Suite 100

City

Albuquerque

State

NM

Zip Code

87120

Project Name and Location (State)

Contract/Purchase Order/Quote No.

Project Manager

Mike Yancey

Date

4/20/02

Lab Number

10-20-02

Page

1 of 1

Telephone Number (Area Code)/Fax Number

435-975-2523

Site Contact

Kelly Hensel

Lab Contact

Donna Rydell

Carrier/Maybill Number

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description

(Containers for each sample may be combined on one line)

Date

4/20/02

Time

11:00

Air

Aqueous

Sed.

Soil

Unpres.

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Containers & Preservatives

Matrix

Sample Disposal

Return To Client

Disposal By Lab

Archive For

Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

24 Hours

48 Hours

7 Days

14 Days

21 Days

Other

Possible Hazard Identification

Non-Hazard

Flammable

Skin Irritant

Poison B

Unknown

Return To Client

QC Requirements (Specify)

Special Instructions/  
Conditions of Receipt

1. Received By	Date	Time
<u>Kelly Hensel</u>	<u>4/20/02</u>	<u>12:00</u>
2. Received By	Date	Time
3. Received By	Date	Time

Comments