*FINAL*

# 2005 LONG-TERM GROUNDWATER MONITORING REPORT HOLLOMAN AIR FORCE BASE, NEW MEXICO

Prepared For:

**49 CES/CEV**
**Holloman Air Force Base, NM**

and

**HQ ACC/CEVR**
**Langley Air Force Base, VA**

**Bhate Project Number: 9050343**

**May 2006**

Prepared By:

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION
1608 13th Avenue South, Suite 300
Birmingham, Alabama 35205
Colorado • Florida • New Mexico • Tennessee • Texas • Virginia
1-800-806-4001 • www.bhate.com

*RESPONSIVENESS · INTEGRITY · TEAMWORK*

# FINAL

# 2005 LONG-TERM GROUNDWATER MONITORING REPORT HOLLOMAN AIR FORCE BASE, NEW MEXICO

*Prepared for:*

**49 CES/CEV**
**Holloman Air Force Base, NM**

and

**HQ ACC/CEVR**
**Langley Air Force Base, VA**

Bhate Project Number: 9050343.01.02

May 2006

*Prepared by:*

**Bhate Environmental Associates, Inc.**
**1608 13th Avenue South, Suite 300**
**Birmingham, Alabama 35205**

This page intentionally left blank.

# FINAL

# 2005 LONG-TERM GROUNDWATER MONITORING REPORT

# HOLLOMAN AIR FORCE BASE, NEW MEXICO

# TABLE OF CONTENTS

List of Acronyms ..... vii

Executive Summary ..... ix

1 Introduction ..... 1-1
- 1.1 Purpose ..... 1-2
- 1.2 Objectives for Site Closeout ..... 1-2
- 1.3 Document Organization ..... 1-2

2 Sampling Procedures ..... 2-1
- 2.1 Variations from the Work Plan ..... 2-1
- 2.2 Data Evaluation ..... 2-2
- 2.3 Project Reporting ..... 2-3
- 2.4 Site-Specific Long-Term Monitoring Results ..... 2-3
- 2.5 Investigation Derived Waste Management ..... 2-3

3 LF-01 – Main Base Landfill (SWMU 106) ..... 3-1
- 3.1 Background ..... 3-1
- 3.2 2005 Long-Term Groundwater Monitoring ..... 3-1
  - 3.2.1 Site Hydrogeology ..... 3-2
  - 3.2.2 Groundwater Sampling Results ..... 3-2
- 3.3 Recommendations ..... 3-3

4 SS-02 and SS-05 - POL Spill Sites Nos. 1 and 2 (SWMU AOC-T) . 4-1
- 4.1 Background ..... 4-1
- 4.2 2005 Long-Term Groundwater Monitoring ..... 4-1
- 4.3 Site Hydrogeology ..... 4-2
- 4.4 Groundwater Sampling Results ..... 4-2
- 4.5 Recommendations ..... 4-2

5 SD-08 – Refuse Collection Truck Washrack(SWMUs 4 and 82) ..... 5-1
- 5.1 Background ..... 5-1

5.2 2005 Long-Term Groundwater Monitoring ..... 5-1
5.2.1 Site Hydrogeology ..... 5-2
5.2.2 Groundwater Sampling Results ..... 5-2
5.3 Recommendations ..... 5-2

6 OT-16 – Former Entomology Shop Area (SWMUs 118, 132, AOC-A) 6-1

6.1 Background ..... 6-1
6.2 2005 Long-Term Groundwater Monitoring ..... 6-1
6.2.1 Site Hydrogeology ..... 6-2
6.2.2 Groundwater Sampling Results ..... 6-2
6.3 Recommendations ..... 6-2

7 SS-17 - BX Service Station (AOC-Q) ..... 7-1

7.1 Background ..... 7-1
7.2 2005 Long-Term Groundwater Monitoring ..... 7-1
7.2.1 Site Hydrogeology ..... 7-2
7.2.2 Groundwater Sampling Results ..... 7-2
7.3 Recommendations ..... 7-2

8 LF-21 – West Area Landfill No. 2 (SWMU 116) ..... 8-1

8.1 Background ..... 8-1
8.2 2005 Long-Term Groundwater Monitoring ..... 8-1
8.2.1 Site Hydrogeology ..... 8-1
8.2.2 Groundwater Sampling Results ..... 8-2
8.3 Recommendations ..... 8-2

9 LF-29 – Former Army Landfill (SWMU 104) ..... 9-1

9.1 Background ..... 9-1
9.2 2005 Long-Term Groundwater Monitoring ..... 9-1
9.2.1 Site Hydrogeology ..... 9-2
9.2.2 Groundwater Sampling Results ..... 9-2
9.3 Recommendations ..... 9-2

10 DP-30 and SD-33 – Grease Trap Disposal Pits (SWMU 113B) .... 10-1

10.1 Background ..... 10-1
10.2 2005 Long-Term Groundwater Monitoring ..... 10-1
10.2.1 Site Hydrogeology ..... 10-2
10.2.2 Groundwater Sampling Results ..... 10-2
10.3 Recommendations ..... 10-2

11 SS-39 – MISSILE Fuel Spill Area (SWMUs 165, 177, 179, 181) ... 11-1

11.1 Background ..... 11-1
11.2 2005 Long-Term Groundwater Monitoring ..... 11-1
11.2.1 Site Hydrogeology ..... 11-2
11.2.2 Groundwater Sampling Results ..... 11-2
11.3 Recommendations ..... 11-2

12 SS-46 - JP-4 Spill Site (SWMU 130) ..... 12-1
12.1 Background ..... 12-1
12.2 2005 Long-Term Groundwater Monitoring ..... 12-2
12.2.1 Site Hydrogeology ..... 12-2
12.2.2 Groundwater Sampling Results ..... 12-2
12.3 Recommendations ..... 12-2
13 SS-48 – Military Gas Station (AOC-N) ..... 13-1
13.1 Background ..... 13-1
13.2 2005 Long-Term Groundwater Monitoring ..... 13-1
13.2.1 Site Hydrogeology ..... 13-1
13.2.2 Groundwater Sampling Results ..... 13-2
13.3 Recommendations ..... 13-2
14 Conclusions and Recommendations ..... 14-1
15 References ..... 15-1

**Figures**

Figure 1-1. Holloman AFB, NM Location Map
Figure 1-2. Site Location Map
Figure 2-1. LTM Data Evaluation Process
Figure 3-1. Site Location Map LF-01
Figure 3-2. Potentiometric Surface Map LF-01
Figure 3-3. Groundwater Analytical Results LF-01
Figure 4-1. Site Location Map SS-02 and SS-05
Figure 4-2. Potentiometric Surface Map SS-02 and SS-05
Figure 4-3. Groundwater Analytical Results SS-02 and SS-05
Figure 5-1. Site Location Map SD-08
Figure 5-2. Potentiometric Surface Map SD-08
Figure 5-3. Groundwater Analytical Results SD-08
Figure 6-1. Site Location Map OT-16
Figure 6-2. Potentiometric Surface Map OT-16
Figure 6-3. Groundwater Analytical Results OT-16
Figure 7-1. Site Location Map SS-17
Figure 7-2. Potentiometric Surface Map SS-17
Figure 7-3. Groundwater Analytical Results SS-17
Figure 8-1. Site Location Map LF-21
Figure 8-2. Potentiometric Surface Map LF-21
Figure 8-3. Groundwater Analytical Results LF-21
Figure 9-1. Site Location Map LF-29
Figure 9-2. Potentiometric Surface Map LF-29
Figure 9-3. Groundwater Analytical Results LF-29
Figure 10-1. Site Location Map DP-30 and SD-33
Figure 10-2. Potentiometric Surface Map DP-30 and SD-33
Figure 10-3. Groundwater Analytical Results DP-30 and SD-33

Figure 11-1. Site Location Map SS-39
Figure 11-2. Potentiometric Surface Map SS-39
Figure 11-3. Groundwater Analytical Results SS-39
Figure 12-1. Site Location Map SS-46
Figure 12-2. Potentiometric Surface Map SS-46
Figure 12-3. Groundwater Analytical Results SS-46
Figure 13-1. Site Location Map SS-48
Figure 13-2. Potentiometric Surface Map SS-48
Figure 13-3. Groundwater Analytical Results SS-48

**Tables**

Table 1-1. 2005 Long-Term Monitoring Program Sites
Table 2-1. Applicable New Mexico Groundwater Quality Standards
Table 2-2. Summary of Sites Included in the 2005 LTM Program
Table 2-3. LTM Purge Water
Table 3-1. Summary of 2005 LTM Program at LF-01
Table 3-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-01
Table 4-1. Summary of 2005 LTM Program at SS-02 and SS-05
Table 4-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-02 and SS-05
Table 5-1. Summary of 2005 LTM Program at SD-08
Table 5-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003 and 2005 Long-Term Monitoring Programs at SD-08
Table 6-1. Summary of 2005 LTM Program at OT-16
Table 6-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at OT-16
Table 7-1. Summary of 2005 LTM Program at SS-17
Table 7-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-17
Table 8-1. Summary of 2005 LTM Program at LF-21
Table 8-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-21
Table 9-1. Summary of 2005 LTM Program at LF-29
Table 9-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-29
Table 10-1. Summary of 2005 LTM Program at DP-30 and SD-33
Table 10-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at DP-30 and SD-33
Table 11-1. Summary of 2005 LTM Program at SS-39
Table 11-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-39
Table 12-1. Summary of 2005 LTM Program at SS-46

Table 12-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-46
Table 13-1. Summary of 2005 LTM Program at SS-48
Table 13-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003 and 2005 Long-Term Monitoring Programs at SS-48

**Appendices**

A Data Quality Control Summary Report
B Analytical Data
C Field Sampling and Monitoring Well Gauging Documentation
- C-1 2002/2003 TDS Data
- C-2 2005 Groundwater Level Summary Table
- C-3 Monitoring Well Sample Collection Forms
- C-4 Field Parameter Data Reports
- C-5 Chain-of-Custodies
- C-6 Daily Quality Control Reports
- C-7 Instrument Calibration Records

This page intentionally left blank.

# LIST OF ACRONYMS

| | |
|---|---|
| ACC/CEVR | Air Combat Command/Civil Engineering Environmental Restoration |
| AFB | Air Force Base |
| Amsl | Above mean sea level |
| AOC | Area of Concern |
| AST | Aboveground storage tank |
| BHC | Benzene Hexachloride |
| BRA | Baseline Risk Assessment |
| BX | Base Exchange |
| CES/CEV | Civil Engineering Squadron/Civil Engineering Environmental Flight |
| CRDL | Contract-required detection limit |
| DDD | 1,1-bis(chlorophenyl)-2,2-dichloroethane |
| DDE | 1,1-bis(chlorophenyl)-2,2-dichloroethene |
| DDT | 1,1-bis(chlorophenyl)-2,2,2-trichloroethane |
| EPA | U.S. Environmental Protection Agency |
| ERP | Environmental Restoration Program |
| FEC | Foothills Engineering Consultants, Inc. |
| Foster Wheeler | Foster Wheeler Environmental Corporation |
| FS | Feasibility Study |
| Ft | Feet |
| GTI | Groundwater Technology, Inc. |
| HQ | Headquarters |
| IDL | Instrument Detection Limit |
| IDW | Investigation-Derived Waste |
| LTM | Long-Term Monitoring |
| mg/L | Milligrams per liter |
| MOBBS | Mobile Bare Base Squadron |
| MTBE | Methyl Tertiary Butyl Ether or Tert-Butyl Methyl Ether |
| NMAC | New Mexico Administrative Code |
| NMED | New Mexico Environment Department |
| NMGWQ | New Mexico Groundwater Quality |
| NMWQCC | New Mexico Water Quality Control Commission |
| OCP | Organochlorine Pesticide |
| PCB | Polychlorinated Biphenyl |
| PCE | Tetrachloroethylene or 1,1,2,2-tetrachloroethylene |
| POL | Petroleum, Oils, and Lubricants |
| Ppm | Parts per million |
| QA | Quality assurance |
| QC | Quality control |
| RCRA | Resource Conservation and Recovery Act |
| RFI | RCRA Facility Investigation |
| RI | Remedial Investigation |

# LIST OF ACRONYMS (CONTINUED)

| | |
|---|---|
| RL | Reporting limit |
| R&R | R&R Environmental Incorporated |
| SOP | Standard Operating Procedure |
| SVE | Soil-Vapor Extraction |
| SVOC | Semi-volatile Organic Compound |
| SWMU | Solid Waste Management Unit |
| TAL | Target Analyte List |
| TCE | Trichloroethylene |
| TCLP | Toxicity Characteristic Leaching Procedure |
| TDS | Total Dissolved Solids |
| TOC | Top of casing |
| TOX | Total Organic Halogens |
| TPH | Total petroleum hydrocarbons |
| TRPH | Total Recoverable Petroleum Hydrocarbons |
| µg/L | Micrograms per liter |
| USACE | U.S. Army Corps of Engineers |
| UST | Underground storage tank |
| VOC | Volatile organic compound |
| WWTF | Wastewater Treatment Facility |

# EXECUTIVE SUMMARY

This report presents the results of the 2005 Long-Term Groundwater Monitoring Program for eleven Resource Conservation and Recovery Act and Environmental Restoration Program sites at Holloman Air Force Base, New Mexico. The 2005 Long-Term Groundwater Monitoring Program represents the sixth sampling event for five sites and the fifth sampling event for six sites and completes a 10-year program in which monitoring is performed once every two years. The purpose of the LTM program was to satisfy the U.S. Environmental Protection Agency Region 6 and New Mexico Environment Department (NMED) earlier closure requirement for these sites.

In this report, analytical results obtained during the 2005 Long-Term Monitoring Program activities were evaluated and compared with results generated in 1995, 1997, 1999, 2001, and 2003. Forty-eight monitoring wells were sampled among 11 sites. Thiry-eight of the 48 wells sites did not contain contaminants (i.e. excluding TDS) above NMWQCC groundwater standards. Of the 10 wells that contained one or more constituents above standards, 5 of these wells contained these constituents at higher concentrations in the site upgradient well. Of the five remaining wells where constituents are site-related, four contained TDS concentrations greater than 10,000 mg/L. In summary, only one of the 48 wells sampled (MW-BX-02 at Site SS-17) contained site-related constituents above NMWQCC standards and TDS less than 10,000 mg/L. Remediation via soil removal is ongoing at this site.

This round concludes the 10-year commitment for all sites and it is recommended that LTM cease. Additional recommendations are made for the sites based on their current corrective action status.

This page intentionally left blank.

# 1 INTRODUCTION

This report presents the results of the 2005 Long-Term Monitoring (LTM) Program for 11 Resource Conservation and Recovery Act (RCRA) and Environmental Restoration Program (ERP) sites at Holloman Air Force Base (AFB), New Mexico (Figure 1-1). Sites were included in the LTM Program based on previous investigations and risk assessments conducted for each site. The community participation, background information, quantitative risk assessments, and selected remedies are summarized in the Decision Document for each site or are presented in the following documents: *Decision Documents for Installation Restoration Program Sites* (Walk, Haydel & Associates, 1990), *Decision Documents for Installation Restoration Program* (EBASCO/Groundwater Technology Inc. [GTI], 1995), and *Feasibility Study –Investigation, Study, and Recommendations for 29 Waste Sites* (Radian, 1993). These documents establish the requirement for LTM as a condition of site closure.

The objective of the LTM Program is twofold:

- Ensure that degradation to groundwater quality is not occurring or continuing at the 11 sites,
- For Site SS-17, ensure that the selected remedy has effectively stopped the release of contamination to the groundwater with ongoing remediation.

The LTM Program was designed as a 10-year program with monitoring performed once every 2 years. The sampling events were conducted in August 1995, September 1997, September 1999, September 2001, and April 2003. The program began in August 1995 and consisted of 12 sites. The 1995 analytical results served as baseline concentrations from which to compare all subsequent results. Six additional sites (SS-02/05, OT-16, SS-17, LF-29, SS-39, and SS-46) were introduced in 1997, and these served as a baseline sampling event for comparison. The 2005 LTM Program represents the fifth sampling event for six sites and the sixth event for five sites. The 2005 LTM Program sampling event was conducted in December 2005.

During the 1995 LTM Program, monitoring was conducted at 12 different sites. OT-45 was eliminated with NMED concurrence after this event. The remaining sites were included in the 1997, 1999, and 2001 LTM sampling events along with six additional 1997 sites. In response to the 2001 LTM program results, two of the sites (OT-44 and SS-56) were eliminated with NMED concurrence from the program. Site OT-44 was eliminated because the frequency and concentration of volatile organic compounds (VOCs) detected in groundwater had decreased over the past four sampling events. Site SS-56 was eliminated because the previous four sampling events showed VOCs and lead were below the contract-required detection limit (CRDL). As a result of the 2003 findings, NMED agreed that sites LF-10, LF-19, LF-22, and LF-23 could be removed from the 2005 LTM program. Currently, the 2005 LTM program includes 11 sites. The 11 LTM sites included in the 2005 sampling event and are listed in Table 1-1.

It should be noted that remediation (soil removal) is on-going at SS-17, Base Exchange (BX) Service Station.

The 2005 LTM Program activities included measuring static water levels and collecting groundwater samples at selected monitoring wells. Groundwater samples were collected in December 2005 from 48 monitoring wells located at the 11 LTM sites listed in Table 1-1. The site locations are shown on Figure 1-2. Groundwater samples were submitted for site-specific chemical analyses including VOCs, semi-volatile organic compounds (SVOCs), organochlorine pesticides (OCPs), herbicides, Target Analyte List (TAL) metals, and Total Dissolved Solids (TDS). Analyses were performed in accordance with *SW-846 Test Methods for Evaluating Solid Waste*, third edition and updates (U.S. Environmental Protection Agency [EPA], 1986).

## 1.1 Purpose

This report presents the background and site-specific information necessary to assess groundwater quality and provides recommendations for future actions at these sites. The data evaluation provides the basis for recommending future monitoring under the LTM Program, including site closeout or modifying analytical requirements for sites where continued LTM is justified.

## 1.2 Objectives for Site Closeout

The 2005 LTM Program concludes a minimum of ten years (five events) for all sites. Site data were evaluated based on the following two criteria:

- Contaminant concentrations are below New Mexico Groundwater Quality (NMGWQ) Standards, either consistently or with decreasing concentration trends.
- TDS concentration are greater than 10,000 milligrams per liter (mg/L). Groundwater with TDS concentrations greater than 10,000 mg/L is not a potential domestic or agricultural water supply; therefore, NMGWQ Standards do not apply.

Sites that do not meet either of the above criteria may still qualify for NFA based on TDS water quality data collected during the 2002/03 Quarterly Well-Gauging Programs and the 2005 LTM sampling event. The 2002 Quarterly Well-Gauging Program supports the hypothesis that TDS concentrations below 10,000 mg/L at Holloman AFB are caused by dilution of natural groundwater from leaking water lines and surface irrigation from the domestic water supply. In conclusion, NMGWQ Standards do not apply because groundwater at Holloman AFB in its natural state (TDS concentrations above 10,000 mg/L) is not a potential domestic or agricultural water supply.

## 1.3 Document Organization

This 2005 LTM report presents groundwater sampling procedures, site-specific background information, and analytical results. The document contains the following 15 sections:

- Section 1 – Introduction

- Section 2 – Sampling Procedures
- Sections 3 through 13 – Site-Specific LTM Results
- Section 14 – Conclusions and Recommendations
- Section 15 – References

Pertinent site historical information and specific agreements made between the U.S. Air Force and the New Mexico Environment Department (NMED) for each site are presented in the *Draft Final 1995 Long-Term Groundwater Monitoring Report* (Foster Wheeler Environmental Corporation [Foster Wheeler] and GTI, 1996). This information, which provided the basis for the site-specific 2005 LTM Program, has been updated and is summarized in each site-specific section (Sections 3 through 13).

The tables and figures referenced in the 2005 LTM Report are included following the text (after Section 15). This report also includes three appendices. Appendix A presents the Data Quality Control Summary Reports for the analytical data collected during the 2005 LTM Program sampling event. Appendix B provides the analytical results from the subcontractor laboratory (Accutest Laboratories, Orlando, Florida) for environmental samples and field duplicates. Appendix C contains field sampling documentation, monitoring well gauging documentation, and summary tables..

This page intentionally left blank.

# 2 SAMPLING PROCEDURES

Approved LTM Program analytical protocol for Holloman AFB was first established for the 1995 baseline sampling and was implemented for the 1997, 1999, 2001, and 2003 events. The 2005 LTM Program applied the same sampling methods and procedures followed during the previous sampling events; however, the analytical protocol was revised based on discussions between Holloman AFB and NMED in response to the final 2003 LTM report. The revised analytical protocol was based on the frequency of detection of constituents analyzed for at each site in 1995, 1997, 1999, 2001, and 2003. All analytical procedures followed EPA SW-846 methods with the groundwater samples being analyzed as follows:

- VOCs by EPA Method 8260B
- SVOCs by EPA Method 8270C
- TAL Metals by EPA Method 6010B/7470A
- Pesticides by EPA Method 8081A
- Herbicides by EPA Method 8151
- TDS by EPA Method 160.1

Each site-specific section includes a 2005 LTM Program summary table that lists the wells samples, analyses, and quality assurance samples (QA). Site-specific tables and figures are located at the end of the text following Section 15.

Groundwater monitoring and sampling activities for the 2005 LTM Program began December 4, 2005, with the purging of wells at site DP-30 & SD-33. Sampling activities were completed on December 8, 2005. R&R Environmental, Inc. (R&R) performed the groundwater sampling according to established protocol and standard operating procedures (SOPs) specified in the Work Plan (U.S. Army Corps of Engineers [USACE], 2003b). Variations from the specified procedures are discussed in the following section.

## 2.1 Variations from the Work Plan

The sampling procedures and analytical protocol presented in the Work Plan (USACE, 2003b) were followed; however, deviations did occur based on the issues presented below:

- Due to elevated concentrations of benzene and 1,2-dichloroethane, well S1-MW3 at Site LF-01 was resampled for VOCs on January 30, 2006.
- Well MW-08-01 at site SD-08 was dry and was therefore not sampled.
- Well TH-22 at Site SS-17 was abandoned in 2003 and therefore was not sampled.

- Well S55-MW1 at site SS-48 could not be located. It is assumed this well has been abandoned.

## 2.2 Data Evaluation

Analytical results from the 2005 LTM Program were reviewed and compared with the results of the previous LTM events in order to determine whether further action or additional investigation at any site is warranted. Although historical data dates back to 1989 for some sites, biennial sampling to support site closure commenced in 1995 for 5 sites and 1997 for 6 sites. Thus, the initial biennial sampling event is considered representative of baseline conditions.

The analytical method used for the 2005 LTM event resulted in a reporting limit for iron that was higher than the NMGWQ standard for iron. The reporting limit used by Accutest Laboratories in 2005 for iron ranged from 1,500 to 7,500 micrograms per liter (µg/L). The NMGWQ Standard for iron is 1,000 µg/L (or 1 mg/L) in groundwater where the TDS concentration is 10,000 mg/L or less. Samples collected from the following wells were effected by the elevated reporting limit for iron: S1-MW1, S1-MW2, S1-MW3, S1-MW5, 1W2, MW-08-03, MW-08-04, MW-21-01, MW-21-02, MW-21-03, MW-21-04, MW-30&33-01, MW-30&33-02, MW-30&33-03, and MW-30&33-04.

Iron in these samples was not detected above the laboratory reporting limit or was detected at an estimated concentration below the laboratory reporting limit. In addition, the TDS concentrations at 14 of these 15 wells are greater than 10,000 mg/L; therefore, the NMGWQ Standard does not apply. For the one well (MW-08-04) that showed a TDS concentration less than 10,000 mg/L, the following explanation is given.

- The average TDS concentration for the four monitoring wells at site SD-08 is 11,115 mg/L. This supports the hypothesis that the TDS concentration (6,610 mg/L) in well MW-08-04 is due to the dilution of natural groundwater from leaking water lines and/or surface irrigation from the domestic water supply. Therefore, NMGWQ Standards do not apply at SD-08 because the native groundwater (TDS concentrations above 10,000 mg/L) is not a potential domestic or agricultural supply. In addition, this site is recommended for closeout.

Figure 2-1 presents the data evaluation process utilized in the preparation of the 2005 LTM report. After the 2005 data were verified for QA and quality control (QC) parameters, the analytical results were evaluated for representation of actual site conditions, including comparisons to upgradient wells. Detections occurring at levels above analyte-specific contract reporting detection limits were then tabulated, mapped, and evaluated for water quality trends that might indicate whether contamination could be attributed to the site or influences outside of the site boundary.

Next, analytical results from the 2005 LTM Program were compared to appropriate baseline conditions, previous sampling event results, and NMGWQ Standards. The comparisons for each site are discussed in Sections 3 through 13. Applicable NMGWQ Standards are included in Table 2-1. If significant changes in water quality are indicated by an increase in analyte

concentrations or if constituents inconsistent with site history are detected, confirmation samples will be considered for the affected monitoring wells. For this evaluation, a significant change is defined as an order of magnitude increase in analyte concentration relative to the baseline concentration. If confirmation sampling is warranted, samples will only be analyzed for those parameters where inconsistencies are identified. Monitoring wells not included in the LTM Program will be considered for inclusion in the confirmation sampling if potentially impacted by a chemical of concern.

## 2.3 Project Reporting

The 2005 LTM report summarizes contamination and provides a comparison of results with the first-round baseline conditions at each site. Potentiometric surface maps were prepared for each site based on the water level measurements taken during 2005 and are included following Section 15 (behind the Figures tab). When possible, information was tabulated similar to prior LTM reports to provide easy comparison between sampling rounds.

## 2.4 Site-Specific Long-Term Monitoring Results

Sections 3 through 13 present the results of the 2005 LTM Program at Holloman AFB including site-specific background information and recommendations for each site. Table 2-2 summarizes historical information for the LTM Program sites.

The 2005 LTM analytical data were reported using data qualifiers to identify values reported above the reporting limit (RL) and below the CRDL. A "J" qualifier was used for both organic and inorganic data to signify an estimated value less than the CRDL but greater than the RL. All qualified data are included in the site-specific analytical results summary tables provided in the tables tab following Section 15. Only those values reported above the CRDL are presented on the groundwater analytical maps and discussed in the text.

## 2.5 Investigation Derived Waste Management

Approximately 250 gallons of purge water were generated as a result of sampling activities during the 2005 LTM sampling event. Purge water was collected in a 1,000-gallon portable tank. Water within the tank was sampled for VOCs and TAL metals in accordance with waste management procedures (USACE, 2003b) and the results of the 2001 LTM program (Foster Wheeler, 2003b). Table 2-3 presents a summary of the analytes detected above the CRDLs in the purge water sample. The laboratory results are included in Appendix B. The analytical results were compared to Base Wastewater Treatment Facility (WWTF) pretreatment standards and the comparison indicates that all results were less than the pretreatment standards. On February 16, 2006, the Holloman AFB 49 Civil Engineering Squadron/Civil Engineering Environmental Flight (CES/CEV) provided approval to discharge the purge water to the Base sanitary sewer system in accordance with approved waste management procedures (USACE, 2003b). R&R discharged the purge water to the Base sanitary sewer system on February 17, 2006.

This page intentionally left blank.

# 3 LF-01 – MAIN BASE LANDFILL (SWMU 106)

## 3.1 Background

The Main Base Landfill (LF-01, Solid Waste Management Unit [SWMU] 106) began operations in 1958 as a trench and fill disposal facility. The site encompasses approximately 210 acres and is located north of the Main Base area and the Petroleum, Oils, and Lubricants (POL) storage area. Figure 3-1 presents a map of the landfill including monitoring well locations. The landfill accepted solid waste and nonhazardous materials from industrial shops located on the Base. Small quantities of waste oils, solvents, and pesticides have reportedly been disposed of in the landfill (Foothills Engineering Consultants, Inc. [FEC], 1997).

The Main Base Landfill has been investigated in a Phase I and II Remedial Investigation (RI) (Walk, Haydel & Associates, 1989a). Eight groundwater monitoring wells (S1-MW1, 1W1, S1-MW2, 1W2, 1W3, S1-MW3, S1-MW4, and S1-MW5) have been installed at the landfill. The presence of metals (chromium, iron, and manganese) in excess of NMGWQ Standards and moderate levels of total organic halogens (TOX) were identified in previous groundwater sampling episodes. The moderate levels of TOX were attributed to interference because of the naturally high mineral content of groundwater at Holloman AFB (Walk, Haydel & Associates, 1990).

Other previously detected constituents included VOCs in wells S1-MW3 and S1-MW1 and SVOCs in wells 1W1 and 1W3. Toluene was detected in the duplicate sample collected from S1-MW1, but not the original field sample. Because S1-MW1 is located upgradient of the landfill and toluene was reported only in the duplicate sample, it was concluded that the detection might not be representative of actual site conditions. VOCs were detected in well S1-MW3 (Walk, Haydel & Associates, 1989a). Because S1-MW3 is downgradient of the landfill and adjacent to the POL storage yard, the VOCs were attributed to releases at the POL storage yard (SS-02 and SS-05).

Other analyses previously conducted at LF-01 include total recoverable petroleum hydrocarbons (TRPH) using EPA Method 418.1 and pesticides using EPA Method 8081A. No TRPH or pesticides have previously been detected at this site.

A Baseline Risk Assessment (BRA) was prepared for the site by Walk, Haydel & Associates (December, 1989b). The BRA concluded that the landfill poses no significant risk to public health or the environment, and the site was recommended for inclusion in the LTM Program.

## 3.2 2005 Long-Term Groundwater Monitoring

During the 2005 LTM Program, water levels were measured in December and used to develop a map of the potentiometric surface. Groundwater samples were collected from five of the eight monitoring wells (S1-MW1 [upgradient], S1-MW2, S1-MW3, S1-MW5, and 1W2 [downgradient]) installed at the site. It should be noted that well S1-MW2 was added to the

LTM program in 1997. Well S1-MW3, which was sampled in 1995, was removed from the LTM program in 1997 based on recommendations included in the LTM report completed in June 1996 (Foster Wheeler/GTI, 1996); however, well S1-MW3 was sampled in 2003 based on the recommendation provided by the NMED after reviewing the 2001 Revised Final LTM Report (Foster Wheeler, 2003b). In previous sampling events, groundwater samples from these wells were analyzed for VOCs, total mercury, dissolved RCRA metals, iron, and manganese. Based on recommendations in the 2003 LTM Report and NMED approval, the 2005 LTM groundwater samples were submitted for select metals (arsenic, barium, iron, manganese, and selenium) and TDS analysis. Based on a request from NMED, the sample from S1-MW3 was also analyzed for VOCs. Results of these analyses are discussed in Section 3.2.2. Various field parameters including pH, temperature, and specific conductivity were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at LF-01 are summarized in Table 3-1.

### 3.2.1 Site Hydrogeology

In December 2005, depth-to-groundwater measurements at LF-01 ranged from 11.05 to 31.39 feet (ft) below top of casing (TOC), and groundwater elevations ranged from 4088.34 (S1-MW1) to 4080.01 (S1-MW3) ft above mean sea level (amsl) (Appendix C). A map of the potentiometric surface was prepared using the groundwater data from December 2005 (Figure 3-2). The contour map indicates that groundwater flows to the south-southwest across the site at a gradient of approximately 0.002. The hydraulic gradient and groundwater flow direction observed in December 2005 at LF-01 are comparable with the results of the previous LTM events.

### 3.2.2 Groundwater Sampling Results

Table 3-2 summarizes the analytical results for the LTM Program at LF-01 for 1995, 1997, 1999, 2001, 2003, and 2005. Analytes reported above the CRDL for the 2005 LTM event are shown on Figure 3-3.

Benzene, sec-butylbenzene, 1,2-dichloroethane, isopropylbenzene, arsenic, manganese, and TDS were detected at LF-01 above CRDLs. Concentrations of benzene (319 µg/L) and manganese (831 µg/L) were above NMGWQ Standards in the groundwater sample collected from S1-MW3. On January 30, 2006, a confirmation sample was collected at S1-MW3 and analyzed for VOCs. The concentration of benzene was confirmed in the confirmation sample (201 µg/L) and also exceeded the NMGWQ Standard for benzene (10 µg/L). A comparison of the primary and QA duplicate sample results can be found in Appendix A (Table A-1). TDS concentrations ranged from 23,100 to 47,400 mg/L and exceeded the NMGWQ standard (1,000 mg/L) in each of the five wells sampled. It should be noted that VOCs were not detected in the groundwater sample collected from S1-MW3 during the 2003 LTM event.

## 3.3 Recommendations

LF-01 was recommended for closeout in 2003 since contaminants had not been detected above the NMGWQ Standards for the five previous LTM sampling rounds. However, during the 2005 LTM sampling event, four VOC compounds were detected above the CRDLs in downgradient well S1-MW3 and benzene was detected above the NMGWQ Standard with a concentration of 319 µg/L. VOCs were not detected in this well during the 2003 event and S1-MW3 was not sampled during the first four LTM sampling events. However, VOCs were detected in this well during the 1989 Remedial Investigation (Walk, Haydel & Associates, 1989a). Benzene (82 µg/L), 1,2-dichloroethane (9 µg/L), toluene (6 µg/L), and xylenes (85 µg/L) were detected in S1-MW3 in 1989. Subsequently, the Phase II RCRA Facility Investigation (Foster Wheeler/Radian, 1995) reported a benzene concentration of 4,100 µg/L in S1-MW3.

It was hypothesized in the Final Remedial Investigation Report (Walk, Haydel & Associates, 1989a) that the landfill is not likely the source of these contaminants as it is located approximately ½ mile north of this well. The well's primary purpose was to contribute groundwater elevation data southeast of the landfill. The current and previous potentiometric surface maps indicate that the groundwater flow direction is to the south-southwest. As shown on Figure 3-1, well S1-MW3 is located adjacent to the POL Storage Area (Site SS-02 and SS-05). Historical POL Storage Area operations in the northern most portion of this area may be suspected as sources for these detected compounds. Likely source candidates would be undetected leaks in the underground fuel transfer lines or an unknown/unreported spill on the railroad line.

The 2005 LTM Program concluded the sixth sampling event for LF-01. The presence of benzene and manganese above the NMGWQ Standards in one monitoring well (S1-MW3) has triggered additional characterization associated with Site SS-02 and SS-05 to delineate the nature and extent. In accordance with the Class III Permit Modification for No Further Action Status for seven Solid Waste Management Units at HAFB granted by the NMED on November 29, 2005, no additional characterization or monitoring is required at LF-01.

This page intentionally left blank.

# 4 SS-02 AND SS-05 - POL SPILL SITES NOS. 1 AND 2 (SWMU AOC-T)

## 4.1 Background

POL Spill Sites Nos. 1 and 2 (SS-02 and SS-05, SWMU Area of Concern [AOC]-T) are located within the POL compound in the eastern portion of the Main Base area. Figure 4-1 is a site map including monitoring well locations. The two sites are being remediated together and are considered one site under the LTM Program. From the early 1960s to the late 1970s, 25,000-gallon fuel tanks were periodically overfilled at site SS-02. JP-4 and aviation fuel spills occurred throughout the unlined bermed area (FEC, 1997).

Approximately 30,000 gallons of JP-4 fuel were spilled at SS-05 in 1978 when a drain valve for a 4-inch fuel line was accidentally left open. The fuel line was used for filling the 25,000-gallon tanks with JP-4 fuel. Interviews with POL personnel indicated the 30,000-gallon spill accumulated primarily in the southeast corner of the former unlined bermed area with fuel draining through the berm drain valve to a low spot southeast of the berm. Personnel also indicated that approximately 28,500 gallons of fuel were recovered with the remaining fuel seeping into the gravel base of the POL storage area. An estimated 1,500 gallons were released. An interim remedial action was not performed (FEC, 1997).

The 25,000-gallon fuel tanks were removed in 1987; however, the saddle tanks were left in place and covered with soil (FEC, 1997).

Sixteen soil borings were drilled, and eight monitoring wells were installed during the 29 Waste Sites RI (Radian, 1992a). Total petroleum hydrocarbons (TPH) and benzene were detected in soil borings, and benzene was detected in groundwater samples. A Soil-Vapor Extraction (SVE) system was constructed and became operational in April 1995. As of December 1999, the SVE system removed an estimated 48,000 pounds of TPH. The SVE system was in operation until June 2002. The primary risk driver for this site is the connection between the contaminated nonpotable groundwater and the adjacent arroyo that was designated as navigable water of the United States.

## 4.2 2005 Long-Term Groundwater Monitoring

During the 2005 LTM Program, water level measurements were collected and used to develop a potentiometric surface map for the site. Groundwater samples were collected from MW-02&05-03, MW-02&05-05, MW-02&05-06, and MW-02&05-08 and analyzed for VOCs and TDS. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at SS-02 and SS-05 are summarized in Table 4-1.

## 4.3 Site Hydrogeology

In December 2005, depth-to-groundwater measurements at SS-02 and SS-05 ranged from 5.36 to 16.20 ft below TOC, and groundwater elevations ranged from 4078.60 (MW-02&05-08) to 4076.99 (MW-02&05-06) ft amsl (Appendix C). A potentiometric surface map was prepared for this site using the December 2005 groundwater data from four of the wells (Figure 4-2). The contour map indicates that groundwater generally flows to the southeast across the site. The groundwater gradient across the site ranges from 0.001 to 0.003. In past events groundwater flowed to the east-northeast in the northern section of the site and the east-southeast in the southern section of the site with a gradient across the site ranging from 0.04 to 0.007.

## 4.4 Groundwater Sampling Results

Table 4-2 summarizes the analytical results for the LTM Program at SS-02 and SS-05. Detections from the 1997, 1999, 2001, 2003, and 2005 LTM events are presented. SS-02 and SS-05 was added to the LTM Program in 1997; therefore, sample results from 1997 serve as the baseline concentrations for this site. Analytes reported above the CRDL in 2005 are shown on Figure 4-3.

VOCs were detected only in well MW-02&05-05 during the 2005 event. This is consistent with the results from the 1999, 2001, and 2003 events; however, it is a departure from the 1997 LTM program during which low concentrations of VOCs were detected in all wells sampled at SS-02 and SS-05. Benzene was detected in MW-02&05-05 at a concentration (13 µg/L) that exceeded the NMGWQ Standard (10 µg/L); however, it is significantly less than the benzene results from the 1999, 2001, and 2003 sampling events. Ethylbenzene, isopropylbenzene, n-propylbenzene, and o-xylene were also reported above CRDLs in this well; however, all concentrations were less than the NMGWQ Standards. TDS concentrations ranged from 5,710 to 79,600 mg/L and exceeded the NMGWQ standard (1,000 mg/L) in each of the four wells sampled. There were no detections of VOCs in the duplicate sample collected from MW-02&05-08. A comparison of the primary and QA duplicate sample results can be found in Appendix A (Table A-1).

## 4.5 Recommendations

Soil removal efforts at SS-02 and SS-05 concluded in 2005 and approximately 14,000 cubic yards of petroleum contaminated soil was excavated and treated. Based on the analytical results for 2005 and the evaluation of data from 1997, 1999, 2001, and 2003, additional groundwater characterization is underway to delineate nature and extent of VOCs. A Voluntary Corrective Measures report summarizing soil remediation, additional groundwater characterization, and risk evaluation will be submitted to NMED in support of an NFA recommendation.

# 5 SD-08 – REFUSE COLLECTION TRUCK WASHRACK(SWMUS 4 AND 82)

## 5.1 Background

The Refuse Collection Truck Washrack (SD-08, SWMUs 4 and 82) is located southwest of the POL storage area and north of the Old Main Base Area (LF-10). Figure 5-1 is a site map of the washrack including monitoring well locations. The washrack was used to clean refuse collection trucks. Wash water flowed through an oil/water separator and discharged into the Base sanitary sewer system. During the 1970s, pesticides were routinely applied to the trucks for insect control. The settling basin and separator routinely clogged and overflowed at the northwest corner of the washrack (FEC, 1997).

During the 29 Waste Sites RI (Radian, 1992a) and Phase II RCRA Facility Investigation (RFI) (Foster Wheeler/Radian, 1995), metals and pesticides were identified in soil, and metals, VOCs, and pesticides were detected in groundwater samples. The primary contaminants attributed to site activities at SD-08 are pesticides. The source of the VOCs was identified as the former tank area at AOC-RR.

The site Feasibility Study (FS) and Decision Document recommended an asphalt cap as the preferred remedial action for the site (EBASCO/GTI, 1995). In January 1997, an asphalt cap was installed in the area of the former washrack. As an additional condition for site closure, subsequent to any remedial action at SD-08, EPA Region 6 required LTM for metals, pesticides, and TDS (Radian, 1993).

## 5.2 2005 Long-Term Groundwater Monitoring

During the 2005 LTM Program, water level measurements were collected and used to develop a potentiometric map for the site. Groundwater samples were collected from the following four monitoring wells: MW-08-03, MW-08-04, MW-08-05, and MW-08-06 (MW-08-01 was dry). Groundwater samples were analyzed for VOCs, metals (arsenic, barium, iron, manganese, and selenium), and TDS. The groundwater sample collected from MW-08-06 was only analyzed for TDS. The list of analytes is a result of historical analytical data and recommendations made in the 2003 LTM report as approved by NMED. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at SD-08 are summarized in Table 5-1.

### 5.2.1 Site Hydrogeology

In December 2005, depth-to-groundwater measurements at SD-08 ranged from 9.74 to 12.14 ft below TOC, and groundwater elevations ranged from 4076.14 (MW-08-03) to 4073.51 (MW-08-05) ft amsl (Appendix C). A potentiometric surface map was prepared for the site using the groundwater data from December 2005 (Figure 5-2). The contour map indicates that groundwater generally flows to the south across the site at an approximate gradient of 0.020. The hydraulic gradient and groundwater flow direction observed at SD-08 during the 2005 LTM at SD-08 are comparable with the results of the 2003 LTM event.

### 5.2.2 Groundwater Sampling Results

Table 5-2 summarizes the analytical results of the LTM Program at SD-08. Detections reported from the 1995, 1997, 1999, 2001, 2003, and 2005 LTM events are presented. Analytes reported above the CRDL in 2005 are shown on Figure 5-3.

Chloroform, iron, manganese, and TDS were detected at SD-08 above CRDLs. The concentrations of manganese (225 µg/L and 255 µg/L) were above the NMGWQ Standard in the groundwater samples collected from MW-08-04 and MW-08-05 respectively. TDS concentrations ranged from 2,510 to 20,300 mg/L and exceeded the NMGWQ standard (1,000 mg/L) in each of the four wells.

## 5.3 Recommendations

The 2005 LTM Program concluded the sixth sampling event for SD-08. Manganese in wells MW-08-04 and MW-08-05 was the only contaminant detected above the NMGWQ Standards at SD-08 during the 2005 event. 1,2-Dichloroethane was detected in groundwater at MW-08-01 (73 µg/L) during the 2003 LTM event at a concentration greater than the NMGWQ Standard. This result was not confirmed during the 2005 event as the well was dry. Even though contaminant concentrations for manganese and 1,2-dichloroethane (2003) have been detected above NMGWQ Standards, SD-08 is recommended for closeout pending the results of additional characterization to be performed in 2006.

Although laboratory results during the 2002/03 Quarterly Well-Gauging Program (Appendix C-1) and the 2005 event showed TDS concentrations below 10,000 mg/L, the average TDS concentration for the four monitoring wells sampled at site SD-08 in 2005 is 11,115 mg/L. This supports the hypothesis that the two TDS concentrations below 10,000 mg/L (wells MW-08-04 and MW-08-05) are caused by the dilution of natural groundwater from leaking water lines and/or surface irrigation from the domestic water supply. In conclusion, NMGWQ Standards do not apply because SD-08 groundwater in its natural state would have TDS concentrations above 10,000 mg/L; therefore the groundwater is not a potential domestic or agricultural water supply.

# 6 OT-16 – FORMER ENTOMOLOGY SHOP AREA (SWMUS 118, 132, AOC-A)

## 6.1 Background

The Former Entomology Shop Area (OT-16, SWMUs 118, 132, AOC-A) is located at former Building 21 in the southeastern portion of the Main Base Area. Figure 6-1 is a site map including monitoring well locations. Rinse water from washing pesticide mixing equipment was discharged from 1977 to 1980 to a septic tank leach field located in back of the building. Diesel fuel, used to stabilize pesticides, may also have been discharged. From 1980 to 1988, rinse water was discharged into a pit/boring on the northwest side of the building. A pesticide-holding tank is located on the southwest side of Building 21, although no spills were reported or documented at the tank or the concrete containment box.

OT-16 was identified as a potential contaminant source during an IRP records search conducted in 1983. The Phase I RI was completed in 1992 (Radian, 1992a). Based on the BRA prepared for this site (Radian, 1992b), the RI concluded that no action was necessary to protect human health and the environment, but recommended additional site characterization activities. The results of the 1994 Phase II RFI included additional sampling and recommended conditional NFA based on the remediation of TPH-contaminated soils discovered during the Phase II RFI. .In 1996, approximately 107 tons of TPH-contaminated soils and 111 tons of PCB-contaminated soils were excavated and removed from the site. Final verification sample results showed remaining soils contained constituents below cleanup criteria. After remediation activities were completed, NFA with groundwater LTM to assess the effectiveness of the remedial action was recommended. Biennial LTM commenced in 1997.

## 6.2 2005 Long-Term Groundwater Monitoring

During the 2005 LTM Program, water level measurements were collected and used to develop a potentiometric surface map of the site. Groundwater samples were collected from four previously installed groundwater monitoring wells (118-MW1601, 118-MW1602, 118-MW1603, and 118-MW1604). In previous LTM events, site groundwater samples were analyzed for VOCs and OCPs. 2005 LTM samples were analyzed for VOCs, pesticides, and TDS. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at OT-16 are summarized in Table 6-1.

### 6.2.1 Site Hydrogeology

Depth-to-groundwater measurements at OT-16 in December 2005 ranged from 5.53 to 7.35 ft below TOC and groundwater elevations ranged from 4071.69 (118-MW1601) to 4071.39 (118-MW1604) ft amsl (Appendix C). A potentiometric surface map was prepared for the site using the groundwater data from December 2005 (Figure 6-2). The contour map indicates that groundwater flows to the southeast with a gradient of approximately 0.002. The gradient is comparable to the 2003 LTM event; however, the groundwater flow direction is different than observed in 2003. In 2003, groundwater gauging data indicated a generally southwesterly flow. Since the 2003 LTM event was conducted in April instead of September, as in past LTM events, this difference can most likely be explained by seasonal groundwater fluctuations coupled with relatively close well spacing and low gradient. Well 118_MW-1601 has consistently been the upgradient monitoring well.

### 6.2.2 Groundwater Sampling Results

Table 6-2 summarizes the analytical results of the 1997, 1999, 2001, 2003, and 2005 LTM Program at OT-16. This site was added to the LTM Program in 1997; therefore, data from groundwater samples collected during the 1997 LTM Program are considered baseline concentrations. This table reflects the analytes that have been detected at least once at OT-16. Analytes reported above the CRDL in 2005 are shown on Figure 6-3.

VOCs (chlorobenzene, chloroform, and TCE) and pesticides (alpha-BHC and gamma-BHC [lindane]) were detected above the CRDL in 2005. VOC concentrations are consistent with those detected in 2003, and were present in the upgradient as well as downgradient wells. All detected VOCs were below the NMGWQ Standards. Low concentrations of alpha-BHC (0.19 µg/L) and gamma-BHC (0.20 µg/L) were detected in the groundwater sample collected from upgradient well 118-MW1601. NMGWQ Standards have not been established for alpha-BHC and gamma-BHC. All other pesticides were not detected or below the CRDL. TDS concentrations ranged from 3,260 to 4,930 mg/L and exceeded the NMGWQ standard (1,000 mg/L) in each of the four wells sampled.

## 6.3 Recommendations

The 2005 LTM Program concluded the fifth sampling event for site OT-16, satisfying the commitment to 10 years of LTM. It is therefore recommended that LTM cease. Although three VOCs and two pesticides were detected, all were well below the NMGWQ Standards. Furthermore, these compounds were present in the upgradient monitoring well. Therefore, OT-16 is also recommended for no further action. A report summarizing the RFIs and LTM program for this site will be submitted to NMED to further support the NFA recommendation.

# 7 SS-17 - BX SERVICE STATION (AOC-Q)

## 7.1 Background

The BX Service Station (SS-17, AOC-Q) is located on First Street in the main portion of the Base and approximately 2,500 ft from the main gate. Figure 7-1 is a site map including monitoring well locations. SS-17 is an 8-acre site with numerous buildings including the service station, convenience store, car wash, and several residences. The service station has been in its present location since the early 1950s. The Base hospital is located about 420 ft northeast, an elementary school is located 600 ft northwest, and Base residential housing is located 200 ft to the southeast of the service station. Site contamination extends under adjacent properties (FEC, 1997).

Discrepancies in the gasoline storage inventories led to the discovery of leaking underground fuel lines. In 1981, test borings were drilled to assess the extent of contamination. Gasoline, with a thickness up to 4 ft, was found in monitoring wells in some areas. Two recovery wells were installed. An RI completed in 1984 included the installation of 15 monitoring wells and 14 test holes at SS-17. The RI concluded that an estimated 71,000 gallons of free-phase product (gasoline) remained in the subsurface. In January 1987, recovery operations resumed using three recovery wells and two recovery trenches. In 1989, changes were implemented based on recommendations from a 1988 Technical Report and more recovery wells were included. These operations recovered 42,000 gallons of free product at SS-17.

An RI/FS was completed in 1990 and 1991. In February 1992, five underground storage tanks (USTs) at the site were removed and replaced with aboveground storage tanks (ASTs). In July 1993, a 30-day SVE pilot test was conducted on a small area of the site. Borings completed prior to the pilot testing revealed TPH (8,340 parts per million [ppm]) and benzene (53.6 ppm) in soil. TPH concentrations in the subsurface soil were reduced by 48 percent and benzene concentrations were reduced by 70 percent. In late 1994, investigations revealed a pipe leak under a dispenser island. It is estimated that 4,000 gallons of free product was released. Construction and operation of a full-scale SVE/bioremediation system began in September 1995. As of January 2000, 69,000 pounds of TPH had been removed. The SVE system at SS-17 was in operation until May 2002.

## 7.2 2005 Long-Term Groundwater Monitoring

Water level measurements were collected at SS-17 in 2005 and used to develop a potentiometric surface map of the site. During previous investigations, 20 groundwater monitoring wells were installed. However, because of construction activities and well abandonment, only three monitoring wells currently remain operational in the vicinity of SS-17. Groundwater samples were collected from wells W-4 (upgradient), MW-BX-01, and MW-BX-02. TH-22 was abandoned in 2003 as a result of base housing construction and was therefore not sampled in 2005. Groundwater samples were analyzed for VOCs and TDS. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of

groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at SS-17 are summarized in Table 7-1.

### 7.2.1 Site Hydrogeology

Depth-to-groundwater measurements at SS-17 in December 2005 ranged from 5.30 to 8.42 ft below TOC, and groundwater elevations ranged from 4067.24 (W-4) to 4062.32 (MW-BX-01) ft amsl (Appendix C). A potentiometric surface map was prepared for the site using the groundwater data from December 2005 (Figure 7-2). The contour map indicates that groundwater generally flows to the southeast across the site at a gradient of approximately 0.01. The hydraulic gradient and groundwater flow direction observed at SS-17 during the 2005 LTM Program are comparable with the results from the 2001 and 2003 LTM events.

### 7.2.2 Groundwater Sampling Results

Table 7-2 summarizes the analytical results for the LTM Program at SS-17. Detections reported from the 1997, 1999, 2001, 2003, and 2005 LTM events are presented. SS-17 was added to the LTM Program in 1997; therefore, sample results from 1997 serve as baseline concentrations for this site. Analytes reported above the CRDL in 2005 are shown on Figure 7-3.

Nine VOCs were detected above CRDLs in wells MW-BX-01 and MW-BX-02 at SS-17 during the 2005 event. Concentrations of benzene (45.1 µg/L) and 1,2-Dichloroethane (76.3 µg/L) exceeded the NWGWQ Standards in the groundwater sample collected from the downgradient well MW-BX-02. Overall, the concentrations of VOCs are consistent from previous LTM events with the exception of the benzene detection in well MW-BX-02, which increased from 0.32 J µg/L in 2003 to 45.1 µg/L in 2005. No VOCs were detected above the CRDL in the groundwater sample collected from upgradient well W-4. An estimated concentration of chloroform (0.79 J µg/L) was the only VOC detected in W-4 (including the duplicate sample). TDS concentrations ranged from 3,080 to 6,270 mg/L and exceeded the NMGWQ standard (1,000 mg/L) at each of the three wells sampled. A comparison of the primary and QA duplicate sample results can be found in Appendix A (Table A-1).

## 7.3 Recommendations

Contaminated soil removal is underway and will be complete in 2008. Upon conclusion of this removal, a Voluntary Corrective Measures report summarizing soil remediation, nature and extent of groundwater conditions, and risk evaluation will be submitted to NMED to support further decisions with regard to this site.

# 8 LF-21 – WEST AREA LANDFILL NO. 2 (SWMU 116)

## 8.1 Background

West Area Landfill No. 2 (LF-21, SWMU 116) is approximately 2 acres in size and is located east of the Solar Observatory. Figure 8-1 is a site map including monitoring well locations. The landfill was active during the 1970s. Bioenvironmental Engineering records indicated that waste materials contained at the site included paper bags, food, cans, boxes, boards, and tree limbs. One interviewee also indicated that some 55 gallon drums were observed during the active period of the landfill.

Four groundwater monitoring wells (MW-21-01 [upgradient], MW-21-02, MW-21-03, and MW-21-04 [downgradient]) were installed at this landfill during the 29 Waste Sites RI (Radian, 1992a). The wells were sampled for VOCs, pesticides, herbicides, PCBs, metals, and groundwater quality parameters. Concentrations of arsenic, benzene, cadmium, and fluoride were detected.

The BRA prepared for the landfill (Radian, 1992b) concluded that constituent concentrations do not pose a threat to human health or the environment. The 1994 No Action remedy presented in the Decision Document for the site was consistent with the conclusions of the RI. As part of the no action remedy, surface debris would be removed, a plat of survey would be produced, and LTM would be conducted at the site at NMED and USEPA's request biennially for 10 years to ensure that any potential future release from the site would not go undetected. NMED concurred with and signed the Decision Document.

## 8.2 2005 Long-Term Groundwater Monitoring

During the 2005 LTM Program, water level measurements were collected and used to develop a potentiometric surface map for the site. Groundwater samples were collected from the four monitoring wells previously installed at the site. During previous LTM events, groundwater samples were analyzed for VOCs, total mercury, dissolved RCRA metals, iron, and manganese. The 2003 LTM report recommended cessation of LTM and site closeout. NMED, in response to this recommendation and following a site visit, recommended characterization of the disposal area contents and stated that LTM at LF-21 must continue, because of the presence of TCE in the upgradient well. The analyte list for 2005 included VOCs, TAL metals, pesticides, herbicides, and TDS. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at LF-21 are listed in Table 8-1.

### 8.2.1 Site Hydrogeology

In December 2005, depth-to-groundwater measurements at LF-21 ranged from 8.67 to 10.94 ft below TOC and groundwater elevations ranged from 4037.7 (MW-21-01) to 4031.32 (MW-21-

04) ft amsl (Appendix C). A potentiometric surface map was prepared for the site using the groundwater data from December 2005 (Figure 8-2). The contour map indicates that groundwater flows to the southwest across the site at a gradient of approximately 0.005. The gradient and groundwater flow direction observed at LF-21 during the 2005 LTM Program are comparable with the results from previous LTM events.

### 8.2.2 Groundwater Sampling Results

Table 8-2 summarizes the analytical results of the 2005 LTM Program at LF-21. Detections reported from the 1995, 1997, 1999, 2001, 2003, and 2005 LTM events are presented. Analytes reported above the CRDL in 2005 are shown on Figure 8-3.

TCE was detected above the CRDL in well MW-21-01 (the upgradient well at the site) with a concentration of 13.3 µg/L. The concentration of TCE was consistent with the previous detections in this well and is less than the NMGWQ Standard (100 µg/L). All other VOCs were detected below the CRDL. Pesticides and herbicides were not detected in any of the groundwater samples collected at LF-21 during the 2005 LTM event.

Target Analyte List (TAL) metals (arsenic, calcium, magnesium, manganese, potassium, sodium, thallium, and vanadium) were detected above the CRDLs in wells MW-21-01, MW-21-02, MW-21-03, and MW-21-04. Most metals were detected at concentrations consistent with those from previous LTM Program events. However, manganese was detected (789 µg/L) above the NMGWQ Standard (200 µg/L) in the groundwater sample collected from MW-21-02. All of the other metal detections were below the NMGWQ Standards.

TDS concentrations ranged from 11,300 to 36,700 mg/L and exceeded the NMGWQ standard (1,000 mg/L) at each of the four wells sampled. A comparison of the primary and QA duplicate sample results from MW-21-04 can be found in Appendix A (Table A-1).

## 8.3 Recommendations

The 2005 LTM Program concluded its sixth sampling event for LF-21, representing over 10 years of LTM, satisfying the Decision Document commitment. Manganese detected in well MW-21-02 was the only contaminant detected above the NMGWQ Standards at LF-21 during the 2005 event. Laboratory results during the 2002/03 Quarterly Well-Gauging Program (Appendix C-1) and the 2005 event showed TDS concentrations consistently above 10,000 mg/L; therefore the NMGWQ Standards do not apply because the LF-21 groundwater is not a potential domestic or agricultural water supply. It is recommended that LTM cease. Supplemental characterization work is being performed this year in accordance with the July 2005 HydroGeoLogic RFI workplan, as amended in response to NMED comments, to support future decisions with regard to LF-21.

# 9 LF-29 – FORMER ARMY LANDFILL (SWMU 104)

## 9.1 Background

The Former Army Landfill (LF-29, SWMU 104) occupies approximately 3 acres in the North Base Area and is located approximately 300 ft north of Building 1001. The site is surrounded by a 3-ft high earthen berm that extends 400 ft north-south and 350 ft east-west (FEC, 1997). Figure 9-1 is a site map including monitoring well locations.

From the early 1950s to 1975, the Army reportedly disposed of spent munitions and missiles at the site. Materials were also dumped outside the berm, roughly 200 ft south of the landfill border. These materials primarily consist of construction debris (FEC, 1997).

During the Phase I RFI (Radian, 1994), groundwater samples were collected and analyzed for VOCs, total metals, organophosphorus pesticides, OCPs, PCBs, explosives, chlorinated herbicides, anions, and TDS. Chloroform and DDD were detected in monitoring wells MW-29-03 and MW-29-04. A quantitative BRA was conducted for LF-29 as part of the Phase I RFI. It was concluded that the site did not pose an unacceptable risk to human health or the environment; however, EPA Region 6 requested additional characterization.

During the 1994 Phase II RFI (Foster Wheeler, 1995), additional wells were installed and samples analyzed for the same analytes investigated during the Phase I RFI. Pesticides were detected in groundwater at concentrations below the CRDL.

Chloroform was detected in five of the seven groundwater samples but was not detected in the associated method blanks. With the exception of one sample, all chloroform concentrations were below detection limits. Benzene and 1,2-dichloroethane were the only VOCs detected in groundwater. With the exception of the upgradient well, benzene and 1,2-dichloroethane concentrations were detected below the detection limit in each monitoring well.

As a condition for closure, the NMED required Holloman AFB to include LF-29 in the LTM program in 1997, monitoring VOCs, SVOCs, and TDS in groundwater.

## 9.2 2005 Long-Term Groundwater Monitoring

Water level measurements were collected during the 2005 LTM program and used to develop a potentiometric surface map for the site. During previous investigations, eight groundwater monitoring wells (MW-29-01 through MW-29-08) were installed at LF-29. Groundwater samples were collected from wells MW-29-01, MW-29-03, MW-29-04, MW-29-05, MW-29-06, MW-29-07, and MW-29-08 as part of the 2005 LTM Program and analyzed for VOCs, SVOCs, and TDS. Monitoring wells MW-29-03, MW-29-04, and MW-29-05 were added to the LTM program by HGL to obtain additional upgradient data. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater

samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at LF-29 are summarized in Table 9-1.

### 9.2.1 Site Hydrogeology

In December 2005, depth-to-groundwater measurements at LF-29 ranged from 20.00 to 25.27 ft below TOC, and groundwater elevations ranged from 4077.94 (MW-29-05) to 4075.11 (MW-29-06) ft amsl (Appendix C). A potentiometric surface map, Figure 9-2, was prepared using the water level measurements collected during the December 2005 LTM program. The contour map indicates that groundwater generally flows to the north across the site along a gradient of 0.005. The groundwater flow gradient is similar to past events; groundwater flow direction was consistent with the 2003 event.

### 9.2.2 Groundwater Sampling Results

Table 9-2 summarizes the analytical results of the 2005 LTM Program at LF-29. Since LF-29 was added to the LTM Program in 1997, the 1997 analytical results represent the baseline concentrations for this site and this round concludes the ten-year LTM commitment. This table lists analytes detected at least once during LTM Program sampling events. Analytes reported above the CRDL in 2005 are shown on Figure 9-3.

Seven VOCs were detected above the CRDLs in six of the groundwater samples collected from the LF-29 monitoring well network. Maximum concentrations of VOCs were detected in upgradient wells, primarily MW-29-05. The most frequently detected VOCs were chloroform and 1,2-dichloroethane. 1,2-Dichloroethane, the most widely distributed VOC constituent was detected in six of the wells sampled with concentrations ranging from 2.3 to 90.6 μg/L. Concentrations of 1,2-dichloroethane were above the NMGWQ Standard (10 μg/L) in the groundwater samples collected from upgradient well MW-29-05 (90.6 μg/L), MW-29-07 (26.6 μg/L), and MW-29-08 (23.3 μg/L). The detections of benzene, trichloroethylene, and the other detected VOCs were all below the NMGWQ Standards. The concentrations of 1,2-dichloroethane in wells MW-29-06, MW-29-07, and MW-29-08 are similar to the concentrations previously detected. There were no VOCs detected in well MW-29-01, which is also consistent with the previous sampling events.

SVOCs were not detected in any of the groundwater samples. TDS concentrations ranged from 7,660 to 32,200 mg/L and exceed the NMGWQ standard (1,000 mg/L) in each of the seven wells sampled. A comparison of the primary and QA duplicate sample results from MW-29-05 can be found in Appendix A (Table A-1).

## 9.3 Recommendations

This round completes 10 years of LTM at LF-29 and it is recommended that LTM cease. Additional characterization work to support future decisions with regard to LF-29 is being performed this year in accordance with the July 2005 HydroGeoLogic RFI workplan, as amended in response to NMED comments.

# 10 DP-30 AND SD-33 – GREASE TRAP DISPOSAL PITS (SWMU 113B)

## 10.1 Background

The Grease Trap and Cooking Grease Disposal Pits (DP-30 and SD-33, SWMU 113B) are located west of the Fire Training Area and east of the Skeet Range. The waste pits consisted of elongated excavations approximately 40- to 50-ft long and 2- to 3-ft wide. Drilling and trenching activities indicated that the depths of the disposal pits ranged from 2.5 to 9 ft in depth. The pits received waste from the oil/water separators and grit chambers on the Base. Occasionally, the pits would accept sludge from vacuum trucks used to unclog sewer lines at the Primate Research Laboratory (Radian, 1992a). Figure 10-1 is a site map including monitoring well locations.

Soil and groundwater samples were collected from the Grease Trap Disposal Pits during the 29 Waste Sites RI (Radian, 1992a). Soil and waste sludge samples contained VOCs, metals, oil and grease, and pesticides. Four groundwater monitoring wells (MW-30&33-01, MW-30&33-02, MW-30&33-03, and MW-30&33-04) were installed during the RI. One of the wells was installed approximately 400 ft upgradient of the closest pit and three monitoring wells were installed approximately 150 to 200 ft downgradient of the closest pit. Analytes reported above the CRDL include metals (antimony, beryllium, cadmium, chromium, copper, nickel, zinc, lead, and selenium) and toluene. Other constituents listed in the reports, including gross alpha, gross beta, and selected pesticides, were below the method detection limits.

The risk screen performed in the RI indicated unacceptable risk for Sites 30&33, based on several constituents in the soil exceeding action levels. Therefore, it was recommended that the site should proceed beyond the RI/RFI stages into the FS/CMS stages, and if necessary, to implementation of an IRP remedial action/RCRA corrective action remedy.

The Corrective Measures Study Plan prepared by Radian and submitted in November 1992 did not recommend that DP-30/SD-33 be included in the subsequent Feasibility Study; instead it stated that an Engineering Evaluation/Cost Analysis (EE/CA) would be performed to determine the appropriate remedial alternative to remove buried waste and achieve site closure. A subsequent Decision Document, signed by NMED in September 1995 and the Base Commander in November 1995, alternatively recommended No Further Action with groundwater monitoring. The rationale for this decision was the absence of exposure pathways and receptors due to the remote location of the SWMU. LTM at DP-30/SD-33 commenced in 1995.

## 10.2 2005 Long-Term Groundwater Monitoring

During the 2005 LTM Program, water level measurements were collected and used to develop a potentiometric surface map for the site. During previous LTM events, groundwater samples collected at this site were analyzed for VOCs, total mercury, dissolved RCRA metals, iron, and manganese. 2005 analyses included VOCs, TAL metals, pesticides, herbicides, and

TDS. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at DP-30 and SD-33 are summarized in Table 10-1.

### 10.2.1 Site Hydrogeology

In December 2005, depth-to-groundwater measurements at DP-30 and SD-33 ranged from 21.03 to 23.03 ft below TOC and groundwater elevations ranged from 4083.67 (MW-30&33-01) to 4079.34 (MW-30&33-04) ft amsl (Appendix C). A potentiometric surface map was prepared for the site using the groundwater data from December 2005 (Figure 10-2). The contour map indicates that groundwater flows to the south-southeast across the site at a gradient of approximately 0.008. The hydraulic gradient and groundwater flow direction observed at DP-30 and SD-33 during the 2005 LTM Program are comparable with the results from previous LTM events.

### 10.2.2 Groundwater Sampling Results

Table 10-2 summarizes the analytical results of the 2005 LTM Program at DP-30 and SD-33. Detections reported during the 1995, 1997, 1999, 2001, 2003, and 2005 LTM events are presented. Analytes reported above the CRDL in 2005 are shown on Figure 10-3.

Three VOCs (chloroform, 1,1-dichloroethane, and TCE) were detected above the CRDLs in three wells (MW-30&33-01, MW-30&33-02, and MW-30&33-03) at concentrations below the NMGWQ Standards. The concentrations of these VOCs in these three wells are greater than those detected in 1995, 1997, 1999, 2001, and 2003. Maximum concentrations of VOCs were found in upgradient well MW-30/33-01. No VOCs were detected in the downgradient well MW-30&33-04 where chloroform, 1,1-dichloroethane, and TCE had been detected in each of the previous LTM sampling events.

Five TAL metals (arsenic, calcium, magnesium, potassium, and sodium) were detected above the CRDL at each of the four wells sampled; all of the concentrations were less than the NMGWQ Standard. All of the other TAL metals were below the CRDL. In addition, all pesticide and herbicide analytes were not detected.

TDS concentrations ranged from 24,300 to 30,200 mg/L and exceeded the NMGWQ standard (1,000 mg/L) at each well. The QA duplicate sample for MW-30&33-04 reported no detections of VOCs and similar concentrations for the detected TAL metals. A comparison of the primary and QA duplicate sample results can be found in Appendix A (Table A-1).

## 10.3 Recommendations

Supplemental characterization work is being performed this year in accordance with the July 2005 HydroGeoLogic RFI workplan, as amended in response to NMED comments. This

characterization includes continued groundwater sampling on a semi-annual basis for VOCs, metals, and TDS.

This page intentionally left blank.

# 11 SS-39 – MISSILE FUEL SPILL AREA (SWMUS 165, 177, 179, 181)

## 11.1 Background

The Missile Fuel Spill Area (SS-39, SWMUs 165, 177, 179, 181) is located approximately 3.5 miles northwest of the Main Base Area near Building 1176. Figure 11-1 is a site map including monitoring well locations. The site consists of two outfall areas located further downslope from the oxidizer and propellant spill drain pipes, and drainage troughs and sumps located near Building 1176. Facilities at SS-39 were involved with the fueling, detanking, and routine maintenance of test sleds. Fuels used at the track included unsymmetrical dimethylhydrazine, aniline, JP-4, inhibited red fuming nitric acid, inhibited white fuming nitric acid, liquid oxygen, JPX, dyes, and solid rocket propellants. Solvents, such as TCE, were commonly used in sled maintenance activities (FEC, 1997).

SS-39 was identified as a potential contaminant source during a 1983 IRP records search. An RI was completed in 1992 (Radian, 1992a) revealing arsenic, beryllium, lead, and TCE in soils, and TCE, carbon tetrachloride, and lead in groundwater near Building 1176. The RI concluded based on these results that additional field investigation was warranted. The additional fieldwork at SS-39 was performed in accordance with the approved Table 2 Phase I RFI Workplan prepared by Radian in 1993. The October 1994 Phase I RFI report for Table 2 SWMUs presented the results for SS-39. Groundwater samples were collected from 15 temporary sampling locations using direct push methods, and screened in the field for chlorinated compounds. Eight groundwater samples were submitted to the laboratory for confirmation analysis. Results of these analyses are provided on Table 2.27, and depicted on Figure 2.36. The data indicate that TCE was present above NMGWQ and US EPA MCLs at four locations, and above US EPA MCLs at an additional 2 locations. Additionally, surface soil samples, vegetation samples, and jackrabbit tissue, blood and urine samples were collected in the area, and surface water samples were collected from the Lost River Basin to support an ecological risk assessment. The assessment concluded that there was no unacceptable risk to ecological receptors. The October 1994 Phase I RFI report proposed NFA for the site and a Decision Document was submitted in September 1995, but was not signed by NMED. Conditional closure of SS-39 required LTM for VOCs and TDS biennially for 10 years. The site was added to the LTM program in 1997.

## 11.2 2005 Long-Term Groundwater Monitoring

During the 2005 LTM Program, water level measurements were collected and used to develop a potentiometric surface map for the site. Groundwater samples were collected from four previously installed wells (MW-39-01, MW-39-02, MW-39-03, and MW-39-04) as part of the 2005 LTM Program and analyzed for VOCs and TDS. Due to obstruction caused by roots, wells MW-39-01 and MW-39-04 were not sampled until February 16, 2006. In addition, a second round of water level measurements was collected each of the four wells on February 16, 2006.

Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at SS-39 are summarized in Table 11-1.

### 11.2.1 Site Hydrogeology

In February 2006, depth-to-groundwater measurements at SS-39 ranged from 7.92 to 24.97 ft below TOC and groundwater elevations ranged from 4034.89 (MW-39-01) to 4032.71 (MW-39-03) ft amsl (Appendix C). A potentiometric surface map was prepared for the site using the groundwater data from February 2006 (Figure 11-2). The contour map indicates that groundwater flows to the south across the site at a gradient of approximately 0.003. The hydraulic gradient and groundwater flow direction observed at SS-39 during the 2005 LTM Program are comparable with the results from the previous LTM events.

### 11.2.2 Groundwater Sampling Results

Table 11-2 summarizes the analytical results of the 2005 LTM Program at SS-39. This table reflects all analytes detected at least once during LTM Program sampling events. Analytes reported above the CRDL in 2005 are shown on Figure 11-3.

Three VOCs were detected above the CRDL in well MW-39-03, downgradient of the propellant spill drainpipe discharge box (SWMU 179). The concentrations of carbon tetrachloride (5.0 µg/L), chloroform (1.9 µg/L), and trichloroethylene (5.2 µg/L), are greater than detections reported in the previous LTM events at this well but are less than the NMGWQ Standards. Chloroform was detected in MW-39-02 at a concentration (1.6 µg/L) comparable with the previous LTM sampling rounds and less than the NMGWQ Standard. VOCs were not detected in the groundwater samples collected from MW-39-01 (upgradient) and MW-39-04 (downgradient of the alpha pad drainage (SWMU 167) and oxidizer spill drainpipe, upgradient of the Building 1176 drainage troughs and sumps SWMUs 181 and 177, respectively). TDS concentrations ranged from 5,670 to 17,200 mg/L and exceeded the NWGWQ Standard (1,000 mg/L) in each of the four wells.

## 11.3 Recommendations

Supplemental characterization work is being performed this year in accordance with the July 2005 HydroGeoLogic RFI workplan, as amended in response to NMED comments. This characterization includes continued groundwater sampling on a semi-annual basis for VOCs, RCRA metals, perchlorate, and TDS.

# 12 SS-46 - JP-4 SPILL SITE (SWMU 130)

## 12.1 Background

JP-4 Spill Site (SS-46, SWMU 130) is the location of a former 25,000-gallon JP-4 underground waste fuel tank that was installed in 1978 without containment. The tank is located on the southeast side of Taxiway 4. Figure 12-1 is a site map including monitoring well locations. No permanent structures were installed as part of SS-46. The site is covered by a concrete hardstand. Waste fuel was stored in the tank and analyzed by the Base fuels laboratory for eventual disposition (FEC, 1997).

At the time of the 1988 RFA PA/SI, SS-46 was located on the southeast side of the main taxi access, bounded by the Main Taxiway, Taxiway No.4, and Taxiway No. In 1988, the area contained a small concrete hardstand and the tank surrounded by a thinly spread gravel cover near the runway edges. A chain-link fence enclosed an area approximately 50 feet by 50 feet. Based on a review of available facility documents, the three monitoring wells observed at SS-46 during the 1988 RFA VSI are most likely three of the four monitoring wells installed in March 1988 during a RI of Site 53 (currently referred to as SS-46) (Section 3.3.3). The RI wells were installed because a release from the UST was suspected but not confirmed. During advancement of the monitoring well boreholes, soil samples were collected for field screening and some for laboratory analysis. In addition, groundwater samples were collected and submitted for laboratory analysis. No petroleum contamination was indicated from field screening activities or from soil analytical results. No evidence of contaminated soil was identified at Site 53 (currently referred to as Site SS-46. Groundwater sampling showed both bis(2-ethylhexyl)phthalate and lead at concentrations exceeding applicable Federal MCLs in the upgradient monitoring well MW1. An elevated lead concentration in MW3 was also detected during the Stage I investigation but lead was not detected above the detection limit when the well was resampled during the Stage II sampling event. A baseline-risk assessment was conducted using the data collected during the RI, and no significant risk to human or environmental receptors was determined to be present. Actions recommended included the removal of the tank from service until a leak test would be performed. But, based on the data collected, no further investigative work or feasibility studies were recommended. The tank was taken out of service in 1989. A Decision Document was signed by the installation commander in September 1991. The NMED agreed to sign the Decision Document if periodic groundwater monitoring was initiated.

In the mid-1990s, Building 285 (a German Air Force hangar) was constructed at this location and the four groundwater monitoring well installed as part of the 1989 IRP RI investigation were removed. The tank was also removed as part of tank removal projects coordinated by the Base. In August 1997, three new groundwater monitoring wells (designated as MW-46-01 through MW-46-03) were installed at SS-46. LTM activities were initiated in late 1997 and consisted of collecting groundwater samples from the three newly installed monitoring wells and submitting the collected samples for VOC and total and dissolved lead analyses. Four LTM sampling events have occurred prior to this round and based on the sampling results, the SS-46 COPC list has been reduced to bromodichloromethane, chloroform, and methylene chloride. Benzene was

removed from the SS-46 COPC list after the 2001 LTM event. None of the SS-46 groundwater COPCs have been detected at concentrations above standards.

## 12.2 2005 Long-Term Groundwater Monitoring

In 2005, water level measurements were collected at SS-46 and used to develop a potentiometric surface map of the site. Groundwater samples were collected and analyzed for VOCs and TDS. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at SS-46 are summarized in Table 12-1.

### 12.2.1 Site Hydrogeology

In December 2005, depth-to-groundwater measurements at SS-46 ranged from 6.82 to 7.29 ft below TOC, and groundwater elevations ranged from 4075.27 (MW-46-02) to 4074.47 (MW-46-03) ft amsl (Appendix C). A potentiometric surface map was prepared for the site using the groundwater data from December 2005 (Figure 12-2). The contour map indicates that groundwater flows to the north-northwest across the site at a gradient of approximately 0.008. The hydraulic gradient observed at SS-46 is comparable with the results of previous LTM events. The groundwater flow direction observed at SS-46 during the 2005 and 2003 LTM sampling events is different from the generally southwest flow direction observed during past LTM events. Differences with groundwater flow directions can most likely be explained by seasonal groundwater fluctuations.

### 12.2.2 Groundwater Sampling Results

Table 12-2 summarizes the analytical results of the 2005 LTM Program at SS-46. Analytes reported above the CRDL are shown on Figure 12-3.

VOCs were not detected above the CRDLs in any of the SS-46 monitoring wells. The estimated concentrations of chloroform (0.99 J µg/L) at MW-46-01 and benzene (0.52 J µg/L) from MW-46-03 represent the lowest VOC concentrations from the four previous LTM sampling events. TDS concentrations ranged from 6,390 to 8,380 mg/L and exceeded the NMGWQ Standard (1,000 mg/L).

## 12.3 Recommendations

The 2005 LTM Program concluded the fifth sampling event for site SS-46 and 10 years of monitoring. It is recommended that LTM cease. Furthermore, VOCs were not detected above the CRDLs and SS-46 is recommended for No Further Action under NMED Criterion 5. Characterization data collected since 1988 show no evidence of a release. The UST was removed in 1995; LTM data since that time shows that groundwater has never contained constituents above standards.

# 13 SS-48 – MILITARY GAS STATION (AOC-N)

## 13.1 Background

The Military Gas Station (SS-48, AOC-N), formerly known as Site 55, has been in operation for more than 30 years (FEC, 1997). Figure 13-1 presents a site map including groundwater monitoring well locations.

Three monitoring wells were installed during a Phase I RI to determine if groundwater had been contaminated as a result of a leaking UST system at the site. During the Phase II RI, two additional onsite wells and two downgradient monitoring wells were installed. Five VOCs (benzene, toluene, xylene, acetone, and TCE) and six SVOCs (nitrobenzene, acenaphthene, fluorene, 2-methylnaphthalene, naphthalene, and phenanthrene) were detected in well S55-MW3. S55-MW3 is located within 20 ft of the former UST location. No other organic compounds were detected in any of the other wells, except tetrachloroethylene (PCE) and TCE in upgradient well S55-MW1, located within 30 ft of the former tank location (Walk, Haydel & Associates, 1989a).

A BRA was conducted for the site and concluded that the site posed no significant threat to human health or the environment (Walk, Haydel & Associates, 1989b). In March 1994, USTs containing gasoline and diesel fuel were removed.

## 13.2 2005 Long-Term Groundwater Monitoring

During the 2005 LTM Program, water levels were collected and used to develop a potentiometric surface map for the site. Groundwater samples were collected from six of the seven previously installed monitoring wells (S55-MW2 (upgradient), S55-MW3, S55-MW4, S55-MW5, S55-MW6, and S55-MW7). Well S55-MW1 was not located during the 2005 LTM event (and 2003 LTM event) and was not sampled. Well S55-MW3 was added to the LTM program in 2003 based on a request from Holloman AFB. Groundwater samples in December 2005 were analyzed for VOCs and TDS. Various field parameters, including pH, temperature, and specific conductivity, were measured prior to the collection of groundwater samples at each well and are presented in Appendix C. The number and type of groundwater samples collected at SS-48 are summarized in Table 13-1.

### 13.2.1 Site Hydrogeology

In December 2005, depth-to-groundwater measurements at SS-48 ranged from 4.90 to 6.96 ft below TOC and groundwater elevations ranged from 4074.49 (S55-MW3) to 4072.72 (S55-MW6) ft amsl (Appendix C). A potentiometric surface map was prepared for the site using the groundwater data from December 2005 (Figure 13-2). The contour map indicates that groundwater flows to the southwest across the site at a gradient of approximately 0.012. The gradient is more than that calculated in 2003 (0.004) however, it is comparable to the gradient

calculated in 2001 (0.018). The groundwater flow direction observed at SS-48 during the 2005 LTM Program is comparable with the results from previous LTM events.

### 13.2.2 Groundwater Sampling Results

Table 13-2 summarizes the analytical results of the 2005 LTM Program at SS-48. Detections reported during the 1995, 1997, 1999, 2001, 2003, and 2005 LTM events are presented. Analytes reported above the CRDL in 2005 are shown on Figure 13-3.

Eight VOCs were detected above the CRDLs in the six groundwater samples collected from the SS-48 monitoring well network. The most frequently detected VOCs were chloroform, MTBE, and TCE. Trichloroethylene, the most widely distributed VOC constituent, was detected in five of the wells sampled with concentrations ranging from 1.2 to 25.2 µg/L. The highest concentrations were found in wells upgradient and crossgradient of the site. All concentrations of TCE were below the NMGWQ Standard. Chloroform was detected in four wells (S55-MW-2, S55-MW-3, S55-MW-4, and S55-MW-6) with concentrations ranging from 1.4 to 4.0 µg/L. These concentrations are also below the NMGWQ Standard. MTBE was detected in S55-MW5 and S55-MW7 with concentrations of 419 and 161 µg/L respectively. There is no NMGWQ Standard for this compound.

Benzene was detected in monitoring well S55-MW5 with a concentration of 83.0 µg/L. This concentration is greater than the NMGWQ Standard (10 µg/L). However, the concentration of benzene detected in 2005 was less than the concentrations of benzene detected in 2003 (100 µg/L) and 2001 (560 µg/L) at S55-MW5, exhibiting a decreasing trend. The detections of 1,2-dichloroethane (1.1 µg/L in S55-MW7) and ethylbenzene (6.8 µg/L in S55-MW5) were both below the NMGWQ Standards. In addition, there were low concentrations of sec-butylbenzene (1.4 µg/L) and isopropylbenzene (1.4 µg/L) detected in the sample collected from S55-MW5. There are no NMGWQ Standards for these compounds. In general the concentrations of VOCs were lower than the concentrations previously detected at SS-48. This was the first time that monitoring well S55-MW6 had been sampled under the LTM program. TDS concentrations ranged from 6,110 to 12,100 mg/L and exceeded the NMGWQ Standard for each of the six wells.

## 13.3 Recommendations

The 2005 LTM Program concluded the sixth sampling event for SS-48 and over 10 years of LTM. Therefore, it is recommended that LTM cease.

Although benzene was detected above the NMGWQ Standards in one monitoring well (S55-MW5), SS-48 is recommended for NFA. The TDS concentrations in four of the six wells were above 10,000 mg/L. It is hypothesized that the two wells with TDS detections below 10,000 mg/L are artificially low due to the dilution of natural groundwater from leaking water lines and surface irrigation from the domestic water supply. In conclusion, the NMGWQ Standard for TDS does not apply because SS-48 groundwater in its natural state would have TDS

concentrations greater 10,000 mg/L therefore the groundwater is not a potential domestic or agricultural water supply.

This page intentionally left blank.

# 14 CONCLUSIONS AND RECOMMENDATIONS

Eleven sites were evaluated as part of the 2005 LTM Program. Groundwater samples were submitted for site-specific chemical analyses, including VOCs, SVOCs, TAL metals, pesticides, herbicides, and TDS. Analytical results obtained during the 2005 LTM Program activities were evaluated and compared with results observed during the 1995, 1997, 1999, 2001, and 2003 LTM Programs. Results were consistent with previous events, with the exception of benzene detected in well S1-MW3 at LF-01.

A minimum of 10 years of LTM has been completed at all of the sites described in this report, satisfying the earlier commitment of ten years of LTM as a condition of closure. It is therefore recommended that LTM cease at all sites. Additional recommendations are as follows:

- LF-01: NFA has been granted and supplemental characterization near well S1-MW3 is being performed as part of SS-02/SS-05.

- SS-02/SS-05: All contaminated soil has been removed and supplemental groundwater characterization is being performed. A Voluntary Corrective Measures report summarizing soil remediation, additional groundwater characterization, and risk evaluation will be submitted to NMED to support further decisions with regard to this site.

- SD-08: Supplemental characterization of soils and groundwater will be completed in 2006 in accordance with the August 2005 Bhate Additional Requirements Work Plan to support further decisions with regard to this site.

- OT-16/SS-46: NFA under NMED Criterion 5 is recommended. Waste units (i.e. USTs, building appurtenances) and contaminated soil have been removed and LTM data demonstrate that NFA is appropriate. A report will be submitted to NMED shortly to further support the NFA recommendation.

- SS-17: Contaminated soil removal is underway and will be completed in 2008. Upon conclusion of this removal, a Voluntary Corrective Measures report summarizing soil remediation, nature and extent of groundwater conditions, and risk evaluation will be submitted to NMED to support further decisions with regard to this site.

- LF-21 and LF-29: Supplemental characterization work is being performed this year in accordance with the July 2005 HydroGeoLogic RFI work plan, as amended in response to NMED comments, to support future decisions with regard to these sites. LF-29 groundwater will be sampled for perchlorate as part of this effort.

- DP-30/SD-33 and SS-39: Supplemental characterization work is being performed this year in accordance with the July 2005 HydroGeoLogic RFI work plan, as amended in response to NMED comments. This characterization includes continued groundwater

sampling on a semi-annual basis for VOCs, TAL metals, and TDS at DP-30/SD-33, and VOCs, RCRA metals, perchlorate, and TDS at SS-39.

# 15 REFERENCES

EBASCO/Groundwater Technology Inc., 1995. *Decision Documents for Installation Restoration Program.*

EPA, 1986. *SW-846 Test Methods for Evaluating Solid Waste*. Third edition and updates.

FEC, July 1997. *Final Sampling and Analysis Plan, Long-Term Groundwater Monitoring Program, Holloman Air Force Base, New Mexico.*

Foster Wheeler/Radian, June 1995. *Phase II RCRA Facility Investigation Report.*

Foster Wheeler/GTI, June 1996. *Draft Final 1995 Long-Term Groundwater Monitoring Report, Holloman Air Force Base, New Mexico.*

Foster Wheeler, July 2003a. *Draft Letter Report For Fourth Quarter Well Gauging Event 2002 Long-Term Groundwater Monitoring Program, Holloman Air Force Base, New Mexico.*

Foster Wheeler, May 2003b. *Revised Final 2001 Long-Term Groundwater Monitoring Report, Holloman Air Force Base, New Mexico.*

Foster Wheeler, March 2003c. *Final Letter Report For Second Quarter Well Gauging Event 2002 Long-Term Groundwater Monitoring Program, Holloman Air Force Base, New Mexico.*

Foster Wheeler, January 2003d. *Draft Letter Report For Third Quarter Well Gauging Event 2002 Long-Term Groundwater Monitoring Program, Holloman Air Force Base, New Mexico.*

Foster Wheeler, September 1999a. *Final Chemical Data Acquisition Plan—Long-Term Groundwater Monitoring Program, Holloman Air Force Base, New Mexico.*

Foster Wheeler, August 1999b. *Final Remedial Investigation Report for Spill Site 61, Holloman Air Force Base, New Mexico.*

NMED, September 2002. *New Mexico Water Quality Control Commission Regulations, 20.6.2 New Mexico Administrative Code (NMAC).*

Radian Corporation, 1994. *Phase I RCRA Facility Investigation Report, Table 2 Solid Waste Management Units, Draft Final.*

Radian Corporation, December 1993. *Feasibility Study - Investigation, Study, and Recommendations for 29 Waste Sites.*

Radian Corporation, October 1992a. *Remedial Investigation Report, Investigation, Study, and Recommendation for 29 Waste Sites.*

Radian Corporation, June 1992b. *Risk Assessment Report for the Remedial Investigation (RI), Study and Recommendation for 29 Waste Sites.*

USACE-Omaha District, August 2003a. *Final Letter Report For The FY 2003 Second Quarterly Well-Gauing Event 2003 Long-Term Groundwater Monitoring Program, Holloman Air Force Base, New Mexico.*

USACE-Omaha District, March 2003b. *Final Work Plan for the Long-Term Groundwater Monitoring Program, Holloman Air Force Base, New Mexico.*

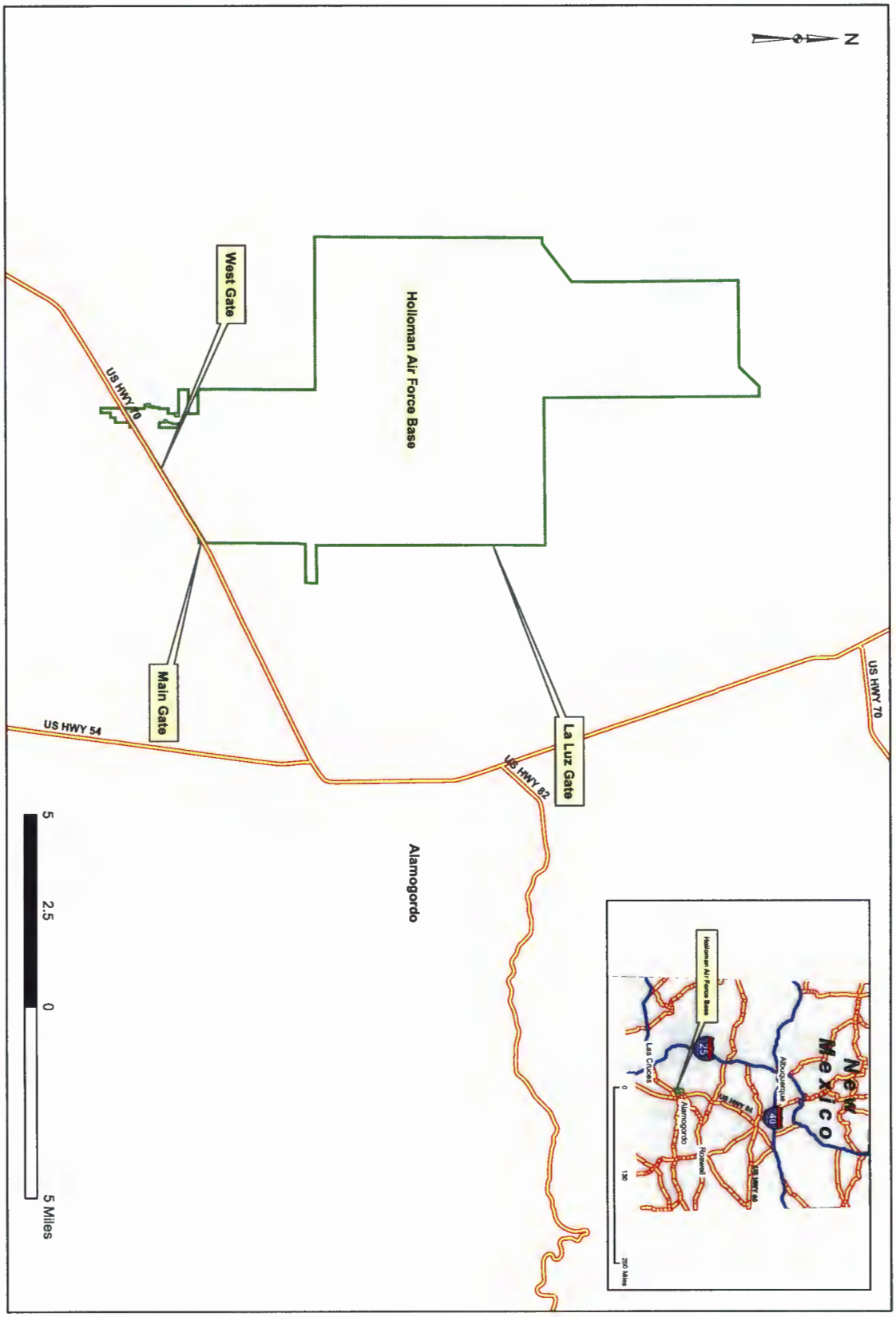
Walk, Haydel & Associates, November 1990. *Decision Documents for Installation Restoration Program Sites.*

Walk, Haydel & Associates, December 1989a. *Final Remedial Investigation Report for Installation Restoration Program Sites.*

Walk, Haydel & Associates, December 1989b. *Final Baseline Risk Assessment for Installation Restoration Program Sites.*

Woodward-Clyde Consultants, Inc., April 1991. *Draft Preliminary Investigation and Site Characterization West Ramp Fuel Contamination, Holloman Air Force Base, New Mexico.*

# FIGURES



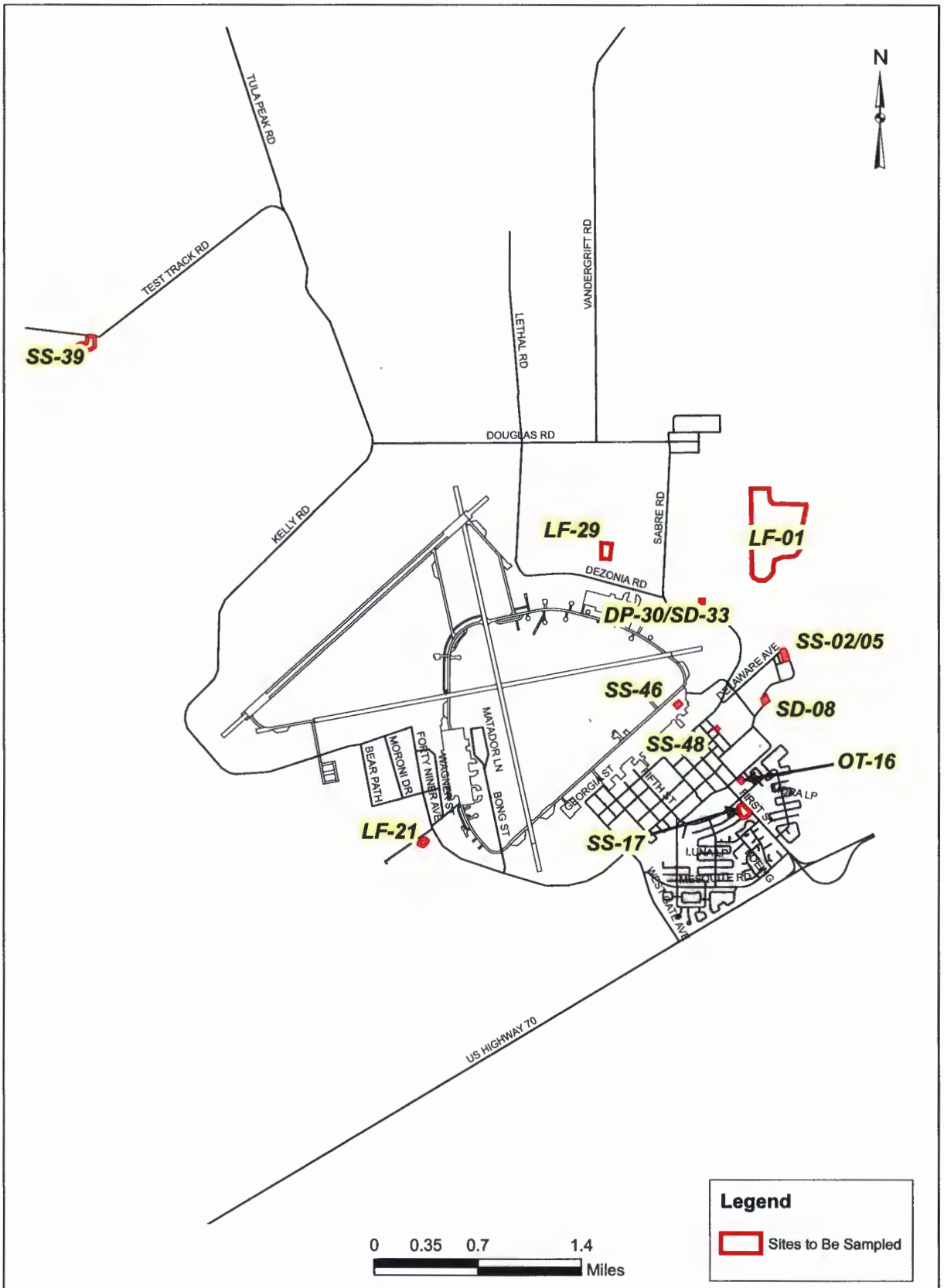

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Holloman AFB, NM**
**Location Map**

| PROJECT NO. | SCALE | DATE | DRAWN BY: CM |
|---|---|---|---|
| 9040343 | Shown | 2/8/06 | DRAWING NO: Fig 1-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 1-1



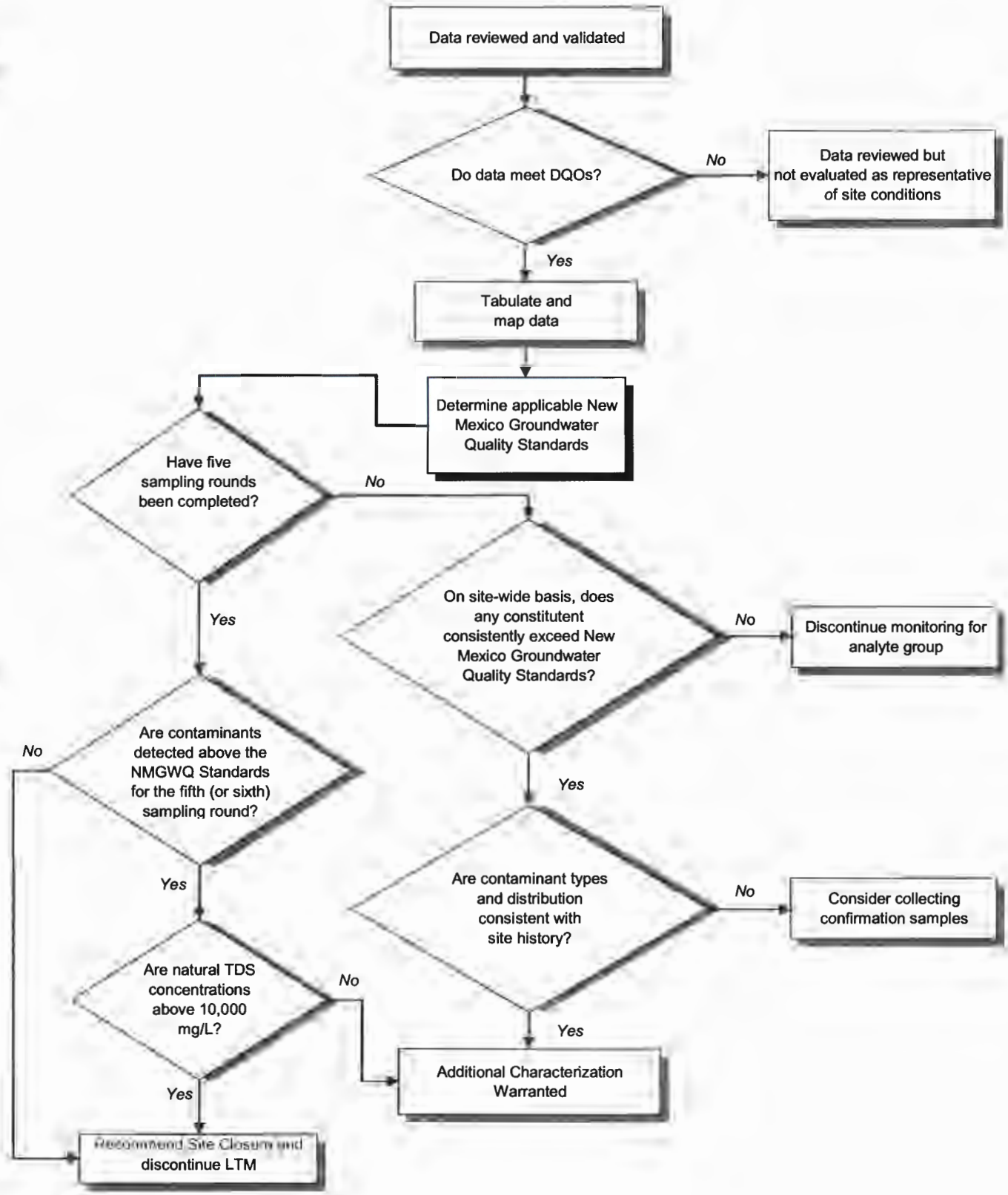

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | Shown | 2/8/06 | DRAWING NO: Fig 1-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 1-2



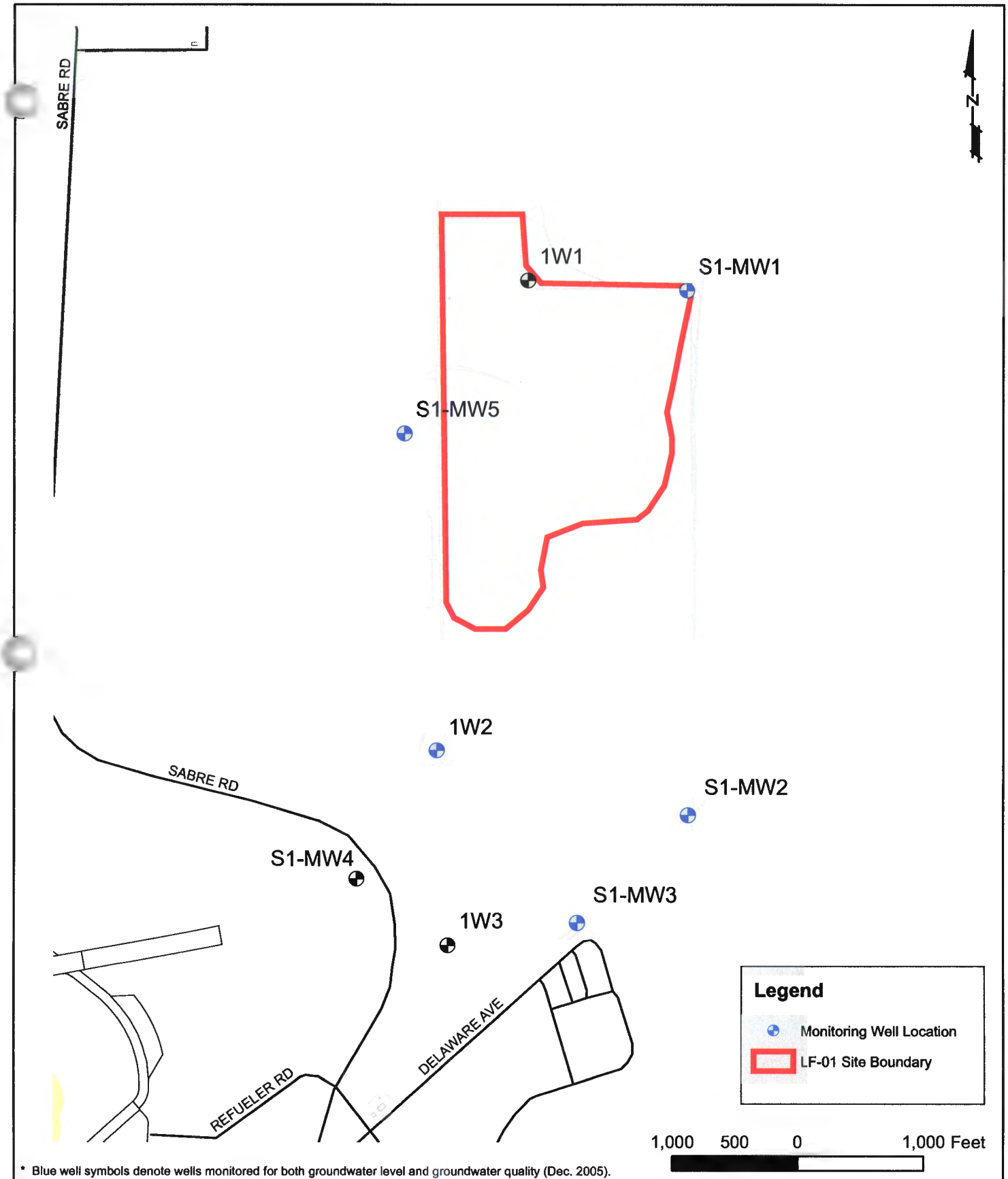

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**LTM Data Evaluation Process**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=150' | 2/8/06 | DRAWING NO: Fig 2-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 2-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).

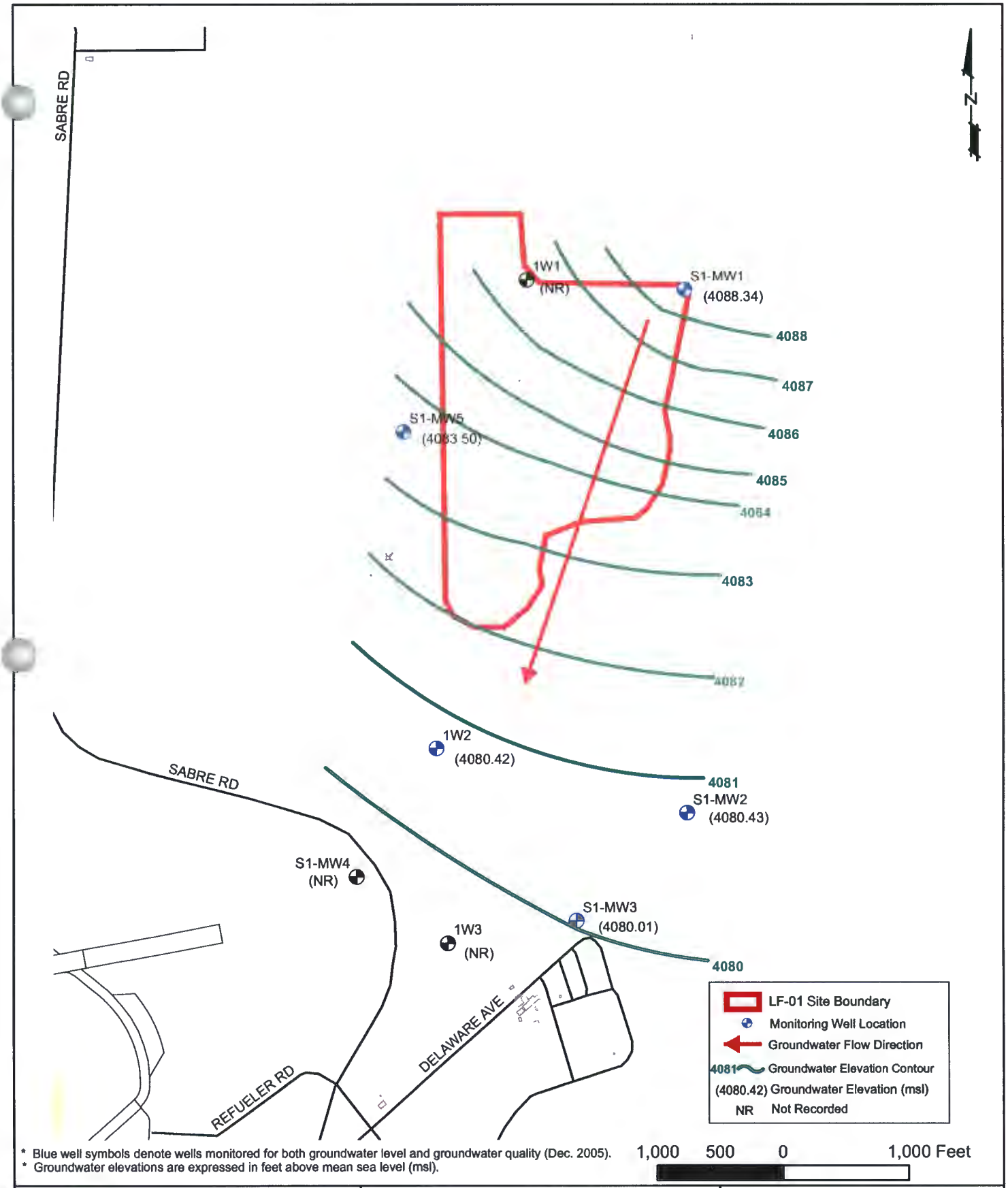
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

# Site Location Map
# LF-01

| PROJECT NO. | SCALE | DATE | DRAWN BY: | cm |
|---|---|---|---|---|
| 9050343 | 1"=1000' | 2/8/06 | DRAWING NO: | Fig 3-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 3-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level (msl).

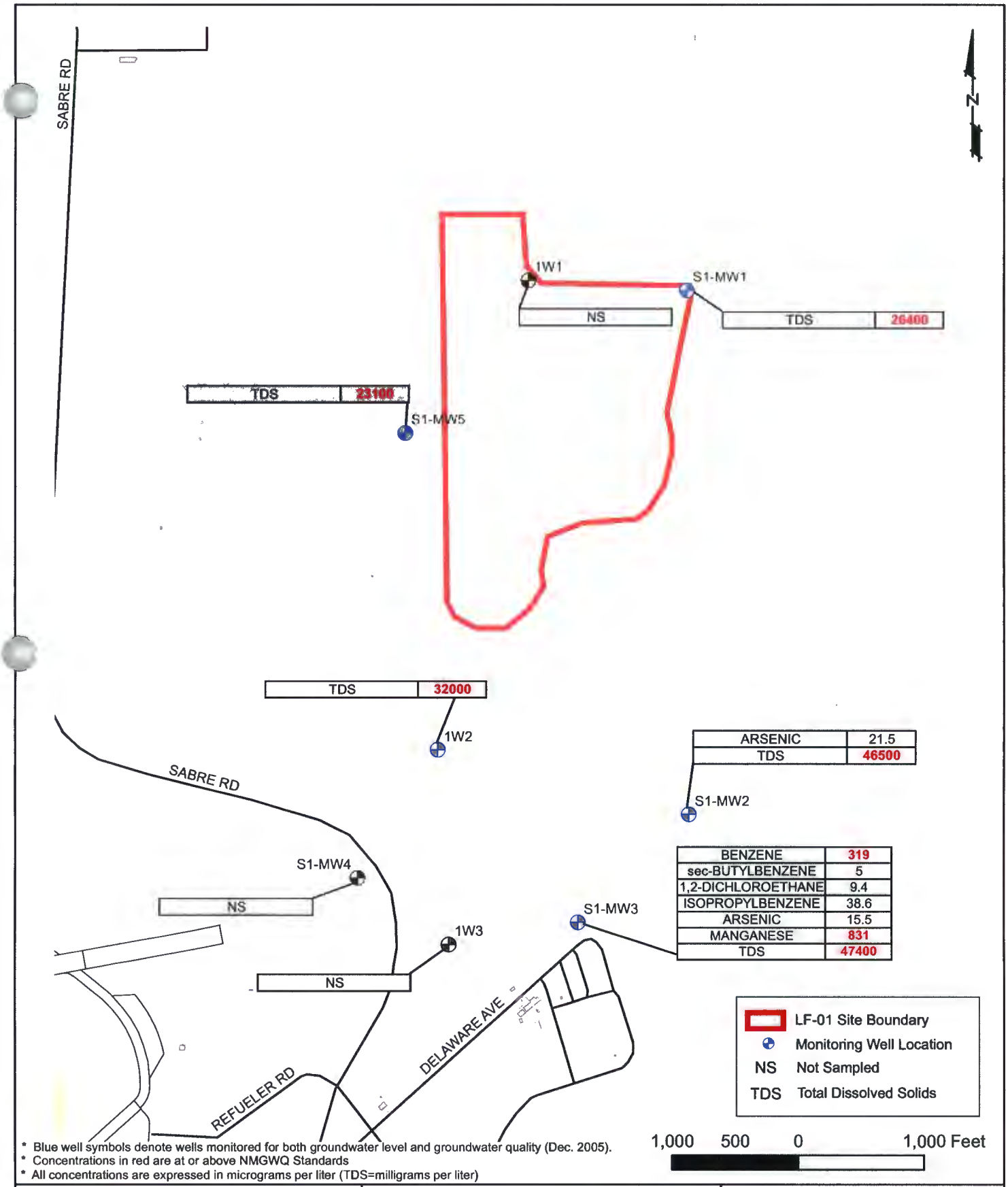
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**LF-01**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=1000' | 2/8/06 | DRAWING NO: Fig 3-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 3-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

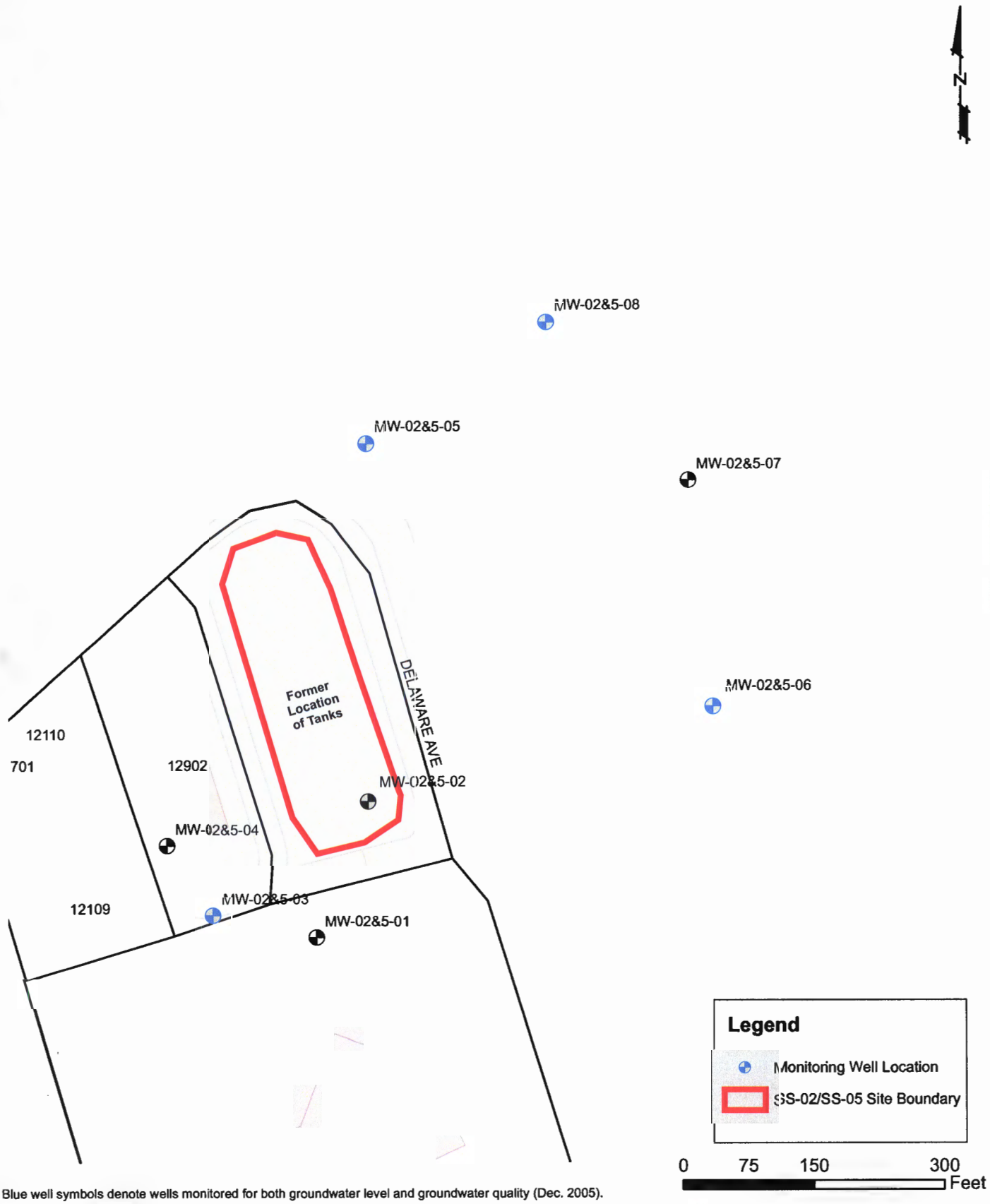
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**LF-01**

| PROJECT NO. | SCALE | DATE | DRAWN BY: | cm |
|---|---|---|---|---|
| 9050343 | 1"=1000' | 2/8/06 | DRAWING NO: | Fig 3-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 3-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).

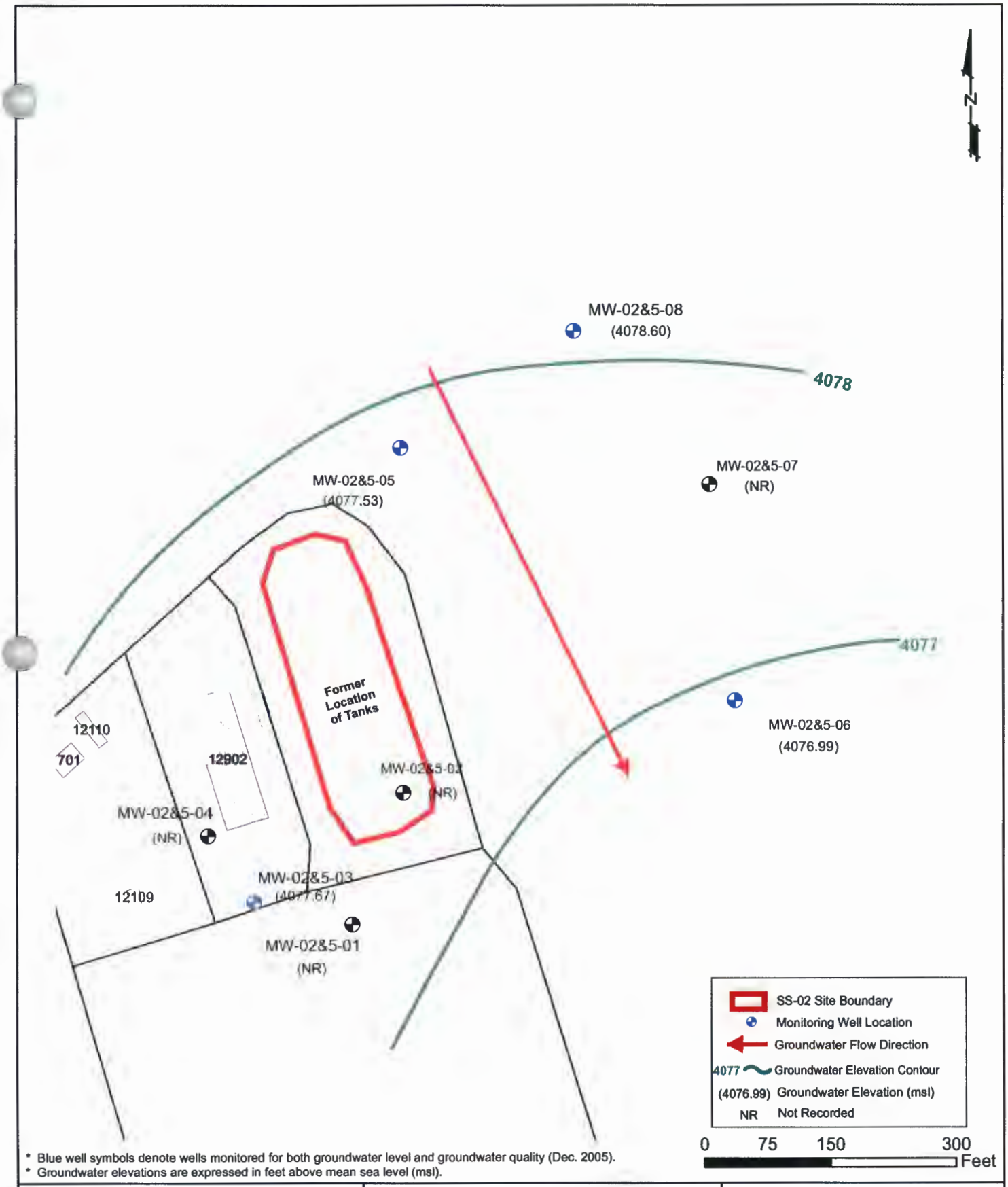
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**SS-02 and SS-05**

| PROJECT NO. | SCALE | DATE | DRAWN BY: | cm |
|---|---|---|---|---|
| 9050343 | 1"=150' | 2/8/06 | DRAWING NO: | Fig 4-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 4-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level (msl).

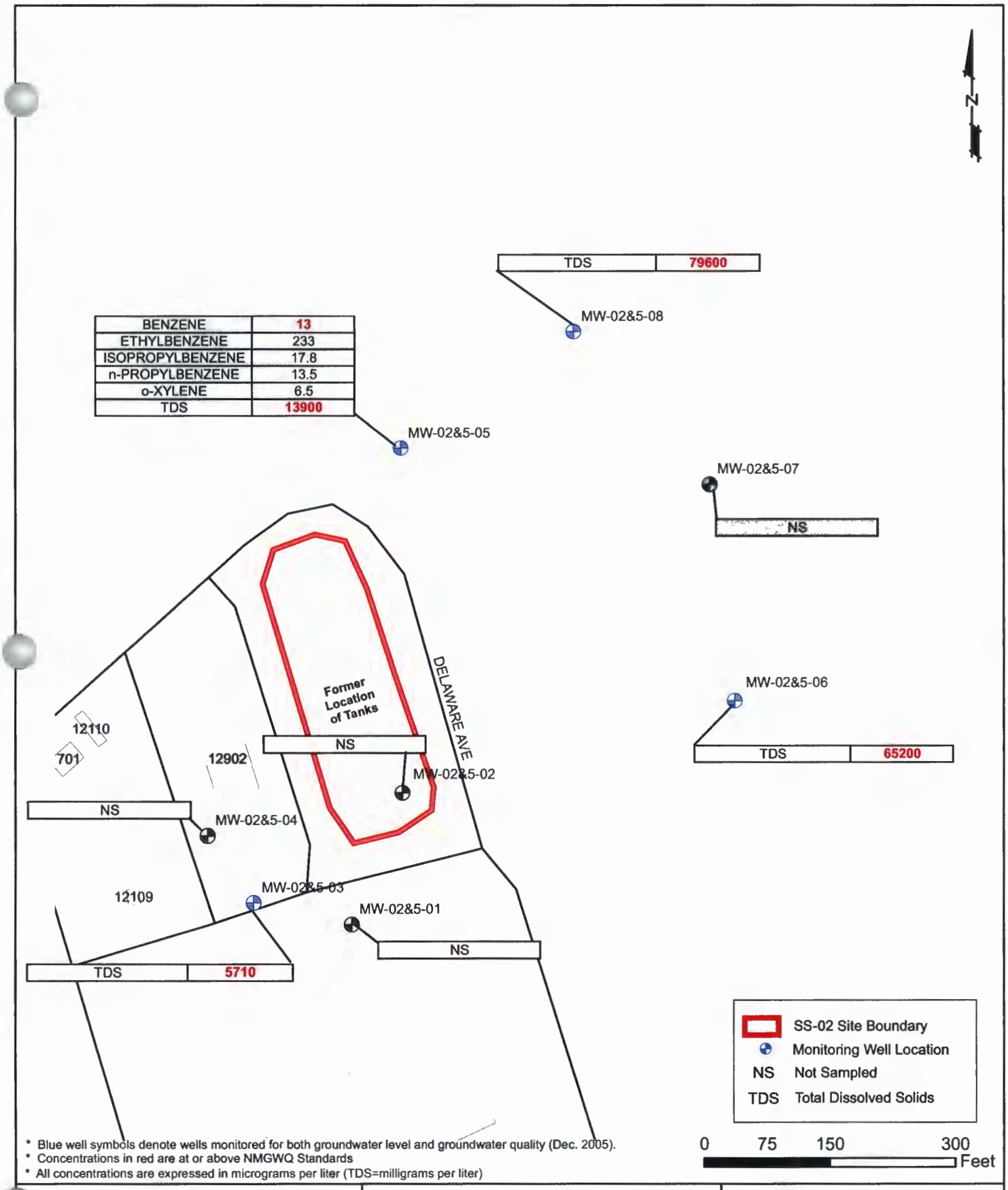
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**SS-02 and SS-05**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=150' | 2/8/06 | DRAWING NO: Fig 4-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 4-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

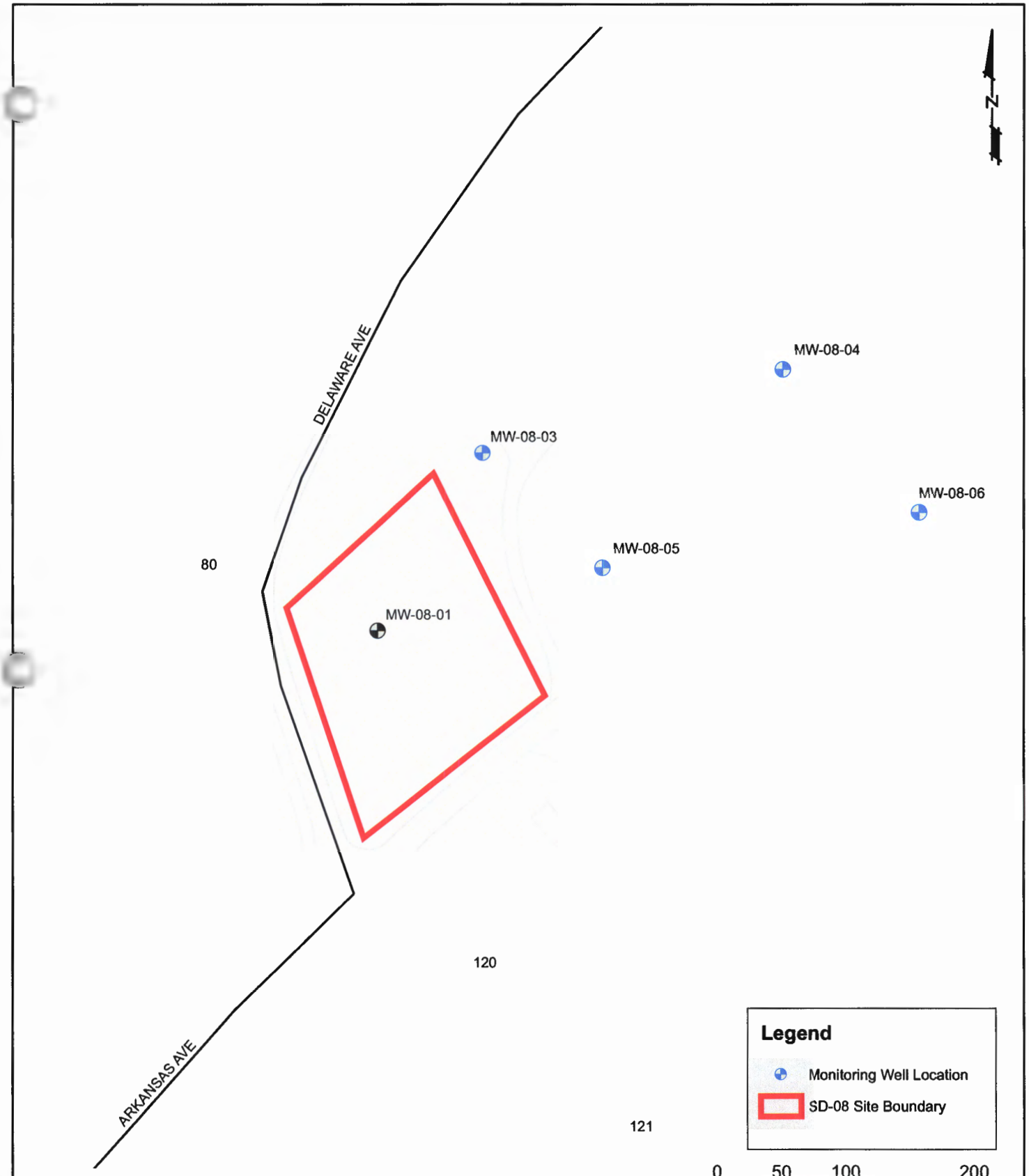
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results SS-02 and SS-05**

| PROJECT NO. | SCALE | DATE | DRAWN BY: | cm |
|---|---|---|---|---|
| 9050343 | 1"=150' | 2/8/06 | DRAWING NO: | Fig 4-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 4-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* MW-08-01 dry well (Dec. 2005)

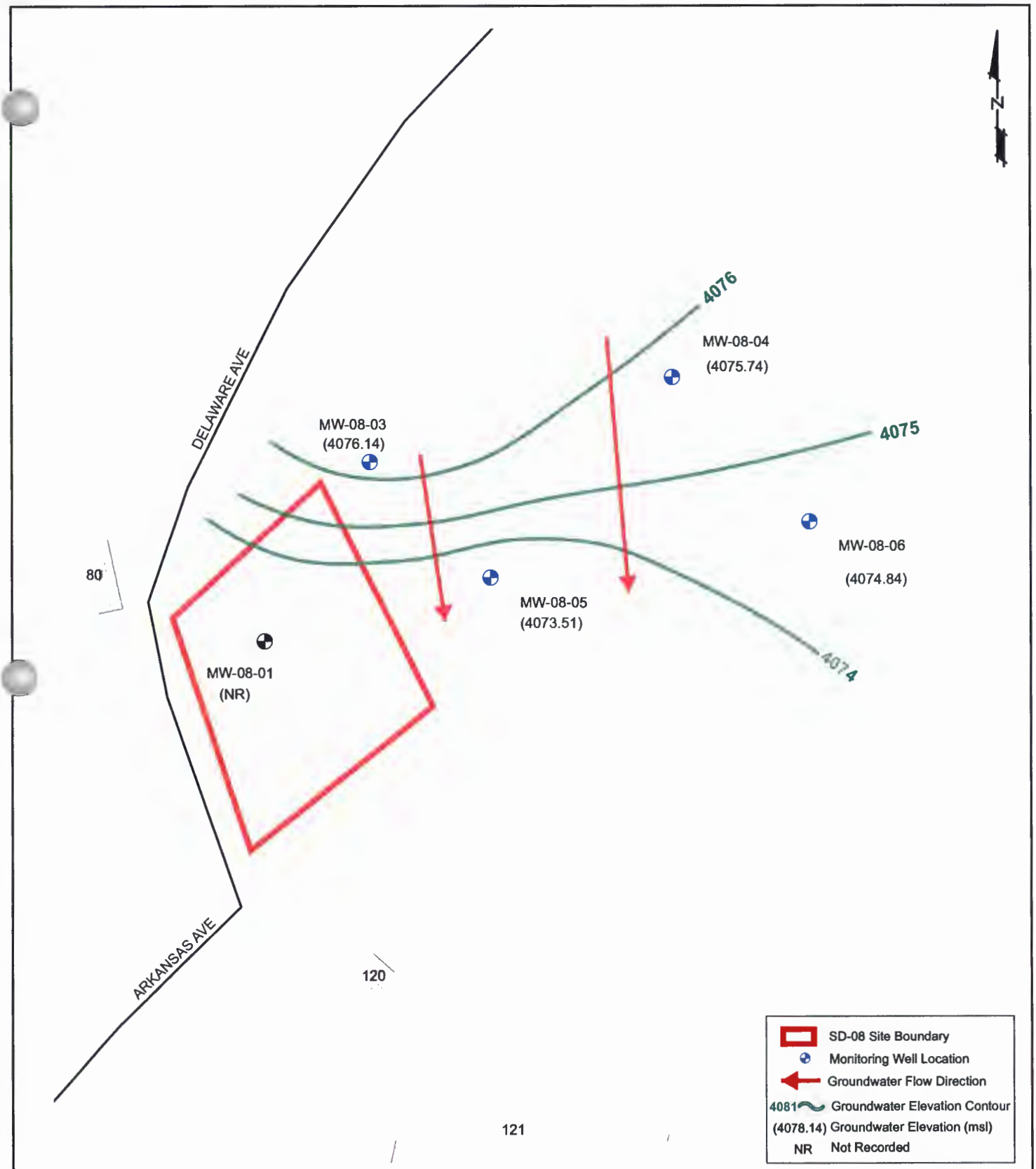
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**SD-08**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 5-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 5-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level (msl).

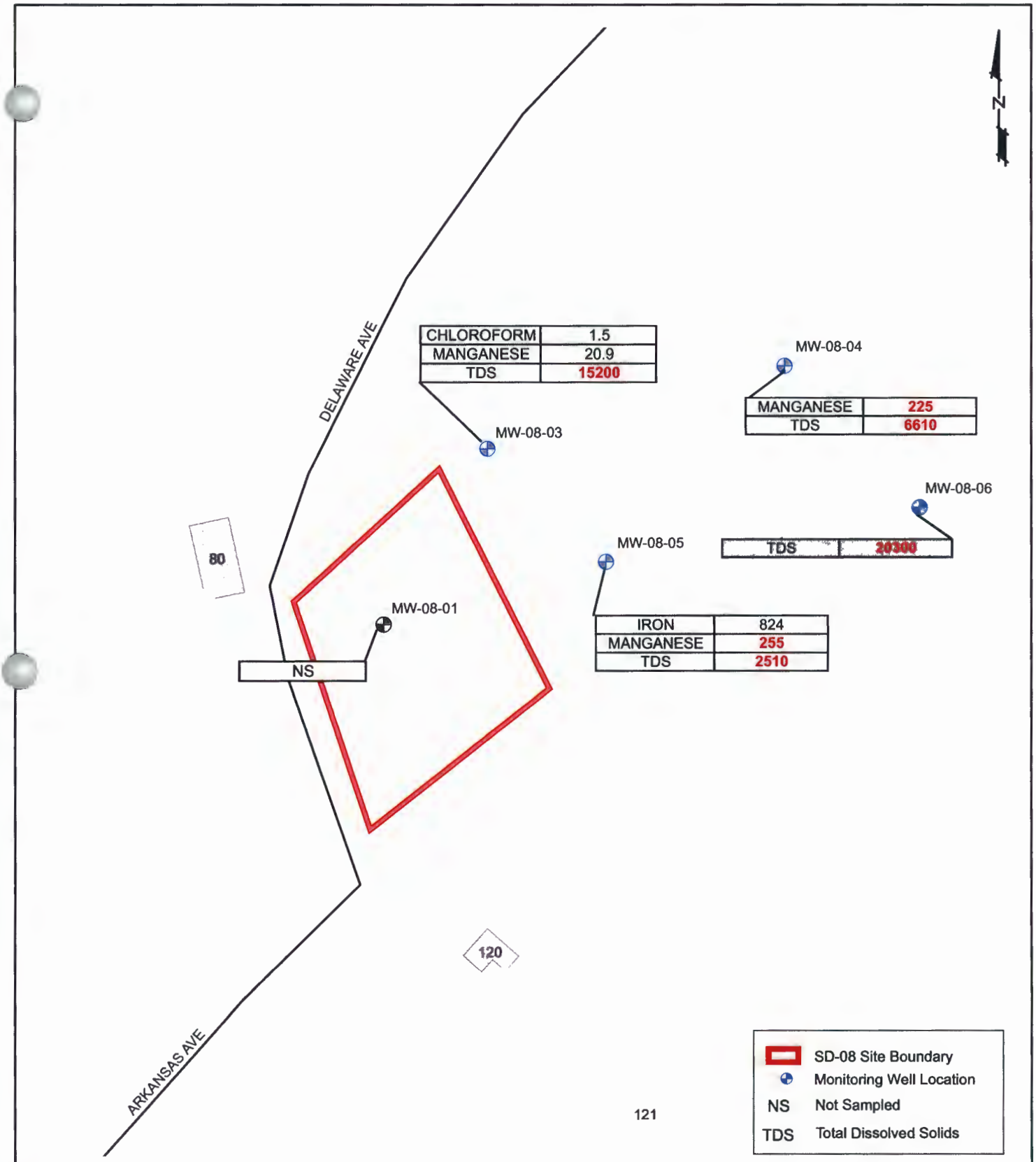
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**SD-08**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 5-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 5-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

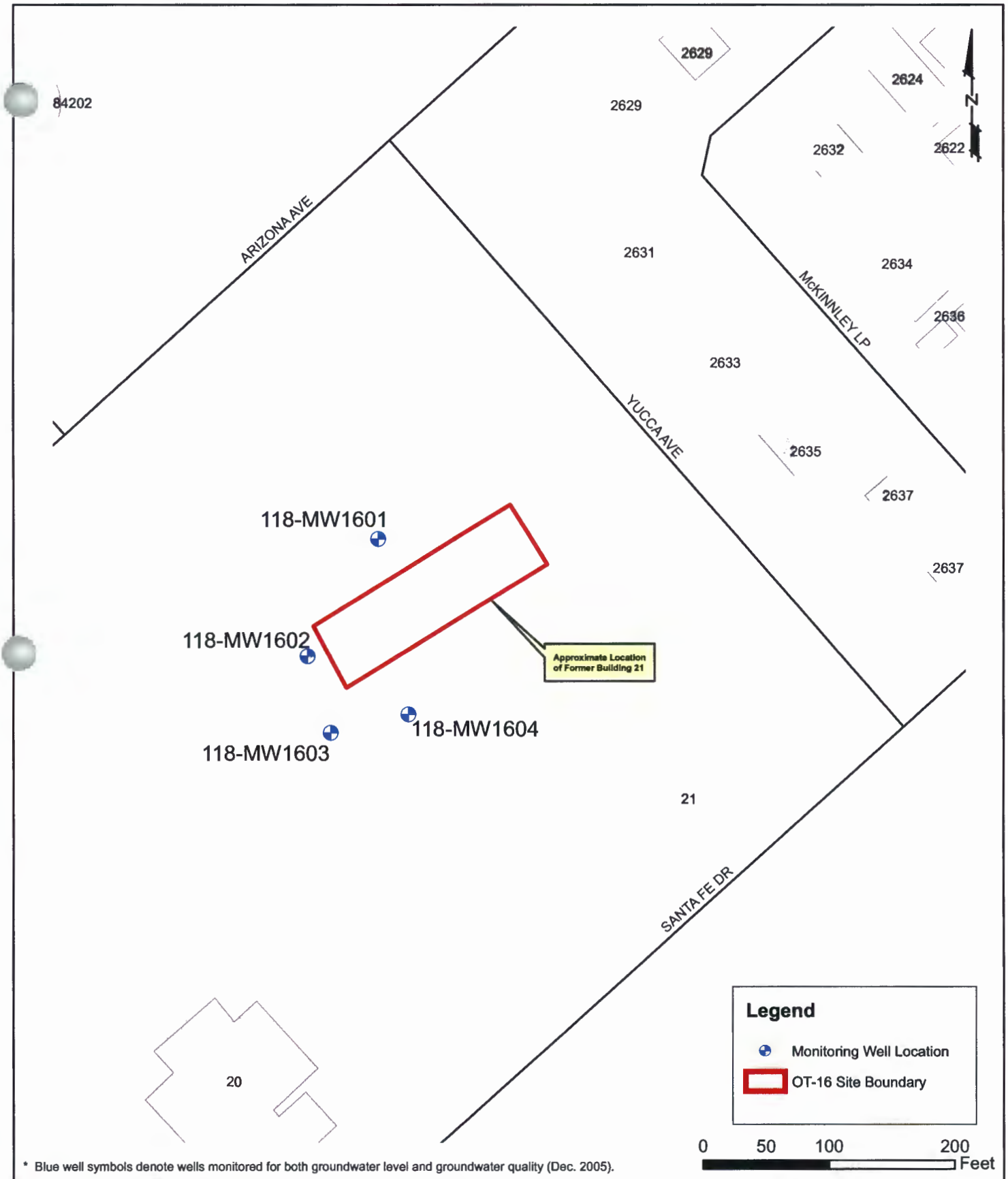
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**SD-08**

| PROJECT NO. | SCALE | DATE | DRAWN BY: | cm |
|---|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: | Fig 5-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 5-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).

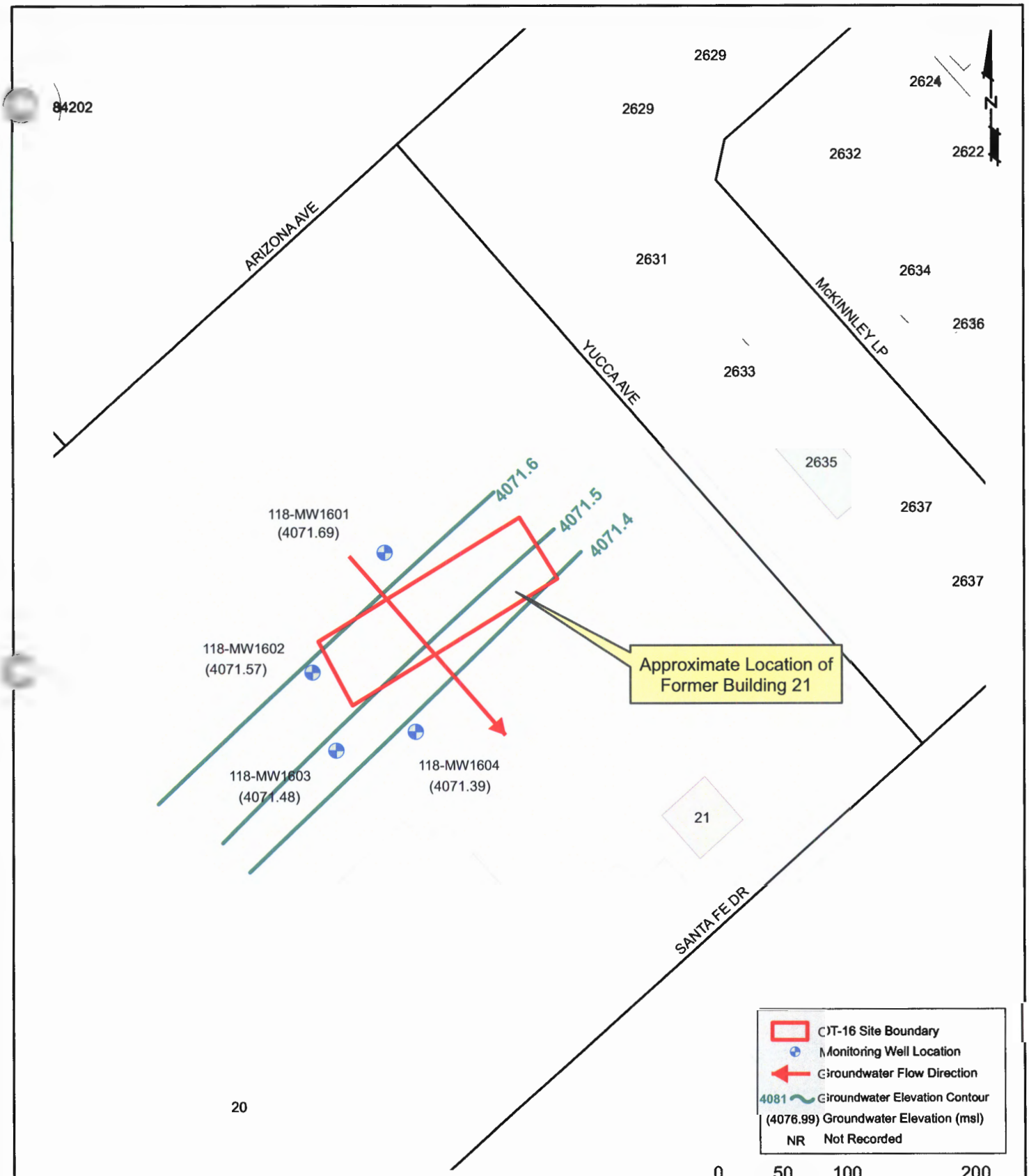
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**OT-16**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 6-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 6-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level (msl).

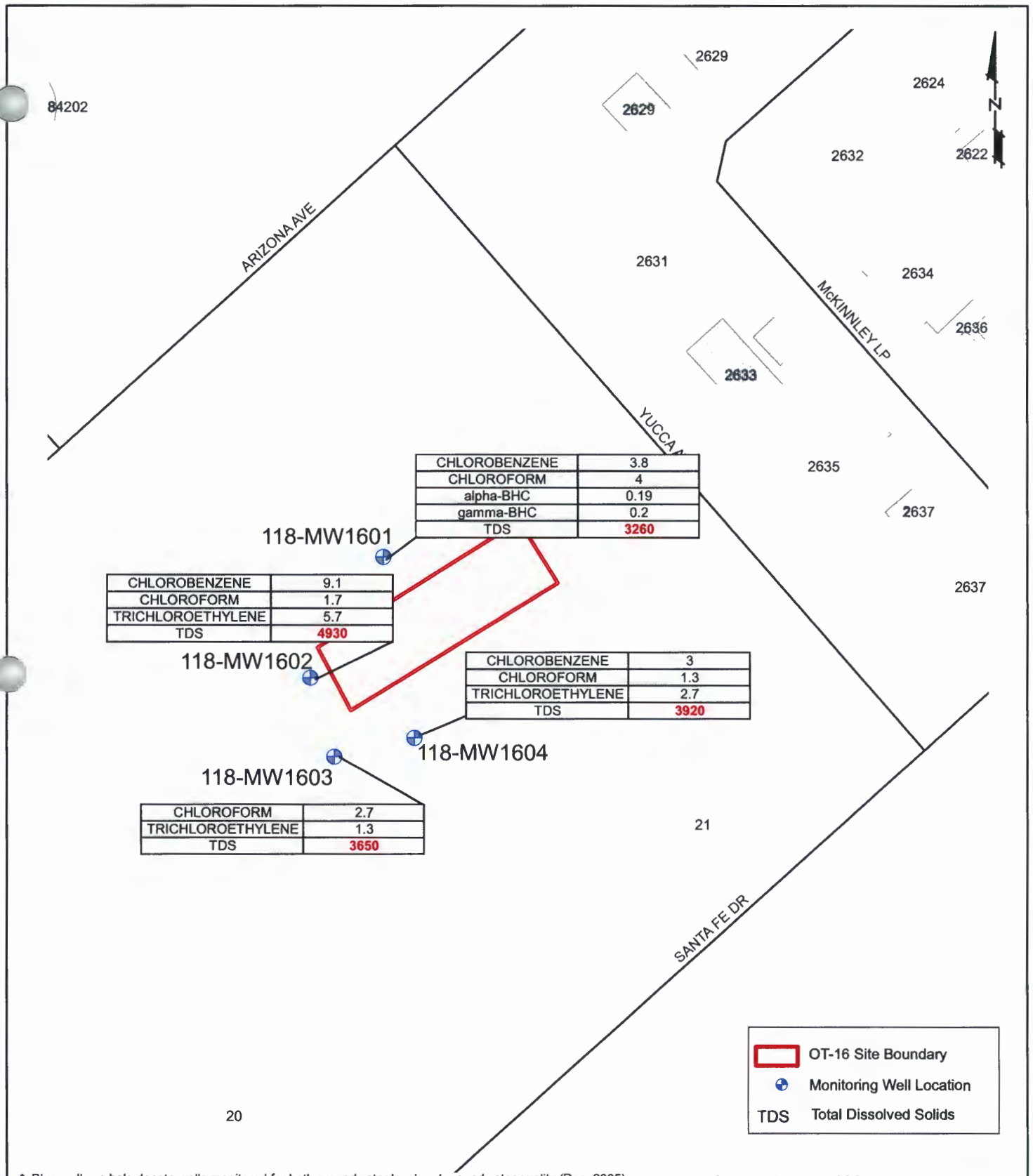
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**OT-16**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 6-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 6-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

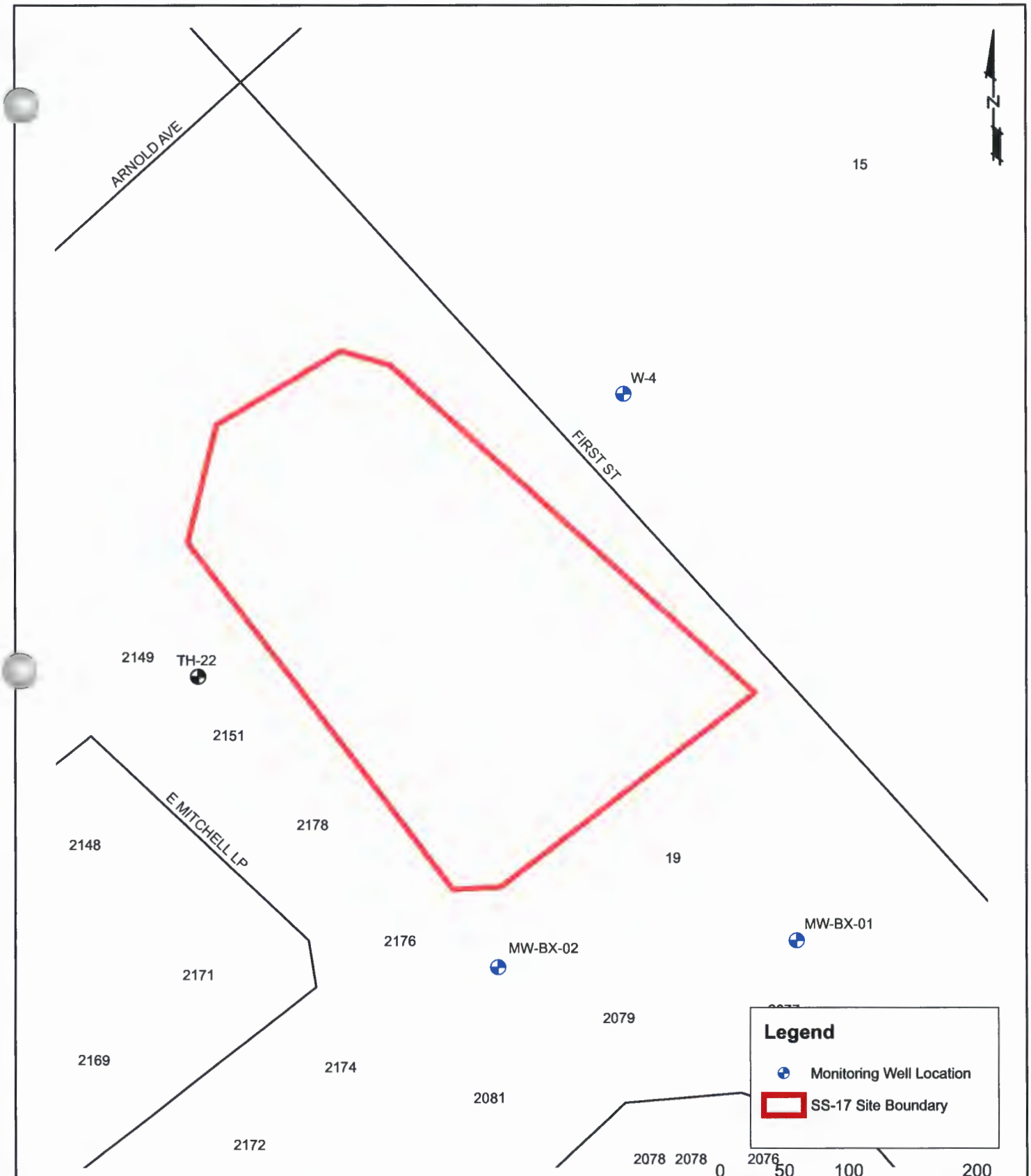
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**OT-16**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 6-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 6-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* TH-22 well abandoned (2003)

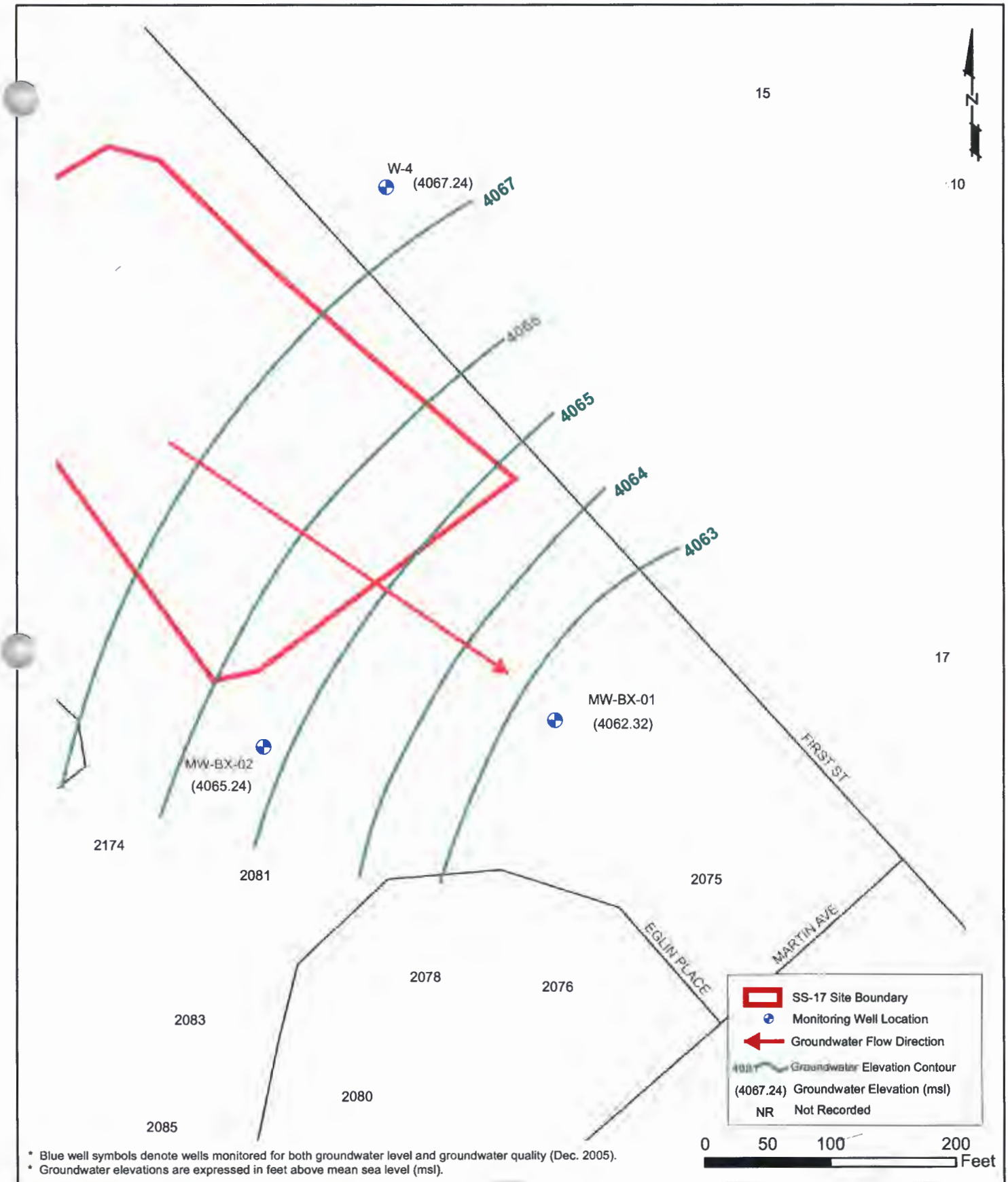
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**SS-17**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 7-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 7-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level (msl).

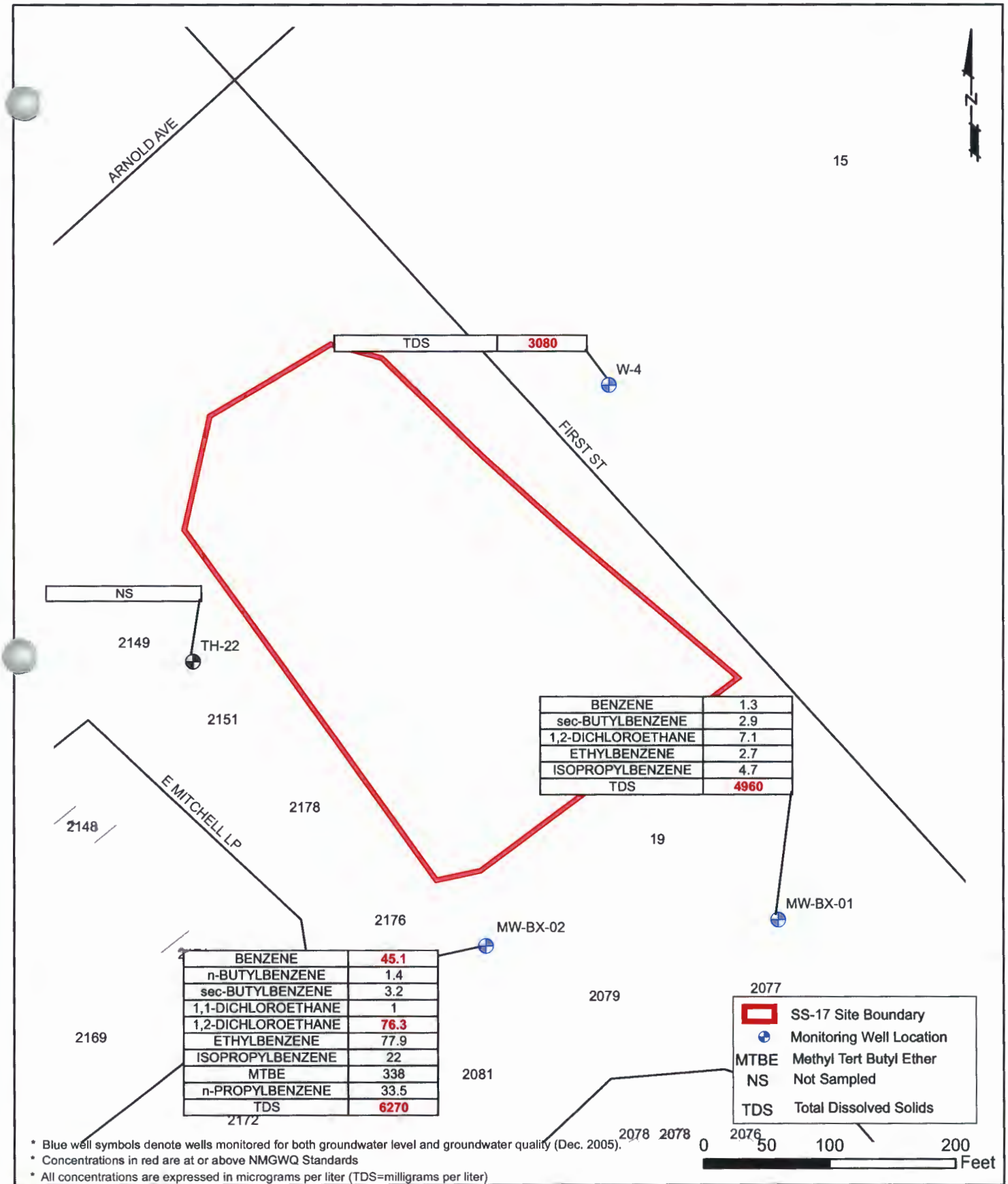
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**SS-17**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 7-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 7-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

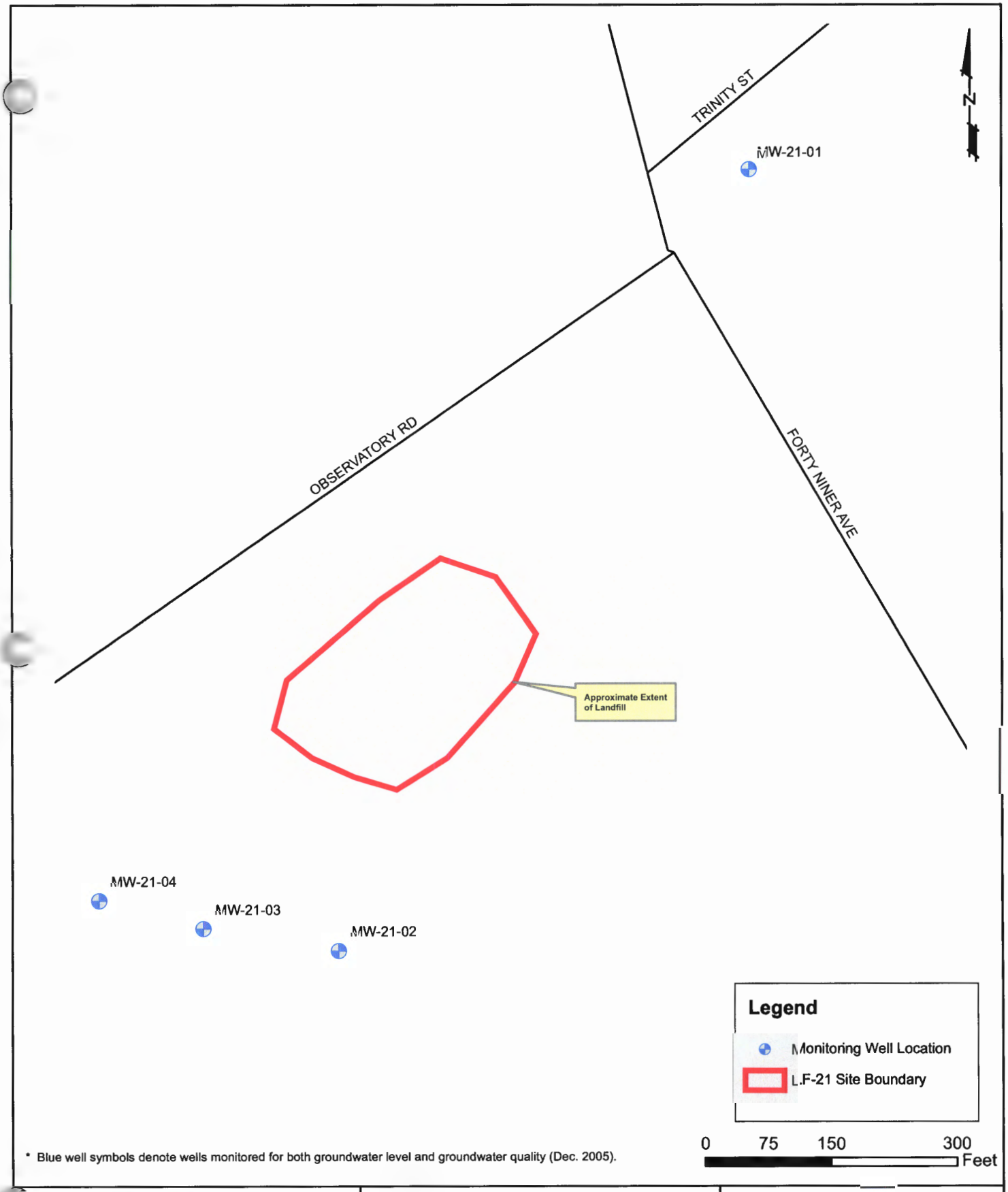
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**SS-17**

| PROJECT NO. | SCALE | DATE | DRAWN BY: | cm |
|---|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: | Fig 7-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 7-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).

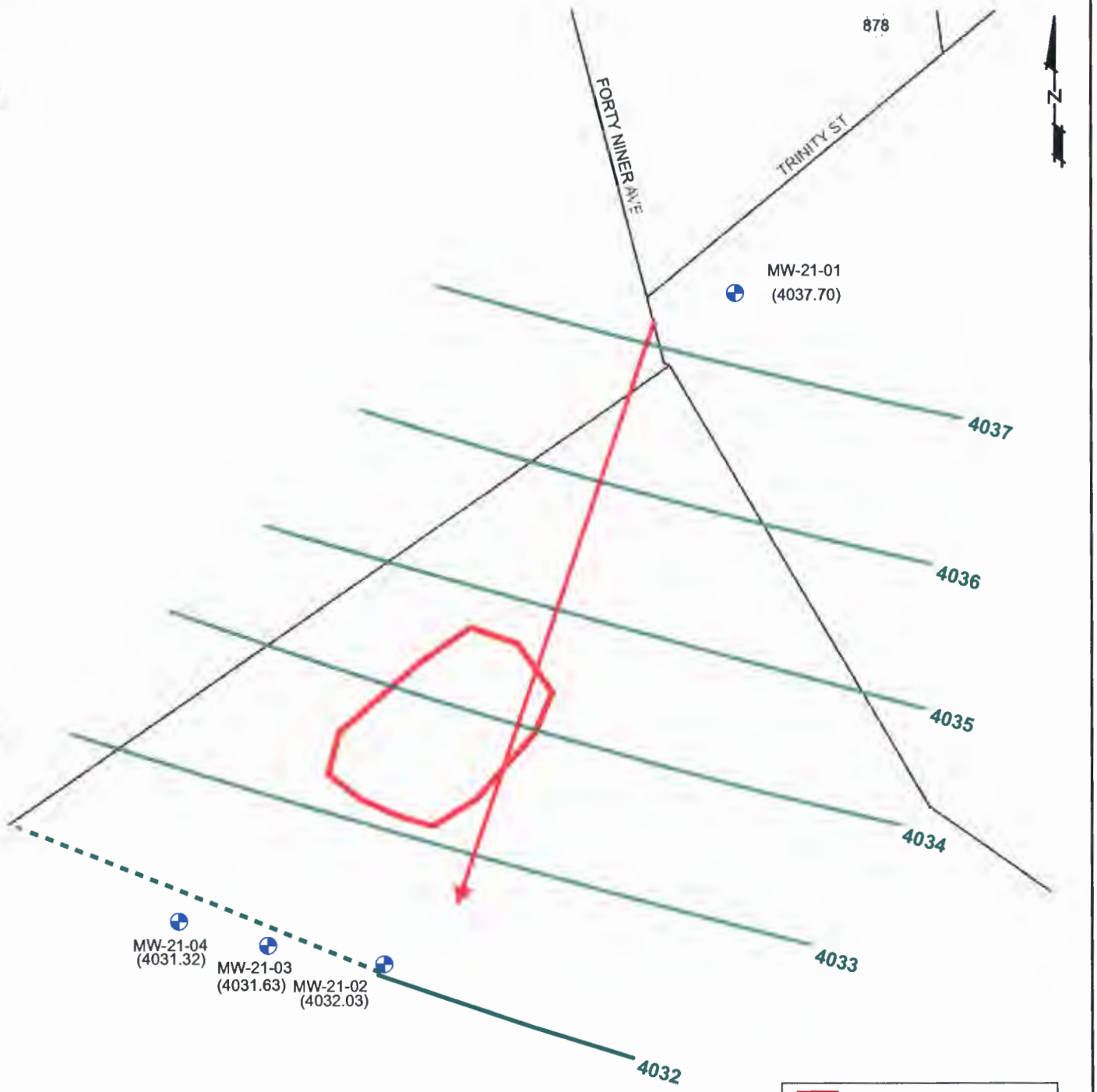
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**LF-21**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=150' | 2/8/06 | DRAWING NO: Fig 8-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 8-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level (msl).

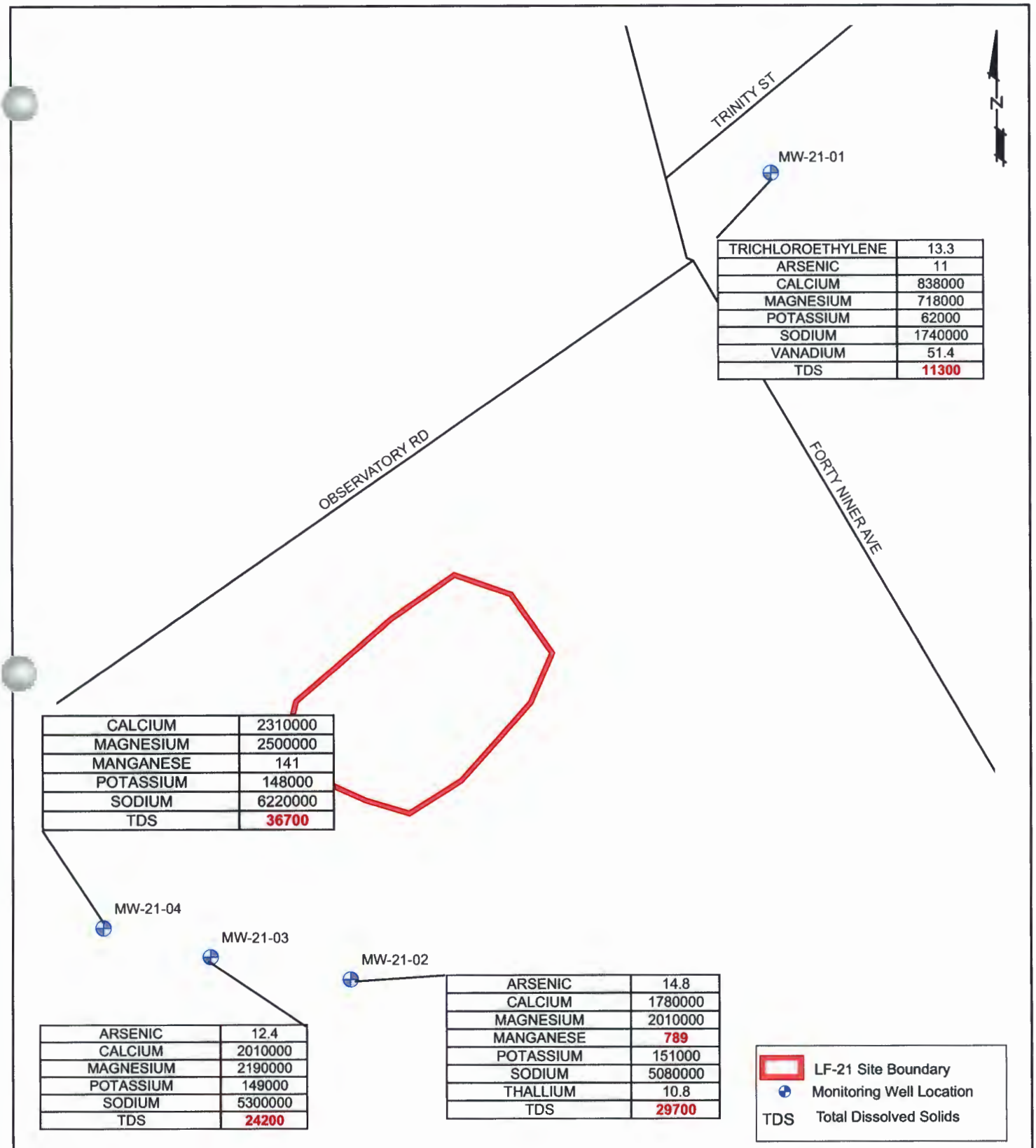
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**LF-21**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=200' | 2/8/06 | DRAWING NO. Fig 8-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 8-2




| | |
|---|---|
| TRICHLOROETHYLENE | 13.3 |
| ARSENIC | 11 |
| CALCIUM | 838000 |
| MAGNESIUM | 718000 |
| POTASSIUM | 62000 |
| SODIUM | 1740000 |
| VANADIUM | 51.4 |
| TDS | **11300** |

| | |
|---|---|
| CALCIUM | 2310000 |
| MAGNESIUM | 2500000 |
| MANGANESE | 141 |
| POTASSIUM | 148000 |
| SODIUM | 6220000 |
| TDS | **36700** |

| | |
|---|---|
| ARSENIC | 12.4 |
| CALCIUM | 2010000 |
| MAGNESIUM | 2190000 |
| POTASSIUM | 149000 |
| SODIUM | 5300000 |
| TDS | **24200** |

| | |
|---|---|
| ARSENIC | 14.8 |
| CALCIUM | 1780000 |
| MAGNESIUM | 2010000 |
| MANGANESE | **789** |
| POTASSIUM | 151000 |
| SODIUM | 5080000 |
| THALLIUM | 10.8 |
| TDS | **29700** |

* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

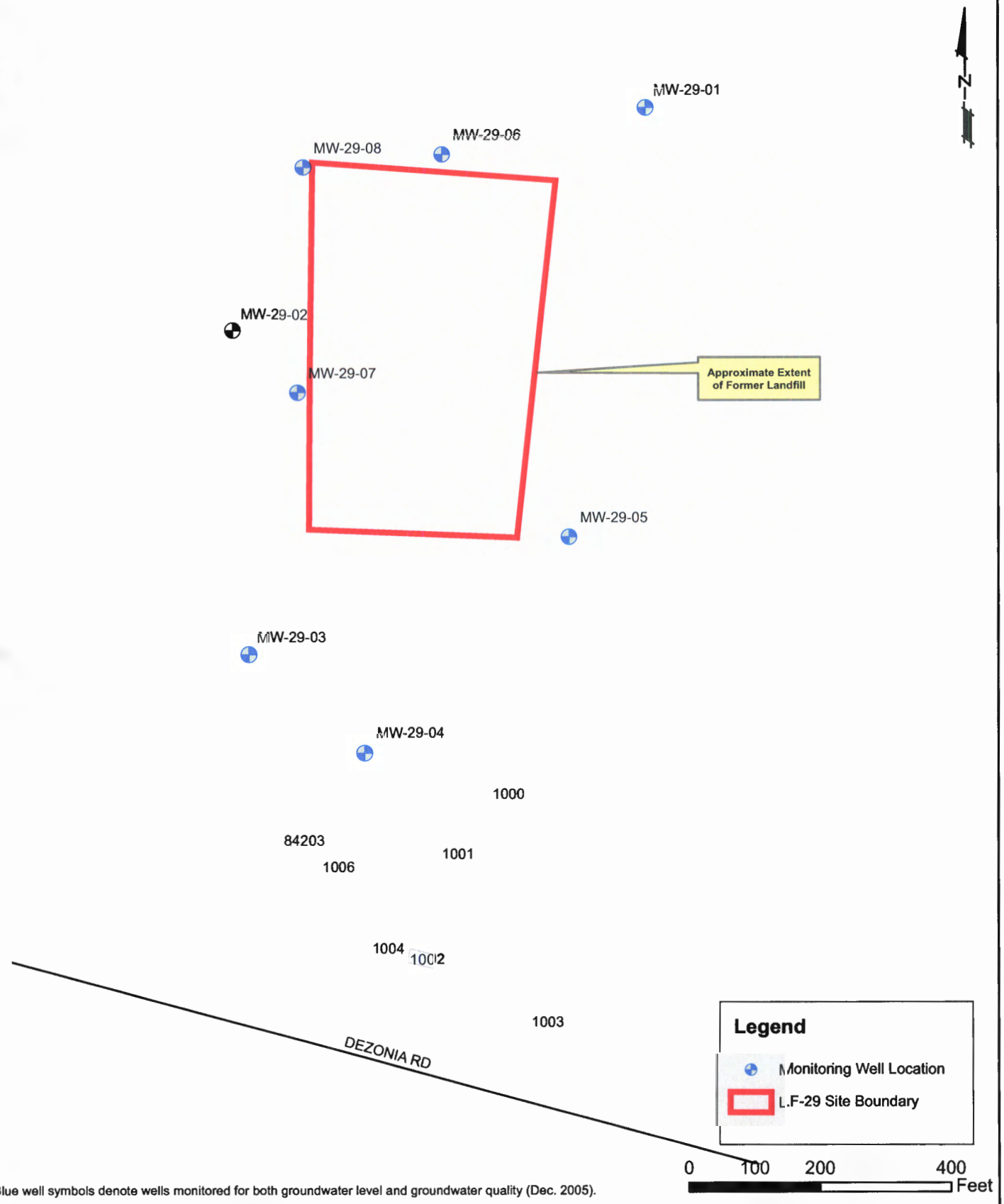
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**LF-21**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=150' | 2/8/06 | DRAWING NO: Fig 8-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 8-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).

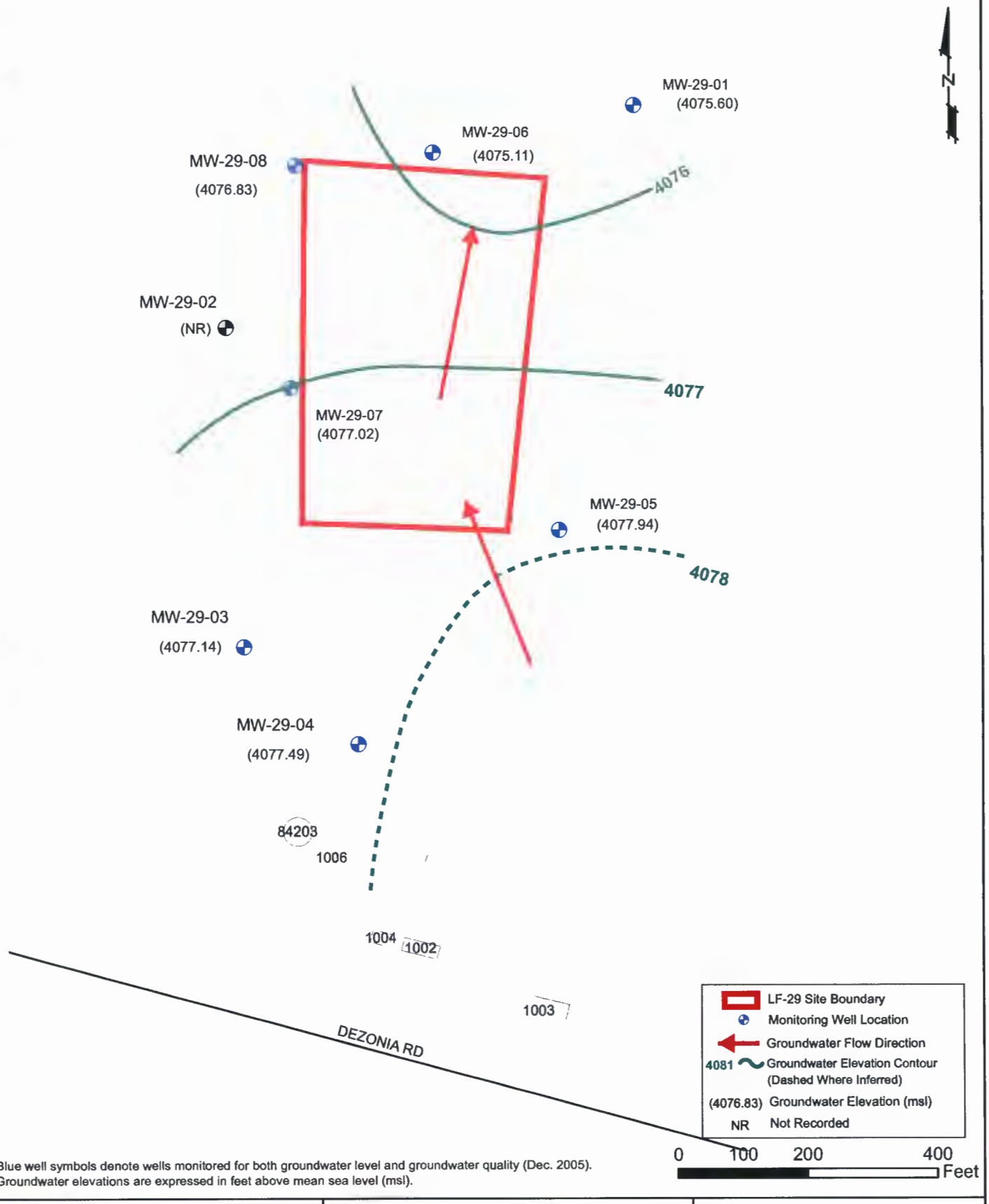
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**LF-29**

| PROJECT NO. | SCALE | DATE | DRAWN BY: | cm |
|---|---|---|---|---|
| 9050343 | 1"=200' | 2/8/06 | DRAWING NO: | Fig 9-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 9-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level (msl).

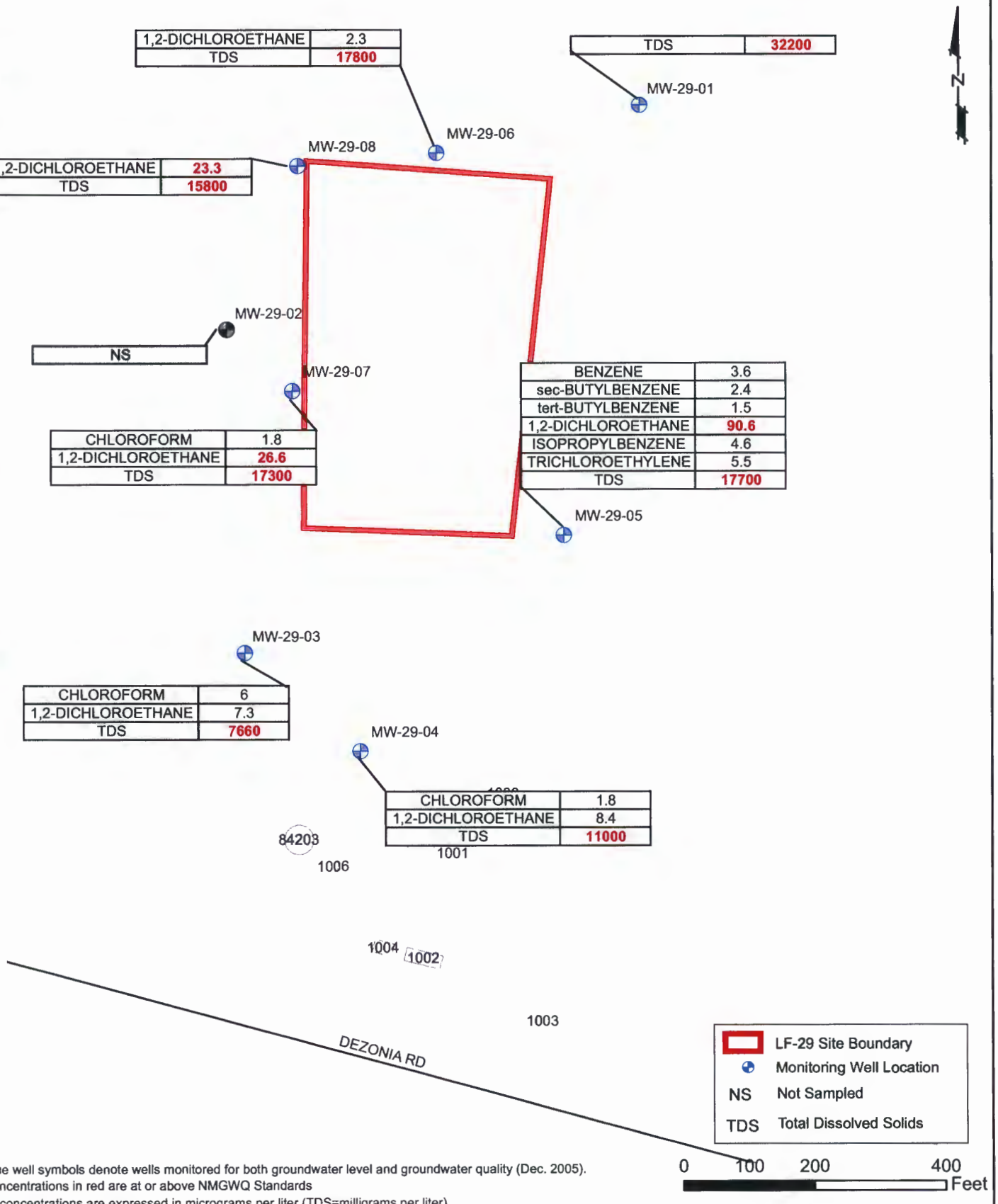
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**LF-29**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=200' | 2/8/06 | DRAWING NO: Fig 9-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 9-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

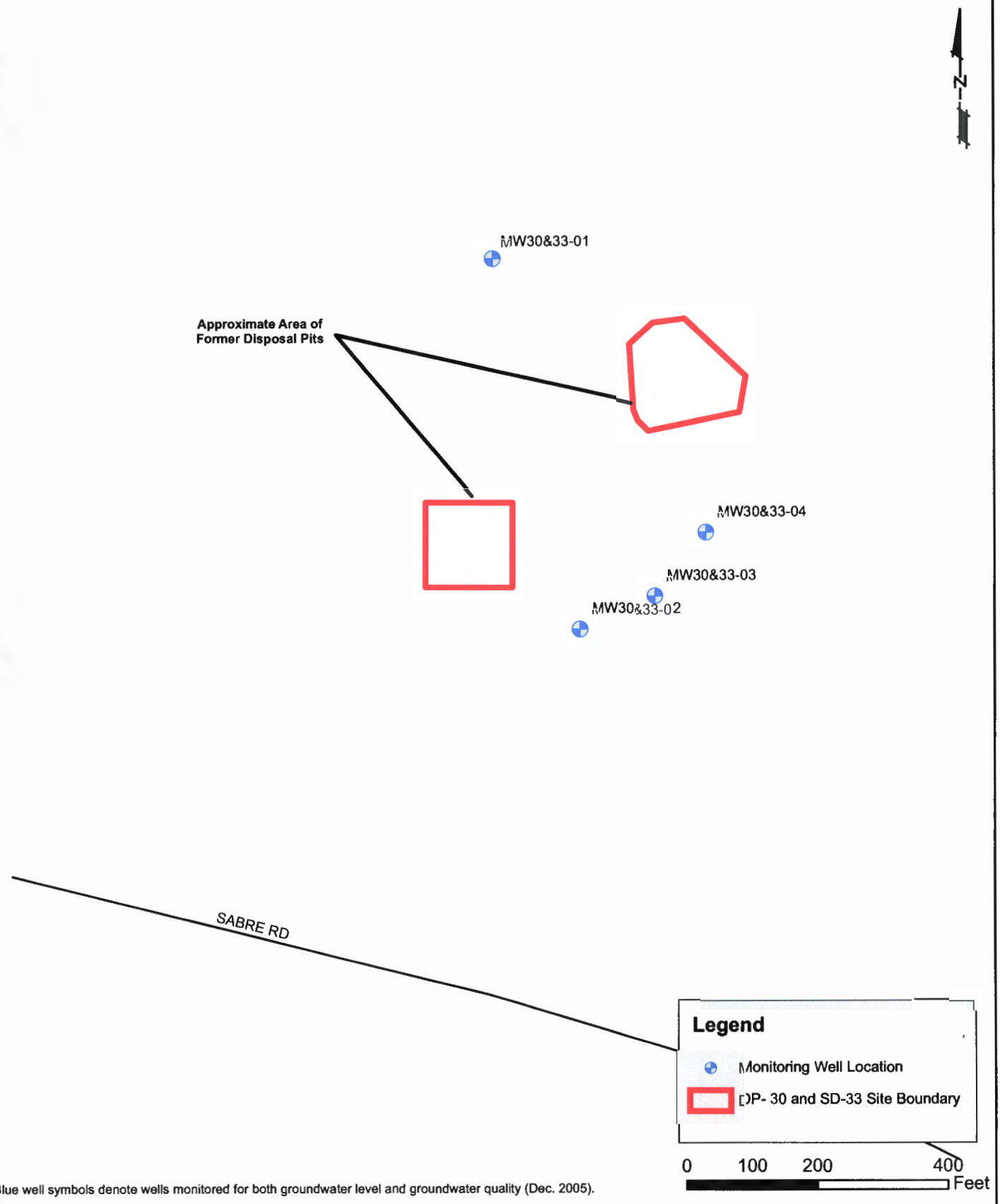
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**LF-29**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=200' | 2/8/06 | DRAWING NO: Fig 9-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 9-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).

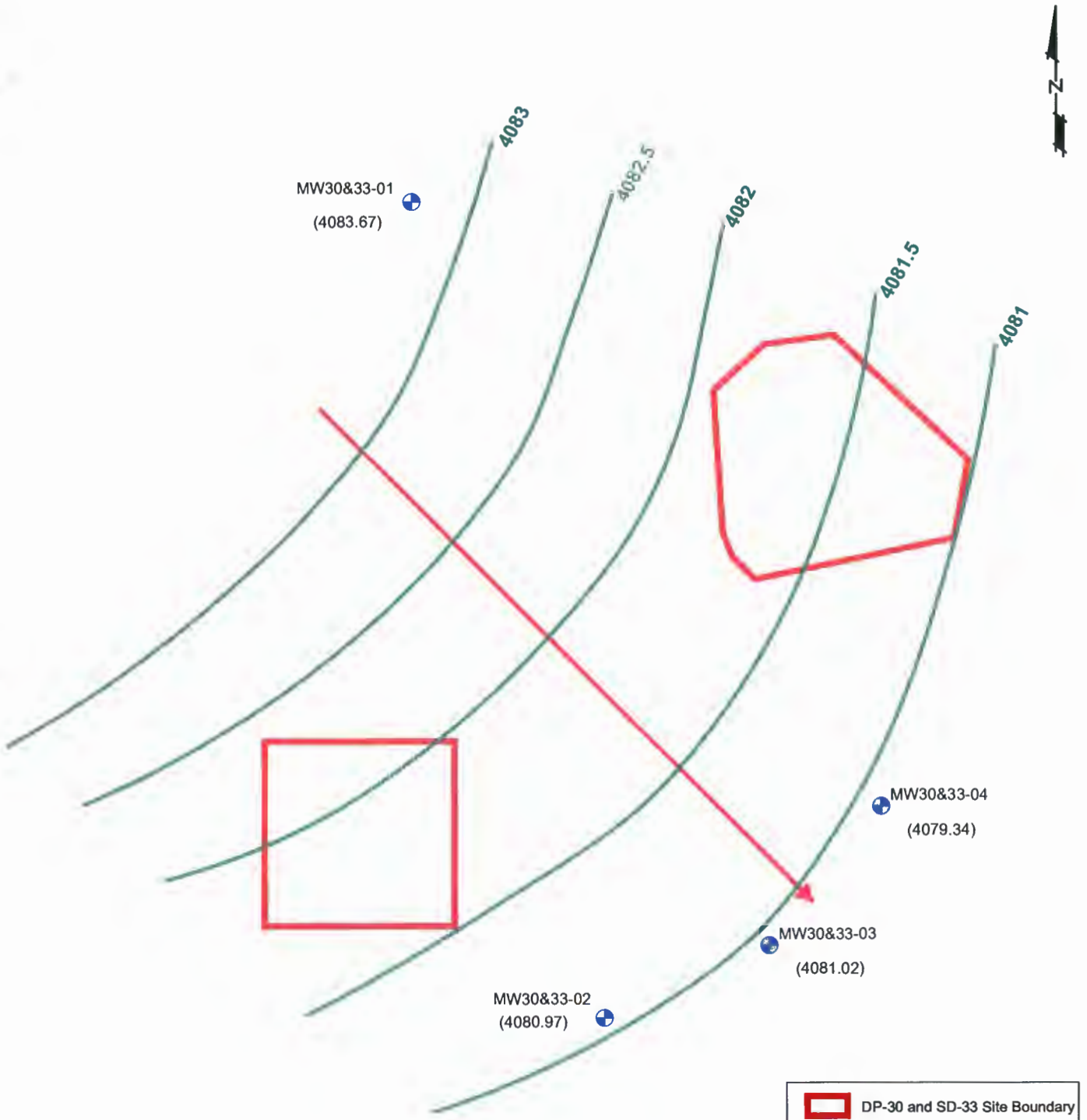
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**DP-30 and SD-33**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=200' | 2/8/06 | DRAWING NO: Fig 10-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 10-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level (msl).

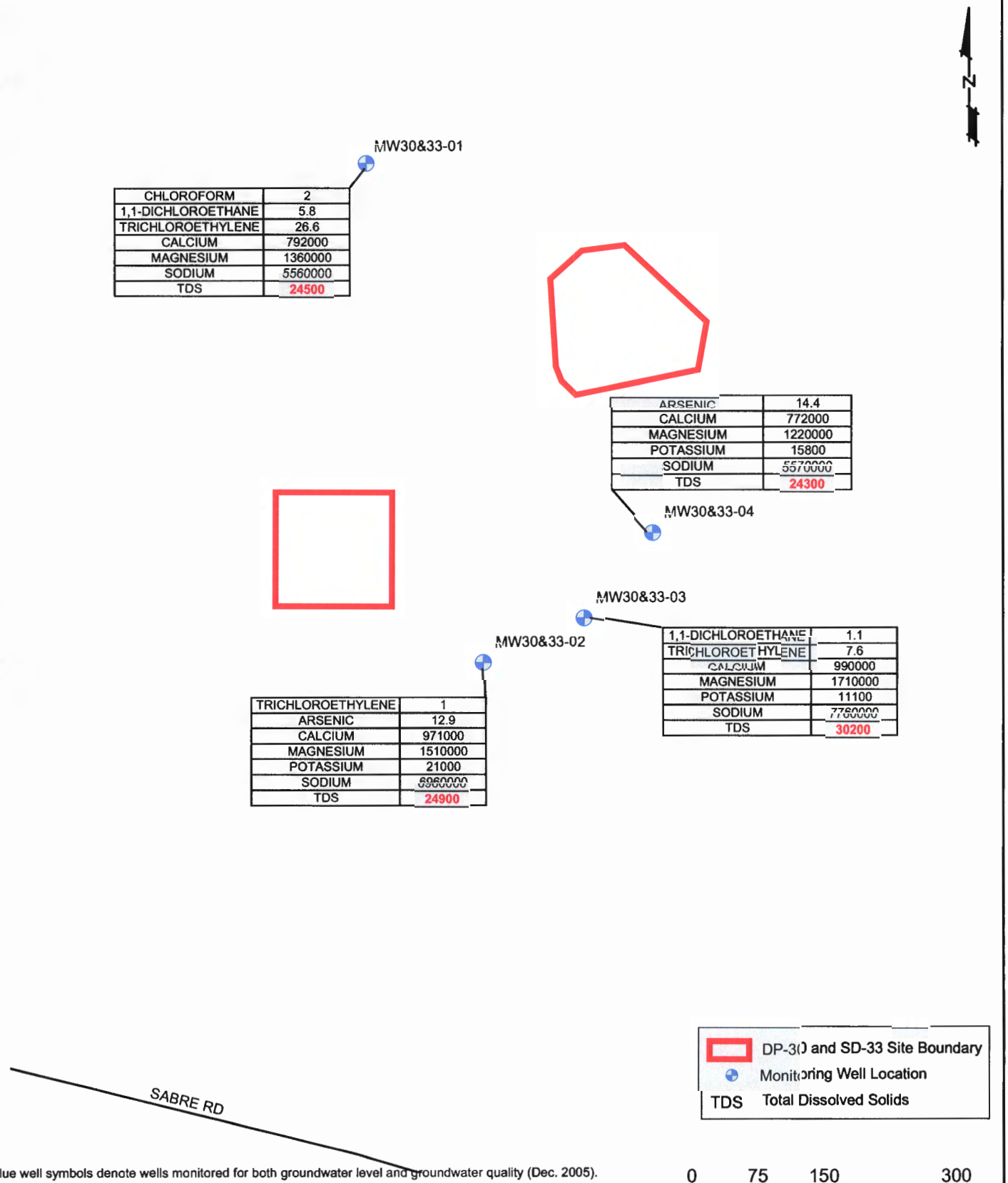
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**DP-30 and SD-33**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 10-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 10-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results DP-30 and SD-33**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=150' | 2/8/06 | DRAWING NO: Fig 10-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 10-3

* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005 and Feb. 2006).

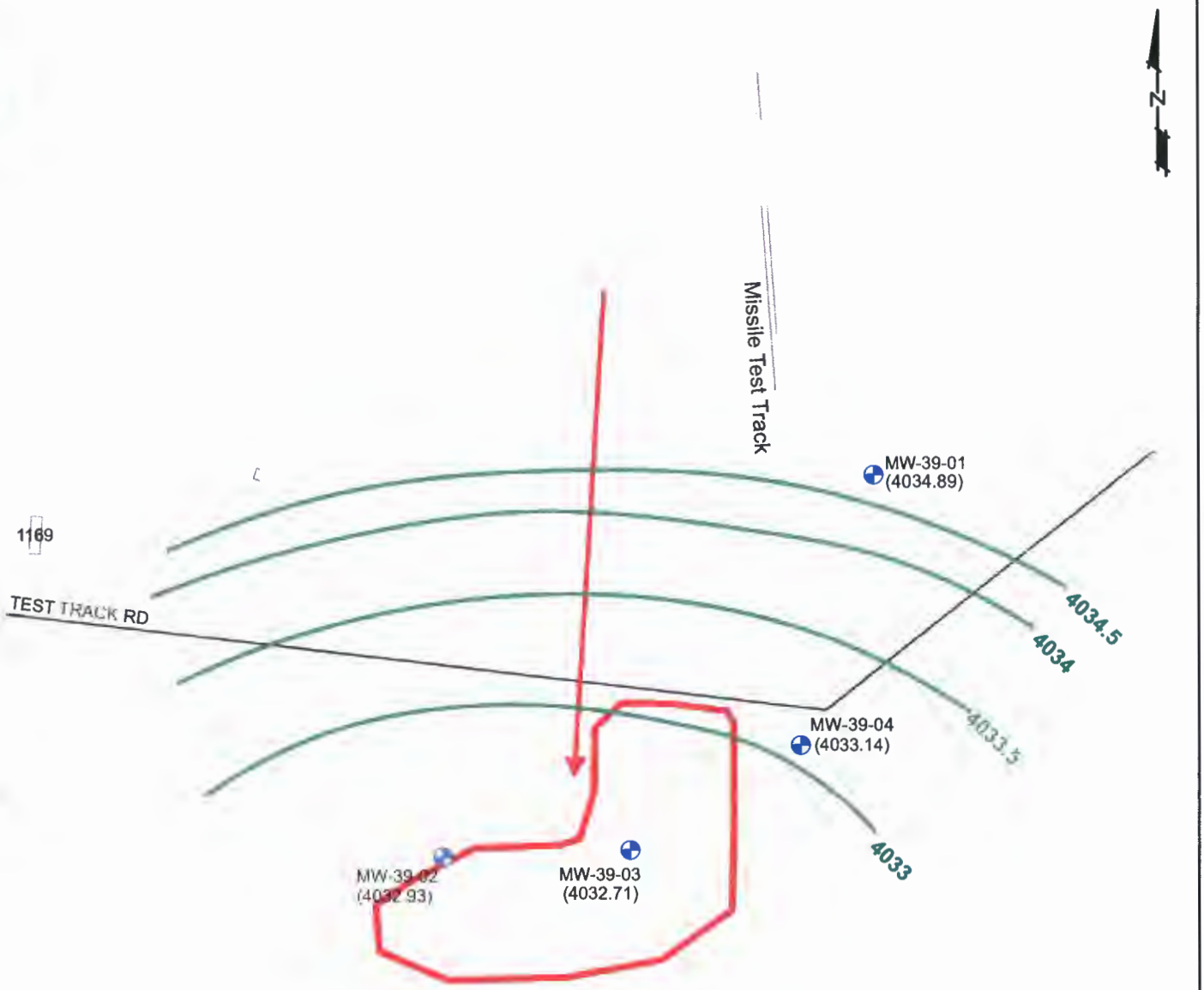
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**SS-39**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=200' | 2/8/06 | DRAWING NO: Fig 11-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 11-1




SS-39 Site Boundary
Monitoring Well Location
Groundwater Flow Direction
4081 Groundwater Elevation Contour (Dashed Where Inferred)
(4032.93) Groundwater Elevation (msl)

0 150 300 600 Feet

* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005 and Feb. 2006).
* Groundwater elevations are expressed in feet above mean sea level (msl).

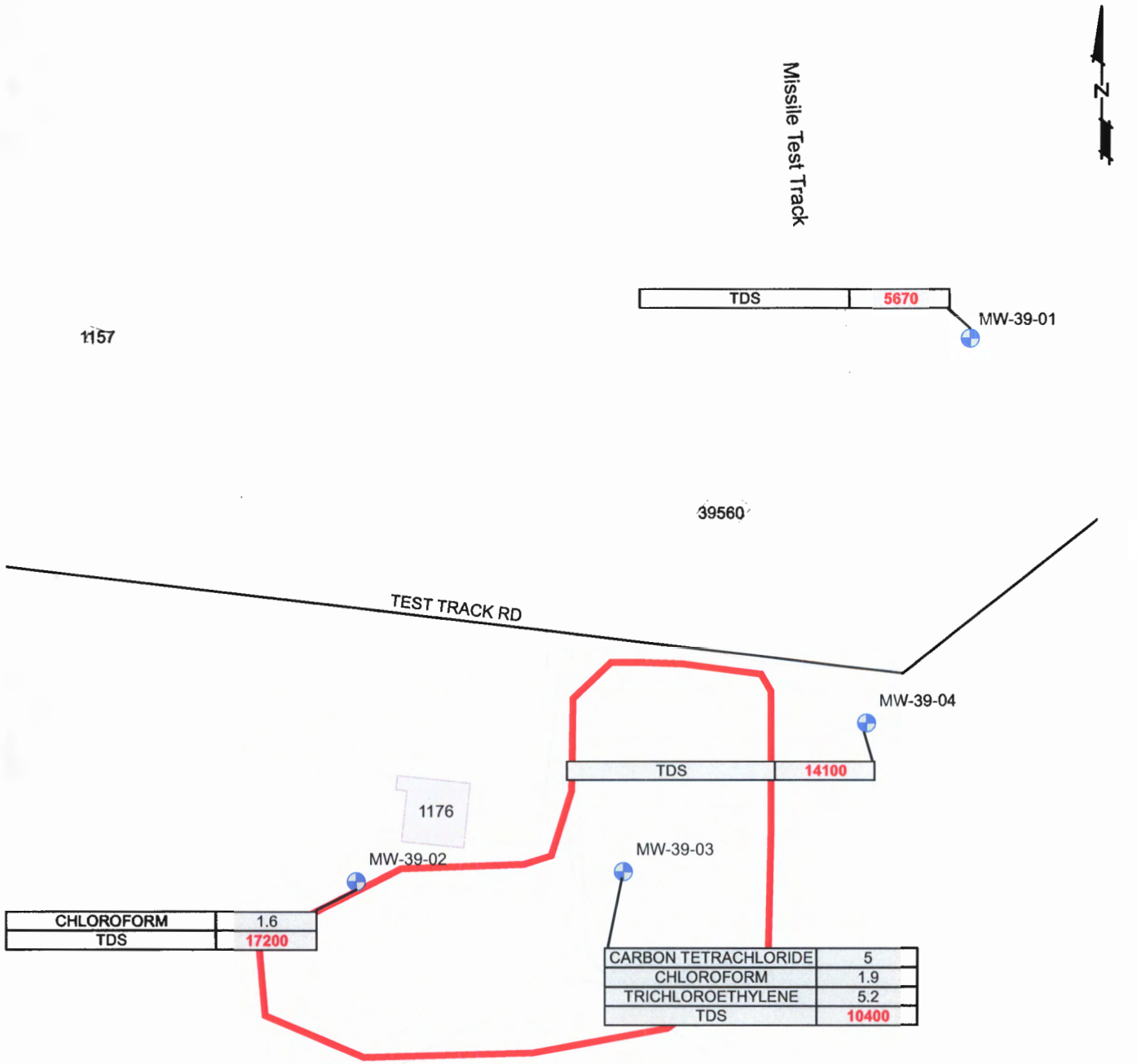
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**SS-39**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=300' | 2/8/06 | DRAWING NO: Fig 11-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 11-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005 and Feb. 2006).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

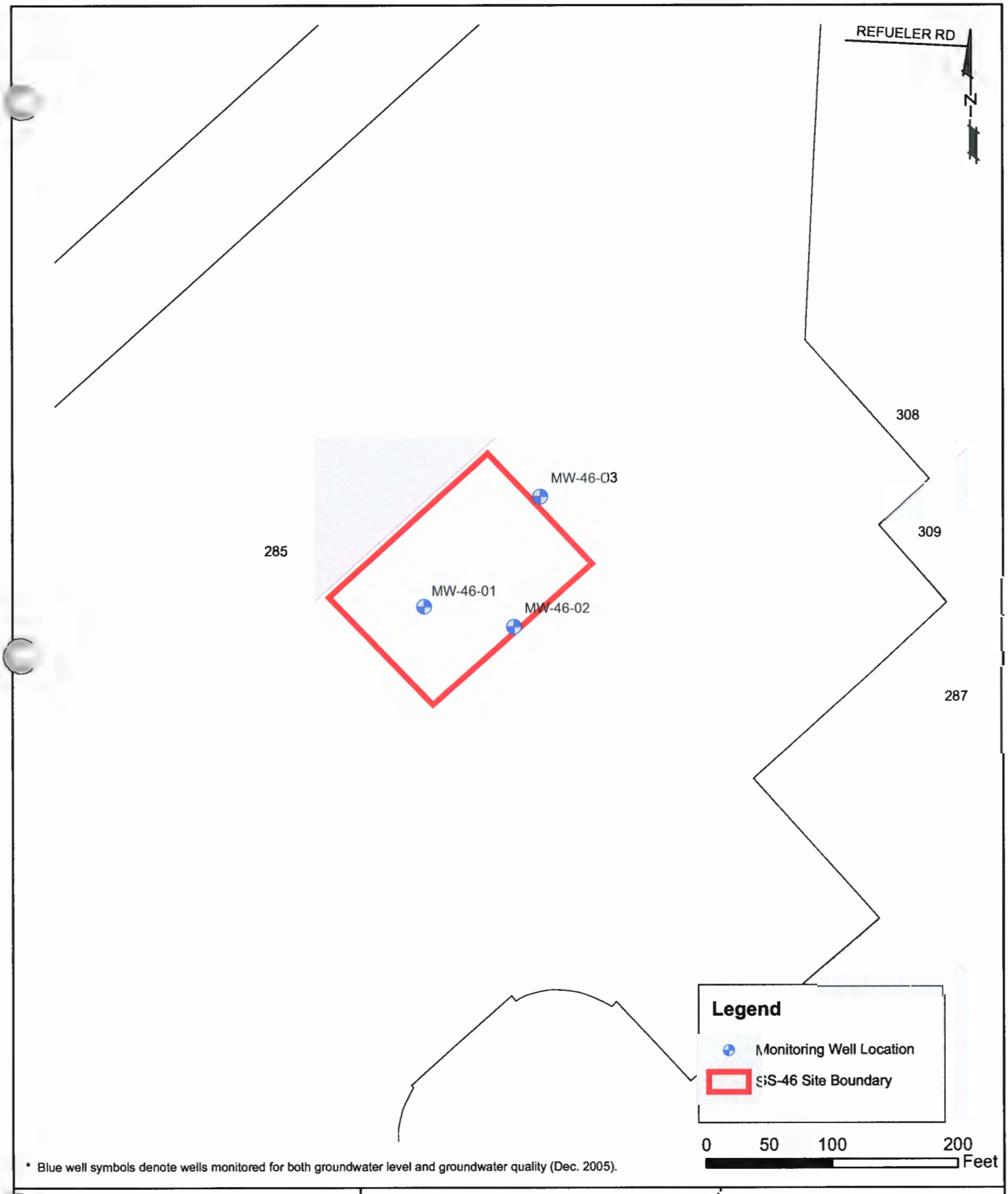
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**SS-39**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=200' | 2/8/06 | DRAWING NO: Fig 11-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 11-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).

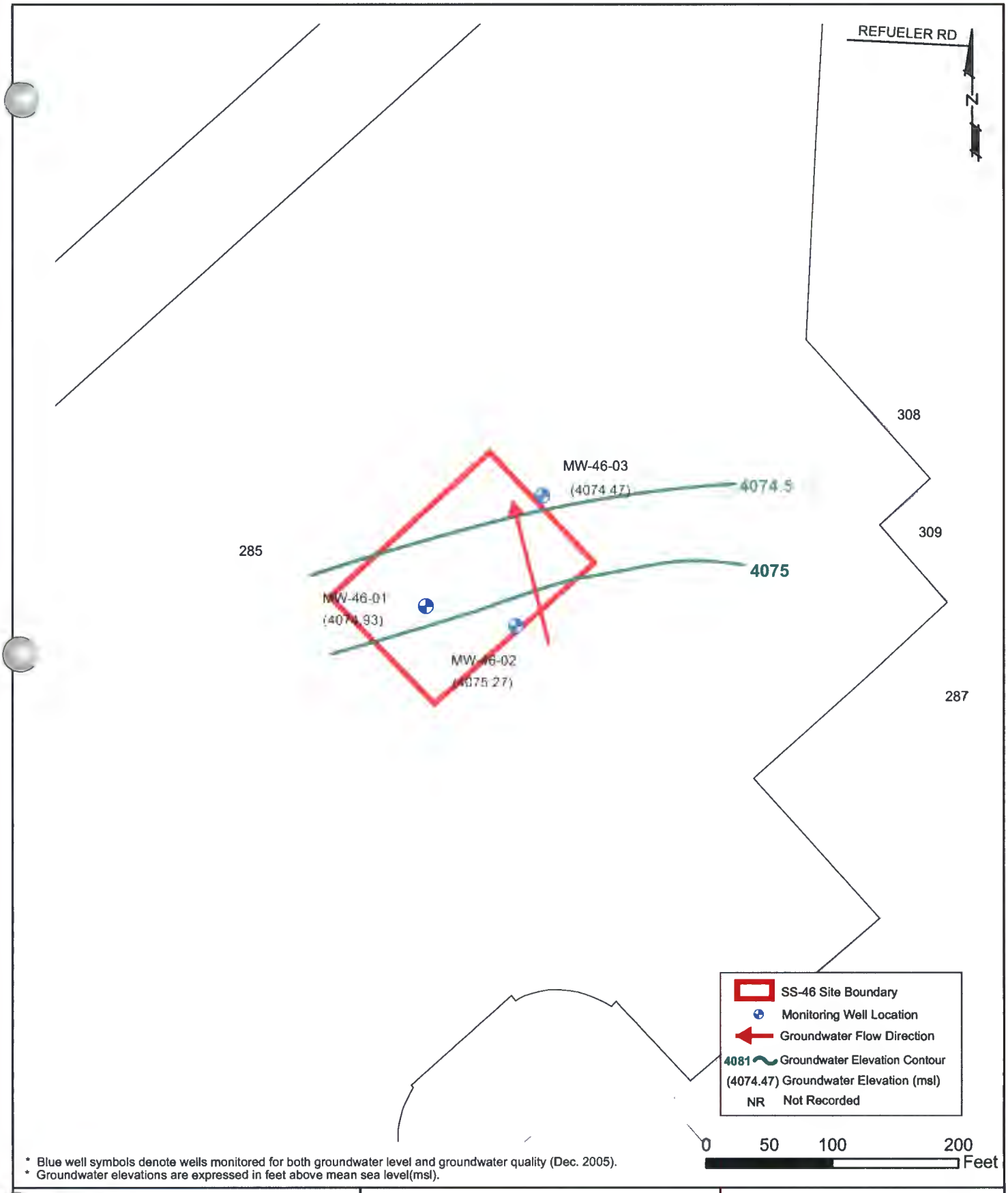
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**SS-46**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 12-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 12-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level(msl).

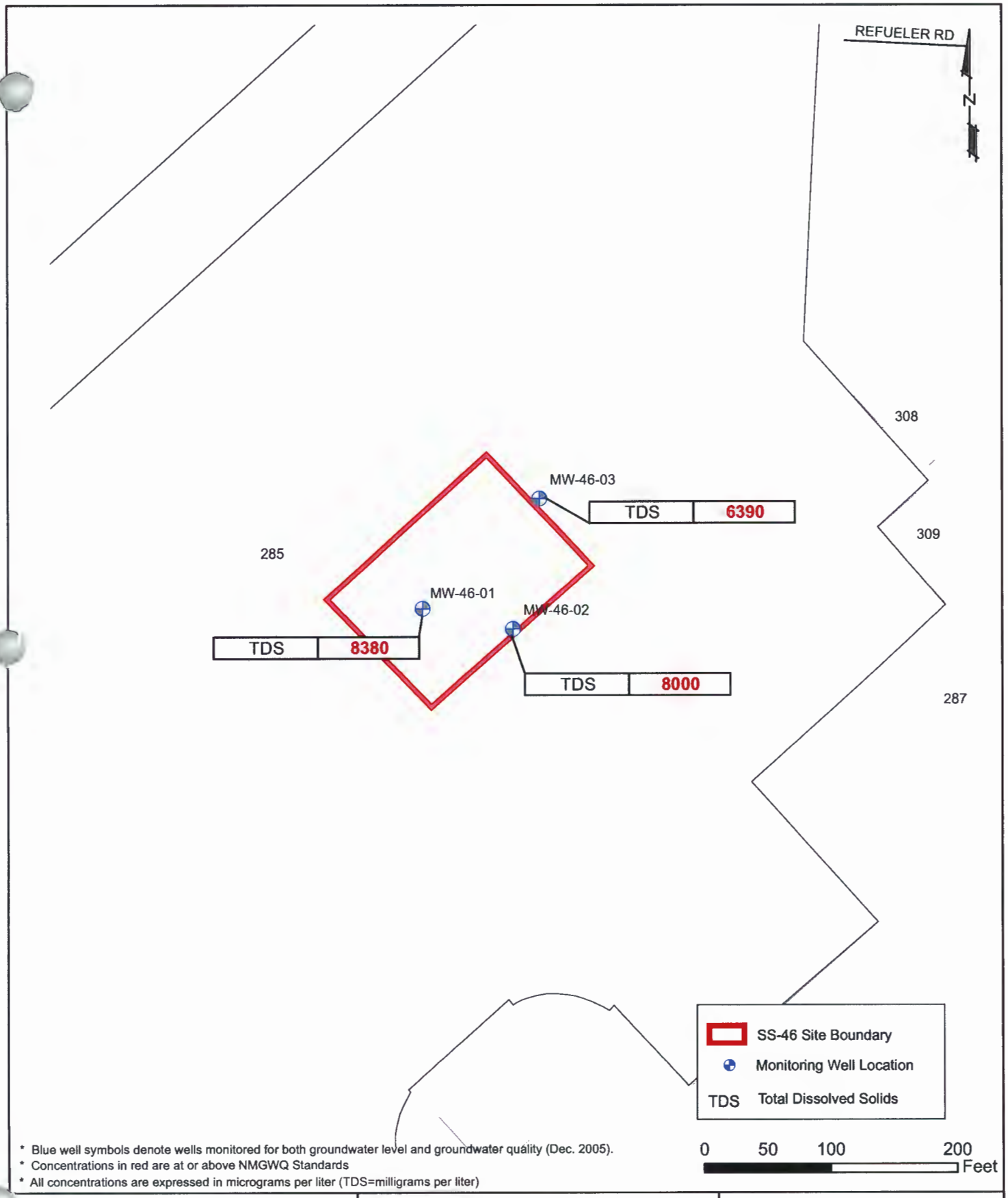
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**SS-46**

| PROJECT NO. | SCALE | DATE | DRAWN BY: | cm |
|---|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: | Fig 12-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 12-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)

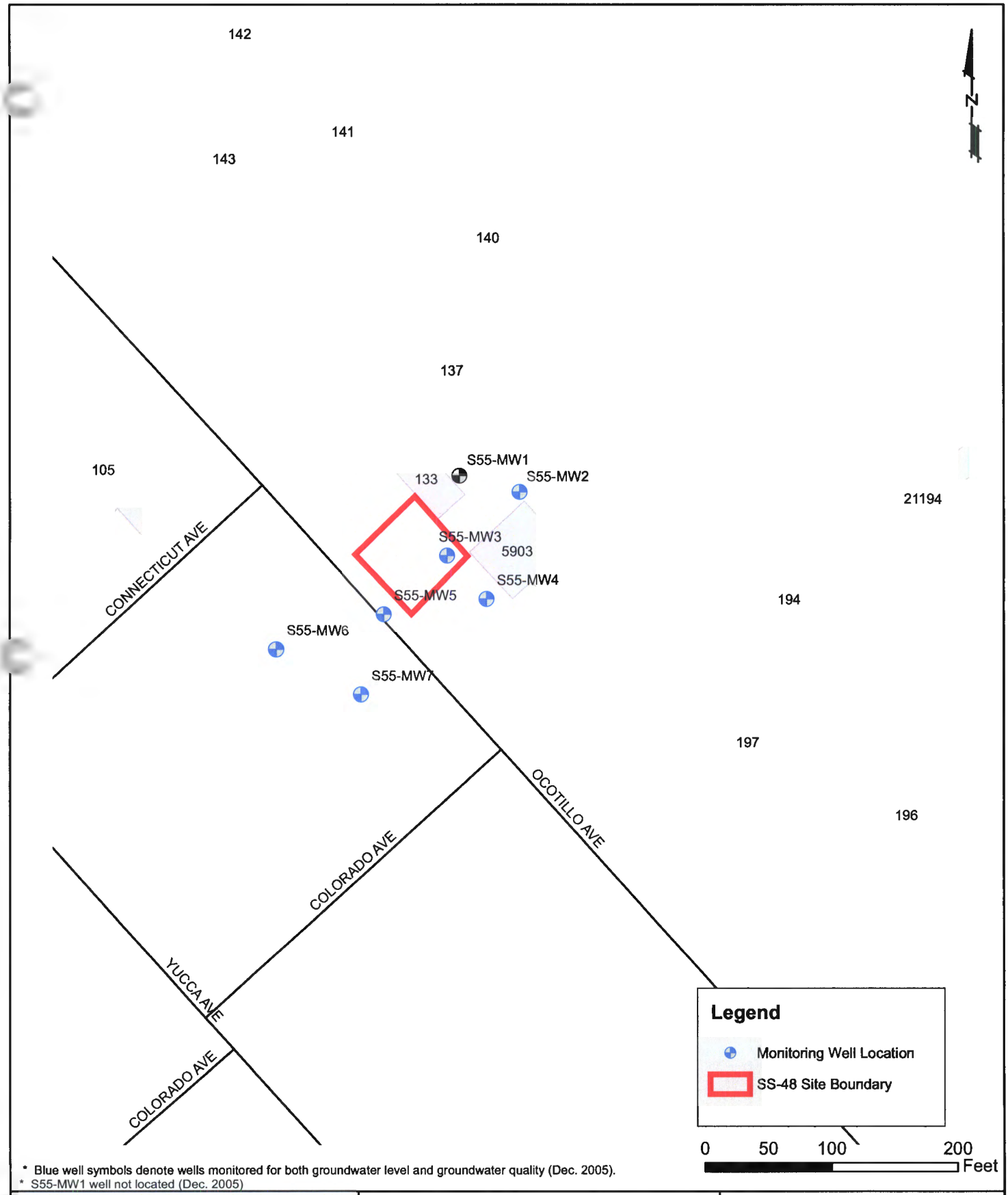
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**SS-46**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 12-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 12-3




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* S55-MW1 well not located (Dec. 2005)

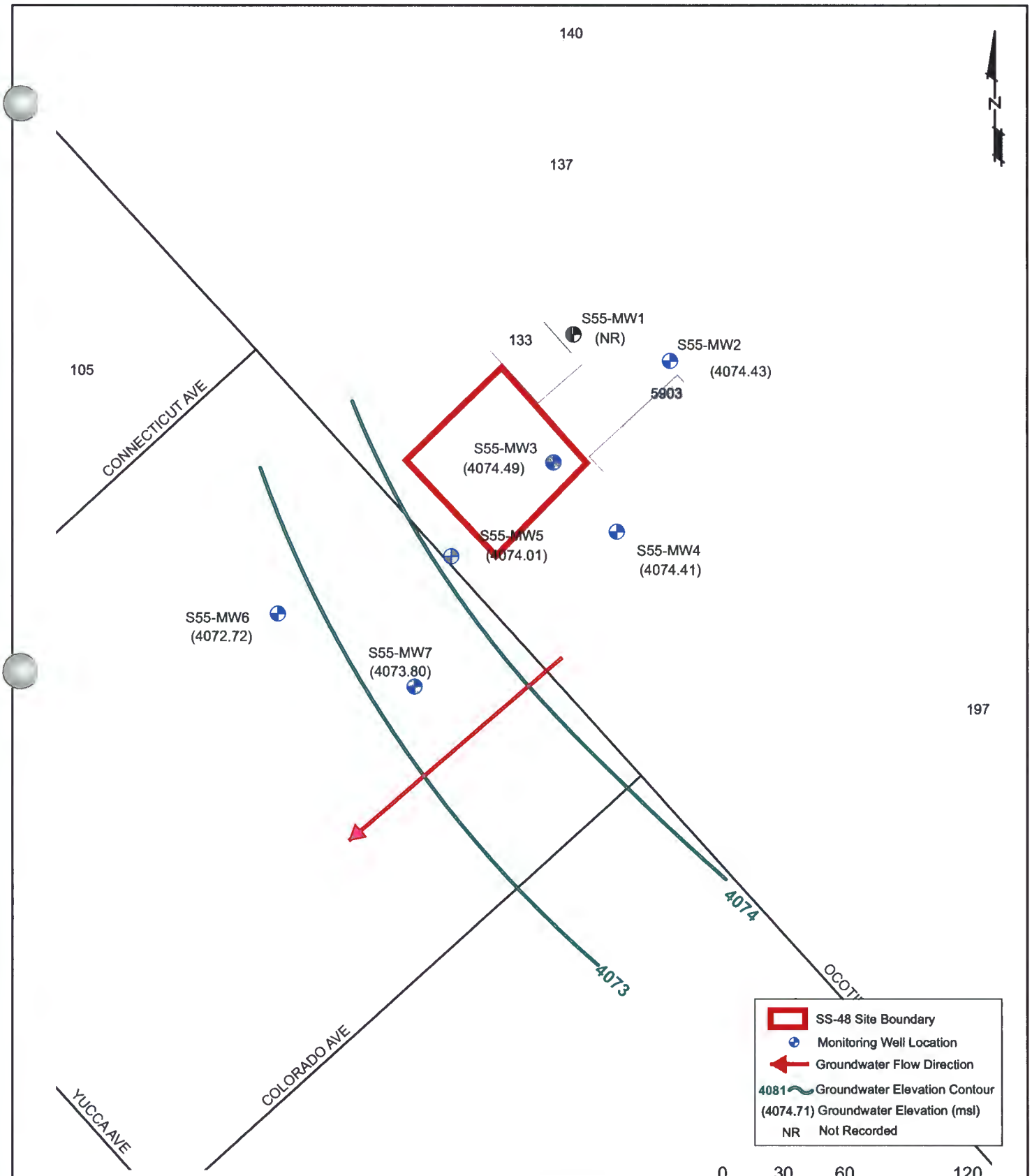
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Site Location Map**
**SS-48**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 13-1 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 13-1




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Groundwater elevations are expressed in feet above mean sea level(msl).

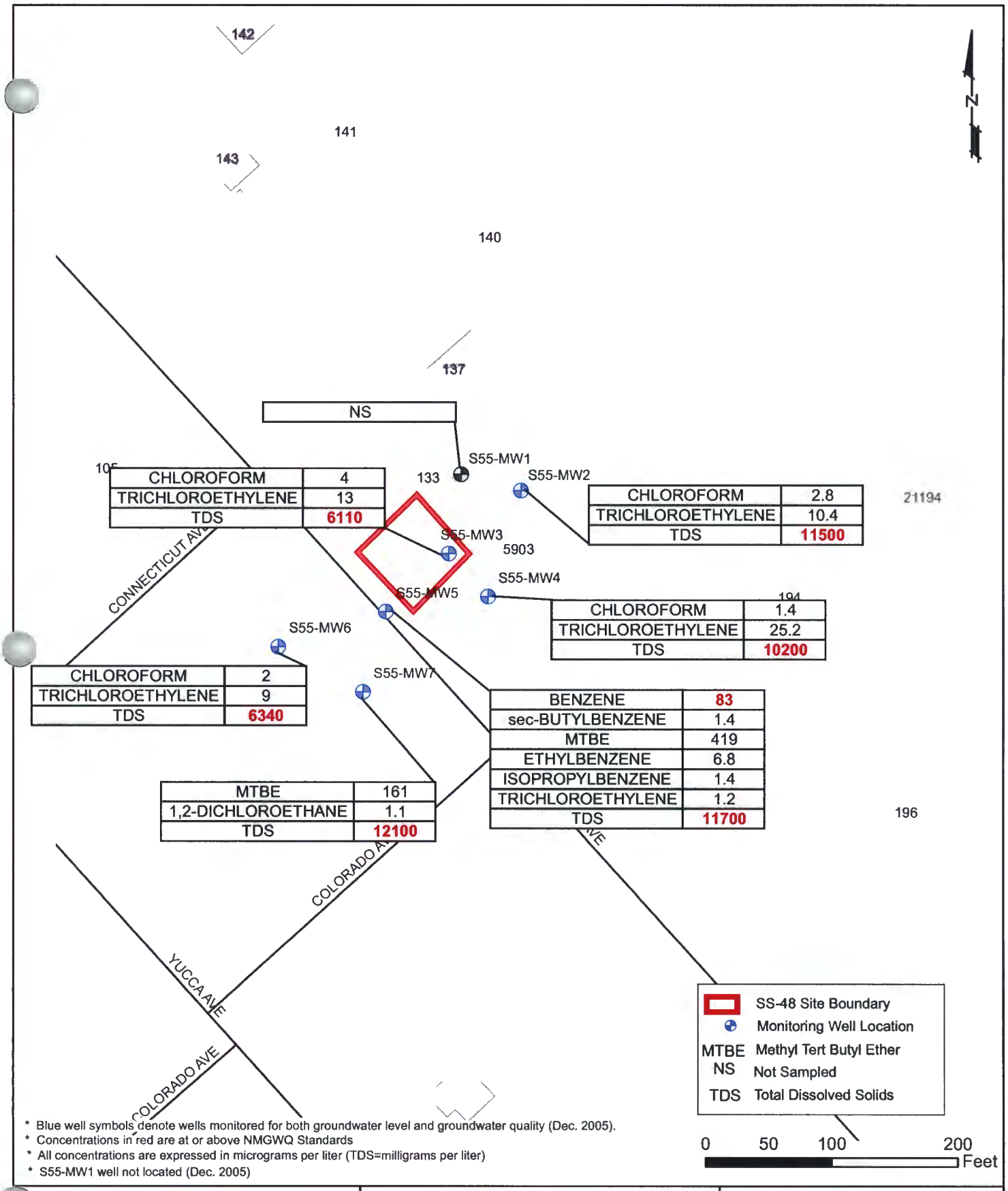
bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Potentiometric Surface Map**
**SS-48**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=60' | 2/8/06 | DRAWING NO: Fig 13-2 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 13-2




* Blue well symbols denote wells monitored for both groundwater level and groundwater quality (Dec. 2005).
* Concentrations in red are at or above NMGWQ Standards
* All concentrations are expressed in micrograms per liter (TDS=milligrams per liter)
* S55-MW1 well not located (Dec. 2005)

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

**Groundwater Analytical Results**
**SS-48**

| PROJECT NO. | SCALE | DATE | DRAWN BY: cm |
|---|---|---|---|
| 9050343 | 1"=100' | 2/8/06 | DRAWING NO: Fig 13-3 |

Long-Term Groundwater Monitoring
Holloman Air Force Base, New Mexico

Figure 13-3

# TABLES

## Table 1-1. 2005 Long-Term Monitoring Program Sites

| Site | SWMU(s) | Location |
|---|---|---|
| LF-01 | 106 | Main Base Landfill |
| SS-02 and SS-05 | AOC-T | POL Spill Sites Nos. 1 and 2 |
| SD-08 | 4, 82 | Refuse Collection Truck Washrack |
| OT-16 | 118, 132, AOC-A | Former Entomology Shop Area |
| SS-17 | AOC-Q | BX Service Station |
| LF-21 | 116 | West Area Landfill No. 2 |
| LF-29 | 104 | Former Army Landfill |
| DP-30 and SD-33 | 113B | Grease Trap Disposal Pits |
| SS-39 | 165, 177, 179, 181 | Missile Fuel Spill Area |
| SS-46 | 130 | JP-4 Spill Site |
| SS-48 | AOC-N | Military Gas Station |

Notes:
AOC -Area of Concern
POL -Petroleum, oils, and lubricants
BX - Base Exchange
OT -Other
DP - Disposal Pit
SS - Surface Spill
LF -Landfill
SD – Sludge Disposal
SWMU - Solid Waste Management Unit

**Table 2-1. Applicable New Mexico Groundwater Quality Standards[1]**

| Analyte | Groundwater Standard |
|---|---|
| VOCs | (µg/L) |
| Acetone | NV |
| Benzene | 10 |
| Bromodichloromethane | tox[2] |
| n-Butylbenzene | NV |
| sec-Butylbenzene | NV |
| tert-Butylbenzene | NV |
| Carbon disulfide | NV |
| Carbon tetrachloride | 10 |
| Chlorobenzene | tox[2] |
| Chloroform | 10 |
| 1,1-Dichloroethane | NV |
| 1,2-Dichloroethane | 10 |
| cis-1,2-Dichloroethylene | tox[2] |
| 1,2-Dichloropropane | NV |
| Ethylbenzene | 750 |
| Isopropylbenzene | NV |
| Methylene chloride | 100 |
| Methyl ethyl ketone | NV |
| Methyl Tert Butyl Ether (MTBE) | NV |
| n-Propylbenzene | NV |
| Styrene | NV |
| Tetrachloroethylene (PCE) | 20 |
| Toluene | 750 |
| 1,1,1-Trichloroethane | 60 |
| Trichlorethylene (TCE) | 100[a] |
| m,p-Xylene | 620[b] |
| o-Xylene | 620[b] |
| SVOCs | (µg/L) |
| Butyl benzylphthalate | NV |
| bis(2-Ethylhexyl)phthalate | tox[2] |
| 4-Nitrophenol | NV |
| Phenol | 5 |
| Metals | (µg/L) |
| Arsenic | 100 |
| Barium | 1,000 |
| Cadmium | 10 |
| Calcium | NV |
| Chromium | 50 |
| Iron | 1,000 |
| Lead | 50 |
| Magnesium | NV |
| Manganese | 200 |
| Mercury | 2[c] |
| Potassium | NV |
| Selenium | 50 |
| Silver | 50 |
| Sodium | NV |
| Thallium | NV |
| Vanadium | NV |

**Table 2-1. Applicable New Mexico Groundwater Quality Standards[1]**

| Analyte | Groundwater Standard |
|---|---|
| Organochlorine Pesticides | (µg/L) |
| alpha-BHC | tox[2] |
| gamma-BHC (Lindane) | tox[2] |
| gamma-Chlordane | tox[2] |
| Herbicides | (µg/L) |
| 2,4-D | NV |
| MCPP | NV |
| Pentachlorophenol | NV |
| Filterable Residue | (mg/L) |
| Total Dissolved Solids (TDS) | 1,000 |

Notes:

[1] 20.6.2, New Mexico Administrative Code (NMAC), New Mexico Water Quality Control Commission (NMWQCC) Regulations, September 15, 2002.

[2] tox - A numerical standard has not been established, but the contaminant is listed in a narrative standard of "toxic pollutant" defined in NMWQCC regulations (p. 3 20.6.2.4.VV, NMAC)

[a] Value based on 1,1,2-trichloroethylene

[b] Value based on total xylenes

[c] Value based on total mercury

NV - No Value, denotes no applicable New Mexico Groundwater Quality Standard

SVOC - semivolatile organic compound

VOC - volatile organic compound

mg/L - milligrams per liter

µg/L - micrograms per liter

**Table 2-2. Summary of Sites Included in the 2005 LTM Program**

| Site | SWMU | Location | Site History | Results of Investigations Prior to the LTM Program | Previous Investigations Conclusions and Recommendation |
|---|---|---|---|---|---|
| SS-48 | AOC-N | Military Gas Station | A military gas station that has been in operation for over 30 years (formerly referenced as Site 55). Releases from USTs have occurred at this site in the past. USTs that contained gasoline and diesel fuel were removed from this site in 1994. | VOCs, including BTEX and solvents, and SVOCs were detected in groundwater at this site. | No risk to public health and environment. LTM recommended for this site. LTM should include analysis of VOCs, and TDS. |

Notes:
SWMU - Solid Waste Management Unit
AOC - Area of Concern
BTEX - Benzene, toluene, ethylbenzene, and xylenes
FS - Feasibility Study
IRFNA - Inhibited red fuming nitric acid
IWNFA - Inhibited white fuming nitric acid
LTM - Long-term monitoring
LTO - Long-term operations
NFA - No further action
NMED - New Mexico Environment Department
NMGWQ - New Mexico Groundwater Quality
POL - Petroleum, oil, and lubricants
RCRA - Resource Conservation and Recovery Act
SVOC - Semivolatile organic compound
TDS - Total Dissolved Solids
TRPH - Total recoverable petroleum hydrocarbons
TCE - Trichloroethylene
UDMH - Unsymmetrical dimethylhydrazine
UST - Underground Storage Tank
VOC - Volatile organic compound

## Table 2-2. Summary of Sites Included in the 2005 LTM Program

| Site | SWMU | Location | Site History | Results of Investigations Prior to the LTM Program | Previous Investigations Conclusions and Recommendation |
|---|---|---|---|---|---|
| LF-01 | 106 | Main Base Landfill | Operated as a trench and fill disposal facility in 1958. Areal extend of landfill is approximately 210 acres. Landfill accepted solid waste and nonhazardous materials from industrial shops on Base. Small quantities of waste oils, solvents, and pesticides were reported disposed in the landfill. | VOCs and SVOCs have been detected in the groundwater. Metals in groundwater have exceeded NMGWQ standards. | No risk to public health and environment. NMED recommended LTM. LTM should include analysis of VOCs, metals, and TDS. |
| SS-02 & SS-05 | AOC-T | POL Spill Sites Nos. 1 and 2 | Two POL sites located in the eastern portion of the Base that are being remediated together. JP-4 and aviation fuel spills occurred periodically at the two sites. | Due to the nature of the contaminant releases, LTM is recommended for these sites. | Primary risk driver for these sites is their proximity to the adjacent arroyo. LTM should include analysis of VOCs and TDS. |
| SD-08 | 4, 82 | Refuse Collection Truck Washrack | Washrack was used to clean refuse trucks where wash water flowed into an oil/water separator and was then discharged into the sanitary sewer. Pesticides were routinely applied to the trucks for fly control. The settling basin and separator occasionally became clogged and overflowed into the northwest corner of the washrack. | Metals, VOCs, and pesticides were detected in groundwater. LTM for metals and pesticides is required as part of the site closure. | FS recommended an asphalt cap as the preferred remedial action of this site. LTM should include analysis of metals, organochlorine pesticides, and TDS. |
| OT-16 | 118, 132, AOC-A | Former Entomology Shop Area | Located at former Building 21 in the southeastern portion of the Base. Rinse water from pesticide-mixing operations were discharged to the leach field located behind Building 21 and a pit on the northwest side of Building 21. Diesel fuel used to stabilize pesticides may also have been discharged. Pesticide holding tank located on the site, although no spills or releases have been reported. | SVOCs, pesticides, and TRPH detected in the groundwater. | No risk to public health and environment. NMED recommended LTM as a condition for NFA at this site. LTM should include analysis of VOCs, metals, and TDS. |
| SS-17 | AOC-Q | BX Service Station | Located on First Street in the main portion of the Base and approximately 2,500 ft from the main gate. The site contained several buildings including a service station, convenience store, a car wash, and residences. Up to 4 ft of free-phase product was observed on the water table and contamination extends under adjacent properties. Site remediation is ongoing and monitoring also occurs under the Basewide LTO program. | Fuel-related VOCs have been detected in groundwater. | NMED requires site LTM to ensure no further migration of groundwater contamination. LTM should include analysis of VOCs, and TDS. |
| LF-21 | 116 | West Area Landfill No. 2 | Active during the 1970s when domestic trash, paper boxes, and tree trimmings were accepted at the landfill. Possibility that some drum disposal could have also taken place. | Groundwater action levels for arsenic, cadmium, benzene, and fluoride exceeded. | No risk to public health and environment. LTM should include analysis of VOCs, metals, pesticides, herbicides and TDS. |
| LF-29 | 104 | Former Army Landfill | Occupying 3 acres in the northern portion of the Base, site is located 300 ft north of Building 1001 and is surrounded by a 3-ft high earthen berm. The former landfill is 400 ft by 350 ft. Operated form the 1950s to 1975, spent munitions and missiles were disposed at this site. Materials were also dumped outside the berm approximately 200 ft south of the bermed area and consist primarily of construction debris. | Groundwater samples contained metals, VOCs, pesticides, and herbicides at concentrations less than action levels. | No further action was recommended for the site such that there is no risk to public health and environment. NMED recommended LTM for this site. LTM should include analysis of VOCs, SVOCs, and TDS. |
| DP-30 & SD-33 | 113B | Grease Trap Disposal Pits | Disposal pits received waste from oil/water separators and grit chambers on the Base. Occasionally, the pits would accept sludge from vacuum trucks that were used to unclog sewer lines at the Primate Research | Groundwater samples contained metals, VOCs, gross alpha, gross beta, and pesticides at concentrations less than action levels. | No risk to public health and environment. LTM recommended for this site. LTM should include analysis of VOCs, and TDS. |
| SS-39 | 165, 177, 179, 181 | Missle Fuel Spill Area | Approximately 3.5 miles northwest of the main base area near Building 1176 and consists of two outfall areas located downslope from the oxidizer and propellant spill drain pipes and drainage troughs and sumps near the building. Facilities at the site were involved in the fueling, detanking, and maintenance of test sleds. Fuels used at the site included UDMH, aniline, JP-4, IRFNA, IWFNA, liquid oxygen, dyes, and solid rocket propellants. Solvents used at the site included TCE. | VOCs were detected in the groundwater at the site and in downgradient monitoring wells. | No risk to public health and environment. LTM is recommended for this site. LTM should include analysis of VOCs and TDS. |
| SS-46 | 130 | JP-4 Spill Site | Underground fuel tank (25,000 gallons) installed in 1978 without containment located on the southeast side of Taxiway 4. Tank taken out of service in 1989 and removed in 1995. | TRPH, benzene, chlorobenzene, and toluene detected in groundwater samples. | No risk to public health and environment. No further action recommended for site. NMED recommended LTM as a condition for NFA at the site. LTM should include analysis of VOCS, and TDS. |

## Table 2-3. LTM Purge Water

| Analyte | Concentration (mg/L) | Holloman AFB WWTF Pretreatment Standard (mg/L) | WWTF Pretreatment Standard Exceedance? | Volume of Water | Recommended Disposition |
|---|---|---|---|---|---|
| TAL Metals | | | | Approximately 250 gallons | No exceedances of Holloman AFB standards.<br><br>Discharge to sanitary sewer. |
| Calcium | 454 | NA | No | | |
| Magnesium | 425 | NA | No | | |
| Manganese | 0.359 | NA | No | | |
| Potassium | 55.4 | NA | No | | |
| Selenium | 0.0357 | 0.213 | No | | |
| Sodium | 1,330 | NA | No | | |
| VOCs | | | | | |
| 1,2-Dichloroethane | 0.0027 | NA | No | | |
| MTBE | 0.0779 | NA | No | | |
| TCE | 0.00057 | 0.618 | No | | |

Notes: Purge water sample was analyzed for VOCs and TAL metals. Only concentrations above the contract-required detection limit are listed.
NA – Not Available
MTBE – Methyl Tert Butyl Ether
mg/L – Milligrams per liter
TAL – Target Analyte List
TCE – Trichloroethylene
VOC – Volatile Organic Compounds
WWTF – Wastewater Treatment Facility

## Table 3-1. Summary of 2005 LTM Program at LF-01

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| S1-MW1<br>S1-MW2<br>S1-MW3<br>S1-MW5<br>1W2 | Metals (*arsenic, barium, iron manganese, selenium*) (6010B)<br>VOCs *(only at S1-MW3)* (8260B)<br>TDS (160.1) | Benzene, sec-Butylbenzene, 1,2-Dichloroethane, Isopropylbenzene, Arsenic, Manganese, TDS | Benzene, Manganese, TDS | 1<br>(S1-MW3) | 6 |

**Table 3-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-01**

| Well Number | S1-MW1 [4] | | | | | | S1-MW2 | | | | | | S1-MW3 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | | | | |
| Acetone | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | 11.2 J |
| Benzene | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | **319** |
| sec-Butylbenzene | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | 5.0 |
| 1,2-Dichloroethane | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | 9.4 |
| Isopropylbenzene | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | 38.6 |
| Metals[2] (mg/L) | | | | | | | | | | | | | | | | | | |
| Arsenic | ND | ND | 5.6 B (J) | 4.1 B | 8.12 J | 2.9 U | NS | ND | 22 B (J) | 10.8 | 27 | 21.5 | NS | NS | NS | NS | NA | 15.5 |
| Barium | ND | ND | 8.9 B (J) | 7.1 B | 4.75 J | 7.3 J | NS | ND | 10.8 B (J) | 8 B | 6.66 J | 10.2 J | NS | NS | NS | NS | NA | 10.1 J |
| Chromium | ND | ND | <0.6 | NA | NA | NA | NS | ND | 3.1 B | NA | NA | NA | NS | NS | NS | NS | NA | NA |
| Iron | NA | NA | NA | NA | NA | 3,800 U | NA | NA | NA | NA | NA | 7,500 U | NS | NS | NS | NS | NA | 3,800 U |
| Lead | ND | ND | <1.5 | NA | NA | NA | NS | ND | <1.5 | NA | NA | NA | NS | NS | NS | NS | NA | NA |
| Manganese | ND | 76 | 115 | 22.8 (J) | <10 | 5.2 J | NS | ND | 11.9 B | 2.5 B (J) | 1.38 J | 6.7 J | NS | NS | NS | NS | NA | **831** |
| Selenium | ND | ND | 8.7 B (J) | 6.8 B | 5.16 J | 96 U | NS | 14 | 8.2 B (J) | 5.5 B | 3.91 J | 96 U | NS | NS | NS | NS | NA | 60 U |
| Silver | ND | ND | 0.6 B (J) | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | NA | NA |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | NA | NS | ND | NA | NA | NA | NA | NS | NS | NS | NS | NA | NA |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | | | | |
| TDS[5] | NA | NA | NA | NA | NA | **26,400** | NA | NA | NA | NA | NA | **46,500** | NA | NA | NA | NA | NA | **47,400** |

Notes:

[1] Unless otherwise reported, no VOCs were detected prior to 2001 using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995, 1997, and 1999 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected prior to 1999 using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Upgradient monitoring well

[5] Total Dissolved Solids were analyzed using EPA Method 160.1

CRDL - Contract-Required detection limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
B - Value less than CRDL but greater than or equal to IDL

EPA Qualifiers--assigned as a result of independent data validation
(J) - Estimated value based on QC criteria
(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 3-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-01**

| Well Number | S1-MW5 | | | | | | 1W2 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| Benzene | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| sec-Butylbenzene | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| 1,2-Dichloroethane | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| Isopropylbenzene | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| Metals[2] (mg/L) | | | | | | | | | | | | |
| Arsenic | ND | ND | 4.4 B (J) | 3.8 B | 10 J | 5.7 J | ND | ND | 16.4 B (J) | 7.3 B | 12.5 | 5.9 J |
| Barium | ND | ND | 11.4 B (J) | 9.9 B | 8.02 J | 10.9 J | ND | ND | 12.3 B (J) | 10.3 | 8.71 J | 11.4 J |
| Chromium | ND | ND | 3.2 B | NA | NA | NA | ND | ND | <0.6 | NA | NA | NA |
| Iron | NA | NA | NA | NA | NA | 3,800 U | NA | NA | NA | NA | NA | 7,500 U |
| Lead | 44 | ND | <1.5 | NA | NA | NA | 190 | ND | <1.5 | <10 | NA | NA |
| Manganese | ND | ND | 5.7 B | 4.3 B (J) | 5.38 J | 13.3 J | ND | ND | 0.2 B | <10 (UJ) | <10 | 4.1 J |
| Selenium | ND | 13 | 29.4 B (J) | 18.6 | 27 | 48 U | ND | 24 | 19.5 B (J) | 8.7 B | 12.1 | 48 U |
| Silver | ND | ND | <0.5 | NA | NA | NA | ND | ND | <0.5 | NA | N A | NA |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | NA | ND | ND | NA | NA | NA | NA |
| Filterable Reside (mg/L) | | | | | | | | | | | | |
| TDS[5] | NA | NA | NA | NA | NA | **23,100** | NA | NA | NA | NA | NA | **32,000** |

Notes:

[1] Unless otherwise reported, no VOCs were detected prior to 2001 using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995, 1997 and 1999 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected prior to 1999 using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Upgradient monitoring well

[5] Total Dissolved Solids were detected using EPA Method 160.1

CRDL - Contract-required detection limit

IDL - Instrument Detection Limit

NA - Not analyzed

ND - Not detected at or above method reporting limit

NS - Not sampled

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

B - Value less than CRDL but greater than or equal to IDL

EPA Qualifiers--assigned as a result of independent data validation

(J) - Estimated value based on QC criteria

(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 3-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-01**

| Well Number | S1-MW1 [4] | | | | | | S1-MW2 | | | | | | S1-MW3 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | | | | |
| Acetone | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | 11.2 J |
| Benzene | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | **319** |
| sec-Butylbenzene | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | 5.0 |
| 1,2-Dichloroethane | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | 9.4 |
| Isopropylbenzene | ND | ND | ND | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | ND | 38.6 |
| Metals[2] (mg/L) | | | | | | | | | | | | | | | | | | |
| Arsenic | ND | ND | 5.6 B (J) | 4.1 B | 8.12 J | 2.9 U | NS | ND | 22 B (J) | 10.8 | 27 | 21.5 | NS | NS | NS | NS | NA | 15.5 |
| Barium | ND | ND | 8.9 B (J) | 7.1 B | 4.75 J | 7.3 J | NS | ND | 10.8 B (J) | 8 B | 6.66 J | 10.2 J | NS | NS | NS | NS | NA | 10.1 J |
| Chromium | ND | ND | <0.6 | NA | NA | NA | NS | ND | 3.1 B | NA | NA | NA | NS | NS | NS | NS | NA | NA |
| Iron | NA | NA | NA | NA | NA | 3,800 U | NA | NA | NA | NA | NA | 7,500 U | NS | NS | NS | NS | NA | 3,800 U |
| Lead | ND | ND | <1.5 | NA | NA | NA | NS | ND | <1.5 | NA | NA | NA | NS | NS | NS | NS | NA | NA |
| Manganese | ND | 76 | 115 | 22.8 (J) | <10 | 5.2 J | NS | ND | 11.9 B | 2.5 B (J) | 1.38 J | 6.7 J | NS | NS | NS | NS | NA | **831** |
| Selenium | ND | ND | 8.7 B (J) | 6.8 B | 5.16 J | 96 U | NS | 14 | 8.2 B (J) | 5.5 B | 3.91 J | 96 U | NS | NS | NS | NS | NA | 60 U |
| Silver | ND | ND | 0.6 B (J) | NA | NA | NA | NS | ND | ND | NA | NA | NA | NS | NS | NS | NS | NA | NA |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | NA | NS | ND | NA | NA | NA | NA | NS | NS | NS | NS | NA | NA |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | | | | |
| TDS[5] | NA | NA | NA | NA | NA | **26,400** | NA | NA | NA | NA | NA | **46,500** | NA | NA | NA | NA | NA | **47,400** |

Notes:

[1] Unless otherwise reported, no VOCs were detected prior to 2001 using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995, 1997, and 1999 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected prior to 1999 using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Upgradient monitoring well

[5] Total Dissolved Solids were analyzed using EPA Method 160.1

CRDL - Contract-Required detection limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
B - Value less than CRDL but greater than or equal to IDL

EPA Qualifiers--assigned as a result of independent data validation
(J) - Estimated value based on QC criteria
(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 3-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-01**

| Well Number | S1-MW5 | | | | | | 1W2 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| Benzene | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| sec-Butylbenzene | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| 1,2-Dichloroethane | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| Isopropylbenzene | ND | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA |
| Metals[2] (mg/L) | | | | | | | | | | | | |
| Arsenic | ND | ND | 4.4 B (J) | 3.8 B | 10 J | 5.7 J | ND | ND | 16.4 B (J) | 7.3 B | 12.5 | 5.9 J |
| Barium | ND | ND | 11.4 B (J) | 9.9 B | 8.02 J | 10.9 J | ND | ND | 12.3 B (J) | 10.3 | 8.71 J | 11.4 J |
| Chromium | ND | ND | 3.2 B | NA | NA | NA | ND | ND | <0.6 | NA | NA | NA |
| Iron | NA | NA | NA | NA | NA | 3,800 U | NA | NA | NA | NA | NA | 7,500 U |
| Lead | 44 | ND | <1.5 | NA | NA | NA | 190 | ND | <1.5 | <10 | NA | NA |
| Manganese | ND | ND | 5.7 B | 4.3 B (J) | 5.38 J | 13.3 J | ND | ND | 0.2 B | <10 (UJ) | <10 | 4.1 J |
| Selenium | ND | 13 | 29.4 B (J) | 18.6 | 27 | 48 U | ND | 24 | 19.5 B (J) | 8.7 B | 12.1 | 48 U |
| Silver | ND | ND | <0.5 | NA | NA | NA | ND | ND | <0.5 | NA | N A | NA |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | NA | ND | ND | NA | NA | NA | NA |
| Filterable Reside (mg/L) | | | | | | | | | | | | |
| TDS[5] | NA | NA | NA | NA | NA | **23,100** | NA | NA | NA | NA | NA | **32,000** |

Notes:

[1] Unless otherwise reported, no VOCs were detected prior to 2001 using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995, 1997 and 1999 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected prior to 1999 using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Upgradient monitoring well

[5] Total Dissolved Solids were detected using EPA Method 160.1

CRDL - Contract-required detection limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
B - Value less than CRDL but greater than or equal to IDL

EPA Qualifiers--assigned as a result of independent data validation
(J) - Estimated value based on QC criteria
(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 4-1. Summary of 2005 LTM Program at SS-02 and SS-05

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| MW-02&5-03<br>MW-02&5-05<br>MW-02&5-06<br>MW-02&5-08 | VOCs (8260B)<br>TDS (160.1) | Benzene, Ethylbenzene, Isopropylbenzene, n-Propylbenzene, o-Xylene, TDS | Benzene and TDS | 1 (MW-02&05-08) | 5 |

## Table 4-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-02 & SS-05

| Well Number | MW-02 & 05-03 | | | | | MW-02 & 05-05 | | | | | MW-02 & 05-06 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | |
| Benzene | ND | <3 | <5 | <1 | ND | **300** | **250 D** | **120** | **36** | **13.0** | ND | <3 | <5 | <1 | ND |
| sec-Butylbenzene[3] | ND | NA | <5 | NA | ND | 12 J | NA | <5 | NA | 2.6 J | ND | NA | <5 | NA | ND |
| tert-Butylbenzene[3] | ND | NA | <5 | NA | ND | 20 J | NA | <5 | NA | ND | ND | NA | <5 | NA | ND |
| Ethylbenzene | ND | <3 | <5 | <1 | ND | **940** | **860 D** | **810** | 230 | 233 | ND | <3 | <5 | <1 | ND |
| p-Isopropyltoluene[3] | ND | NA | <5 | NA | ND | 20 J | NA | <5 | NA | ND | ND | NA | <5 | NA | ND |
| Isopropylbenzene[3] | ND | NA | <5 | NA | ND | 110 | NA | <5 | NA | 17.8 | ND | NA | <5 | NA | ND |
| Methylene chloride | 1.6 UB | <3 | <50 | <2 | ND | ND | <3 | <50 | <2 | ND | 1.8 UB | <3 | <5 | <2 | ND |
| Naphthalene[3] | ND | NA | <5 | NA | ND | 88 | NA | <5 | NA | ND | ND | NA | <5 | NA | ND |
| n-Propylbenzene[3] | ND | NA | <5 | NA | ND | 64 | NA | <5 | NA | 13.5 | ND | NA | <5 | NA | ND |
| Toluene | 0.96 J | <3 | <5 | <1 | ND | 3.6 J | 63 | 50 | 0.69 J | ND | ND | <3 | <5 | <1 | ND |
| 1,2,4-Trimethylbenzene[3] | ND | NA | <5 | NA | ND | 170 | NA | <5 | NA | ND | ND | NA | <5 | NA | ND |
| 1,3,5-Trimethylbenzene[3] | ND | NA | <5 | NA | ND | 42 | NA | <5 | NA | ND | ND | NA | <5 | NA | ND |
| m,p-Xylene | ND | <3 | <10 | <2 | ND | 31 | 140 | <100 | 3.5 | 2.6 J | ND | <3 | <10 | <2 | ND |
| o-Xylene | ND | <3 | <5 | <1 | ND | 15 | 170 | 270 | 4.4 | 6.5 | ND | <3 | <5 | <1 | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | |
| TDS[4] | NA | NA | NA | NA | **5,710** | NA | NA | NA | NA | **13,900** | NA | NA | NA | NA | **65,200** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1997 program.)

[2] Upgradient monitoring well

[3] Organic analyte not included in EPA Method 8260B (1999 and 2003)

[4] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
D - Value derived from analysis of diluted sample
J - Estimated value; less than CRDL but greater than or equal to IDL
UB - Qualifies as non-detect due to presence of analyte in associated laboratory blank

2003 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

2005 Validation Qualifiers
J - Indicates an estimated value

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 4-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-02 & SS-05**

| Well Number | MW-02 & 05-08 [2] | | | | |
|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | |
| Benzene | ND | <3 | <5 | <1 | ND |
| sec-Butylbenzene[3] | ND | NA | <5 | NA | ND |
| tert-Butylbenzene[3] | ND | NA | <5 | NA | ND |
| Ethylbenzene | 0.79 J | <3 | <5 | <1 | ND |
| p-Isopropyltoluene[3] | ND | NA | <5 | NA | ND |
| Isopropylbenzene[3] | NA | NA | <5 | NA | ND |
| Methylene chloride | ND | <3 | <5 | <2 | ND |
| Naphthalene[3] | 1.6 UB | NA | <5 | NA | ND |
| n-Propylbenzene[3] | 1.3 J | NA | <5 | NA | ND |
| Toluene | ND | <3 | <5 | <1 | ND |
| 1,2,4-Trimethylbenzene[3] | ND | NA | <5 | NA | ND |
| 1,3,5-Trimethylbenzene[3] | ND | NA | <5 | NA | ND |
| m,p-Xylene | ND | <3 | <10 | <2 | ND |
| o-Xylene | ND | <3 | <5 | <1 | ND |
| Filterable Residue (mg/L) | | | | | |
| TDS[4] | NA | NA | NA | NA | **79,600** |

Notes:

[1] Unless otherwise reported, no VOCs were
(EPA Method 8260A was used to analyze f
[2] Upgradient monitoring well
[3] Organic analyte not included in EPA Metho
[4] Total Dissolved Solids (TDS) were analyze
CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method repor
NS - Not sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1997 program.)
[2] Upgradient monitoring well
[3] Organic analyte not included in EPA Method 8260B (1999 and 2003)
[4] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1
CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
D - Value derived from analysis of diluted sample
J - Estimated value; less than CRDL but greater than or equal to IDL
UB - Qualifies as non-detect due to presence of analyte in associated laboratory blank

2003 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

2005 Validation Qualifiers
J - Indicates an estimated value

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 5-1. Summary of 2005 LTM Program at SD-08

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| MW-08-03<br>MW-08-04<br>MW-08-05<br>MW-08-06 | VOCs (8260B)<br>Metals (*arsenic, barium, iron, manganese, selenium*) (6010B)<br>TDS (160.1) | Chloroform, Iron, Manganese, TDS | Manganese, TDS | None | 4 |

## Table 5-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003 and 2005 Long-Term Monitoring Programs at SD-08

| Well Number | MW-08-01 | | | | | | MW-08-03 [4] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | ND | ND | <5 | NA | NA | NS | ND | ND | <5 | NA | NA | ND |
| Benzene | ND | 3.7 | 2.0 J | NA | NA | NS | ND | 3.5 | <3 | NA | NA | ND |
| Bromodichloromethane | ND | ND | <3 | NA | NA | NS | ND | ND | <3 | NA | NA | ND |
| Bromoform | ND | ND | <3 | NA | NA | NS | ND | ND | <3 | NA | NA | ND |
| sec-Butylbenzene[5] | ND | 2.3 J | NA | NA | NA | NS | ND | ND | NA | NA | NA | ND |
| Chloroform | 170 | ND | <3 | NA | NA | NS | ND | 0.99 J | 1.0 J | NA | NA | 1.5 |
| 1,2-Dichloroethane | ND | 130 | **130 D** | <5 | **73** | NS | ND | ND | <3 | <5 | 0.69 (J) | ND |
| 1,2-Dichloropropane | ND | 3.5 | 8 | NA | NA | NS | ND | ND | <3 | NA | NA | ND |
| Ethylbenzene | ND | 1.5 | 2.0 J | NA | NA | NS | ND | ND | <3 | NA | NA | ND |
| Isopropylbenzene[5] | ND | 1.5 J | NA | NA | NA | NS | ND | ND | NA | NA | NA | ND |
| Naphthalene[5] | ND | 1.5 J | NA | NA | NA | NS | ND | ND | NA | NA | NA | ND |
| Toluene | ND | 0.86 J | <3 | NA | NA | NS | ND | ND | <3 | NA | NA | ND |
| Metals[2] (µg/L) | | | | | | | | | | | | |
| Arsenic | ND | ND | 31.6 B (J) | 12.8 | 9.34 J | NS | 10 | ND | 13.1 B (J) | 10.5 | 22.8 | 8.3 J |
| Barium | ND | 28 | 16.9 B (J) | 14.2 | 16.5 | NS | ND | ND | 15.5 B (J) | 11.2 | 12 | 15.1 J |
| Cadmium | ND | ND | 0.3 B | NA | NA | NS | ND | ND | <0.3 | NA | NA | NA |
| Chromium | ND | ND | <0.6 | NA | NA | NS | ND | ND | 1.6 B | NA | NA | NA |
| Iron | ND | 5,900 | **6,620 (J)** | **6,500** | **7,805** | NS | ND | ND | <21 | <1,000 | 77.1 J | 3,800 U |
| Lead | 31 | ND | <1.5 | <10 (UJ) | NA | NS | 92 | ND | <1.5 | <10 (UJ) | NA | NA |
| Manganese | ND | 2,600 | **3,720** | **2,690 (J)** | **2,980** | NS | ND | ND | 7.0 B | <10 (UJ) | 11.2 | 20.9 |
| Selenium | ND | ND | <2.2 | NA | NA | NS | ND | ND | 10.2 B (J) | NA | NA | 96 U |
| Silver | ND | ND | <0.5 | NA | NA | NS | ND | ND | 1.2 B (J) | NA | NA | NA |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| 4,4'-DDD | ND | ND | <0.1 | NA | NA | NS | 0.02 | ND | <0.1 | NA | NA | NA |
| 4,4'-DDE | ND | ND | <0.1 | NA | NA | NS | 0.03 | ND | <0.1 | NA | NA | NA |
| gamma-Chlordane | ND | ND | 0.078 P (J) | NA | NA | NS | NA | NA | <0.05 | NA | NA | NA |
| Endosulfan sulfate | ND | ND | <0.1 | NA | NA | NS | 0.1 | ND | <0.1 | NA | NA | NA |
| Heptachlor epoxide | ND | ND | <0.05 | NA | NA | NS | ND | ND | <0.05 | NA | NA | NA |
| Filterable Residue (mg/L) | | | | | | | | | | | | |
| TDS[6] | NA | NA | NA | NA | NA | NS | NA | NA | NA | NA | NA | **15,200** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Upgradient monitoring well

[5] Organic analyte not included in EPA Method 8260B (1999, 2001 and 2003)

[6] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not Sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
B - Value less than CRDL but greater than or equal to IDL
D - Value derived from analysis of diluted sample
J - Estimated value; less than CRDL but greater than or equal to IDL
P - Results of dual-column GC technique differ by more than 25%; value is the lower of the two

EPA Qualifiers--assigned as a result of independent data validation
(J) - Estimated value based on QC criteria
(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 5-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003 and 2005 Long-Term Monitoring Programs at SD-08

| Well Number | MW-08-04 | | | | | | MW-08-05 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | ND | ND | <5 | NA | NA | ND | ND | ND | 1.0 J | NA | NA | ND |
| Benzene | ND | ND | <3 | NA | NA | ND | ND | ND | <3 | NA | NA | ND |
| Bromodichloromethane | ND | 0.61 J | <3 | NA | NA | ND | ND | ND | <3 | NA | NA | ND |
| Bromoform | ND | 0.84 J | <3 | NA | NA | ND | ND | ND | <3 | NA | NA | ND |
| sec-Butylbenzene[5] | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Chloroform | 5.4 | 2.2 J | <3 | NA | NA | ND | ND | ND | <3 | NA | NA | ND |
| 1,2-Dichloroethane | ND | ND | <3 | <5 | <1 | ND | 5.1 | ND | <3 | <5 | <1 | ND |
| 1,2-Dichloropropane | ND | ND | <3 | NA | NA | ND | ND | ND | <3 | NA | NA | ND |
| Ethylbenzene | ND | ND | <3 | NA | NA | ND | ND | ND | <3 | NA | NA | ND |
| Isopropylbenzene[5] | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Naphthalene[5] | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Toluene | ND | ND | <3 | NA | NA | ND | ND | ND | <3 | NA | NA | ND |
| Metals[2] (µg/L) | | | | | | | | | | | | |
| Arsenic | ND | ND | 7.7 B (J) | 5.9 B | 11.1 | 6.9 J | ND | ND | 5.1 B (J) | 4.3 B | <10 | 7.1 J |
| Barium | ND | 22 | 18.0 B (J) | 14.1 | 12.3 | 17.2 J | ND | 25 | 24.8 B (J) | 26.1 | 34.3 | 41.2 J |
| Cadmium | ND | ND | <0.3 | NA | NA | NA | ND | ND | <0.3 | NA | NA | NA |
| Chromium | ND | ND | <0.6 | NA | NA | NA | ND | ND | <0.6 | NA | NA | NA |
| Iron | ND | ND | <21 | <1,000 | <200 | 1,500 U | ND | ND | <21 | 13.0 B | <200 | 824 |
| Lead | 82 | ND | <1.5 | <10 (UJ) | NA | NA | 72 | ND | <1.5 | <10 (UJ) | NA | NA |
| Manganese | ND | ND | 0.4 B | 44.9 (J) | 7.46 J | **225** | ND | 260 | **235** | 4.4 B (J) | 21.3 | **255** |
| Selenium | ND | ND | 2.7 B (J) | NA | NA | 48 U | ND | ND | 2.9 B (J) | NA | NA | 96 U |
| Silver | ND | ND | <0.5 | NA | NA | NA | ND | ND | <0.5 | NA | NA | NA |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| 4,4'-DDD | ND | ND | <0.1 | NA | NA | NA | ND | ND | <0.1 | NA | NA | NA |
| 4,4'-DDE | ND | ND | <0.1 | NA | NA | NA | ND | ND | <0.1 | NA | NA | NA |
| gamma-Chlordane | NA | NA | <0.05 | NA | NA | NA | NA | NA | <0.05 | NA | NA | NA |
| Endosulfan sulfate | ND | ND | <0.1 | NA | NA | NA | ND | ND | <0.1 | NA | NA | NA |
| Heptachlor epoxide | ND | ND | <0.05 | NA | NA | NA | 0.04 | ND | <0.05 | NA | NA | NA |
| Filterable Residue (mg/L) | | | | | | | | | | | | |
| TDS[6] | NA | NA | NA | NA | NA | **6,610** | NA | NA | NA | NA | NA | **2,510** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Upgradient monitoring well

[5] Organic analyte not included in EPA Method 8260B

[6] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not Sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
B - Value less than CRDL but greater than or equal to IDL
D - Value derived from analysis of diluted sample
J - Estimated value; less than CRDL but greater than or equal to IDL
P - Results of dual-column GC technique differ by more than 25%; value is the lower of the two

EPA Qualifiers--assigned as a result of independent data validation
(J) - Estimated value based on QC criteria
(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 5-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003 and 2005 Long-Term Monitoring Programs at SD-08**

| Well Number | MW-08-06 | | | | | |
|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | |
| Acetone | NS | NS | NS | NS | NS | NS |
| Benzene | NS | NS | NS | NS | NS | NS |
| Bromodichloromethane | NS | NS | NS | NS | NS | NS |
| Bromoform | NS | NS | NS | NS | NS | NS |
| sec-Butylbenzene[5] | NS | NS | NS | NS | NS | NS |
| Chloroform | NS | NS | NS | NS | NS | NS |
| 1,2-Dichloroethane | NS | NS | NS | NS | NS | NS |
| 1,2-Dichloropropane | NS | NS | NS | NS | NS | NS |
| Ethylbenzene | NS | NS | NS | NS | NS | NS |
| Isopropylbenzene[5] | NS | NS | NS | NS | NS | NS |
| Naphthalene[5] | NS | NS | NS | NS | NS | NS |
| Toluene | NS | NS | NS | NS | NS | NS |
| Metals[2] (µg/L) | | | | | | |
| Arsenic | NS | NS | NS | NS | NS | NS |
| Barium | NS | NS | NS | NS | NS | NS |
| Cadmium | NS | NS | NS | NS | NS | NS |
| Chromium | NS | NS | NS | NS | NS | NS |
| Iron | NS | NS | NS | NS | NS | NS |
| Lead | NS | NS | NS | NS | NS | NS |
| Manganese | NS | NS | NS | NS | NS | NS |
| Selenium | NS | NS | NS | NS | NS | NS |
| Silver | NS | NS | NS | NS | NS | NS |
| Organochlorine Pesticides[3] (µg/L) | | | | | | |
| 4,4'-DDD | NS | NS | NS | NS | NS | NS |
| 4,4'-DDE | NS | NS | NS | NS | NS | NS |
| gamma-Chlordane | NS | NS | NS | NS | NS | NS |
| Endosulfan sulfate | NS | NS | NS | NS | NS | NS |
| Heptachlor epoxide | NS | NS | NS | NS | NS | NS |
| Filterable Residue (mg/L) | | | | | | |
| TDS[6] | NS | NS | NS | NS | NS | **20,300** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B Trace & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Upgradient monitoring well

[5] Organic analyte not included in EPA Method 8260B.

[6] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-required Detection Limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not Sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
B - Value less than CRDL but greater than or equal to IDL
D - Value derived from analysis of diluted sample
J - Estimated value; less than CRDL but greater than or equal to IDL
P - Results of dual-column GC technique differ by more than 25%; value is the lower of the two

EPA Qualifiers--assigned as a result of independent data validation
(J) - Estimated value based on QC criteria
(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 6-1. Summary of 2005 LTM Program at OT-16

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| 118-MW1601<br>118-MW1602<br>118-MW1603<br>118-MW1604 | VOCs (8260B)<br>Pesticides (8081A)<br>TDS (160.1) | Chlorobenzene, Chloroform, Trichloroethylene, alpha-BHC, gamma-BHC (Lindane), TDS | TDS | None | 4 |

**Table 6-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at OT-16**

| Well Number | 118-MW1601[3] | | | | | 118-MW1602 | | | | | 118-MW1603[3] | | | | | 118-MW1604 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | | | | | | |
| Chlorobenzene | ND | <3 | <5 | 0.62 (J) | 3.8 | 1.8 J | 2 J | 1.6 J | 4.2 | 9.1 | ND | <3 | <5 | <1 | ND | ND | <3 | <5 | 2 | 3.0 |
| Chloroform | 5.8 | 21 | 5.6 | 5.1 | 4.0 | 2.8 J | 2 J | 5.2 | 2.9 | 1.7 | 4 | 3 | <5 | 1.1 | 2.7 | ND | 1 J | <5 | 1.2 | 1.3 |
| Methylene chloride | ND | <3 | <5 | NA | ND | ND | <3 | <5 | NA | ND | 6.3 J | <3 | <5 | NA | ND | ND | <3 | <5 | NA | ND |
| Trichloroethylene | 3 | 2 J | <5 | 0.67 (J) | 0.81 J | 2.5 J | 3 | 4.7 J | 3.6 | 5.7 | ND | <3 | <5 | 0.92 (J) | 1.3 | 1.6 J | 2 J | 2.3 J | 4.2 | 2.7 |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | | | | | | | | | |
| alpha-BHC | ND | ND | NA | NA | 0.19 | ND | ND | ND | ND | ND | ND | ND | NA | NA | ND | ND | ND | NA | NA | ND |
| gamma-BHC (Lindane) | ND | <0.05 | NA | NA | 0.20 | ND | 0.076 (J) | 0.59 | 0.037 (J) | ND | ND | <0.05 | NA | NA | ND | ND | <0.05 | NA | NA | ND |
| Dieldrin | ND | ND | NA | NA | 0.028 J | ND | ND | ND | ND | ND | ND | ND | NA | NA | ND | ND | ND | NA | NA | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | | | | | | |
| TDS[4] | NA | NA | NA | NA | **3,260** | NA | NA | NA | NA | **4,930** | NA | NA | NA | NA | **3,650** | NA | NA | NA | NA | **3,920** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1997 program.)

[2] Unless otherwise reported, organochlorine pesticides were detected using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1997 program.)

[3] Upgradient monitoring well

[4] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit

iDL - Instrument Detection Limit

ND - Not detected at or above method reporting limit

NA - Not analyzed

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

J - Estimated value; less than CRDL but greater than or equal to IDL

EPA Qualifiers--assigned as a result of independent data validation

(J) - Estimated value based on QC criteria

(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 7-1. Summary of 2005 LTM Program at SS-17

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| MW-BX-01<br>MW-BX-02<br>W-4 | VOCs (8260B)<br>TDS (160.1) | Benzene,<br>n-Butylbenzene,<br>sec-Butylbenzene,<br>1-1-Dichloroethane,<br>1,2-Dichloroethane,<br>Ethylbenzene,<br>Isopropylbenzene,<br>MTBE,<br>n-Propylbenzene,<br>TDS | Benzene,<br>1,2-Dichloroethane,<br>TDS | 1<br>(W-4) | 4 |

## Table 7-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-17

| Well Number | MW-BX-01 | | | | | MW-BX-02 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | |
| Acetone | ND | 3 J | <5 | <10 | ND | 230 | <5 | <5 | <10 | 15.6 J |
| Benzene | ND | **15** | **<5** | 1.2 | 1.3 | ND | <3 | <5 | 0.32 J | **45.1** |
| 2-Butanone | ND | <5 | <5 | <10 | NA | ND | <5 | <5 | <10 | NA |
| n-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.4 |
| sec-Butylbenzene | ND | NA | <5 | NA | 2.9 | ND | NA | <5 | NA | 3.2 |
| tert-Butylmethyl ether[3] (MTBE) | ND | NA | <5 | <1 | ND | 120 | NA | 9.4 | 2.4 | 338 |
| Chloroform | ND | <3 | <5 | <1 | ND | ND | <3 | <5 | <1 | ND |
| 1,1-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.0 |
| 1,2-Dichloroethane | ND | **280 D** | **97** | <1 | 7.1 | **530** | **150 D** | **140** | **160** | **76.3** |
| 1,2-Dichloropropane | ND | 3 J | <5 | <1 | ND | ND | 2 J | <5 | 0.7 J | ND |
| Ethylbenzene | ND | 1 J | <5 | 11 | 2.7 | ND | 53 | 12 | 0.94 J | 77.9 |
| Isopropylbenzene | ND | ND | ND | ND | 4.7 | ND | ND | ND | ND | 22.0 |
| Naphthalene | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.4 J |
| n-Propylbenzene | ND | ND | ND | ND | 0.70 J | ND | ND | ND | ND | 33.5 |
| Toluene | ND | <5 | <5 | 0.33 J | ND | ND | <5 | <5 | <1 | ND |
| 1,1,2,2-Tetrachloroethane | ND | <5 | <5 | <1 | ND | ND | <5 | <5 | <1 | ND |
| 1,2,4-Trimethylbenzene[3] | ND | NA | <5 | NA | ND | ND | NA | <5 | NA | ND |
| m,p-Xylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.84 J |
| Filterable Residue (mg/L) | | | | | | | | | | |
| TDS[4] | NA | NA | NA | NA | **4,960** | NA | NA | NA | NA | **6,270** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B. (EPA Method 8260A was used to analyze for VOCs in the 1997 program.)

[2] Upgradient monitoring well

[3] Analyte not reported in 1999

[4] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

MTBE - Methyl Tert Butyl Ether (tert-Butylmethyl ether)

NA - Not analyzed

ND - Not detected at or above method reporting limit

NS - Not sampled

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

D - Value derived from analysis of diluted sample

J - Estimated value; less than CRDL but greater than or equal to IDL

U - Compound was analyzed for but not detected

EPA Qualifiers--assigned as a result of independent data validation

None

2003 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

2005 Validation Qualifiers

J - Indicates an estimated value

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 7-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-17**

| Well Number | TH-22 | | | | | W-4 [2] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | |
| Acetone | ND | 3 J | <5 | <10 | NS | ND | <5 | <5 | <10 | ND |
| Benzene | ND | <3 | <5 | 4.3 | NS | ND | <3 | <5 | <1 | ND |
| 2-Butanone | ND | 2 J | <5 | <10 | NS | ND | <5 | <5 | <10 | NA |
| n-Butylbenzene | ND | ND | ND | ND | NS | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 5.9 | NA | <5 | NA | NS | ND | NA | <5 | NA | ND |
| tert-Butylmethyl ether[3] (MTBE) | ND | NA | 1.4 J | 2.3 | NS | ND | NA | <5 | <1 | ND |
| Chloroform | ND | <3 | <5 | <1 | NS | ND | 2 J | 2.2 J | <1 | 0.79 J |
| 1,1-Dichloroethane | ND | ND | ND | ND | NS | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | <3 | 5.1 | **14** | NS | ND | <3 | <5 | <1 | ND |
| 1,2-Dichloropropane | ND | <3 | <5 | <1 | NS | ND | <3 | <5 | <1 | ND |
| Ethylbenzene | ND | <3 | <5 | 1.8 | NS | ND | <3 | <5 | <1 | ND |
| Isopropylbenzene | ND | ND | ND | ND | NS | ND | ND | ND | ND | ND |
| Naphthalene | ND | ND | ND | ND | NS | ND | ND | ND | ND | ND |
| n-Propylbenzene | ND | ND | ND | ND | NS | ND | ND | ND | ND | ND |
| Toluene | ND | <5 | <5 | 0.3 J | NS | ND | <5 | <5 | <1 | ND |
| 1,1,2,2-Tetrachloroethane | ND | <5 | <5 | 4.3 | NS | ND | <5 | <5 | <1 | ND |
| 1,2,4-Trimethylbenzene[3] | 7.9 | NA | <5 | NA | NS | ND | NA | <5 | <1 | ND |
| m,p-Xylene | ND | ND | ND | ND | NS | ND | ND | ND | ND | ND |
| Filterable Residue (mg/L) | | | | | | | | | | |
| TDS[4] | NA | NA | NA | NA | NS | NA | NA | NA | NA | **3,080** |

Notes:

[1] Unless otherwise reported, no VOCs were
(EPA Method 8260A was used to analyze

[2] Upgradient monitoring well

[3] Analyte not reported in 1999

[4] Total Dissolved Solids (TDS) were analyz

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

MTBE - Methyl Tert Butyl Ether (tert-Butylm

NA - Not analyzed

ND - Not detected at or above method repo

NS - Not sampled

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

## Table 8-1. Summary of 2005 LTM Program at LF-21

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| MW-21-01<br>MW-21-02<br>MW-21-03<br>MW-21-04 | VOCs (8260B)<br>TAL Metals (6010B)<br>Pesticides (8081A)<br>Herbicides (8151)<br>TDS (160.1) | TCE, Arsenic, Calcium, Magnesium, Manganese, Potassium; Sodium, Thallium, Vanadium, Pentachlorophenol, TDS | Manganese, TDS | 1<br>(MW-21-04) | 5 |

## Table 8-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-21

| Well Number | MW-21-01 [5] | | | | | | MW-21-02 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.5 J |
| Chloroform | ND | ND | ND | ND | NA | ND | ND | ND | ND | ND | NA | ND |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | NA | 0.53 J | ND | ND | ND | ND | NA | ND |
| Methylene chloride | ND | 5.1 UB | <3 | NA | NA | ND | ND | 5 UB | <3 | NA | NA | ND |
| Trichloroethylene | ND | 5.4 | 11 | 13 | 15 | 13.3 | ND | ND | <3 | <5 | <1 | ND |
| Metals[2] (µg/L) | | | | | | | | | | | | |
| Arsenic | ND | ND | 16.2 B (J) | 11.8 (J) | 21.2 | 11.0 | ND | ND | 13.0 B (J) | 7.2 B (J) | <100 | 14.8 |
| Barium | ND | 17 | 18.6 B (J) | NA | 15.7 | 17.7 J | ND | 40 | 32.1 B (J) | NA | 19.5 J | 41.9 J |
| Cadmium | ND | ND | <0.3 | NA | NA | 0.60 U | ND | ND | 0.3 B | NA | NA | 0.75 J |
| Calcium | NA | NA | NA | NA | NA | 838,000 | NA | NA | NA | NA | NA | 1,780,000 |
| Chromium | ND | ND | 9.3 B (J) | <20 | NA | 0.50 U | ND | ND | <0.6 | <20 | NA | 0.50 U |
| Cobalt | NA | NA | NA | NA | NA | 1.0 J | NA | NA | NA | NA | NA | 5.8 J |
| Iron | ND | ND | <21 | <1000 | <200 | 3,800 U | ND | ND | <21 | <1,000 | <200 | 3,800 U |
| Magnesium | NA | NA | NA | NA | NA | 718,000 | NA | NA | NA | NA | NA | 2,010,000 |
| Manganese | ND | ND | 2.1 B (J) | 139 (J) | 12.3 | 8.0 J | ND | ND | 0.6 B (J) | <10 (UJ) | <100 | **789** |
| Nickel | NA | NA | NA | NA | NA | 1.1 U | NA | NA | NA | NA | NA | 1.8 J |
| Potassium | NA | NA | NA | NA | NA | 62,000 | NA | NA | NA | NA | NA | 151,000 |
| Selenium | ND | ND | 6.2 B (J) | NA | <10 | 96 U | ND | ND | 11.3 B (J) | NA | <100 | 240 U |
| Sodium | NA | NA | NA | NA | NA | 1,740,000 | NA | NA | NA | NA | NA | 5,080,000 |
| Thallium | NA | NA | NA | NA | NA | 7.1 J | NA | NA | NA | NA | NA | 10.8 |
| Vanadium | NA | NA | NA | NA | NA | 51.4 | NA | NA | NA | NA | NA | 24.7 J |
| Zinc | NA | NA | NA | NA | NA | 11.6 J | NA | NA | NA | NA | NA | 3.4 J |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Chlorinated Herbicides[4] (µg/L) | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | |
| TDS[6] | NA | NA | NA | NA | NA | **11,300** | NA | NA | NA | NA | NA | **29,700** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Unless otherwise reported, no chlorinated herbicides were detected using EPA Method 8151.
(EPA Method 8150B was used to analyze for chlorinated herbicides in the 1995 and 1997 programs.)

[5] Upgradient monitoring well

[6] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
B - Value less than CRDL but greater than or equal to IDL
UB - Qualifies as non-detect due to presence of analyte in associated laboratory blank

EPA Qualifiers--assigned as a result of independent data validation
(J) - Estimated value based on QC criteria
(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 8-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-21

| Well Number | MW-21-03 | | | | | | MW-21-04 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | ND | ND | ND | ND | NA | ND | ND | ND | ND | ND | NA | 5.1 J |
| Chloroform | ND | ND | ND | ND | NA | ND | ND | ND | ND | ND | NA | ND |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | NA | ND | ND | ND | ND | ND | NA | ND |
| Methylene chloride | ND | 5.4 UB | <3 | NA | NA | ND | ND | 4.7 UB | <3 | NA | NA | ND |
| Trichloroethylene | ND | ND | <3 | <5 | <1 | ND | ND | ND | <3 | <5 | <1 | ND |
| Metals[2] (µg/L) | | | | | | | | | | | | |
| Arsenic | ND | ND | 11.6 B (J) | 12 (J) | 16.1 | 12.4 | ND | ND | 4.6 B (J) | 6.7 B (J) | 11.8 | 2.9 U |
| Barium | ND | 36 | 36.1 B (J) | NA | 26.8 | 33.2 J | ND | 38 | 37.1 B (J) | NA | 24.7 | 36.2 J |
| Cadmium | ND | ND | 0.6 B | NA | NA | 0.60 U | ND | ND | 0.7 B | NA | NA | 0.77 J |
| Calcium | NA | NA | NA | NA | NA | 2,010,000 | NA | NA | NA | NA | NA | 2,310,000 |
| Chromium | ND | ND | <0.6 | <20 | NA | 0.50 U | ND | ND | <0.6 | <200 | NA | 0.50 U |
| Cobalt | NA | NA | NA | NA | NA | 1.1 J | NA | NA | NA | NA | NA | 3.9 J |
| Iron | ND | ND | <21 | <1000 | 67.4 J | 7,500 U | ND | 600 | 936 | **3,440 B** | 89.2 J | 3,800 U |
| Magnesium | NA | NA | NA | NA | NA | 2,190,000 | NA | NA | NA | NA | NA | 2,500,000 |
| Manganese | ND | 50 | 34.8 (J) | 42.1 (J) | 19.2 | 12.0 J | ND | ND | 78.5 (J) | 62.5 (J) | 18.6 | 141 |
| Nickel | NA | NA | NA | NA | NA | 1.1 U | NA | NA | NA | NA | NA | 1.1 U |
| Potassium | NA | NA | NA | NA | NA | 149,000 | NA | NA | NA | NA | NA | 148,000 |
| Selenium | ND | ND | 12.4 B (J) | NA | 13.4 J | 240 U | ND | ND | 11.5 B (J) | NA | 12.6 J | 240 U |
| Sodium | NA | NA | NA | NA | NA | 5,300,000 | NA | NA | NA | NA | NA | 6,220,000 |
| Thallium | NA | NA | NA | NA | NA | 7.4 J | NA | NA | NA | NA | NA | 6.2 J |
| Vanadium | NA | NA | NA | NA | NA | 47.2 J | NA | NA | NA | NA | NA | 22.1 J |
| Zinc | NA | NA | NA | NA | NA | 2.2 J | NA | NA | NA | NA | NA | 4.1 J |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Chlorinated Herbicides[4] (µg/L) | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | |
| TDS[6] | NA | NA | NA | NA | NA | **24,200** | NA | NA | NA | NA | NA | **36,700** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Unless otherwise reported, no chlorinated herbicides were detected using EPA Method 8151.
(EPA Method 8150B was used to analyze for chlorinated herbicides in the 1995 and 1997 programs.)

[5] Upgradient monitoring well

[6] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
NA - Not analyzed
ND - Not detected at or above method reporting limit
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
B - Value less than CRDL but greater than or equal to IDL
UB - Qualifies as non-detect due to presence of analyte in associated laboratory blank

EPA Qualifiers--assigned as a result of independent data validation
(J) - Estimated value based on QC criteria
(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 9-1. Summary of 2005 LTM Program at LF-29

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| MW-29-01<br>MW-29-03<br>MW-29-04<br>MW-29-05<br>MW-29-06<br>MW-29-07<br>MW-29-08 | VOCs (8260B)<br>SVOCs (8270C)<br>TDS (160.1) | Benzene, sec-Butylbenzene, tert-Butylbenzene, Chloroform, 1,2-Dichloroethane, Isopropylbenzene, TCE, TDS | 1,2-Dichloroethane, TDS | 1<br>(MW-29-05) | 8 |

**Table 9-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-29**

| Well Number | MW-29-01 | | | | | MW-29-03 | | | | | MW-29-04 | | | | | MW-29-05[3] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.54 J | <3 | <5 | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | 3.6 |
| Bromoform | 0.64 J | <3 | <5 | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND |
| sec-Butylbenzene | NA | NA | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | 2.4 |
| tert-Butylbenzene | NA | NA | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | 1.5 |
| Chloroform | ND | <3 | <5 | <1 | ND | NS | NS | NS | NS | 6.0 | NS | NS | NS | NS | 1.8 | NS | NS | NS | NS | ND |
| 1,2-Dichloroethane | ND | <3 | <5 | <1 | ND | NS | NS | NS | NS | 7.3 | NS | NS | NS | NS | 8.4 | NS | NS | NS | NS | **90.6** |
| o-Dichlorobenzene | NA | NA | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | 0.85 J |
| Isopropylbenzene | NA | NA | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | 4.6 |
| Methylene chloride | 2.5 UB | <3 | <5 | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND |
| Naphthalene | ND | <5 | <5 | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND |
| Trichloroethylene | NA | NA | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | 5.5 |
| SVOCs[2] (µg/L) | | | | | | | | | | | | | | | | | | | | |
| Butyl benzyl phthalate | ND | <5 | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND |
| Di-n-butyl phthalate | ND | <5 | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND |
| bis(2-Ethylhexyl)phthalate | ND | 1 J | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND |
| Phenol | ND | 2 J | NA | NA | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND | NS | NS | NS | NS | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | | | | | | |
| TDS[4] | NA | NA | NA | NA | **32,200** | NS | NS | NS | NS | **7,660** | NS | NS | NS | NS | **11,000** | NS | NS | NS | NS | **17,700** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1997 program.)

[2] Unless otherwise reported, no SVOCs were detected using EPA Method 8270C.
(EPA Method 8270B was used to analyze for SVOCs in the 1997 program.)

[3] Upgradient monitoring well

[4] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

NA - Not analyzed

ND - Not detected at or above method reporting limit

NS - Not sampled

SVOCs - Semivolatile organic compounds

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

J - Estimated value; less than CRDL but greater than or equal to IDL

UB - Qualifies as nondetect due to presence of analyte in associated laboratory blank

EPA Qualifiers--assigned as a result of independent data validation

None

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 9-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at LF-29**

| Well Number | MW-29-06 | | | | | MW-29-07 | | | | | MW-29-08 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | |
| Benzene | ND | <3 | <5 | NA | ND | ND | <3 | <5 | NA | ND | ND | <3 | <5 | NA | ND |
| Bromoform | ND | <3 | <5 | NA | ND | ND | <3 | <5 | NA | ND | ND | <3 | <5 | NA | ND |
| sec-Butylbenzene | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND |
| tert-Butylbenzene | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND |
| Chloroform | ND | <3 | <5 | <1 | ND | 3.6 | 4 | 2.7 J | 1.9 | 1.8 | ND | <3 | <5 | 0.25 (J) | ND |
| 1,2-Dichloroethane | ND | 6 | 3.4 J | 3 | 2.3 | ND | **11** | **18** | **15** | **26.6** | ND | **15** | **18** | **16** | **23.3** |
| o-Dichlorobenzene | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND |
| Isopropylbenzene | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND |
| Methylene chloride | ND | <3 | <5 | NA | ND | ND | <3 | <5 | NA | ND | ND | <3 | <5 | NA | ND |
| Naphthalene | ND | <5 | <5 | NA | ND | ND | <5 | <5 | NA | ND | ND | <5 | <5 | NA | ND |
| Trichloroethylene | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND | NA | NA | NA | NA | ND |
| SVOCs[2] (µg/L) | | | | | | | | | | | | | | | |
| Butyl benzyl phthalate | ND | <5 | NA | NA | ND | ND | 1 J | NA | NA | ND | ND | <5 | NA | NA | ND |
| Di-n-butyl phthalate | 1.6 UB | <5 | NA | NA | ND | ND | <5 | NA | NA | ND | ND | <5 | NA | NA | ND |
| bis(2-Ethylhexyl)phthalate | ND | 1 J | NA | NA | ND | ND | 1 J | NA | NA | ND | ND | 1 J | NA | NA | ND |
| Phenol | ND | <5 | NA | NA | ND | ND | <5 | NA | NA | ND | ND | <5 | NA | NA | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | |
| TDS[4] | NA | NA | NA | NA | **17,800** | NA | NA | NA | NA | **17,300** | NA | NA | NA | NA | **15,800** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1997 program.)

[2] Unless otherwise reported, no SVOCs were detected using EPA Method 8270C.
(EPA Method 8270B was used to analyze for SVOCs in the 1997 program.)

[3] Upgradient monitoring well

[4] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

NA - Not analyzed

ND - Not detected at or above method reporting limit

NS - Not sampled

SVOCs - Semivolatile organic compounds

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

J - Estimated value; less than CRDL but greater than or equal to IDL

UB - Qualifies as nondetect due to presence of analyte in associated laboratory blank

EPA Qualifiers--assigned as a result of independent data validation

None

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 10-1. Summary of 2005 LTM Program at DP-30 and SD-33

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| MW-30&33-01<br>MW-30&33-02<br>MW-30&33-03<br>MW-30&33-04 | VOCs (8260B)<br>TAL Metals (6010B & 7470A)<br>Pesticides (8081A)<br>Herbicides (8151)<br>TDS (160.1) | Chloroform, 1,1-Dichloroethane, TCE, Arsenic, Calcium, Magnesium, Potassium, Sodium, TDS | TDS | 1<br>(MW-30&33-04) | 5 |

## Table 10-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at DP-30 & SD-33

| Well Number | MW-30/33-01 [5] | | | | | | MW-30/33-02 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | ND | ND | <5 | <5 | NA | ND | ND | 3.1 J | <5 | <5 | NA | ND |
| Bromodichloromethane | ND | ND | <3 | <5 | NA | ND | ND | ND | <3 | <5 | NA | ND |
| Bromoform | ND | ND | <3 | <5 | NA | ND | ND | 0.73 J | <3 | <5 | NA | ND |
| Chloroform | ND | ND | <3 | <5 | <1 | 2.0 | ND | 0.76 J | <3 | <5 | 0.32 (J) | ND |
| 1,1-Dichloroethane | ND | ND | <3 | <5 | <1 | 5.8 | ND | ND | <3 | <5 | <1 | ND |
| 1,1-Dichloroethylene | ND | ND | <3 | <5 | NA | ND | ND | ND | <3 | <5 | NA | ND |
| cis-1,2-Dichloroethylene | ND | ND | <3 | <5 | NA | ND | ND | ND | <3 | <5 | NA | ND |
| Methylene chloride | ND | 19 UB | <3 | <5 | NA | ND | ND | 3.8 UB | <3 | <5 | NA | ND |
| 1,1,1-Trichloroethane | ND | ND | <3 | <5 | NA | ND | ND | ND | <3 | <5 | NA | ND |
| Trichloroethylene | ND | ND | <3 | <5 | <1 | 26.6 | ND | ND | <3 | <5 | <1 | 1.0 |
| Metals[2] (µg/L) | | | | | | | | | | | | |
| Arsenic | ND | ND | 12.4 B (J) | 9.0 B | 18.3 | 8.9 J | ND | ND | 11.7 B (J) | 6.4 B | 12.4 | 12.9 |
| Barium | ND | ND | 12.4 B (J) | 9.7 B | 7.92 J | 12.9 J | ND | 22 | 22.4 B (J) | 16.3 | 15.9 | 15.3 J |
| Cadmium | NA | NA | NA | NA | NA | 0.60 U | NA | NA | NA | NA | NA | 0.60 U |
| Calcium | NA | NA | NA | NA | NA | 792,000 | NA | NA | NA | NA | NA | 971,000 |
| Chromium | NA | NA | NA | NA | NA | 0.50 U | NA | NA | NA | NA | NA | 0.50 U |
| Cobalt | NA | NA | NA | NA | NA | 1.9 J | NA | NA | NA | NA | NA | 0.73 J |
| Iron | ND | ND | <21 | <1,000 | <200 | 3,000 U | ND | ND | <21 | <1,000 | 74.7 UJ | 3,000 U |
| Magnesium | NA | NA | NA | NA | NA | 1,360,000 | NA | NA | NA | NA | NA | 1,510,000 |
| Manganese | ND | ND | 0.5 B | NA | NA | 4.3 J | ND | ND | <0.2 | NA | NA | 5.3 J |
| Nickel | NA | NA | NA | NA | NA | 1.3 J | NA | NA | NA | NA | NA | 1.1 U |
| Potassium | NA | NA | NA | NA | NA | 4,140 J | NA | NA | NA | NA | NA | 21,000 |
| Selenium | ND | 10 | 21.8 B (J) | 12.9 | 17.6 | 48 U | ND | 23 | 27 B (J) | 14.5 | 33.7 | 60 U |
| Sodium | NA | NA | NA | NA | NA | 5,560,000 | NA | NA | NA | NA | NA | 6,960,000 |
| Thallium | NA | NA | NA | NA | NA | 6.8 J | NA | NA | NA | NA | NA | 7.8 J |
| Vanadium | NA | NA | NA | NA | NA | 29.4 J | NA | NA | NA | NA | NA | 27.2 J |
| Zinc | NA | NA | NA | NA | NA | 3.3 J | NA | NA | NA | NA | NA | 4.7 J |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Chlorinated Herbicides[4] (µg/L) | | | | | | | | | | | | |
| All | NA | ND | NA | NA | NA | ND | NA | ND | NA | NA | NA | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | |
| TDS[6] | NA | NA | NA | NA | NA | **24,500** | NA | NA | NA | NA | NA | **24,900** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.
(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected using EPA Method 8081A.
(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Unless otherwise reported, no chlorinated herbicides were detected using EPA Method 8151.
(EPA Method 8150B was used to analyze for chlorinated herbicides in the 1995 and 1997 programs.)

[5] Upgradient monitoring well

[6] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

NA - Not analyzed

ND - Not detected at or above method reporting limit

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

B - Value less than CRDL but greater than or equal to IDL

J - Estimated value; less than CRDL but greater than or equal to IDL

UB - Qualifies as nondetect due to presence of analyte in associated laboratory blank

EPA Qualifiers--assigned as a result of independent data validation

(J) - Estimated value based on QC criteria

(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 10-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at DP-30 & SD-33**

| Well Number | MW-30/33-03 | | | | | | MW-30/33-04 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | ND | ND | <5 | <5 | NA | ND | ND | ND | <5 | <5 | NA | ND |
| Bromodichloromethane | ND | ND | <3 | <5 | NA | ND | ND | ND | 1 J | <5 | NA | ND |
| Bromoform | ND | ND | <3 | <5 | NA | ND | ND | ND | <3 | <5 | NA | ND |
| Chloroform | ND | ND | <3 | <5 | 0.43 (J) | 0.63 J | ND | 4.7 | 5 | 2.8 J | 2.6 | ND |
| 1,1-Dichloroethane | ND | ND | <3 | <5 | 0.42 (J) | 1.1 | 22 | 25 | **27** | 13 | 9.3 | ND |
| 1,1-Dichloroethylene | ND | ND | <3 | <5 | NA | ND | ND | ND | 2 J | <5 | NA | ND |
| cis-1,2-Dichloroethylene | ND | ND | <3 | <5 | NA | ND | ND | 2.9 J | 2 J | <5 | NA | ND |
| Methylene chloride | ND | 3.7 UB | <3 | <5 | NA | ND | ND | ND | <3 | <5 | NA | ND |
| 1,1,1-Trichloroethane | ND | ND | <3 | <5 | NA | ND | ND | ND | 1 J | <5 | NA | ND |
| Trichloroethylene | ND | ND | <3 | <5 | 2.8 | 7.6 | 110 | 100 | **150** | 52 | 44 | ND |
| Metals[2] (µg/L) | | | | | | | | | | | | |
| Arsenic | ND | ND | 4.3 B (J) | 2.0 B | <10 | 3.4 J | ND | ND | 14 B (J) | 9.3 B | 23.3 | 14.4 |
| Barium | ND | 24 | 26.3 B (J) | 19.5 | 15.4 | 22.5 J | ND | ND | 15.8 B (J) | 14 | 10.9 | 12.3 J |
| Cadmium | NA | NA | NA | NA | NA | 0.74 J | NA | NA | NA | NA | NA | 0.60 U |
| Calcium | NA | NA | NA | NA | NA | 990,000 | NA | NA | NA | NA | NA | 772,000 |
| Chromium | NA | NA | NA | NA | NA | 0.97 J | NA | NA | NA | NA | NA | 0.61 J |
| Cobalt | NA | NA | NA | NA | NA | 1.7 J | NA | NA | NA | NA | NA | 0.40 U |
| Iron | ND | ND | <110 | <1,000 | 21.7 UJ | 3,800 U | ND | 300 | <110 | <1,000 | 200 | 3,000 U |
| Magnesium | NA | NA | NA | NA | NA | 1,710,000 | NA | NA | NA | NA | NA | 1,220,000 |
| Manganese | ND | ND | 0.2 B | NA | NA | 4.1 J | ND | ND | 1.7 B | NA | NA | 1.1 J |
| Nickel | NA | NA | NA | NA | NA | 2.1 J | NA | NA | NA | NA | NA | 2.0 J |
| Potassium | NA | NA | NA | NA | NA | 11,100 | NA | NA | NA | NA | NA | 15,800 |
| Selenium | ND | 35 | 24.4 B (J) | 15.7 | 25.9 | 60 U | ND | 14 | 21.3 B (J) | 13.2 | 17.9 | 48 U |
| Sodium | NA | NA | NA | NA | NA | 7,760,000 | NA | NA | NA | NA | NA | 5,570,000 |
| Thallium | NA | NA | NA | NA | NA | 4.0 J | NA | NA | NA | NA | NA | 3.8 U |
| Vanadium | NA | NA | NA | NA | NA | 18.0 J | NA | NA | NA | NA | NA | 39.0 J |
| Zinc | NA | NA | NA | NA | NA | 4.0 J | NA | NA | NA | NA | NA | 1.5 J |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| All | ND | ND | NA | NA | NA | ND | ND | ND | NA | NA | NA | ND |
| Chlorinated Herbicides[4] (µg/L) | | | | | | | | | | | | |
| All | NA | ND | NA | NA | NA | ND | NA | ND | NA | NA | NA | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | |
| TDS[6] | NA | NA | NA | NA | NA | **30,200** | NA | NA | NA | NA | NA | **24,300** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.

(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.

(EPA Methods 6010 & 7000 were used to analyze for metals in the 1995 and 1997 programs.)

[3] Unless otherwise reported, no organochlorine pesticides were detected using EPA Method 8081A.

(EPA Method 8080A was used to analyze for organochlorine pesticides in the 1995 and 1997 programs.)

[4] Unless otherwise reported, no chlorinated herbicides were detected using EPA Method 8151.

(EPA Method 8150B was used to analyze for chlorinated herbicides in the 1995 and 1997 programs.)

[5] Upgradient monitoring well

[6] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

NA - Not analyzed

ND - Not detected at or above method reporting limit

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

B - Value less than CRDL but greater than or equal to IDL

J - Estimated value; less than CRDL but greater than or equal to IDL

UB - Qualifies as nondetect due to presence of analyte in associated laboratory blank

EPA Qualifiers--assigned as a result of independent data validation

(J) - Estimated value based on QC criteria

(UJ) - Estimated non-detect based on QC criteria

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 11-1. Summary of 2005 LTM Program at SS-39

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| MW-39-01<br>MW-39-02<br>MW-39-03<br>MW-39-04 | VOCs (8260B)<br>TDS (160.1) | TCE, Carbon Tetrachloride, Chloroform, TDS | TDS | None | 4 |

## Table 11-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-39

| Well Number | MW-39-01 [2] | | | | | MW-39-02 [4] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Feb-06 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | |
| Acetone | ND | <5 | <5 | <10 | ND | ND | <5 | <5 | <10 | ND |
| Carbon disulfide | ND | <3 | <5 | <1 | ND | ND | <3 | <5 | <1 | ND |
| Carbon tetrachloride | ND | <3 | <5 | <1 | ND | 8.3 J | 4 | 3.1 J | 2.2 | ND |
| Chloroform | 1.1 J | <3 | <5 | <1 | ND | 3.8 | 2 J | 1.9 J | 0.8 (J) | 1.6 |
| 1,1-Dichloroethene | ND | <3 | <5 | <1 | ND | ND | 1 J | <5 | <1 | ND |
| Methyl ethyl ketone | ND | <5 | <5 | NA | ND | ND | <5 | <5 | NA | ND |
| Trichloroethylene | ND | <3 | <5 | <1 | ND | 38 | 45 | 39 | 3.4 | 0.79 J |
| Filterable Residue (mg/L) | | | | | | | | | | |
| TDS[3] | NA | NA | NA | NA | **5,670** | NA | NA | NA | NA | **17,200** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1997 program.)

[2] Upgradient monitoring well

[3] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

[4] Monitoring Well MW-39-02 is downgradient of SWMU 177

[5] Monitoring Well MW-39-03 is downgradient of SWMU 179

[6] Monitoring Well MW-39-04 is downgradient of SWMU 167

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

ND - Not detected at or above method reporting limit

NA - Not Analyzed

NS - Not Sampled

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

J - Estimated value; less than CRDL but greater than or equal to IDL

EPA Qualifiers--assigned as a result of independent data validation

None

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 11-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-39**

| Well Number | MW-39-03 [5] | | | | | MW-39-04 [6] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Feb-06 |
| VOCs[1] (μg/L) | | | | | | | | | | |
| Acetone | ND | <5 | <5 | <10 | ND | ND | <5 | 57 | <10 | ND |
| Carbon disulfide | 14 | <3 | <5 | <1 | ND | ND | <3 | <5 | <1 | ND |
| Carbon tetrachloride | ND | <3 | <5 | <1 | 5.0 | ND | <3 | <5 | <1 | ND |
| Chloroform | ND | 1 J | 1.1 J | 1.1 | 1.9 | ND | <3 | <5 | <1 | ND |
| 1,1-Dichloroethene | ND | <3 | <5 | <1 | ND | ND | <3 | <5 | <1 | ND |
| Methyl ethyl ketone | ND | <5 | <5 | NA | ND | ND | <5 | 17 | NA | ND |
| Trichloroethylene | ND | 1 J | <5 | 0.71 (J) | 5.2 | ND | ND | <5 | <1 | ND |
| Filterable Residue (mg/L) | | | | | | | | | | |
| TDS[3] | NA | NA | NA | NA | **10,400** | NA | NA | NA | NA | **14,100** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1997 program.)

[2] Upgradient monitoring well

[3] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

[4] Monitoring Well MW-39-02 is downgradient of SWMU 177

[5] Monitoring Well MW-39-03 is downgradient of SWMU 179

[6] Monitoring Well MW-39-04 is downgradient of SWMU 167

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

ND - Not detected at or above method reporting limit

NA - Not Analyzed

NS - Not Sampled

VOCs - Volatile organic compounds

μg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

J - Estimated value; less than CRDL but greater than or equal to IDL

EPA Qualifiers--assigned as a result of independent data validation

None

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 12-1. Summary of 2005 LTM Program at SS-46

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| MW-46-01<br>MW-46-02<br>MW-46-03 | VOCs (8260B)<br>TDS (160.1) | TDS | TDS | None | 3 |

**Table 12-2. Summary of Analytical Results from the 1997, 1999, 2001, 2003, and 2005 Long-Term Monitoring Programs at SS-46**

| Well Number | MW-46-01 | | | | | MW-46-02 [2] | | | | | MW-46-03 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | |
| Benzene | ND | ND | ND | NA | ND | ND | ND | ND | NA | ND | ND | ND | ND | NA | 0.52 J |
| Bromodichloromethane | ND | <3 | 5.4 | 1.7 | ND | ND | <3 | 5.4 | <1 | ND | ND | <3 | <5 | <1 | ND |
| Chloroform | ND | <3 | 7.4 | 4.7 | 0.99 J | ND | <3 | 2.9 J | 0.22 (J) | ND | ND | <3 | <5 | 0.37 (J) | ND |
| Methylene chloride | ND | <3 | 1.2 J | <2 | ND | ND | <3 | <5 | <2 | ND | ND | <3 | <5 | <2 | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | |
| TDS[3] | NA | NA | NA | NA | **8,380** | NA | NA | NA | NA | **8,000** | NA | NA | NA | NA | **6,390** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1997 program.)

[2] Upgradient monitoring well

[3] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

CRDL - Contract-Required Detection Limit

IDL - Instrument Detection Limit

ND - Not detected at or above method reporting limit

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures

J - Estimated value; less than CRDL but greater than or equal to IDL

EPA Qualifiers--assigned as a result of independent data validation

None

2003/2005 Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

UJ - Estimated as a non-detect at the detection limit

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

## Table 13-1. Summary of 2005 LTM Program at SS-48

| Well Numbers | Analyses (EPA Methods) | Analytes Detected Above CRDLs | Analytes Exceeding NMGWQ Standards | QA Samples | Number of Samples |
|---|---|---|---|---|---|
| S55-MW2<br>S55-MW3<br>S55-MW4<br>S55-MW5<br>S55-MW6<br>S55-MW7 | VOCs (8260B)<br>TDS (160.1) | Benzene, sec-Butylbenzene, MTBE, Chloroform, 1,2-Dichloroethane, Ethylbenzene, Isopropylbenzene, TCE, TDS | Benzene, TDS | None | 6 |

**Table 13-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003 and 2005 Long-Term Monitoring Programs at SS-48**

| Well Number | S55-MW2 [2] | | | | | | S55-MW3 [2] | | | | | | S55-MW4 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | | | | |
| Acetone | ND | ND | <5 | <5 | <10 | ND | NA | NA | NA | NA | <10 | ND | ND | ND | <5 | <5 | <10 | ND |
| Benzene | ND | ND | <3 | <5 | <1 | ND | NA | NA | NA | NA | 0.38 (J) | ND | ND | ND | <3 | <5 | <1 | ND |
| Bromodichloromethane | ND | 1.3 J | <3 | <5 | <1 | ND | NA | NA | NA | NA | <1 | 0.57 J | ND | 2.2 J | <3 | <5 | <1 | ND |
| 2-Butanone | ND | ND | <5 | <5 | <10 | ND | NA | NA | NA | NA | <10 | ND | ND | ND | <5 | <5 | <10 | ND |
| sec-Butylbenzene | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND |
| tert-Butylmethyl ether[3] (MTBE) | ND | ND | NA | <5 | <1 | ND | NA | NA | NA | NA | 7.7 | ND | ND | ND | NA | <5 | <1 | ND |
| Carbon disulfide | ND | ND | ND | ND | <1 | ND | NA | NA | NA | NA | <1 | ND | ND | ND | ND | ND | <1 | ND |
| Chloroform | ND | 2.6 J | 2 J | <5 | 1.1 | 2.8 | NA | NA | NA | NA | 1.5 | 4.0 | ND | 2.4 J | <3 | <5 | 0.64 (J) | 1.4 |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | <1 | ND | NA | NA | NA | NA | 0.21 (J) | ND | ND | ND | ND | ND | <1 | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | <1 | ND | NA | NA | NA | NA | 0.41 (J) | ND | ND | ND | ND | ND | <1 | ND |
| 1,2-Dichloroethane | ND | ND | <3 | <5 | <1 | ND | NA | NA | NA | NA | <1 | ND | ND | ND | <3 | <5 | <1 | ND |
| Ethylbenzene | ND | ND | <3 | <5 | <1 | ND | NA | NA | NA | NA | 1.4 | ND | ND | 0.81 J | <3 | <5 | <1 | ND |
| Freon 113 | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | 0.63 J |
| Isopropylbenzene | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND |
| Methylene chloride | ND | 1.7 UB | <3 | <5 | <2 | ND | NA | NA | NA | NA | <2 | ND | ND | 1.6 UB | <3 | <5 | <2 | ND |
| Naphthalene | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND |
| n-Propylbenzene | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND | NA | NA | NA | NA | NA | ND |
| Tetrachloroethene | ND | ND | ND | ND | 2.3 | ND | NA | NA | NA | NA | 0.24 (J) | ND | ND | ND | ND | ND | 0.33 (J) | ND |
| 1,1,1-Trichloroethane | ND | ND | <3 | <5 | <1 | ND | NA | NA | NA | NA | <1 | ND | ND | ND | <3 | <5 | <1 | ND |
| Trichloroethylene | 6.6 | ND | <3 | <5 | 24 | 10.4 | NA | NA | NA | NA | 29 | 13.0 | ND | ND | <3 | <5 | 1.1 | 25.2 |
| Toluene | ND | ND | <3 | <5 | <1 | ND | NA | NA | NA | NA | <1 | ND | ND | 1.2 | <3 | <5 | <1 | ND |
| Styrene | ND | ND | <3 | <5 | <1 | ND | NA | NA | NA | NA | <1 | ND | ND | ND | <3 | <5 | <1 | ND |
| o-Xylene | ND | ND | <3 | <5 | <1 | ND | NA | NA | NA | NA | 6.2 | ND | ND | 0.74 J | <3 | <5 | <1 | ND |
| m,p-Xylene | ND | ND | <3 | <10 | <2 | ND | NA | NA | NA | NA | 6.6 | ND | ND | 2.1 | <3 | <10 | <2 | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | | | | |
| TDS[4] | NA | NA | NA | NA | NA | **11,500** | NA | NA | NA | NA | NA | **6,110** | NA | NA | NA | NA | NA | **10,200** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)
[2] Upgradient monitoring wells
[3] Analyte not reported in 1999
[4] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1
CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
MTBE - Methyl Tert Butyl Ether (tert-Butylmethyl ether)
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not Sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L -Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
D - Value derived from analysis of diluted sample
J - Estimated value; less than CRDL but greater than or equal to IDL
UB - Qualifies as non-detect due to presence of analyte in associated laboratory blank

EPA Qualifiers--assigned as a result of independent data validation
None

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

Bold values indicate analytes above New Mexico Groundwater Quality Standards.

**Table 13-2. Summary of Analytical Results from the 1995, 1997, 1999, 2001, 2003 and 2005 Long-Term Monitoring Programs at SS-48**

| Well Number | S55-MW5 | | | | | | S55-MW6 | | | | | | S55-MW7 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 | Aug-95 | Sep-97 | Sep-99 | Sep-01 | Apr-03 | Dec-05 |
| VOCs[1] (µg/L) | | | | | | | | | | | | | | | | | | |
| Acetone | ND | ND | 4 J | <50 | <10 | 19.4 J | NS | NS | NS | NS | NS | ND | ND | ND | <5 | <5 | <10 | ND |
| Benzene | **38** | ND | **170 D** | **560** | **100** | **83.0** | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <5 | 0.5 (J) | ND |
| Bromodichloromethane | ND | ND | <3 | <50 | <1 | ND | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <5 | <1 | ND |
| 2-Butanone | ND | ND | <5 | <50 | <10 | ND | NS | NS | NS | NS | NS | ND | ND | ND | <5 | <5 | <10 | ND |
| sec-Butylbenzene | NA | NA | NA | NA | NA | 1.4 | NS | NS | NS | NS | NS | ND | NA | NA | NA | NA | NA | ND |
| tert-Butylmethyl ether[3] (MTBE) | ND | 350 | NA | 100 | 25 | 419 | NS | NS | NS | NS | NS | ND | ND | ND | NA | 3 J | 280 | 161 |
| Carbon disulfide | ND | ND | ND | ND | 1.6 | 1.9 J | NS | NS | NS | NS | NS | ND | ND | ND | ND | ND | <1 | ND |
| Chloroform | ND | ND | <3 | <50 | 1.1 | 0.60 J | NS | NS | NS | NS | NS | 2.0 | ND | ND | <3 | <5 | 0.57 (J) | 0.94 J |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | <1 | ND | NS | NS | NS | NS | NS | ND | ND | ND | ND | ND | <1 | ND |
| 1,1-Dichloroethane | ND | ND | ND | ND | <1 | ND | NS | NS | NS | NS | NS | ND | ND | ND | ND | ND | <1 | ND |
| 1,2-Dichloroethane | ND | ND | <3 | <50 | 3.4 | ND | NS | NS | NS | NS | NS | ND | ND | 0.92 J | <3 | <5 | 1.9 | 1.1 |
| Ethylbenzene | ND | ND | **870** D | 19 J | 140 | 6.8 | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <5 | <1 | ND |
| Freon 113 | NA | NA | NA | NA | NA | ND | NS | NS | NS | NS | NS | ND | NA | NA | NA | NA | NA | ND |
| Isopropylbenzene | NA | NA | NA | NA | NA | 1.4 | NS | NS | NS | NS | NS | ND | NA | NA | NA | NA | NA | ND |
| Methylene chloride | ND | ND | <3 | <50 | <2 | ND | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <5 | <2 | ND |
| Naphthalene | NA | NA | NA | NA | NA | 5.2 J | NS | NS | NS | NS | NS | ND | NA | NA | NA | NA | NA | ND |
| n-Propylbenzene | NA | NA | NA | NA | NA | 0.73 J | NS | NS | NS | NS | NS | ND | NA | NA | NA | NA | NA | ND |
| Tetrachloroethene | ND | ND | ND | ND | <1 | ND | NS | NS | NS | NS | NS | ND | ND | ND | ND | ND | <1 | ND |
| 1,1,1-Trichloroethane | ND | ND | <3 | <50 | <1 | ND | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <5 | <1 | ND |
| Trichloroethylene | ND | ND | <3 | <50 | 0.84 (J) | 1.2 | NS | NS | NS | NS | NS | 9.0 | 6.7 | 6.7 | <3 | <5 | 0.38 (J) | ND |
| Toluene | ND | ND | 1 J | <50 | 8.2 | 0.66 J | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <5 | <1 | ND |
| Styrene | ND | ND | 1 J | <50 | <1 | ND | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <5 | <1 | ND |
| o-Xylene | ND | ND | <3 | <50 | 0.22 (J) | ND | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <5 | <1 | ND |
| m,p-Xylene | ND | ND | <3 | <100 | 6.7 | ND | NS | NS | NS | NS | NS | ND | ND | ND | <3 | <10 | <2 | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | | | | | | | |
| TDS[4] | NA | NA | NA | NA | NA | **11,700** | NS | NS | NS | NS | NS | **6,340** | NA | NA | NA | NA | NA | **12,100** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.
(EPA Method 8260A was used to analyze for VOCs in the 1995 and 1997 programs.)
[2] Upgradient monitoring wells
[3] Analyte not reported in 1999
[4] Total Dissolved Solids (TDS) were analyzed using EPA Method 180.1

CRDL - Contract-Required Detection Limit
IDL - Instrument Detection Limit
MTBE - Methyl Tert Butyl Ether (tert-Butylmethyl ether)
NA - Not analyzed
ND - Not detected at or above method reporting limit
NS - Not Sampled
VOCs - Volatile organic compounds
µg/L - Micrograms per liter
mg/L - Milligrams per liter

Laboratory Qualifiers--assigned as a result of laboratory data assessment procedures
D - Value derived from analysis of diluted sample
J - Estimated value; less than CRDL but greater than or equal to IDL
UB - Qualifiise as non-detect due to presence of analyte in associated laboratory blank

EPA Qualifiers--assigned as a result of independent data validation
None

2003/2005 Validation Qualifiers
J - Estimated value detected less than the CRDL but greater than the reporting limit.
U - Compound was analyzed for but not detected. Analyte result was below the CRDL.
UJ - Estimated as a non-detect at the detection limit.

**Bold** values indicate analytes above New Mexico Groundwater Quality Standards.

# APPENDIX A

# DATA QUALITY CONTROL SUMMARY REPORT

Table A-1
Holloman AFB, LTM FY05
Primary Sample and QA Sample Data Comparison

| Site/Well Number | LF-01/S1-MW3 | | SS-02&05/MW-02&05-08 | | SS-17/W-4 | | LF-21/MW-21-04 | | LF-29/MW-29-05 | | DP-30&SD-33/MW-30&33-04 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | Dec-05[5] | | Dec-05 | | Dec-05 | | Dec-05 | | Dec-05 | | Dec-05 | |
| Parameter | Primary Sample Result | QA Duplicate Sample Result | Primary Sample Result | QA Duplicate Sample Result | Primary Sample Result | QA Duplicate Sample Result | Primary Sample Result | QA Duplicate Sample Result | Primary Sample Result | QA Duplicate Sample Result | Primary Sample Result | QA Duplicate Sample Result |
| VOCs[1] (µg/L) | | | | | | | | | | | | |
| Acetone | 11.2 J | 20.7 | ND | ND | ND | ND | 5.1 J | ND | ND | ND | ND | ND |
| Benzene | 319 | 201 | ND | ND | ND | ND | ND | ND | 3.6 | 3.8 | ND | ND |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bromoform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 5.0 | 7.4 | ND | ND | ND | ND | ND | ND | 2.4 | 2.6 | ND | ND |
| tert-Butylbenzene | ND | ND | ND | ND | ND | ND | ND | ND | 1.5 | 1.7 | ND | ND |
| Chloroform | ND | ND | ND | ND | 0.79 J | 0.81 J | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | 9.4 | 9.0 | ND | ND | ND | ND | ND | ND | **90.6** | **95.0** | ND | ND |
| cis-1,2-Dichloroethylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o-Dichlorobenzene | ND | ND | ND | ND | ND | ND | ND | ND | 0.85 J | 0.90 J | ND | ND |
| Isopropylbenzene | 38.6 | 50.3 | ND | ND | ND | ND | ND | ND | 4.6 | 5.0 | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl methacrylate | ND | 7.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethylene | ND | ND | ND | ND | ND | ND | ND | ND | 5.5 | 5.8 | ND | ND |
| Metals[2] (mg/L) | | | | | | | | | | | | |
| Arsenic | 15.5 | NA | NA | NA | NA | NA | 2.9 U | 6.6 J | NA | NA | 14.4 | 11.2 |
| Barium | 10.1 J | NA | NA | NA | NA | NA | 36.2 J | 36.3 J | NA | NA | 12.3 J | 12.0 J |
| Cadmium | NA | NA | NA | NA | NA | NA | 0.77 J | 1.3 J | NA | NA | 0.60 U | 0.60 U |
| Calcium | NA | NA | NA | NA | NA | NA | 2,310,000 | 2,500,000 | NA | NA | 772,000 | 761,000 |
| Chromium | NA | NA | NA | NA | NA | NA | 0.50 U | 0.50 U | NA | NA | 0.61 J | 0.75 J |
| Cobalt | NA | NA | NA | NA | NA | NA | 3.9 J | 5.2 J | NA | NA | 0.40 U | 1.6 J |
| Iron | 3,800 U | NA | NA | NA | NA | NA | 3,800 U | 3,800 U | NA | NA | 3,000 U | 3,000 U |
| Magnesium | NA | NA | NA | NA | NA | NA | 2,500,000 | 2,520,000 | NA | NA | 1,220,000 | 1,190,000 |
| Manganese | **831** | NA | NA | NA | NA | NA | 141 | 146 | NA | NA | 1.1 J | 4.1 J |
| Nickel | NA | NA | NA | NA | NA | NA | 1.1 U | 1.1 U | NA | NA | 2.0 J | 2.7 J |
| Potassium | NA | NA | NA | NA | NA | NA | 148,000 | 148,000 | NA | NA | 15,800 | 16,100 |
| Selenium | 60 U | NA | NA | NA | NA | NA | 240 U | 240 U | NA | NA | 48 U | 48 U |
| Sodium | NA | NA | NA | NA | NA | NA | 6,220,000 | 6,170,000 | NA | NA | 5,570,000 | 5,350,000 |
| Thallium | NA | NA | NA | NA | NA | NA | 6.2 J | 8.6 J | NA | NA | 3.8 U | 3.8 U |
| Vanadium | NA | NA | NA | NA | NA | NA | 22.1 J | 22.3 J | NA | NA | 39.0 J | 37.3 J |
| Zinc | NA | NA | NA | NA | NA | NA | 4.1 J | 4.9 J | NA | NA | 1.5 J | 1.6 J |
| Organochlorine Pesticides[3] (µg/L) | | | | | | | | | | | | |
| All | NA | NA | NA | NA | NA | NA | ND | ND | NA | NA | ND | ND |
| Chlorinated Herbicides[4] (µg/L) | | | | | | | | | | | | |
| Pentachlorophenol | NA | NA | NA | NA | NA | NA | 0.051 | 0.038 J | NA | NA | ND | ND |
| Filterable Residue (mg/L) | | | | | | | | | | | | |
| TDS[6] | **47,400** | NA | **79,600** | **77,600** | **3,080** | **3,170** | **36,700** | **32,500** | **17,700** | **20,900** | **24,300** | **23,500** |

Notes:

[1] Unless otherwise reported, no VOCs were detected using EPA Method 8260B.

[2] Unless otherwise reported, no metals were detected using EPA Methods 6010B & 7470A.

[3] Unless otherwise reported, no organochlorine pesticides were detected using EPA Method 8081A.

[4] Unless otherwise reported, no chlorinated herbicides were detected using EPA Method 8151.

[5] Confirmation duplicate sample for VOCs, duplicate sample date 1/30/06

[6] Total Dissolved Solids (TDS) were analyzed using EPA Method 160.1

NA -Not analyzed

ND - Not detected at or above method reporting limit

SVOCs - Semivolatile organic compounds

VOCs - Volatile organic compounds

µg/L - Micrograms per liter

mg/L - Milligrams per liter

EPA - Environmental Protection Agency

CRDL - Contract-Required Detection Limit

Validation Qualifiers

J - Estimated value detected less than the CRDL but greater than the reporting limit.

U - Compound was analyzed for but not detected. Analyte result was below the CRDL.

**Bold values indicate analytes above New Mexico Groundwater Quality Standards.**

**2005 Long-Term Groundwater Monitoring Report**
**Holloman Air Force Base, New Mexico**
**Site/Sample Delivery Group Cross Reference**

| Site | Sample Delivery Group | Wells Sampled |
|---|---|---|
| LF-01 | F37235 | S1-MW1, S1-MW2, S1-MW3, S1-MW5, 1W2 |
| LF-01 | F38206 | S1-MW3 (VOCs confirmation sample) |
| SS-02/05 | F37167 | MW-02&5-03, MW-02&5-05, MW-02&5-06, MW-02&5-08 |
| SD-08 | F37167 | MW-08-03, MW-08-04, MW-08-05, MW-08-06 |
| OT-16 | F37169 | 118-MW1601, 118-MW1602, 118-MW1603, 118-MW1604 |
| SS-17 | F37167 | MW-BX-01, MW-BX-02, W4 |
| LF-21 | F37126 | MW-21-01, MW-21-02, MW-21-03, MW-21-04 |
| LF-29 | F37124 | MW-29-01, MW-29-03, MW-29-04, MW-29-05, MW-29-06, MW-29-07, MW-29-08 |
| DP-30 & SD-33 | F37086 | MW30&33-01, MW30&33-02, MW30&33-03, MW30&33-04 |
| SS-39 | F37116 | MW-39-02, MW39-03 |
| SS-39 | F38673 | MW-39-01, MW39-04 |
| SS-46 | F37153 | MW-46-01, MW-46-02, MW-46-03 |
| SS-48 | F37150 | S55-MW-2, S55-MW-3, S55-MW-4, S55-MW-5, S55-MW-6, S55-MW-7 |
| LTM Purge Water | F38226 | 250 gallons of 2005 LTM Purge Water |

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Michael J. D'Auben, Bhate Environmental Associates, Inc., Birmingham, Alabama.

# Introduction

This data validation is for five samples taken as part of the Long Term Monitoring project, Holloman Air Force Base, New Mexico in December 2005. These samples were all analyzed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| SW-MW1 | Water | 12/08/05 | F37235 | Metals (6010B), TDS (160.1) |
| SW-MW2 | Water | 12/08/05 | F37235 | Metals (6010B), TDS (160.1) |
| SW-MW3 | Water | 12/08/05 | F37235 | VOCs (8260B), Metals (6010B), TDS (160.1) |
| SW-MW5 | Water | 12/08/05 | F37235 | Metals (6010B), TDS (160.1) |
| IW2 | Water | 12/08/05 | F37235 | Metals (6010B), TDS (160.1) |
| SDG = Sample Delivery Group, TDS = Total Dissolved Solids, VOCs = Volatile Organic Compounds | | | | |

Due to a documentation error in the field during the groundwater sample collection event at LF-01, wells S1-MW1, S1-MW2, S1-MW3, and S1-MW5 were misidentified on the chain of custody as wells SW-MW1, SW-MW2, SW-MW3, and SW-MW5. For the purpose of continuity with the previous LTM Reports these four wells are referenced as S1-MW1, S1-MW2, S1-MW3, and S1-MW5 in the text, figures, and tables of the 2005 LTM Report

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, October 2004).

# Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis with the following exception. The Trip Blank was not included in the shipment with the field samples. Since no trip blank accompanied the samples during shipment and storage, all positive results for volatiles should be considered estimated "J"

due to the possibility of unidentified cross contamination. The laboratory analyzed all samples within the holding times prescribed by the USEPA for each method.

## Blanks

There was one type of blank associated with these samples; laboratory method blanks. There were no parameters reported in any of the blanks at levels above the associated method detection limits (MDLs). No qualification of the data was required.

## Surrogates

All surrogate results were within method specific QC limits. No qualification of the data was required.

## Matrix Spike/Matrix Spike Duplicates

All Matrix Spike and Matrix Spike Duplicate (MS/MSD) results were within method specific QC limits with the following exceptions. The recovery for iron is less than the associated QC limits. This may indicate a low bias to the data and all results for this analyte should be considered estimated "J" or "UJ". The relative percent difference (RPD) results for 2-chloroethyl vinyl ether are outside the associated QC limits. This may indicate a matrix effect but since no positive results for this compound were reported no qualification of the data was required. The duplicate results for arsenic are outside the associated QC limits. This may indicate a matrix effect and all positive results for arsenic should be considered estimated "J".

## Laboratory Control Samples

All Laboratory Control Sample (LCS) results were found to be within method specific QC limits, with the following exceptions. The LCS recovery for 1,2,3-trichlorobenzene exceeded the associated QC limits. This may indicate a high bias to the data but since no positive results were reported in the associated field samples, no qualification of the data is required.

## Project Specific Quality Assurance/Quality Control

There were no field duplicates or laboratory splits collected as part of this sample group. No qualification of the data was required.

## Compound Quantitation and Reporting Limits

All of the sample results were reported down to the laboratory method detection limits (MDLs) and none of the samples displayed elevated reporting limits (RLs) due to dilutions or matrix interference with the following exceptions. The continuing calibration verification results for acetone exceeded the associated QC limits. This may indicate high bias to the data and all positive results for this compound should be considered estimated "J". In addition, the reporting limits for iron and selenium were elevated due to matrix interference in the samples. The revised reporting limits for these analytes should be reviewed before utilizing any non-detect results for decision making purposes.

# Overall Assessment of Data

Overall, the data should all be suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria. All analyses were completed, and no data was rejected due to QC failure. The data is 100% complete.

**Summary of Qualified Data**

| Sample ID | Parameter | Qualifier |
|---|---|---|
| SW-MW1 | Iron | UJ |
| SW-MW2 | Iron | J |
| SW-MW3 | Acetone | J |
| | Benzene | J |
| | sec-Butylbenzene | J |
| | 1,2-Dichloroethane | J |
| | Isopropylbenzene | J |
| | Iron | UJ |
| SW-MW5 | Iron | J |
| IW2 | Iron | J |

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Michael J. D'Auben, Bhate Environmental Associates, Inc., Birmingham, Alabama.

## Introduction

This data validation is for one sample collected as part of the Long Term Monitoring project at Holloman Air Force Base, New Mexico in January 2006. This sample was analyzed by Accutest Laboratories of Orlando, Florida. The specific sample included in this validation is:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| S1-MW3 | Water | 01/30/06 | F38206 | VOCs (8260B) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds | | | | |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999).

## Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis. The laboratory prepared and analyzed all samples within the holding times prescribed by the USEPA for each method.

## Blanks

There were two types of blanks associated with this sample; method blanks and trip blanks. There were no positive results reported in any of the blanks in this data package with the following exceptions. There was hexachlorobutadiene and 1,2,3-trichlorobenzene reported in the laboratory method blank. None of these compounds were reported in the associated field sample so no qualification of the data was required.

## Surrogates

All surrogate results were within the laboratory's method specific QC limits. No qualification of the data was required.

## Matrix Spike/Matrix Spike Duplicates

All Matrix Spike and Matrix Spike Duplicate (MS/MSD) results were within method specific QC limits with the following exceptions. The recoveries for acrolein and 2-chloroethyl vinyl ether were less than the associated QC limits. This may indicate matrix effect and a low bias to the data. All results for these compounds should be considered estimated "UJ". The recovery for hexane exceeded the associated QC limits. This may

indicate a matrix effect and a high bias to the data. Since no hexane was reported in the associated field sample, no qualification of the data is required.

## Laboratory Control Samples

All Laboratory Control Sample (LCS) results were found to be within method specific QC limits with the following exceptions. The recovery for acrolein was less than the associated QC limits. This may indicate a low bias to the data and all results for this compound should be considered estimated "UJ".

## Project Specific Quality Assurance/Quality Control

There were no field duplicate samples collected as part of this sample delivery group.

## Compound Quantitation and Reporting Limits

All of the sample results were reported down to the laboratory method detection limits (MDLs) and none of the samples displayed elevated reporting limits (RLs) due to dilutions or matrix.

## Overall Assessment of Data

Overall, the data should all be suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria. All analyses were completed, and no data was rejected due to QC failure. The data is 100% complete.

**Summary of Qualified Data**

| Sample ID | Parameter | Qualifier |
|---|---|---|
| S1-MW3 | Acrolein | UJ |
| | 2-Chloroethyl vinyl | UJ |

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Michael J. D'Auben, Bhate Environmental Associates, Inc., Birmingham, Alabama.

# Introduction

This data validation is for 14 samples taken as part of the Long Term Monitoring project, Holloman Air Force Base, New Mexico in December 2005. These samples were all analyzed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| MW-02&5-03 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| MW-02&5-05 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| MW-02&5-06 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| MW-02&5-08 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| MW-02&5-08-a | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| MW-BX-01 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| MW-BX-02 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| W4 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| W4-a | Water | 07-Dec-2005 | F37167 | VOCs (8260B), TDS (160.1) |
| MW-08-03 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), Metals (6010B), TDS (160.1) |
| MW-08-04 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), Metals (6010B), TDS (160.1) |
| MW-08-05 | Water | 07-Dec-2005 | F37167 | VOCs (8260B), Metals (6010B), TDS (160.1) |
| MW-08-06 | Water | 07-Dec-2005 | F37167 | TDS (160.1) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, TDS = Total Dissolved Solids | | | | |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999) and *USEPA Contract*

*Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, October 2004).

## Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis. The laboratory analyzed all samples within the holding times prescribed by the USEPA for each method.

## Blanks

There were two types of blanks associated with these samples; trip blanks and laboratory method blanks. There were no parameters reported in any of the blanks at levels above the associated method detection limits (MDLs) with the following exceptions. There was methylene chloride reported in the trip blank and 1,2,3-trichlorobenzene reported in the laboratory blank. Since these compounds were not reported in any of the associated field samples, no qualification of the data was required.

## Surrogates

All surrogate results were within method specific QC limits. No qualification of the data was required.

## Matrix Spike/Matrix Spike Duplicates

All Matrix Spike and Matrix Spike Duplicate (MS/MSD) results were within method specific QC limits with the following exceptions. The recoveries for 1,1,2,2-tetrachloroethane, 1,2,3-trichlorobenzene, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane, 2-hexanone, 4-methyl-2-pentanone, methyl methacrylate, naphthalene, and vinyl acetate all exceeded the associated QC limits. This may indicate a matrix effect and a high bias to the data and any positive results should be considered estimated "J".

The recoveries for 2-chloroethyl vinyl ether and iron were less than the associated QC limits. This may indicate a matrix effect and a low bias to the data. All results for these parameters should be considered estimated "J" or "UJ".

The relative percent difference (RPD) results for arsenic exceeded the associated QC limits. Due to the low concentrations of arsenic in the MS and MSD samples no qualification of the data is required.

## Laboratory Control Samples

All Laboratory Control Sample (LCS) results were found to be within method specific QC limits, with the following exceptions. The LCS recoveries for 1,1-dichloroethane, 1,2,3-trichlorobenzene, acetone, benzene, chloroform, methyl ethyl ketone, trichloroethylene, and vinyl acetate all exceeded the associated QC limits. This may indicate a high bias to the data and all positive results for these compounds should be considered estimated "J".

## Project Specific Quality Assurance/Quality Control

There were two field duplicates collected as part of this sample group. Sample MW-02&5-08 and MW-02&5-08-a and samples W4 and W4-a were the duplicate pairs. All duplicate results met the necessary QC criteria. No qualification of the data was required.

## Compound Quantitation and Reporting Limits

All of the sample results were reported down to the laboratory method detection limits (MDLs) and none of the samples displayed elevated reporting limits (RLs) due to dilutions or matrix interference with the following exceptions. The reporting limits for iron and selenium in samples MW-08-03, MW-08-04, and MW-08-05 were elevated due to matrix interference in the samples. The volatile reporting limits for sample MW-02&5-05 were elevated due to dilutions required because of high concentrations of non-target analytes in the sample. The revised reporting limits for these analyses should be reviewed before utilizing any non-detect results for decision making purposes.

## Overall Assessment of Data

Overall, the data should all be suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria. All analyses were completed, and no data was rejected due to QC failure. The data is 100% complete.

**Summary of Qualified Data**

| Sample ID | Parameter | Qualifier |
|---|---|---|
| MW-02&5-03 | 2-Chloroethyl vinyl ether | UJ |
| MW-02&5-05 | 2-Chloroethyl vinyl ether<br>Benzene | UJ<br>J |
| MW-02&5-06 | 2-Chloroethyl vinyl ether | UJ |
| MW-02&5-08 | 2-Chloroethyl vinyl ether | UJ |
| MW-02&5-08-a | 2-Chloroethyl vinyl ether | UJ |
| MW-BX-01 | 2-Chloroethyl vinyl ether | UJ |
| MW-BX-02 | 2-Chloroethyl vinyl ether<br>1,1-Dichloroethane<br>Acetone<br>Benzene<br>Naphthalene | UJ<br>J<br>J<br>J<br>J |

## Summary of Qualified Data

| Sample ID | Parameter | Qualifier |
|---|---|---|
| W4 | 2-Chloroethyl vinyl ether<br>Chloroform | UJ<br>J |
| W4-a | 2-Chloroethyl vinyl ether<br>Chloroform | UJ<br>J |
| MW-08-03 | Iron<br>2-Chloroethyl vinyl ether<br>Chloroform | UJ<br>UJ<br>J |
| MW-08-04 | Iron<br>2-Chloroethyl vinyl ether | UJ<br>UJ |
| MW-08-05 | Iron<br>2-Chloroethyl vinyl ether | J<br>UJ |
| MW-08-06 | All | None |

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Judy Solomon, Bhate Environmental Associates, Inc., Birmingham, Alabama.

# Introduction

This data validation report covers samples taken from Holloman Air Force Base, New Mexico, on December 6, 2005. Four groundwater samples were taken from the OT-16 site for long term monitoring purposes. All samples were analyzed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| 118-MW1601 | Water | 12/06/05 | F37169 | VOCs (8260B), Pesticides (8081A), TDS (160.1) |
| 118-MW1602 | Water | 12/06/05 | F37169 | VOCs (8260B), Pesticides (8081A), TDS (160.1) |
| 118-MW1603 | Water | 12/06/05 | F37169 | VOCs (8260B), Pesticides (8081A), TDS (160.1) |
| 118-MW1604 | Water | 12/06/05 | F37169 | VOCs (8260B), Pesticides (8081A), TDS (160.1) |
| Trip blank | Water | 12/06/05 | F37169 | VOCs (8260B) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, TDS = Total Dissolved Solids | | | | |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999) (NFG).

# Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis. All samples were analyzed within the required holding times.

# Blanks

Laboratory method blanks for all analysis were correctly batched with the corresponding field samples. 1,2,3-Trichlorobenzene was detected in the VOC laboratory method blank, however, it was not detected in the associated field samples. Therefore, qualification of the data was not required. No other target compounds were detected in any other method or trip blank.

## Matrix Spike/Matrix Spike Duplicates (MS/MSD)

The majority of the target compounds did not meet the QC limits for the VOC MS/MSD analysis associated with the field samples. A probable cause was sample matrix interference or a poorly mixed spiking solution. Qualification based on MS/MSD data alone was not required. A review of the blank spike data would determine if qualification of the field samples is necessary.

The percent recoveries (%Rs) and relative percent differences (RPDs) met the project specific QC requirements for the pesticide MS/MSD analysis.

## Blank Spike Sample/Surrogates

Acetone and 1,2,3-trichlorobenzene %Rs were outside of the upper project specific QC limits in the VOC blank spike samples. Neither compounds were detected in the associated field samples; therefore qualification was not required.

The pesticide %Rs met the project specific QC requirements for the blank spike sample.

Surrogates were injected into all field and QC samples, and the %R was calculated. All surrogates met the %R QC requirements for all analyses and samples.

## Project Specific Quality Assurance/Quality Control

No field duplicate samples were collected during this sampling event. A trip blank was collected and analyzed for VOC compounds. As previously reported, no target compounds were detected in the trip blank.

## Compound Quantitation and Reporting Limits

Dilutions were not required in order to quantify the sample results; therefore no reporting limits were elevated.

## Overall Assessment of Data

Overall, the data is suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Judy Solomon, Bhate Environmental Associates, Inc., Birmingham, Alabama.

# Introduction

This data validation report covers samples taken from Holloman Air Force Base, New Mexico, on December 5, 2005. Four groundwater samples were taken from the LF-21 site for long term monitoring purposes. Accutest Laboratories of Houston, Texas performed the herbicide analyses. All other analyses were performed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| MW-21-01 | Water | 12/05/05 | F37126 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| MW-21-02 | Water | 12/05/05 | F37126 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| MW-21-03 | Water | 12/05/05 | F37126 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| MW-21-04 | Water | 12/05/05 | F37126 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| Trip blank | Water | 12/05/05 | F37126 | VOCs (8260B) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, TAL = Target Analyte List, TDS = Total Dissolved Solids | | | | |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* U.S. Environmental Protection Agency [USEPA], October 1999), and in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2002) (NFG).

## Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis. All samples were analyzed within the required holding times.

## Blanks

Laboratory method blanks for all analysis were correctly batched with the corresponding field samples. 1,2,3-Trichlorobenzene was detected in the VOC laboratory method blank, however, it was not detected in the associated field samples. Therefore, qualification of the data was not required. No other target compounds were detected in any other method or trip blank.

## Matrix Spike/Matrix Spike Duplicates (MS/MSD)

The majority of the target compounds did not meet the QC limits for the VOC MS/MSD analysis associated with the field samples. A probable cause was sample matrix interference or a poorly mixed spiking solution. Qualification based on MS/MSD data alone was not required. A review of the blank spike data would determine if qualification of the field samples is necessary.

The percent recoveries (%Rs) and Relative Percent Differences (RPDs) met the project specific QC requirements for the pesticide MS/MSD analysis. Dinoseb and pentachlorophenol %Rs and/or the RPD did not meet the project specific QC requirements for the herbicide MS/MSD analysis. Pentachlorophenol was detected in the majority of the field samples. Further examination of the blank spike results would determine if qualification of the field samples is required. Dinoseb was not detected in any of the field samples.

Evaluation of the matrix spike data for the inorganic elements resulted in %Rs which were outside of the project specific QC requirements for the following elements:

- Aluminum
- Iron
- Potassium
- Silver
- Sodium

The samples in which those elements were detected above the method detection limit were qualified as estimated biased high **J+**, or estimated biased low **J-**. Non-detected iron was qualified as **UJ**, non-detected estimated.

Arsenic, thallium, and zinc duplicate QC results were beyond the upper RPD QC limits. Positive sample results were qualified as estimated **J**, and non-detected elements were qualified as **UJ**.

## Blank Spike Sample/Surrogates

Acetone and 1,2,3-trichlorobenzene %Rs were outside of the upper project specific QC limits in the VOC blank spike samples. Acetone was detected in samples MW-21-02 and

MW-21-04, and the results were qualified as estimated **J**. Qualification was not required for 1,2,3-trichlorobenzene which was not detected in any of the samples.

The pesticide and herbicide %Rs met the project specific QC requirements for the blank spike sample.

Surrogates were injected into all field and QC samples, and the %R was calculated. All surrogates met the %R QC requirements for all analyses and samples.

## Project Specific Quality Assurance/Quality Control

One field duplicate sample was collected during this sampling event. For the compounds/elements detected in the duplicate pai, the RPD between the original sample MW-21-04 and the duplicate sample MW-21-04d was 0 – 53%. Pesticides were not detected in the duplicate pair and acetone was the only VOC detected at a concentration below the reporting limit (RL) in the original sample.

A trip blank was collected and analyzed for VOC compounds. As previously reported, no target compounds were detected in the trip blank.

## Compound Quantitation and Reporting Limits

Due to matrix interferences, numerous reporting limits were elevated in the metals analysis. Refer to the laboratory "Report of Analysis" for each sample for further information.

## Overall Assessment of Data

Overall, the data is suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

**Summary of Qualified Data**

| Sample ID | Parameter | *Qualifier |
|---|---|---|
| MW-21-01 | Iron | 3,800 UJ |
| MW-21-02 | Iron | 3,800 UJ |
| MW-21-03 | Iron | 7,500 UJ |
| MW-21-04 | Iron | 3,800 UJ |
| MW-21-04d | Iron | 3,800 UJ |
| MW-21-01 | Potassium | 62,000 J+ |
| MW-21-02 | Potassium | 151,000 J+ |
| MW-21-03 | Potassium | 149,000 J+ |
| MW-21-04 | Potassium | 148,000 J+ |
| MW-21-04d | Potassium | 148,000 J+ |
| MW-21-01 | Sodium | 1,740,000 J- |
| MW-21-02 | Sodium | 5,080,000 J- |
| MW-21-03 | Sodium | 5,300,000 J- |
| MW-21-04 | Sodium | 6,220,000 J- |
| MW-21-04d | Sodium | 6,170,000 J- |
| MW-21-01 | Arsenic | 11.0 J |

## Summary of Qualified Data

| Sample ID | Parameter | *Qualifier |
|---|---|---|
| MW-21-02 | Arsenic | 14.8 J |
| MW-21-03 | Arsenic | 12.4 J |
| MW-21-04 | Arsenic | 2.9 UJ |
| MW-21-04d | Arsenic | 6.6 J |
| MW-21-01 | Thallium | 7.1 J |
| MW-21-02 | Thallium | 10.8 J |
| MW-21-03 | Thallium | 7.4 J |
| MW-21-04 | Thallium | 6.2 J |
| MW-21-04d | Thallium | 8.6 J |
| MW-21-01 | Zinc | 11.6 J |
| MW-21-02 | Zinc | 3.4 J |
| MW-21-03 | Zinc | 2.2 J |
| MW-21-04 | Zinc | 4.1 J |
| MW-21-04d | Zinc | 4.9 J |
| MW-21-02 | Acetone | 5.5 J |
| MW-21-04 | Acetone | 5.1 J |

* Results are in µg/L

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Judy Solomon, Bhate Environmental Associates, Inc., Birmingham, Alabama.

# Introduction

This data validation report covers samples taken from Holloman Air Force Base, New Mexico, on December 5, 2005. Eight groundwater samples were taken from the LF-29 site for long term monitoring purposes. All samples were analyzed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| MW-29-01 | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| MW-29-02 | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| MW-29-03 | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| MW-29-04 | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| MW-29-05 | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| MW-29-05d | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| MW-29-06 | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| MW-29-07 | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| MW-29-08 | Water | 12/05/05 | F37124 | VOCs (8260B), SVOCs (8270C), TDS (160.1) |
| Trip blank | Water | 12/05/05 | F37124 | VOCs (8260B) |

SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, SVOCs = Semi-volatile Organic Compounds, TDS = Total Dissolved Solids

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999) (NFG).

## Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis.

## Blanks

Laboratory method blanks for all analysis were correctly batched with the corresponding field samples. No target compounds were detected in the VOC and SVOC laboratory method blanks.

## Matrix Spike/Matrix Spike Duplicates (MS/MSD)

The VOC MS/MSD that was associated with the trip blank had the following compounds in which the percent recoveries (%Rs), or relative percent differences (RPDs) were outside of the project specific QC limits:

- 2-chloroethyl vinyl ether
- 1,2,3-trichlorobenzene

Because those compounds were not detected in the associated sample, qualification of the data was not required.

Numerous compounds did not meet the QC limits for VOC MS/MSD analysis associated with the remaining field samples. The out-of-control compounds were not detected in the corresponding field samples and qualification based on MS/MSD data alone was not required.

In the SVOC analysis, the %Rs for both the MS/MSD were outside of the QC limits for seven compounds. Three of the seven compounds had 0 %Rs for both the MS/MSD. The out of control %Rs could have possibly been a result of a degraded spiking solution or matrix interferences. The seven compounds were not detected in any of the associated field samples. A review of the blank spike data would determine if qualification of the samples is required.

## Blank Spike Sample/Surrogates

Acetone, 2-hexanone, and 1,2,3-trichlorobenzene %Rs were outside of the upper project specific QC limits in the VOC blank spike samples. These compounds were not detected in any of the field samples; therefore qualification was not required.

All compounds in the SVOC blank spike sample met the project specific QC requirements for the %Rs and RPDs.

Surrogates were injected into all field and QC samples, and the %R was calculated. All surrogates met the %R QC requirements for all analyses and samples.

## Project Specific Quality Assurance/Quality Control

One field duplicate sample MW-29-05d was collected and analyzed for VOCs, SVOCs, and TDS. VOC target compounds were detected in both the field duplicate and the original sample MW-29-05. The RPDs for the detected compounds were all less than 13%.

A trip blank was also collected and analyzed for VOC compounds. No VOC compounds were detected.

## Compound Quantitation and Reporting Limits

All samples were analyzed without dilutions and no reporting limits were adjusted.

## Overall Assessment of Data

Overall, the data is suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Judy Solomon, Bhate Environmental Associates, Inc., Birmingham, Alabama.

# Introduction

This data validation report covers samples taken from Holloman Air Force Base, New Mexico, on December 4, 2005. Five groundwater samples were taken from the DP30/SD33 site for long term monitoring purposes. Accutest Laboratories of Houston, Texas performed the herbicide analyses. All other analyses were performed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| MW30&33-01 | Water | 12/04/05 | F37086 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| MW30&33-02 | Water | 12/04/05 | F37086 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| MW30&33-03 | Water | 12/04/05 | F37086 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| MW30&33-04 | Water | 12/04/05 | F37086 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| MW30&33-04D | Water | 12/04/05 | F37086 | VOCs (8260B), Pesticides (8081A), Herbicides (8151), TAL Metals (6010B), Mercury (7470A), TDS (160.1) |
| Trip blank | Water | 12/04/05 | F37086 | VOCs (8260B) |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999), and in the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, October 2004) (NFG).

# Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis. All samples were analyzed within the required holding times.

## Blanks

Laboratory method blanks for all analysis were correctly batched with the corresponding field samples. 1,2,3-Trichlorobenzene and hexachlorobutadiene were detected in the VOC laboratory method blank, however, neither compound was detected in the associated field samples. Therefore, qualification of the data was not required. No other target compounds were detected in any other method or trip blank.

## Matrix Spike/Matrix Spike Duplicates (MS/MSD)

Two different sets of VOC MS/MSD samples were analyzed. Numerous target compounds did not meet the QC limits for either percent recovery (%R) and/or relative percent difference (RPD). A probable cause was sample matrix interference or a poorly mixed spiking solution. Qualification based on MS/MSD data alone was not required. A review of the blank spike data would determine if qualification of the field samples is necessary.

The %Rs and RPDs met the project specific QC requirements for the pesticide MS/MSD analysis with the exception of heptachlor and methoxychlor. Dinoseb and 4-nitrophenol %Rs and/or the RPD did not meet the project specific QC requirements for the herbicide MS/MSD analysis. Again, further examination of the blank spike results would determine if qualification of the field samples is required. Heptachlor, methoxychlor, dinoseb, or 4-nitrophenol were not detected in any of the field samples.

Evaluation of the matrix spike data for the inorganic elements resulted in %Rs which were outside of the project specific QC requirements for potassium and sodium. The samples in which potassium was detected above the method detection limit were qualified as estimated biased high **J+**, or for sodium estimated biased low **J-**.

Nickel, thallium, and zinc duplicate QC results were beyond the upper RPD QC limits. Positive sample results were qualified as estimated **J**, and non-detected elements were qualified as **UJ**, non-detected and the reporting limit is an approximate value.

## Blank Spike Sample/Surrogates

Acetone and 1,2,3-trichlorobenzene %Rs were outside of the upper project specific QC limits in the VOC blank spike samples. Both compounds were not detected in the associated sample MW30&33-01, and data qualification was not required.

The %Rs for methyl methacrylate and n-propylbenzene were outside of the project specific QC limits. Again, both compounds were not detected in the associated samples and data qualification was not required.

The pesticide and herbicide %Rs met the project specific QC requirements for the blank spike sample.

Surrogates were injected into all field and QC samples, and the %R was calculated. All surrogates met the %R QC requirements for all organic analyses and samples.

## Project Specific Quality Assurance/Quality Control

One field duplicate sample was collected during this sampling event. For the elements detected in the duplicate pair the RPD between the original sample MW30&33-04 and the duplicate sample MW30&33-04D was 1.4 – 115%. VOCs, pesticides, and herbicides were not detected in the duplicate pair.

A trip blank was collected and analyzed for VOC compounds. As previously reported, no target compounds were detected in the trip blank.

## Compound Quantitation and Reporting Limits

Due to matrix interferences, numerous reporting limits were elevated in the metals analysis. Refer to the laboratory "Report of Analysis" for each sample, and the specific element in which an elevated RL was reported.

## Overall Assessment of Data

Overall, the data is suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

**Summary of Qualified Data**

| Sample ID | Parameter | *Qualifier |
|---|---|---|
| MW30&33-01 | Potassium | 4,140 J+ |
| MW30&33-02 | Potassium | 21,000 J+ |
| MW30&33-03 | Potassium | 11,100 J+ |
| MW30&33-04 | Potassium | 15,800 J+ |
| MW30&33-04D | Potassium | 16,100 J+ |
| MW30&33-01 | Sodium | 5,560,000 J- |
| MW30&33-02 | Sodium | 6,960,000 J- |
| MW30&33-03 | Sodium | 7,760,000 J- |
| MW30&33-04 | Sodium | 5,570,000 J- |
| MW30&33-04D | Sodium | 5,350,000 J- |
| MW30&33-01 | Nickel | 1.3 J |
| MW30&33-02 | Nickel | 1.1 UJ |
| MW30&33-03 | Nickel | 2.1 J |
| MW30&33-04 | Nickel | 2.0 J |
| MW30&33-04D | Nickel | 2.7 J |
| MW30&33-01 | Thallium | 6.8 J |
| MW30&33-02 | Thallium | 7.8 J |
| MW30&33-03 | Thallium | 4.0 J |
| MW30&33-04 | Thallium | 3.8 UJ |
| MW30&33-04D | Thallium | 3.8 UJ |
| MW30&33-01 | Zinc | 3.3 J |
| MW30&33-02 | Zinc | 4.7 J |
| MW30&33-03 | Zinc | 4.0 J |
| MW30&33-04 | Zinc | 1.5 J |
| MW30&33-04D | Zinc | 1.6 J |

* Results are in µg/L

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Michael J. D'Auben, Bhate Environmental Associates, Inc., Birmingham, Alabama.

## Introduction

This data validation is for two samples taken from the SS-39 site, Holloman Air Force Base, New Mexico in December 2005. These samples were all analyzed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| MW-39-02 | Water | 05-Dec-2005 | F37116 | VOCs (8260B), TDS (160.1) |
| MW-39-03 | Water | 05-Dec-2005 | F37116 | VOCs (8260B), TDS (160.1) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, TDS = Total Dissolved Solids | | | | |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999).

## Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis. The laboratory analyzed all samples within the holding times prescribed by the USEPA for each method.

## Blanks

There were two types of blanks associated with these samples; trip blanks and laboratory method blanks. There were no parameters reported in any of the blanks at levels above the associated method detection limits (MDLs) with the following exceptions. There was hexachlorobutadiene and 1,2,3-trichlorobenzene reported in the method blank. This could indicate the potential for laboratory artifacts in the results but since neither of these compounds was reported in the associated field samples, no qualification of the data was required.

## Surrogates

All surrogate results were within method specific QC limits. No qualification of the data was required.

## Matrix Spike/Matrix Spike Duplicates

All Matrix Spike and Matrix Spike Duplicate (MS/MSD) results were within method specific QC limits with the following exceptions. Recoveries for 1,2-dibromo-3-

chloropropane, 1,2-dibromoethane, 2-hexanone, acetone, acetonitrile, acrylonitrile, bromoform, methyl ethyl ketone, methyl methacrylate, methylene bromide, naphthalene, 1,2,3-trichloropropane, and propionitrile all exceeded the associated QC limits. This may indicate a matrix effect and a positive bias to the data. Since none of these compounds were reported in the associated field samples, no qualification of the data was required. The recovery for 2-chloroethyl vinyl ether was less than the associated QC limits. This may indicate a matrix effect and a low bias to the data. All results for this compound should be considered estimated "J" or "UJ".

## Laboratory Control Samples

All Laboratory Control Sample results were found to be within method specific QC limits, with the following exceptions. The recovery for methyl methacrylate was less than the associated QC limits. This may indicate a low bias to the data and all results for this compound should be considered estimated "J" or "UJ". The recovery for n-propylbenzene exceeded the associated QC limits. This may indicate a high bias to the data but since no positive results were reported in the field samples, no qualification of the data is required.

## Project Specific Quality Assurance/Quality Control

There were no field duplicates or laboratory splits collected as part of this sample group.

## Compound Quantitation and Reporting Limits

All of the sample results were reported down to the laboratory method detection limits (MDLs) and none of the samples displayed elevated reporting limits (RLs) due to dilutions or matrix interference.

## Overall Assessment of Data

Overall, the data should all be suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria. All analyses were completed, and no data was rejected due to QC failure. The data is 100% complete.

**Summary of Qualified Data**

| Sample ID | Parameter | Qualifier |
|---|---|---|
| MW-39-02 | 2-Chloroethyl vinyl ether | UJ |
| MW-39-03 | 2-Chloroethyl vinyl ether | UJ |

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Michael J. D'Auben, Bhate Environmental Associates, Inc., Birmingham, Alabama.

## Introduction

This data validation is for two samples collected as part of the Long Term Monitoring project at Holloman Air Force Base, New Mexico in February 2006. This sample was analyzed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| MW-39-01 | Water | 02/16/06 | F38673 | VOCs (8260B), TDS (160.1) |
| MW-39-04 | Water | 02/16/06 | F38673 | VOCs (8260B), TDS (160.1) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, TDS = Total Dissolved Solids | | | | |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999).

## Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis. The laboratory prepared and analyzed all samples within the holding times prescribed by the USEPA for each method.

## Blanks

There were two types of blanks associated with this sample; method blanks and trip blanks. There were no positive results reported in any of the blanks in this data package with the following exceptions. There was methylene chloride and 1,2,3-trichlorobenzene reported in the laboratory blank and/or trip blank. This may indicate the possibility of cross contamination but since no positive results for this compound were reported in the associated field samples, no qualification of the data is required.

## Surrogates

All surrogate results were within the laboratory's method specific QC limits. No qualification of the data was required.

## Matrix Spike/Matrix Spike Duplicates

There were no Matrix Spike and Matrix Spike Duplicate (MS/MSD) samples run as part of this sample delivery group. The analytical accuracy of the analytical batch was

determined by the laboratory control sample results. No qualification of the data was required.

## Laboratory Control Samples

All Laboratory Control Sample (LCS) results were found to be within method specific QC limits. No qualification of the data was required.

## Project Specific Quality Assurance/Quality Control

There were no field duplicate samples collected as part of this sample delivery group.

## Compound Quantitation and Reporting Limits

All of the sample results were reported down to the laboratory method detection limits (MDLs) and none of the samples displayed elevated reporting limits (RLs) due to dilutions or matrix.

## Overall Assessment of Data

Overall, the data should all be suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria. All analyses were completed, and no data was rejected due to QC failure. The data is 100% complete.

**Summary of Qualified Data**

| Sample ID | Parameter | Qualifier |
|---|---|---|
| MW-39-01 | All | None |
| MW-39-04 | All | None |

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Judy Solomon, Bhate Environmental Associates, Inc., Birmingham, Alabama.

# Introduction

This data validation report covers samples taken from Holloman Air Force Base, New Mexico, on December 6, 2005. Three groundwater samples were taken from the SS-46 site for long term monitoring purposes. All samples were analyzed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| MW-46-01 | Water | 12/06/05 | F37153 | VOCs (8260B), TDS (160.1) |
| MW-46-02 | Water | 12/06/05 | F37153 | VOCs (8260B), TDS (160.1) |
| MW-46-03 | Water | 12/06/05 | F37153 | VOCs (8260B), TDS (160.1) |
| Trip blank | Water | 12/06/05 | F37153 | VOCs (8260B) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, TDS = Total Dissolved Solids | | | | |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999) (NFG).

# Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis.

# Blanks

Laboratory method blanks for all analysis were correctly batched with the corresponding field samples. 1,2,3-Trichlorobenzene was detected in the VOC laboratory method blank, however, it was not detected in the associated field samples. Therefore, qualification of the data was not required.

Methylene chloride was detected in the trip blank, but was not detected in any of the field samples. No qualification of the field samples was required.

# Matrix Spike/Matrix Spike Duplicates (MS/MSD)

The majority of the target compounds did not meet the QC limits for the VOC MS/MSD analysis associated with the field samples. A probable cause was sample matrix interference or a poorly mixed spiking solution. Qualification based on MS/MSD data

alone was not required. A review of the blank spike data would determine if qualification of the field samples is necessary.

## Blank Spike Sample/Surrogates

Acetone and 1,2,3-trichlorobenzene percent recoveries (%Rs) were outside of the upper project specific QC limits in the VOC blank spike samples. Neither compounds were detected in the associated field samples; therefore qualification was not required.

Surrogates were injected into all field and QC samples, and the %R was calculated. All surrogates met the %R QC requirements for all analyses and samples.

## Project Specific Quality Assurance/Quality Control

No field duplicate samples were collected during this sampling event. A trip blank was collected and analyzed for VOC compounds. As previously reported, methylene chloride was detected.

## Compound Quantitation and Reporting Limits

Dilutions were not required in order to quantify the sample results, therefore no reporting limits were elevated.

## Overall Assessment of Data

Overall, the data is suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Judy Solomon, Bhate Environmental Associates, Inc., Birmingham, Alabama.

## Introduction

This data validation report covers samples taken from Holloman Air Force Base, New Mexico, on December 6, 2005. Six groundwater samples were taken from the SS-48 site for long term monitoring purposes. All samples were analyzed by Accutest Laboratories of Orlando, Florida. The specific samples included in this validation are:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| S55-MW-2 | Water | 12/06/05 | F37150 | VOCs (8260B), TDS (160.1) |
| S55-MW-3 | Water | 12/06/05 | F37150 | VOCs (8260B), TDS (160.1) |
| S55-MW-4 | Water | 12/06/05 | F37150 | VOCs (8260B), TDS (160.1) |
| S55-MW-5 | Water | 12/06/05 | F37150 | VOCs (8260B), TDS (160.1) |
| S55-MW-6 | Water | 12/06/05 | F37150 | VOCs (8260B), TDS (160.1) |
| S55-MW-7 | Water | 12/06/05 | F37150 | VOCs (8260B), TDS (160.1) |
| Trip blank | Water | 12/06/05 | F37150 | VOCs (8260B) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, TDS = Total Dissolved Solids | | | | |

This data was validated against the laboratory's quality assurance/quality control (QA/QC) limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (U.S. Environmental Protection Agency [USEPA], October 1999) (NFG).

## Sample Handling and Holding Times

Two samples S55-MW-2 and S55-MW-4 were not properly preserved to a pH below 2. No qualification of these samples was required because they were analyzed within 7 days of sample collection. All other samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis.

## Blanks

Laboratory method blanks for all analysis were correctly batched with the corresponding field samples. No target compounds were detected in the VOC laboratory method blanks. Methylene chloride was detected in the trip blank, but was not detected in any of the field samples. No qualification of the field samples was required.

## Matrix Spike/Matrix Spike Duplicates

Numerous compounds did not meet the QC limits for VOC MS/MSD analysis associated with the field samples. The out-of-control compounds were not detected in the corresponding field samples and qualification based on MS/MSD data alone was not required. A review of the blank spike data would determine if qualification of the field samples is necessary.

## Blank Spike Sample/Surrogates

Acetone, 2-hexanone, and 1,2,3-trichlorobenzene percent recoveries (%Rs) were outside of the upper project specific QC limits in the VOC blank spike samples. Acetone was detected in sample S55-MW-5 and was qualified as **J**, estimated due to a high bias. None of the other out-of-control compounds were detected in any of the field samples; therefore qualification was not required.

Surrogates were injected into all field and QC samples, and the %R was calculated. All surrogates met the %R QC requirements for all analyses and samples.

## Project Specific Quality Assurance/Quality Control

No field duplicate samples were collected during this sampling event. A trip blank was collected and analyzed for VOC compounds. As previously reported, methylene chloride was detected.

## Compound Quantitation and Reporting Limits

In order to quantify methyl tert butyl ether in sample S55-MW-5 and in sample S55-MW-7, a two-fold dilution was performed and the reporting limits were elevated. All other samples were analyzed without dilutions.

The continuing calibration verification that represented sample S55-MW-5 was above the QC limits for the following compounds:

- Naphthalene
- Methacrylonitrile
- Acetone

Positive compounds were qualified as estimated, **J**; non-detected compounds were qualified as **UJ**, estimated non-detected.

## Overall Assessment of Data

Overall, the data is suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria except where noted. The data is 100% complete.

## Summary of Qualified Data

| Sample ID | Parameter | Qualifier |
|---|---|---|
| S55-MW-5 | Acetone | J |
| S55-MW-5 | Naphthalene | J |
| S55-MW-5 | Methacrylonitrile | UJ |

# Data Validation Report

This report contains the results of the review and validation of the specified data package performed by Michael J. D'Auben, Bhate Environmental Associates, Inc., Birmingham, Alabama.

## Introduction

This data validation is for one sample collected as part of the Long Term Monitoring project at Holloman Air Force Base, New Mexico in January 2006. This sample was analyzed by Accutest Laboratories of Orlando, Florida. The specific sample included in this validation is:

| Sample ID | Matrix | Collection Date | Lab SDG | Analyses (Method Number) |
|---|---|---|---|---|
| LTM PURGE | Water | 01/31/06 | F38226 | VOCs (8260B), TAL Metals (6010B and 7470A) |
| SDG = Sample Delivery Group, VOCs = Volatile Organic Compounds, TAL = Target Analyte List | | | | |

This data was validated against the laboratory's QA/QC limits using the guidelines and practices promulgated in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, October 2004).

## Sample Handling and Holding Times

All samples were properly preserved and transferred under chain-of-custody to the laboratory for analysis. The laboratory prepared and analyzed all samples within the holding times prescribed by the USEPA for each method.

## Blanks

There were two types of blanks associated with this sample; method blanks and trip blanks. There were no positive results reported in any of the blanks in this data package with the following exceptions. There was antimony, hexachlorobutadiene, and 1,2,3-trichlorobenzene reported in the laboratory method blank. None of these analytes were reported in the associated field sample so no qualification of the data was required.

## Surrogates

All surrogate results were within the laboratory's method specific QC limits. No qualification of the data was required.

## Matrix Spike/Matrix Spike Duplicates

All Matrix Spike and Matrix Spike Duplicate (MS/MSD) results were within method specific QC limits with the following exceptions. The recoveries for acrolein and 2-chloroethyl vinyl ether were less than the associated QC limits. This may indicate matrix

effect and a low bias to the data. All results for these compounds should be considered estimated "UJ". The recovery for hexane exceeded the associated QC limits. This may indicate a matrix effect and a high bias to the data. Since no hexane was reported in the associated field sample, no qualification of the data is required.

The recoveries for potassium and sodium exceed the associated QC limits. This may indicate a matrix effect and all results for these parameters should be considered estimated "J" or "UJ".

The relative percent difference (RPD) results for mercury, selenium, and vanadium exceeded the associated QC limits. Due to the low concentration of selenium and vanadium no qualification of these results is required. Since there were no positive results for mercury in the associated field sample, no qualification of the data was required.

## Laboratory Control Samples

All Laboratory Control Sample (LCS) results were found to be within method specific QC limits with the following exceptions. The recovery for acrolein was less than the associated QC limits. This may indicate a low bias to the data and all results for this compound should be considered estimated "UJ".

## Project Specific Quality Assurance/Quality Control

There were no field duplicate samples collected as part of this sample delivery group.

Serial dilution results for magnesium, potassium, and sodium are outside control limits. This may indicate a matrix effect and all results for these analytes should be considered estimated "J".

## Compound Quantitation and Reporting Limits

All of the sample results were reported down to the laboratory method detection limits (MDLs) and none of the samples displayed elevated reporting limits (RLs) due to dilutions or matrix.

## Overall Assessment of Data

Overall, the data should all be suitable for the intended data usage. All analyses were performed, and the data met the required QC criteria. All analyses were completed, and no data was rejected due to QC failure. The data is 100% complete.

## Summary of Qualified Data

| Sample ID | Parameter | Qualifier |
|---|---|---|
| LTM PURGE | Acrolein | UJ |
| | 2-Chloroethyl vinyl ether | UJ |
| | Magnesium | J |
| | Potassium | J |
| | Sodium | J |

# APPENDIX B

# ANALYTICAL DATA

**2005 Long-Term Groundwater Monitoring Report**
**Holloman Air Force Base, New Mexico**
**Site/Sample Delivery Group Cross Reference**

| Site | Sample Delivery Group | Wells Sampled |
|---|---|---|
| LF-01 | F37235 | S1-MW1, S1-MW2, S1-MW3, S1-MW5, 1W2 |
| LF-01 | F38206 | S1-MW3 (VOCs confirmation sample) |
| SS-02/05 | F37167 | MW-02&5-03, MW-02&5-05, MW-02&5-06, MW-02&5-08 |
| SD-08 | F37167 | MW-08-03, MW-08-04, MW-08-05, MW-08-06 |
| OT-16 | F37169 | 118-MW1601, 118-MW1602, 118-MW1603, 118-MW1604 |
| SS-17 | F37167 | MW-BX-01, MW-BX-02, W4 |
| LF-21 | F37126 | MW-21-01, MW-21-02, MW-21-03, MW-21-04 |
| LF-29 | F37124 | MW-29-01, MW-29-03, MW-29-04, MW-29-05, MW-29-06, MW-29-07, MW-29-08 |
| DP-30 & SD-33 | F37086 | MW30&33-01, MW30&33-02, MW30&33-03, MW30&33-04 |
| SS-39 | F37116 | MW-39-02, MW39-03 |
| SS-39 | F38673 | MW-39-01, MW39-04 |
| SS-46 | F37153 | MW-46-01, MW-46-02, MW-46-03 |
| SS-48 | F37150 | S55-MW-2, S55-MW-3, S55-MW-4, S55-MW-5, S55-MW-6, S55-MW-7 |
| LTM Purge Water | F38226 | 250 gallons of 2005 LTM Purge Water |

# SDG – F37235
# SITE - LF-01

Southeast ACCUTEST Laboratories

01/20/06

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM/BHATE

Accutest Job Number: F37235

Sampling Date: 12/08/05

Report to:

Bhate Environmental Associates, Inc.

fgardner@bhate.com

ATTN: Frank Gardner

Total number of pages in report: 43

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6 7

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
Section 2: Case Narrative/Conformance Summary ..... 4
Section 3: Sample Results ..... 6
3.1: F37235-1: SW-MW1 ..... 6
3.2: F37235-2: SW-MW2 ..... 8
3.3: F37235-3: SW-MW3 ..... 10
3.4: F37235-4: SW-MW5 ..... 15
3.5: F37235-5: IW2 ..... 17
**Section 4: Misc. Forms** ..... **19**
**4.1:** Chain of Custody ..... 20
Section 5: GC/MS Volatiles - QC Data Summaries ..... 22
**5.1:** Method Blank Summary ..... 23
**5.2:** Blank Spike Summary ..... 27
**5.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 31
Section 6: Metals Analysis - QC Data Summaries ..... 35
6.1: Prep QC MP9018: As,Ba,Fe,Mn,Se ..... 36
**Section 7: General Chemistry - QC Data Summaries** ..... **41**
**7.1:** Method Blank and Spike Results Summary ..... 42
**7.2:** Duplicate Results Summary ..... 43

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37235

HOLMN
Project No: PROJECT # LTM/BHATE

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F37235-1 | 12/08/05 | 13:42 KG | 12/10/05 | AQ | Ground Water | SW-MW1 |
| F37235-2 | 12/08/05 | 13:11 KG | 12/10/05 | AQ | Ground Water | SW-MW2 |
| F37235-3 | 12/08/05 | 12:35 KG | 12/10/05 | AQ | Ground Water | SW-MW3 |
| F37235-4 | 12/08/05 | 12:03 KG | 12/10/05 | AQ | Ground Water | SW-MW5 |
| F37235-5 | 12/08/05 | 11:31 KG | 12/10/05 | AQ | Ground Water | IW2 |
| F37235-6 | 12/08/05 | 00:00 KG | 12/10/05 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F37235

**Site:** HOLMN **Report Date** 12/23/2005 11:05:31

5 Samples were collected on 12/08/2005 and received at Accutest on 12/10/2005 properly preserved, at 2 Deg. C and intact. These Samples received an Accutest job number of F37235. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ815

All samples were analyzed within the recommended method holding time.

Sample(s) F37263-1MS, F37263-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Blank Spike Recovery(s) for 1,2,3-Trichlorobenzene are outside control limits. Biased high, passed control criteria in MS/MSD, SW-846 8000 requirments are met.

RPD(s) for MSD for 2-Chloroethyl vinyl ether are outside control limits for sample F37263-1MSD. Probable cause due to sample homogeneity.

F37235-3 for Acetone: CCV outside of control limits; results may be biased low.

**Matrix:** AQ **Batch ID:** VJ816

All samples were analyzed within the recommended method holding time.

Sample(s) F37235-3MS, F37235-3MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

## Metals By Method SW846 6010B

**Matrix:** AQ **Batch ID:** MP9018

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37126-4DUP, F37126-4MS, F37126-4MSD, F37126-4SDL, F37126-4DUP were used as the QC samples for metals.

MS/MSD Recovery(s) for Iron are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

RPD(s) for Duplicate for Arsenic are outside control limits for sample MP9018-D1. RPD acceptable due to low duplicate and sample concentrations.

F37235-5 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37235-5 for Iron: Elevated reporting limit(s) due to matrix interference.

F37235-4 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37235-1 for Iron: Elevated reporting limit(s) due to matrix interference.

F37235-1 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37235-2 for Iron: Elevated reporting limit(s) due to matrix interference.

F37235-2 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37235-3 for Iron: Elevated reporting limit(s) due to matrix interference.

F37235-3 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37235-4 for Iron: Elevated reporting limit(s) due to matrix interference.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19235

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37238-1DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 23, 2005

Svetlana Izosimova, QAO (signature on file)

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW1 | | |
| Lab Sample ID: | F37235-1 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.9 U | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Barium | 7.3 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Manganese | 5.2 J | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Selenium [a] | 96 U | 100 | 96 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA4713
(2) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW1 | | |
| Lab Sample ID: | F37235-1 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 26400 | 10 | 10 | mg/l | 1 | 12/14/05 09:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW2 | | |
| Lab Sample ID: | F37235-2 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 21.5 | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Barium | 10.2 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Iron [a] | 7500 U | 15000 | 7500 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Manganese | 6.7 J | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Selenium [a] | 96 U | 100 | 96 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA4713
(2) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW2 | | |
| Lab Sample ID: | F37235-2 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 46500 | 10 | 10 | mg/l | 1 | 12/14/05 09:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW3 | | |
| Lab Sample ID: | F37235-3 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019723.D | 1 | 12/20/05 | JG | n/a | n/a | VJ815 |
| Run #2 | J019752.D | 10 | 12/21/05 | JG | n/a | n/a | VJ816 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | 11.2 | 25 | 5.0 | ug/l | J |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | 319 [b] | 10 | 5.0 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 5.0 | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 9.4 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW3 | | |
| Lab Sample ID: | F37235-3 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | 38.6 | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW3 | | |
| Lab Sample ID: | F37235-3 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 102% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 95% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 108% | 83-119% |

(a) CCV outside of control limits; results may be biased low.
(b) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW3 | | |
| Lab Sample ID: | F37235-3 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 15.5 | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Barium | 10.1 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Manganese | 831 | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Selenium [a] | 60 U | 100 | 60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA4713
(2) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW3 | | |
| Lab Sample ID: | F37235-3 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 47400 | 10 | 10 | mg/l | 1 | 12/14/05 09:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW5 | | |
| Lab Sample ID: | F37235-4 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 5.7 J | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Barium | 10.9 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Manganese | 13.3 J | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Selenium [a] | 48 U | 100 | 48 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA4713
(2) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | SW-MW5 | | |
| Lab Sample ID: | F37235-4 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 23100 | 10 | 10 | mg/l | 1 | 12/14/05 09:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | IW2 | | |
| Lab Sample ID: | F37235-5 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 5.9 J | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Barium | 11.4 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Iron [a] | 7500 U | 15000 | 7500 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Manganese | 4.1 J | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Selenium [a] | 48 U | 100 | 48 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA4713
(2) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | IW2 | | |
| Lab Sample ID: | F37235-5 | Date Sampled: | 12/08/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/10/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 32000 | 10 | 10 | mg/l | 1 | 12/14/05 09:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F37235

BHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/BHATE

P.O. _____

Chain of Custody Number (1): 120010051

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: BHATE

Collected by: K. Oeemann

Sample Analysis Requested (2) — Quality Assurance Samples (5)

| Field Sample ID (Will Number Mark) | ONSITE-LOCID (Will Number Mark) | Date Collected (dd-mm-yyyy) | Time Collected (military) (Hours) | Sample Depth (beginning - ending) | | BA Code (3) | Sample Number (4) | Sample Matrix (5) | Number of containers | VOCs 8010 | TDS 160.2 | | | | | | Matrix Description | Trip Blank Lot Control Number | Code (6) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 SW-MW1 | LF-01 | 8-Dec-05 | 12:42 | 0 | 0 | N | 1 | GW | 2 | X | X | | | | | | Water | | 1 |
| 2 SW-MW2 | LF-02 | 8-Dec-05 | 13:11 | 0 | 0 | N | 1 | GW | 2 | X | X | | | | | | Water | | 1 |
| 3 SW-MW3 | LF-03 | 8-Dec-05 | 12:35 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | Water | | 1 |
| 4 SW-MW5 | LF-04 | 8-Dec-05 | 12:03 | 0 | 0 | N | 1 | GW | 2 | X | X | | | | | | Water | | 1 |
| 5 IW2 | LF-05 | 8-Dec-05 | 11:31 | 0 | 0 | N | 1 | GW | 2 | X | X | | | | | | Water | | 1 |
| 6 Trip Blank | | | | | | AB | | | 2 | | X | | | | | | Trip Blank | | 1 |
| Trip Blank | | | | | | | | | | | | | | | | | | | |

COMMENTS: Accutest Laboratories, 4405 Vineland Road Suite C-15, Orlando, FL 32811 — *Metals to include: Arsenic, Barium, Iron, Manganese & Selenium

Custody Transfers Prior to Receipt by Laboratory

| Relinquished by (signature) | Date | Time | Received by (signature) | Date | Time |
|---|---|---|---|---|---|
| 1. K. Oeemann | 12-07-05 | 16:00 | 1. | | |
| 2. | | | 2. | | |
| 3. | | | 3. | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.: _____

Method of Shipment: Fedex Airbill Number: 8543 4640 7331

Analytical Lab: Accutest Delivery Location: Orlando FL

Lab Recipient: _____ Delivery Date/Time: _____

(1) Chain of Custody Number = date collected + sequently numbered (e.g. 08-02-1999-01)

(2) Sample Type (BA) Codes: N = Normal Sample, TB = Trip Blank (-n Sample), FD = Field Duplicate (-n) Samples, FR = Field Replicate (-n) Samples, EB = Equipment Blank (-n) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-n)

(3) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

(4) Matrix Codes: Oil = Bert Oil, WO = Groundwater, WS = Surface Water, PO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Other Sample (ship, aerlgnate, outlaw, etc.), SO = Soil Blank

(5) Sample Analysis Requested: Analytical method requested and number of containers provided for each

(6) Quality assurance samples are assigned by date (mmddyy) and the sample number as indicated with the sample (01, 02, etc.) e.g. Equipment blank collected in accordance with MW-1 on 10/10/99 will be designated 101099-01 in the Equipment Blank Lot Control

F37235: Chain of Custody

Page 1 of 2

# ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37235 CLIENT: BHate PROJECT: Ltm

DATE/TIME RECEIVED: 12-10-05/9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.0

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8545-4440-7331

4.1 4

## COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

## TRIP BLANK INFORMATION

- [x] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

## SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

## SOIL INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE Steven Cooney/12-10-05 TECHNICIAN SIGNATURE/DATE

ASBD06/22/05

F37235: Chain of Custody
Page 2 of 2



ACCUTEST laboratory

F37235

# GC/MS Volatiles

5

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ815-MB | J019708.D | 1 | 12/20/05 | JG | n/a | n/a | VJ815 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |

# Method Blank Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ815-MB | J019708.D | 1 | 12/20/05 | JG | n/a | n/a | VJ815 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |

# Method Blank Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ815-MB | J019708.D | 1 | 12/20/05 | JG | n/a | n/a | VJ815 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | 73-126% |
| 2037-26-5 | Toluene-D8 | 95% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | 83-119% |

# Method Blank Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ816-MB | J019741.D | 1 | 12/21/05 | JG | n/a | n/a | VJ816 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | 83-119% |

# Blank Spike Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ815-BS | J019707.D | 1 | 12/20/05 | JG | n/a | n/a | VJ815 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 173 | 138 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 241 | 96 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 81.4 | 65 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 102 | 82 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 27.8 | 111 | 50-150 [a] |
| 100-44-7 | Benzyl Chloride | 25 | 20.9 | 84 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 25.3 | 101 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 23.2 | 93 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 25.8 | 103 | 75-120 |
| 75-25-2 | Bromoform | 25 | 20.4 | 82 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 29.0 | 116 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 27.2 | 109 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.8 | 111 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.9 | 104 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 24.1 | 96 | 67-148 |
| 67-66-3 | Chloroform | 25 | 27.3 | 109 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 27.1 | 108 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 27.4 | 110 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.7 | 111 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 110 | 88 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 33.1 | 132 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.1 | 108 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 27.7 | 111 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 27.4 | 110 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 26.8 | 107 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 20.1 | 80 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 22.2 | 89 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 24.8 | 99 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 26.0 | 104 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 23.4 | 94 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 25.7 | 103 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.7 | 91 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 13.2 | 53 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 25.4 | 102 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 25.0 | 100 | 73-115 |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 24.1 | 96 | 50-150 [a] |

# Blank Spike Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ815-BS | J019707.D | 1 | 12/20/05 | JG | n/a | n/a | VJ815 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 541-73-1 | m-Dichlorobenzene | 25 | 26.0 | 104 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 25.8 | 103 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.8 | 103 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 26.8 | 107 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 26.6 | 106 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 25.7 | 103 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 23.1 | 92 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 29.5 | 118 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 133 | 106 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 25.1 | 100 | 62-138 |
| 110-54-3 | Hexane | 25 | 27.0 | 108 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.9 | 112 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 27.8 | 111 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 117 | 94 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 251 | 100 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 25.0 | 100 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 20.5 | 82 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 25.3 | 101 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 20.4 | 82 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 24.3 | 97 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 27.0 | 108 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 130 | 104 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 22.2 | 89 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 24.9 | 100 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 26.0 | 104 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 229 | 92 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 29.3 | 117 | 80-122 |
| 100-42-5 | Styrene | 25 | 23.0 | 92 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 23.5 | 94 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 27.1 | 108 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 25.8 | 103 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 24.0 | 96 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 31.5 | 126* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 23.6 | 94 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 23.0 | 92 | 66-122 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 26.4 | 106 | 77-119 |

# Blank Spike Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ815-BS | J019707.D | 1 | 12/20/05 | JG | n/a | n/a | VJ815 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 26.4 | 106 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 25.1 | 100 | 75-126 |
| 108-88-3 | Toluene | 25 | 25.5 | 102 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 26.4 | 106 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 27.1 | 108 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 23.6 | 94 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 20.9 | 84 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 156 | 125 | 42-146 |
| | m,p-Xylene | 50 | 52.5 | 105 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 25.0 | 100 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 83-119% |

(a) Advisory control limits.

# Blank Spike Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ816-BS | J019740.D | 1 | 12/21/05 | JG | n/a | n/a | VJ816 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 25 | 28.0 | 112 | 80-120 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 102% | 83-119% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37263-1MS | J019720.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |
| F37263-1MSD | J019721.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |
| F37263-1 | J019719.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | F37263-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 333 | J | 2500 | 1970 | 65 | 1950 | 65 | 1 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 5000 | 4940 | 99 | 4860 | 97 | 2 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 2500 | 2270 | 91 | 2130 | 85 | 6 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 2500 | 2130 | 85 | 2110 | 84 | 1 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 500 | 516 | 103 | 513 | 103 | 1 | 50-150/30 [a] |
| 100-44-7 | Benzyl Chloride | ND | | 500 | 414 | 83 | 404 | 81 | 2 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 500 | 491 | 98 | 491 | 98 | 0 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 500 | 475 | 95 | 474 | 95 | 0 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 500 | 520 | 104 | 518 | 104 | 0 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 500 | 408 | 82 | 404 | 81 | 1 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 500 | 590 | 118 | 589 | 118 | 0 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 500 | 540 | 108 | 538 | 108 | 0 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 500 | 550 | 110 | 555 | 111 | 1 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 500 | 523 | 105 | 518 | 104 | 1 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 500 | 499 | 100 | 476 | 95 | 5 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 500 | 552 | 110 | 551 | 110 | 0 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 500 | 549 | 110 | 554 | 111 | 1 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 500 | 531 | 106 | 535 | 107 | 1 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 500 | 563 | 113 | 565 | 113 | 0 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 2500 | 1750 | 70 | 1340 | 54 | 27* | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 500 | 647 | 129 | 634 | 127 | 2 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 500 | 541 | 108 | 535 | 107 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 500 | 559 | 112 | 558 | 112 | 0 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 500 | 548 | 110 | 537 | 107 | 2 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 500 | 539 | 108 | 540 | 108 | 0 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 500 | 408 | 82 | 426 | 85 | 4 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 500 | 452 | 90 | 459 | 92 | 2 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 500 | 506 | 101 | 500 | 100 | 1 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 500 | 527 | 105 | 524 | 105 | 1 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 500 | 474 | 95 | 481 | 96 | 1 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 500 | 507 | 101 | 495 | 99 | 2 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 500 | 459 | 92 | 468 | 94 | 2 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 500 | 232 | 46 | 228 | 46 | 2 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 500 | 506 | 101 | 505 | 101 | 0 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 500 | 503 | 101 | 502 | 100 | 0 | 65-112/10 |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 500 | 452 | 90 | 461 | 92 | 2 | 50-150/30 [a] |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37263-1MS | J019720.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |
| F37263-1MSD | J019721.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |
| F37263-1 | J019719.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | F37263-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 541-73-1 | m-Dichlorobenzene | ND | | 500 | 513 | 103 | 523 | 105 | 2 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 500 | 517 | 103 | 513 | 103 | 1 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 500 | 512 | 102 | 509 | 102 | 1 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 500 | 537 | 107 | 541 | 108 | 1 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 500 | 530 | 106 | 538 | 108 | 1 | 59-116/11 |
| 100-41-4 | Ethylbenzene | 146 | | 500 | 679 | 107 | 670 | 105 | 1 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 500 | 463 | 93 | 470 | 94 | 2 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 500 | 581 | 116 | 562 | 112 | 3 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 2500 | 2050 | 82 | 2050 | 82 | 0 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 500 | 510 | 102 | 514 | 103 | 1 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 500 | 679 | 136 | 666 | 133 | 2 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 500 | 571 | 114 | 566 | 113 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 500 | 561 | 112 | 560 | 112 | 0 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 2500 | 2400 | 96 | 2430 | 97 | 1 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 5000 | 5560 | 111 | 4940 | 99 | 12 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 500 | 493 | 99 | 484 | 97 | 2 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 500 | 398 | 80 | 391 | 78 | 2 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 500 | 497 | 99 | 501 | 100 | 1 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 500 | 412 | 82 | 420 | 84 | 2 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 500 | 498 | 100 | 487 | 97 | 2 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 500 | 551 | 110 | 543 | 109 | 1 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 2500 | 1870 | 75 | 1870 | 75 | 0 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | 463 | | 500 | 920 | 91 | 916 | 91 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | 141 | | 500 | 615 | 95 | 651 | 102 | 6 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 500 | 512 | 102 | 525 | 105 | 3 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 5000 | 4550 | 91 | 4560 | 91 | 0 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | 13.7 | J | 500 | 589 | 115 | 587 | 115 | 0 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 500 | 474 | 95 | 468 | 94 | 1 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 500 | 476 | 95 | 473 | 95 | 1 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 500 | 549 | 110 | 548 | 110 | 0 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 500 | 508 | 102 | 512 | 102 | 1 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 500 | 496 | 99 | 500 | 100 | 1 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 500 | 492 | 98 | 555 | 111 | 12 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 500 | 457 | 91 | 467 | 93 | 2 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 500 | 452 | 90 | 462 | 92 | 2 | 58-120/11 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 319 | | 500 | 841 | 104 | 852 | 107 | 1 | 68-122/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37263-1MS | J019720.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |
| F37263-1MSD | J019721.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |
| F37263-1 | J019719.D | 20 | 12/20/05 | JG | n/a | n/a | VJ815 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | F37263-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 82.8 | | 500 | 611 | 106 | 618 | 107 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 500 | 496 | 99 | 497 | 99 | 0 | 70-126/9 |
| 108-88-3 | Toluene | 971 | | 500 | 1530 | 112 | 1530 | 112 | 0 | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 500 | 526 | 105 | 530 | 106 | 1 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 500 | 531 | 106 | 516 | 103 | 3 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 500 | 450 | 90 | 461 | 92 | 2 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 500 | 417 | 83 | 408 | 82 | 2 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 2500 | 3230 | 129 | 3190 | 128 | 1 | 37-154/10 |
| | m,p-Xylene | 932 | | 1000 | 2010 | 108 | 2000 | 107 | 0 | 74-123/7 |
| 95-47-6 | o-Xylene | 588 | | 500 | 1140 | 110 | 1120 | 106 | 2 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37263-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 101% | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | 102% | 101% | 73-126% |
| 2037-26-5 | Toluene-D8 | 99% | 100% | 95% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 101% | 101% | 103% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37235
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37235-3MS | J019753.D | 10 | 12/21/05 | JG | n/a | n/a | VJ816 |
| F37235-3MSD | J019754.D | 10 | 12/21/05 | JG | n/a | n/a | VJ816 |
| F37235-3 | J019752.D | 10 | 12/21/05 | JG | n/a | n/a | VJ816 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37235-3

| CAS No. | Compound | F37235-3 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 319 | | 250 | 591 | 109 | 577 | 103 | 2 | 72-125/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37235-3 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 101% | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | 105% | 102% | 73-126% |
| 2037-26-5 | Toluene-D8 | 98% | 97% | 95% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 102% | 102% | 108% | 83-119% |

# Metals Analysis



## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F37235
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Aluminum | 200 | 6.6 | anr | |
| Antimony | 5.0 | 1.5 | anr | |
| Arsenic | 10 | 2.8 | -3.0 | <10 |
| Barium | 200 | .5 | -0.28 | <200 |
| Beryllium | 4.0 | .3 | anr | |
| Cadmium | 5.0 | .3 | anr | |
| Calcium | 1000 | 3.8 | anr | |
| Chromium | 10 | .4 | anr | |
| Cobalt | 50 | .5 | anr | |
| Copper | 25 | .4 | anr | |
| Iron | 300 | 7.1 | 8.0 | <300 |
| Lead | 5.0 | 1.2 | anr | |
| Magnesium | 5000 | 9.9 | anr | |
| Manganese | 15 | .2 | -0.030 | <15 |
| Molybdenum | 50 | .8 | | |
| Nickel | 40 | 1.1 | anr | |
| Potassium | 5000 | 14 | anr | |
| Selenium | 10 | 2 | 2.7 | <10 |
| Silver | 10 | .6 | anr | |
| Sodium | 5000 | 150 | anr | |
| Thallium | 10 | 1.5 | anr | |
| Tin | 50 | 1.5 | | |
| Vanadium | 50 | .5 | anr | |
| Zinc | 20 | .6 | anr | |

Associated samples MP9018: F37235-1, F37235-2, F37235-3, F37235-4, F37235-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37235
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05 12/13/05

| Metal | F37126-4 Original | DUP | RPD | QC Limits | F37126-4 Original | MS | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | anr | | | | | | | | |
| Antimony | anr | | | | | | | | |
| Arsenic | 0.0 | 3.9 | 200.0(a) | 0-12 | 0.0 | 4480 | 4000 | 112.0 | 83-116 |
| Barium | 36.2 | 35.4 | 2.2 | 0-13 | 36.2 | 3980 | 4000 | 98.6 | 82-116 |
| Beryllium | anr | | | | | | | | |
| Cadmium | anr | | | | | | | | |
| Calcium | anr | | | | | | | | |
| Chromium | anr | | | | | | | | |
| Cobalt | anr | | | | | | | | |
| Copper | anr | | | | | | | | |
| Iron | 0.0 | 0.0 (b) | NC | 0-14 | 0.0 | 20200 | 27000 | 74.8N(c) | 76-125 |
| Lead | anr | | | | | | | | |
| Magnesium | anr | | | | | | | | |
| Manganese | 141 | 139 | 1.4 | 0-13 | 141 | 1080 | 1000 | 93.9 | 75-125 |
| Molybdenum | | | | | | | | | |
| Nickel | anr | | | | | | | | |
| Potassium | anr | | | | | | | | |
| Selenium | 0.0 | 0.0 (b) | NC | 0-13 | 0.0 | 4390 | 4000 | 109.8 | 84-121 |
| Silver | anr | | | | | | | | |
| Sodium | anr | | | | | | | | |
| Thallium | anr | | | | | | | | |
| Tin | | | | | | | | | |
| Vanadium | anr | | | | | | | | |
| Zinc | anr | | | | | | | | |

Associated samples MP9018: F37235-1, F37235-2, F37235-3, F37235-4, F37235-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37235
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | F37126-4 Original | MSD | Spikelot MPFLICP | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | anr | | | | | |
| Antimony | anr | | | | | |
| Arsenic | 0.0 | 4480 | 4000 | 112.0 | 0.0 | 20 |
| Barium | 36.2 | 3960 | 4000 | 98.1 | 0.5 | 20 |
| Beryllium | anr | | | | | |
| Cadmium | anr | | | | | |
| Calcium | anr | | | | | |
| Chromium | anr | | | | | |
| Cobalt | anr | | | | | |
| Copper | anr | | | | | |
| Iron | 0.0 | 20200 | 27000 | 74.8N(a) | 0.0 | 20 |
| Lead | anr | | | | | |
| Magnesium | anr | | | | | |
| Manganese | 141 | 1080 | 1000 | 93.9 | 0.0 | 20 |
| Molybdenum | | | | | | |
| Nickel | anr | | | | | |
| Potassium | anr | | | | | |
| Selenium | 0.0 | 4390 | 4000 | 109.8 | 0.0 | 20 |
| Silver | anr | | | | | |
| Sodium | anr | | | | | |
| Thallium | anr | | | | | |
| Tin | | | | | | |
| Vanadium | anr | | | | | |
| Zinc | anr | | | | | |

Associated samples MP9018: F37235-1, F37235-2, F37235-3, F37235-4, F37235-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F37235
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | BSP Result | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | anr | | | |
| Antimony | anr | | | |
| Arsenic | 3870 | 4000 | 96.8 | 80-120 |
| Barium | 3670 | 4000 | 91.8 | 80-120 |
| Beryllium | anr | | | |
| Cadmium | anr | | | |
| Calcium | anr | | | |
| Chromium | anr | | | |
| Cobalt | anr | | | |
| Copper | anr | | | |
| Iron | 27600 | 27000 | 102.2 | 80-120 |
| Lead | anr | | | |
| Magnesium | anr | | | |
| Manganese | 1020 | 1000 | 102.0 | 80-120 |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | anr | | | |
| Selenium | 4050 | 4000 | 101.3 | 80-120 |
| Silver | anr | | | |
| Sodium | anr | | | |
| Thallium | anr | | | |
| Tin | | | | |
| Vanadium | anr | | | |
| Zinc | anr | | | |

Associated samples MP9018: F37235-1, F37235-2, F37235-3, F37235-4, F37235-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F37235
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | F37126-4 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | anr | | | |
| Antimony | anr | | | |
| Arsenic | 0.00 | 0.00 | NC | 0-10 |
| Barium | 36.2 | 34.9 | 3.6 | 0-10 |
| Beryllium | anr | | | |
| Cadmium | anr | | | |
| Calcium | anr | | | |
| Chromium | anr | | | |
| Cobalt | anr | | | |
| Copper | anr | | | |
| Iron | 0.00 | 0.00 | NC | 0-10 |
| Lead | anr | | | |
| Magnesium | anr | | | |
| Manganese | 141 | 151 | 7.3 | 0-10 |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | anr | | | |
| Selenium | 0.00 | 0.00 | NC | 0-10 |
| Silver | anr | | | |
| Sodium | anr | | | |
| Thallium | anr | | | |
| Tin | | | | |
| Vanadium | anr | | | |
| Zinc | anr | | | |

Associated samples MP9018: F37235-1, F37235-2, F37235-3, F37235-4, F37235-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

# General Chemistry

## QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37235
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19235 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19235: F37235-1, F37235-2, F37235-3, F37235-4, F37235-5

7.1

7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37235
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19235 | F37238-1 | mg/l | 140 | 155 | 10.2 | 0-29% |

Associated Samples:
Batch GN19235: F37235-1, F37235-2, F37235-3, F37235-4, F37235-5

7.2 7

# SDG – F38206
# SITE – LF-01
# WELL SW-MW3 CONFIRMATION SAMPLE

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

02/06/06

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # TBA

Accutest Job Number: F38206

Sampling Date: 01/30/06

Report to:

MDAuben@bhate.com
JSolomon@bhate.com
rrenvironmental@zianet.com
keving@zianet.com
YWatts@bhate.com
ATTN: Distribution6

Total number of pages in report: **24**

ACCREDITED IN ACCORDANCE WITH nela

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

1956 - 2006
50
YEARS OF EXCELLENCE
Accutest Laboratories

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 3 4 5

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
**Section 2: Case Narrative/Conformance Summary** ..... **4**
**Section 3: Sample Results** ..... **5**
**3.1:** F38206-1: S1-MW3 ..... 6
**3.2:** F38206-2: TRIP BLANK ..... 9
**Section 4: Misc. Forms** ..... **12**
**4.1:** Chain of Custody ..... 13
**Section 5: GC/MS Volatiles - QC Data Summaries** ..... **15**
**5.1:** Method Blank Summary ..... 16
**5.2:** Blank Spike Summary ..... 19
**5.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 22

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F38206

HOLMN
Project No: PROJECT # TBA

| Sample Number | Collected Date | Time By | Received | Matrix Code | Matrix Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F38206-1 | 01/30/06 | 11:30 KG | 01/31/06 | AQ | Ground Water | S1-MW3 |
| F38206-2 | 01/30/06 | 00:00 KG | 01/31/06 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F38206

**Site:** HOLMN **Report Date** 2/6/2006 9:54:46 AM

1 Sample, 1 Trip Blank were collected on 01/30/2006 and received at Accutest on 01/31/2006 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of F38206. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ852

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F38226-1MS, F38226-1MSD were used as the QC samples indicated.

BS, MS/MSD Recovery for Acrolein is outside control limits. Reported data considered minimal values.

Matrix Spike Recovery for 2-Chloroethyl-vinyl ether, Hexane are outside control limits. 2-CEVE affected by preservation, Hexane biased high. Refer to Blank Spike for method performance in clean matrix. Probable cause due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 2-Chloroethyl-vinyl ether, Acrolein, Hexane are outside control limits. Probable cause due to matrix interference.

F38206-1: Sample was not preserved to a pH < 2.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: February 06, 2006

Svetlana Izosimova, QAO (signature on file)

# Sample Results

## Report of Analysis

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | S1-MW3 | | |
| Lab Sample ID: | F38206-1 | Date Sampled: | 01/30/06 |
| Matrix: | AQ - Ground Water | Date Received: | 01/31/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J020544.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| Run #2 [a] | J020546.D | 5 | 02/02/06 | MM | n/a | n/a | VJ852 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 20.7 | 25 | 5.0 | ug/l | J |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | 201 [b] | 5.0 | 2.5 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 7.4 | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 9.0 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | S1-MW3 | | |
| Lab Sample ID: | F38206-1 | Date Sampled: | 01/30/06 |
| Matrix: | AQ - Ground Water | Date Received: | 01/31/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | 50.3 | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | 7.3 | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | S1-MW3 | | |
| Lab Sample ID: | F38206-1 | Date Sampled: | 01/30/06 |
| Matrix: | AQ - Ground Water | Date Received: | 01/31/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 103% | 73-126% |
| 2037-26-5 | Toluene-D8 | 95% | 96% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 98% | 101% | 83-119% |

(a) Sample was not preserved to a pH < 2.
(b) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38206-2 | Date Sampled: | 01/30/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 01/31/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J020543.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38206-2 | Date Sampled: | 01/30/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 01/31/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38206-2 | Date Sampled: | 01/30/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 01/31/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 103% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F38206

**EBHATE**

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: TBA

P.O. _____

Chain of Custody Number [1]: 013020061

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LF-01

Client Name: USACE

Collected by: K. Gerssman

| | Field Sample ID (20 Character Max) | EBHATE LOCID (10 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (Military) (hhmm) | Sample Depth (beginning - ending) | | SA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of containers | VOC's 8260 | | | | | | | Matrix Description | Trip Blank Lot Control Number | Code [5] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S1-MW3 | LF-01 | 30Jan2006 | 11:30 | 0 | 0 | N | 1 | WG | 3 | 3 | | | | | | | Ground Water | | 1 |
| 2 | Trip Blank | | | | | | TB | | | | 2 | | | | | | | Trip Blank | | 1 |

Sample Analysis Requested [5] — Quality Assurance Samples [6]

COMMENTS: ATTN: Sample Receiving RUSH!!!
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfers Prior to Receipt by Laboratory

| | Relinquished By (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|---|
| 1. | [signature] | 1-30-06 | 1600 | 1. FX | | |
| 2. | FX | | | 2. [signature] Brown | 1-31-06 | 8:00 |
| 3. | | | | 3. | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.: _____

Method of Shipment: FED EX Airbill Number: _____

Analytical Lab: ACCUTEST Delivery Location: Orlando FL 32811

Lab Receipient: _____ Delivery Date/Time: 2.6

1.) Chain of Custody Number = date (collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-a) Sample, FD = Field Duplicate (-b) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: OS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099-01 in the Equipment Blank Lot Control

4.1 4

**F38206: Chain of Custody**
**Page 1 of 2**

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F38206 CLIENT: BHole PROJECT: LF01

DATE/TIME RECEIVED: 1-31-06/9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.6

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8542-8325-7613

### COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

### TRIP BLANK INFORMATION

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

### SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

### SOIL INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 1-31-06 TECHNICIAN SIGNATURE/DATE

4.1 4

F38206: Chain of Custody
Page 2 of 2

5

# GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-MB | J020542.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-MB | J020542.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | 0.56 | 2.0 | 0.50 | ug/l | J |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.89 | 1.0 | 0.50 | ug/l | J |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary

Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-MB | J020542.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | 73-126% |
| 2037-26-5 | Toluene-D8 | 95% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 101% | 83-119% |

# Blank Spike Summary



Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-BS | J020541.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 83.2 | 67 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 229 | 92 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 33.4 | 27* | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 111 | 89 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 26.2 | 105 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 27.9 | 112 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.9 | 88 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 25.2 | 101 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 24.8 | 99 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 24.8 | 99 | 75-120 |
| 75-25-2 | Bromoform | 25 | 23.7 | 95 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 26.2 | 105 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 26.8 | 107 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 26.1 | 104 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.5 | 102 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 20.5 | 82 | 67-148 |
| 67-66-3 | Chloroform | 25 | 26.3 | 105 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 25.5 | 102 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.1 | 104 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.2 | 109 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 134 | 107 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 31.4 | 126 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 29.3 | 117 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 26.9 | 108 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 28.2 | 113 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 29.9 | 120 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 23.1 | 92 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 23.9 | 96 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 24.3 | 97 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 24.8 | 99 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 23.5 | 94 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 28.2 | 113 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 24.0 | 96 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.3 | 109 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 25.7 | 103 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 27.0 | 108 | 73-115 |

# Blank Spike Summary



Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-BS | J020541.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 22.9 | 92 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 26.6 | 106 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 26.6 | 106 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.4 | 102 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 28.1 | 112 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 23.6 | 94 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 26.2 | 105 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 20.1 | 80 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 31.2 | 125 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 93.8 | 75 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 29.0 | 116 | 62-138 |
| 110-54-3 | Hexane | 25 | 28.3 | 113 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 28.8 | 115 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 26.6 | 106 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 102 | 82 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 262 | 105 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 25.7 | 103 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 27.2 | 109 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 28.1 | 112 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 20.4 | 82 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 24.4 | 98 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 24.9 | 100 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 102 | 82 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 25.6 | 102 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 23.0 | 92 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 25.9 | 104 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 238 | 95 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 28.0 | 112 | 80-122 |
| 100-42-5 | Styrene | 25 | 22.3 | 89 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 24.8 | 99 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.1 | 112 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 23.9 | 96 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 23.5 | 94 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 28.6 | 114 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 23.6 | 94 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 27.6 | 110 | 66-122 |

# Blank Spike Summary



Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-BS | J020541.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 26.3 | 105 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.8 | 103 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 27.1 | 108 | 75-126 |
| 108-88-3 | Toluene | 25 | 26.2 | 105 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 27.4 | 110 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 22.9 | 92 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 22.5 | 90 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 26.4 | 106 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 151 | 121 | 42-146 |
| | m,p-Xylene | 50 | 55.5 | 111 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 23.1 | 92 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 98% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F38226-1MS | J020550.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1MSD | J020551.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1 | J020545.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | F38226-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 82.1 | 66 | 82.4 | 66 | 0 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 225 | 90 | 226 | 90 | 0 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 28.1 | 22* | 29.0 | 23* | 3 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 110 | 88 | 106 | 85 | 4 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 25.8 | 103 | 26.6 | 106 | 3 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 28.9 | 116 | 28.8 | 115 | 0 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 21.1 | 84 | 21.1 | 84 | 0 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 24.3 | 97 | 24.0 | 96 | 1 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 24.5 | 98 | 24.2 | 97 | 1 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 25.0 | 100 | 25.5 | 102 | 2 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 23.0 | 92 | 22.4 | 90 | 3 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 25.0 | 100 | 25.3 | 101 | 1 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 25.6 | 102 | 25.9 | 104 | 1 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 25.0 | 100 | 25.4 | 102 | 2 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 25.8 | 103 | 25.5 | 102 | 1 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 23.5 | 94 | 24.5 | 98 | 4 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 27.2 | 109 | 27.2 | 109 | 0 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 24.5 | 98 | 25.0 | 100 | 2 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 25.6 | 102 | 25.9 | 104 | 1 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 26.3 | 105 | 26.5 | 106 | 1 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 30.5 | 122 | 31.2 | 125 | 2 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 26.7 | 107 | 26.5 | 106 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 27.4 | 110 | 27.6 | 110 | 1 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 26.0 | 104 | 26.7 | 107 | 3 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 27.1 | 108 | 27.4 | 110 | 1 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 23.0 | 92 | 22.6 | 90 | 2 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 23.9 | 96 | 23.6 | 94 | 1 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | 2.7 | | 25 | 28.4 | 103 | 28.2 | 102 | 1 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 25.1 | 100 | 25.6 | 102 | 2 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 24.0 | 96 | 24.1 | 96 | 0 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 26.9 | 108 | 26.8 | 107 | 0 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 23.4 | 94 | 23.3 | 93 | 0 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 21.4 | 86 | 22.1 | 88 | 3 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 25.1 | 100 | 25.1 | 100 | 0 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 24.5 | 98 | 25.1 | 100 | 2 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F38226-1MS | J020550.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1MSD | J020551.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1 | J020545.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | F38226-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 23.9 | 96 | 24.3 | 97 | 2 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 25.8 | 103 | 26.0 | 104 | 1 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 25.7 | 103 | 25.8 | 103 | 0 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 25.3 | 101 | 25.2 | 101 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 27.2 | 109 | 27.7 | 111 | 2 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 23.3 | 93 | 23.3 | 93 | 0 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 26.5 | 106 | 26.5 | 106 | 0 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 21.7 | 87 | 21.8 | 87 | 0 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 28.8 | 115 | 28.9 | 116 | 0 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 115 | 92 | 115 | 92 | 0 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 24.7 | 99 | 24.3 | 97 | 2 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 40.9 | 164* | 39.9 | 160* | 2 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 28.2 | 113 | 27.9 | 112 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 25.2 | 101 | 25.4 | 102 | 1 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 125 | 100 | 125 | 100 | 0 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 275 | 110 | 303 | 121 | 10 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 29.8 | 119 | 29.8 | 119 | 0 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 26.1 | 104 | 27.7 | 111 | 6 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 25.2 | 101 | 25.7 | 103 | 2 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 22.2 | 89 | 21.8 | 87 | 2 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 24.7 | 99 | 24.4 | 98 | 1 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 25.1 | 100 | 25.7 | 103 | 2 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 109 | 87 | 108 | 86 | 1 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | 77.9 | | 25 | 101 | 92 | 101 | 92 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 20.9 | 84 | 21.3 | 85 | 2 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 26.0 | 104 | 25.6 | 102 | 2 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 248 | 99 | 244 | 98 | 2 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 26.9 | 108 | 27.3 | 109 | 1 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 22.2 | 89 | 21.7 | 87 | 2 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 23.9 | 96 | 24.1 | 96 | 1 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 27.5 | 110 | 27.0 | 108 | 2 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 24.9 | 100 | 25.1 | 100 | 1 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 24.4 | 98 | 24.3 | 97 | 0 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 24.8 | 99 | 25.1 | 100 | 1 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 24.6 | 98 | 24.4 | 98 | 1 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 25.0 | 100 | 24.9 | 100 | 0 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F38206
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F38226-1MS | J020550.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1MSD | J020551.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1 | J020545.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |

5.3 5

The QC reported here applies to the following samples: Method: SW846 8260B

F38206-1, F38206-2

| CAS No. | Compound | F38226-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 25.8 | 103 | 26.2 | 105 | 2 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 24.5 | 98 | 24.8 | 99 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 24.5 | 98 | 24.5 | 98 | 0 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 25.3 | 101 | 25.5 | 102 | 1 | 67-123/8 |
| 79-01-6 | Trichloroethylene | 0.57 | J | 25 | 27.9 | 109 | 27.5 | 108 | 1 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 22.5 | 90 | 22.6 | 90 | 0 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 24.1 | 96 | 24.3 | 97 | 1 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 21.0 | 84 | 22.7 | 91 | 8 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 162 | 130 | 162 | 130 | 0 | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 54.8 | 110 | 55.1 | 110 | 1 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 22.4 | 90 | 22.4 | 90 | 0 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F38226-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 101% | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 103% | 103% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 96% | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | 97% | 102% | 83-119% |

(a) Advisory control limits.

# SDG – F37167
# SITES – SS-02/05, SD-08, AND SS-17

Southeast ACCUTEST laboratories

01/09/06

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM/BHATE

Accutest Job Number: F37167

Sampling Date: 12/07/05

Report to:

Bhate Environmental Associates, Inc.

fgardner@bhate.com

ATTN: Frank Gardner

Total number of pages in report: 93

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6 7

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
Section 2: Case Narrative/Conformance Summary ..... 5
Section 3: Sample Results ..... 7
3.1: F37167-1: MW-02&5-03 ..... 7
3.2: F37167-2: MW-02&5-05 ..... 11
3.3: F37167-3: MW-02&5-06 ..... 15
3.4: F37167-4: MW-02&5-08 ..... 19
3.5: F37167-5: MW-02&5-08 ..... 23
3.6: F37167-6: MW-BX-02 ..... 27
3.7: F37167-7: MW-BX-02 ..... 31
3.8: F37167-8: W4 ..... 35
3.9: F37167-9: W4 ..... 39
3.10: F37167-10: MW-08-03 ..... 43
3.11: F37167-11: MW-08-04 ..... 48
3.12: F37167-12: MW-08-05 ..... 53
3.13: F37167-13: MW-08-06 ..... 58
3.14: F37167-14: TRIP BLANK ..... 59
**Section 4: Misc. Forms** ..... **62**
**4.1:** Chain of Custody ..... 63
Section 5: GC/MS Volatiles - QC Data Summaries ..... 66
**5.1:** Method Blank Summary ..... 67
**5.2:** Blank Spike Summary ..... 73
**5.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 79
Section 6: Metals Analysis - QC Data Summaries ..... 85
**6.1:** Prep QC MP9018: As,Ba,Fe,Mn,Se ..... 86
**Section 7: General Chemistry - QC Data Summaries** ..... **91**
**7.1:** Method Blank and Spike Results Summary ..... 92
**7.2:** Duplicate Results Summary ..... 93

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37167

HOLMN
Project No: PROJECT # LTM/BHATE

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| F37167-1 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-02&5-03 |
| F37167-2 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-02&5-05 |
| F37167-3 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-02&5-06 |
| F37167-4 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-02&5-08 |
| F37167-4D | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Water Dup/MSD | MW-02&5-08 |
| F37167-4S | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Water Matrix Spike | MW-02&5-08 |
| F37167-5 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-02&5-08 |
| F37167-6 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-BX-02 |
| F37167-7 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-BX-02 |
| F37167-8 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | W4 |
| F37167-8D | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Water Dup/MSD | W4 |
| F37167-8S | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Water Matrix Spike | W4 |
| F37167-9 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | W4 |

# Sample Summary
(continued)

Bhate Environmental Associates, Inc.

Job No: F37167

HOLMN
Project No: PROJECT # LTM/BHATE

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| F37167-10 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-08-03 |
| F37167-11 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-08-04 |
| F37167-12 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-08-05 |
| F37167-13 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Ground Water | MW-08-06 |
| F37167-14 | 12/07/05 | 00:00 | KG | 12/09/05 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F37167

**Site:** HOLMN **Report Date** 12/23/2005 10:57:04

10 Samples, 1 Trip Blank were collected on 12/07/2005 and were received at Accutest on 12/09/2005 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of F37167. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ812

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37167-4MS, F37167-4MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 1,1-Dichloroethane, 1,2,3-Trichlorobenzene, Acetone, Benzene, Chloroform, Methyl ethyl ketone, Trichloroethylene, Vinyl Acetate are outside control limits. Recoveries are biased high, no hits detected in the sample, data integrity not compromized.

Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Methyl methacrylate, Naphthalene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone, Methyl methacrylate, Naphthalene, Vinyl Acetate are outside control limits. Probable cause due to matrix interference.

**Matrix:** AQ **Batch ID:** VJ813

All samples were analyzed within the recommended method holding time.

Sample(s) F37167-8MS, F37167-8MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

BS, MS/MSD Recovery(s) for 1,2,3-Trichlorobenzene are outside control limits. Biased high, not detected in the samples, data integrity not compromized.

MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Affected by preservation, for method performance in clean matrix refer to Blank Spike.

## Metals By Method SW846 6010B

**Matrix:** AQ **Batch ID:** MP9018

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37126-4DUP, F37126-4MS, F37126-4MSD, F37126-4SDL, F37126-4DUP were used as the QC samples for metals.

MS/MSD Recovery(s) for Iron are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity. See Blank Spike.

RPD(s) for Duplicate for Arsenic are outside control limits for sample MP9018-D1. RPD acceptable due to low duplicate and sample concentrations.

F37167-12 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37167-10 for Iron: Elevated reporting limit(s) due to matrix interference.

F37167-10 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37167-11 for Iron: Elevated reporting limit(s) due to matrix interference.

F37167-11 for Selenium: Elevated reporting limit(s) due to matrix interference.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19213

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37167-4DUP were used as the QC samples for Solids, Total Dissolved.

**Matrix:** AQ **Batch ID:** GN19214

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37167-8DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 23, 2005

Svetlana Izosimova, QAO (signature on file)

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-03 | | |
| Lab Sample ID: | F37167-1 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019633.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-03 | | |
| Lab Sample ID: | F37167-1 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-03 | | |
| Lab Sample ID: | F37167-1 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-03 | | |
| Lab Sample ID: | F37167-1 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 5710 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-05 | | |
| Lab Sample ID: | F37167-2 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019662.D | 5 | 12/16/05 | MM | n/a | n/a | VJ813 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 130 | 25 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 100 | 50 | ug/l | |
| 107-02-8 | Acrolein | ND | 50 | 25 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 50 | 25 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 50 | 25 | ug/l | |
| 71-43-2 | Benzene | 13.0 | 5.0 | 2.5 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 5.0 | 3.0 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 5.0 | 2.5 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 5.0 | 2.5 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 5.0 | 2.5 | ug/l | |
| 75-25-2 | Bromoform | ND | 5.0 | 2.5 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 5.0 | 2.5 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.6 | 5.0 | 2.5 | ug/l | J |
| 98-06-6 | tert-Butylbenzene | ND | 5.0 | 2.5 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 5.0 | 2.5 | ug/l | |
| 75-00-3 | Chloroethane | ND | 10 | 5.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 5.0 | 2.5 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 10 | 5.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 5.0 | 2.5 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 5.0 | 2.5 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 25 | 13 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 10 | 5.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 5.0 | 2.5 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 5.0 | 2.5 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 5.0 | 2.5 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 5.0 | 2.5 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 10 | 5.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 5.0 | 2.5 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 5.0 | 2.5 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 5.0 | 2.5 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 5.0 | 2.5 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 5.0 | 2.5 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-05 | | |
| Lab Sample ID: | F37167-2 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 5.0 | 2.0 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 5.0 | 2.5 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 5.0 | 2.5 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 5.0 | 1.5 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 50 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 5.0 | 2.5 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 5.0 | 2.5 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 5.0 | 2.5 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 5.0 | 2.5 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 5.0 | 1.5 | ug/l | |
| 100-41-4 | Ethylbenzene | 233 | 5.0 | 2.5 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 25 | 10 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 3.0 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 25 | 13 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 10 | 2.5 | ug/l | |
| 110-54-3 | Hexane | ND | 10 | 5.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | 17.8 | 5.0 | 2.5 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 5.0 | 2.5 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 25 | 13 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 100 | 50 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 10 | 5.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 10 | 5.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 25 | 13 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 25 | 13 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 10 | 2.5 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 25 | 5.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 25 | 13 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 5.0 | 2.5 | ug/l | |
| 91-20-3 | Naphthalene | ND | 10 | 5.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 50 | 25 | ug/l | |
| 107-12-0 | Propionitrile | ND | 100 | 50 | ug/l | |
| 103-65-1 | n-Propylbenzene | 13.5 | 5.0 | 2.5 | ug/l | |
| 100-42-5 | Styrene | ND | 5.0 | 2.5 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 5.0 | 2.5 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 5.0 | 2.5 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 5.0 | 2.0 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 5.0 | 2.5 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | 2.5 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 10 | 5.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 2.5 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-05 | | |
| Lab Sample ID: | F37167-2 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 10 | 5.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 10 | 5.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 5.0 | 2.5 | ug/l | |
| 108-88-3 | Toluene | ND | 5.0 | 2.5 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 5.0 | 2.5 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 10 | 2.5 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 50 | 25 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 5.0 | 2.5 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 50 | 25 | ug/l | |
| | m,p-Xylene | 2.6 | 10 | 2.5 | ug/l | J |
| 95-47-6 | o-Xylene | 6.5 | 5.0 | 2.5 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 95% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-05 | | |
| Lab Sample ID: | F37167-2 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 13900 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-06 | | |
| Lab Sample ID: | F37167-3 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019635.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-06 | | |
| Lab Sample ID: | F37167-3 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-06 | | |
| Lab Sample ID: | F37167-3 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 109% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-06 | | |
| Lab Sample ID: | F37167-3 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 65200 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-08 | | |
| Lab Sample ID: | F37167-4 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019636.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-08 | | |
| Lab Sample ID: | F37167-4 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-08 | | |
| Lab Sample ID: | F37167-4 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-08 | | |
| Lab Sample ID: | F37167-4 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 79600 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-08 | | |
| Lab Sample ID: | F37167-5 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019637.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-08 | | |
| Lab Sample ID: | F37167-5 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-08 | | |
| Lab Sample ID: | F37167-5 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 106% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 89% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-02&5-08 | | |
| Lab Sample ID: | F37167-5 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 77600 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-BX-02 | | |
| Lab Sample ID: | F37167-6 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019672.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | 1.3 | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.9 | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 7.1 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-BX-02 | | |
| Lab Sample ID: | F37167-6 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | 2.7 | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | 4.7 | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | 0.70 | 1.0 | 0.50 | ug/l | J |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-BX-02 | | |
| Lab Sample ID: | F37167-6 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-BX-02 | | |
| Lab Sample ID: | F37167-6 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 4960 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-BX-02 | | |
| Lab Sample ID: | F37167-7 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019639.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| Run #2 | J019663.D | 10 | 12/16/05 | MM | n/a | n/a | VJ813 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 15.6 | 25 | 5.0 | ug/l | J |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | 45.1 | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | 1.4 | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 3.2 | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 76.3 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-BX-02 | | |
| Lab Sample ID: | F37167-7 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | 77.9 [a] | 10 | 5.0 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | 22.0 | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 338 [a] | 10 | 5.0 | ug/l | |
| 91-20-3 | Naphthalene | 1.4 | 2.0 | 1.0 | ug/l | J |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | 33.5 | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-BX-02 | | |
| Lab Sample ID: | F37167-7 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | 0.84 | 2.0 | 0.50 | ug/l | J |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 102% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% | 102% | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | 107% | 83-119% |

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-BX-02 | | |
| Lab Sample ID: | F37167-7 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 6270 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | W4 | | |
| Lab Sample ID: | F37167-8 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019658.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 0.79 | 1.0 | 0.50 | ug/l | J |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | W4 | | |
| Lab Sample ID: | F37167-8 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | W4 | | |
| Lab Sample ID: | F37167-8 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 109% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | W4 | | |
| Lab Sample ID: | F37167-8 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 3080 | 10 | 10 | mg/l | 1 | 12/13/05 14:30 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | W4 | | |
| Lab Sample ID: | F37167-9 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019659.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 0.81 | 1.0 | 0.50 | ug/l | J |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | W4 | | |
| Lab Sample ID: | F37167-9 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | W4 | | |
| Lab Sample ID: | F37167-9 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 109% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | W4 | | |
| Lab Sample ID: | F37167-9 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 3170 | 10 | 10 | mg/l | 1 | 12/13/05 14:30 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-03 | | |
| Lab Sample ID: | F37167-10 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019660.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.5 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-03 | | |
| Lab Sample ID: | F37167-10 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-03 | | |
| Lab Sample ID: | F37167-10 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 109% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-03 | | |
| Lab Sample ID: | F37167-10 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 8.3 J | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Barium | 15.1 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Manganese | 20.9 | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Selenium [a] | 96 U | 100 | 96 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA4713
(2) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-03 | | |
| Lab Sample ID: | F37167-10 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 15200 | 10 | 10 | mg/l | 1 | 12/13/05 14:30 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-04 | | |
| Lab Sample ID: | F37167-11 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019652.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-04 | | |
| Lab Sample ID: | F37167-11 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-04 | | |
| Lab Sample ID: | F37167-11 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-04 | | |
| Lab Sample ID: | F37167-11 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 6.9 J | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Barium | 17.2 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Iron [a] | 1500 U | 3000 | 1500 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Manganese | 225 | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Selenium [a] | 48 U | 100 | 48 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA4713
(2) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-04 | | |
| Lab Sample ID: | F37167-11 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 6610 | 10 | 10 | mg/l | 1 | 12/13/05 14:30 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-05 | | |
| Lab Sample ID: | F37167-12 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019661.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-05 | | |
| Lab Sample ID: | F37167-12 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-05 | | |
| Lab Sample ID: | F37167-12 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 109% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-05 | | |
| Lab Sample ID: | F37167-12 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.1 J | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Barium | 41.2 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Iron | 824 | 300 | 7.5 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Manganese | 255 | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |
| Selenium [a] | 96 U | 100 | 96 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA4713
(2) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-05 | | |
| Lab Sample ID: | F37167-12 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 2510 | 10 | 10 | mg/l | 1 | 12/13/05 14:30 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-08-06 | | |
| Lab Sample ID: | F37167-13 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/09/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 20300 | 10 | 10 | mg/l | 1 | 12/13/05 14:30 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37167-14 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019632.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37167-14 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | 1.6 | 5.0 | 1.0 | ug/l | J |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37167-14 | Date Sampled: | 12/07/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/09/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 109% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

4

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F37167

BHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/BHATE

P.O. _____

Chain of Custody Number [1]: 12082005

LIMS Number: _____

Facility/Base I.D.: HOLMM

Project Name / Site Name: LTM

Client Name: BHATE

Collected by: K. Gerstein

| Field Sample ID (30 Character Max) | EXPMAT LOCID (10 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (24 Hour) (hhmm) | Sample Depth (beginning - ending) | | EA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of containers | *Metals 6010 | VOC 8260 | TDS 160.2 | | | | | Matrix Description | Trip Blank Lot Number (Vendor) | Order ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-02&5-03 | SS-02/05 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-02&5-05 | SS-02/06 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-02&5-06 | SS-02/07 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-02&5-08 | SS-02/08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-02&5-08 | SS-02/09 | 7-Dec-05 | | 0 | 0 | FD | 2 | GW | 4 | | X | X | | | | | Water, Field Dup | | 1 |
| MW-02&5-08 | SS-02/10 | 7-Dec-05 | | 0 | 0 | MS | 3 | GW | 4 | | X | X | | | | | Water, MS/MSD | | 1 |
| MW-BX-01 | SS-17 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-BX-02 | SS-17 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| W4 | SS-17 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| W4 | SS-17 | 7-Dec-05 | | 0 | 0 | FD | 2 | GW | 4 | | X | X | | | | | Water, Field Dup | | 1 |
| W4 | SS-17 | 7-Dec-05 | | 0 | 0 | MS | 3 | GW | 4 | | X | X | | | | | Water, MS/MSD | | 1 |
| MW-08-03 | SD-08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | Water | | 1 |
| MW-08-04 | SD-08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | Water | | 1 |
| MW-08-05 | SD-08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | Water | | 1 |
| MW-08-06 | SD-08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 1 | | | X | | | | | Water | | 1 |
| Trip Blank | | | | | | AB | | WQ | 2 | | X | | | | | | Water | | 1 |

Sample Analysis Requested [5] — Quality Assurance Samples [6]

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, Fl. 32811

*Metals to include: Arsenic, Barium, Iron, Manganese & Selenium

Custody Transfers Prior to Sample by Laboratory

| Relinquished by (Signature) | Date | Time | Received by (Signature) | Date | Time |
|---|---|---|---|---|---|
| K Gerstein | 12-08-05 | 16:00 | 1. | | |
| | | | 2. | | |
| | | | 3. | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.:

Method of Shipment: Fedex AWB Number: 9412-9862-9723

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Supplier: Delivery Date/Time

1.) Chain of Custody Number = date collected + custody number (e.g. 08-02-1999-01)

2.) Sample Type (EA) Codes: N = Normal Sample, TB = Trip Blank (s) Sample, FD = Field Duplicate (s) Sample, FR = Field Replicate (s) Sample, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Accident Blank (-s)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GW = Ref Gas, WQ = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, methods, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (dmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in conjunction with MW-1 on 10/10/99 will be designated 101099E1 in the Equipment Blank Lot Control

4.1 4

F37167: Chain of Custody
Page 1 of 3



ACCUTEST. Laboratories

F37167

F37167

BHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/HGL

P.O.

Chain of Custody Number [1]: 12072003

LIMS Number:

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: BHATE

Collected by: K. Germana

Sample Analysis Requested [5]

Quality assurance samples [6]

| Field Sample ID (10 Character Max) | RPIMS LOCID (10 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (military) (Mins) | Sample Depth (beginning - ending) | | EA Code [2] | Sample Number [3] | Matrix [4] | Number of containers | Metals 6010/7470 | VOC 8260 | TSS 160.2 | | | | | Matrix Description | Trip Blank Lot Control Number | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-02&5-03 (1) | SS-02/05 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-02&5-05 (2) | SS-02/06 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-02&5-06 (3) | SS-02/07 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-02&5-08 (4) | SS-02/08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-02&5-08 (4) | SS-02/09 | 7-Dec-05 | | 0 | 0 | FD | 2 | GW | 4 | | X | X | | | | | Water, Field Dup | | 1 |
| MW-02&5-08 (4) | SS-02/10 | 7-Dec-05 | | 0 | 0 | MS | 3 | GW | 4 | | X | X | | | | | Water, MS/MSD | | 1 |
| MW-BX-01 (6) | SS-17 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| MW-BX-02 (7) | SS-17 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| W4 (8) | SS-17 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 4 | | X | X | | | | | Water | | 1 |
| W4 (9) | SS-17 | 7-Dec-05 | | 0 | 0 | FD | 2 | GW | 4 | | X | X | | | | | Water, Field Dup | | 1 |
| W4 (8) | SS-17 | 7-Dec-05 | | 0 | 0 | MS | 3 | GW | 4 | | X | X | | | | | Water, MS/MSD | | 1 |
| MW-08-03 (10) | SD-08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | Water | | 1 |
| MW-08-04 (11) | SD-08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | Water | | 1 |
| MW-08-05 (12) | SD-08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | Water | | 1 |
| MW-08-06 (13) | SD-08 | 7-Dec-05 | | 0 | 0 | N | 1 | GW | 1 | | | X | | | | | Water | | 1 |
| Trip Blank (14) | | | | | | AB | | WQ | 2 | | X | | | | | | Water | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfer Prior to Receipt by Laboratory

| Relinquished by (Signature) | Date | Time | Received by (Signature) | Date | Time |
|---|---|---|---|---|---|
| 2. K Germana | 12-8-05 | 16:00 | [illegible] | 12/08/05 | 09:10 |
| 3. | | | 3. | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.

Method of Shipment: Fedex Airbill Number: 9912-7862-9735

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Receipt on: Delivery Date/Time

1.) Chain of Custody Number = date collected + sample number (e.g. 09-22-1999-01)

2.) Sample Type (EA) Code: N = Normal Sample, TB = Trip Blank (-a) Sample, FD = Field Dup/Rinse (-a) Sample, FR = Field Replicate (-b) Sample, EB = Equipment Blank (-c) Sample, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, If sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GW = Well Use, WG = Groundwater, WS = Surface Water, SO = Soil, SD = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (rxn, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each

6.) Quality assurance samples are assigned by date (dd-mmm-yy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101 00001 in the Equipment Blank Lot Control

2.4

4.1

4

F37167: Chain of Custody
Page 2 of 3



ACCUTEST Laboratories

F37167

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37167 CLIENT: BHate PROJECT: CTM

DATE/TIME RECEIVED: 12/9/05 0910 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.4

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7912 9862 9725

### COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

### TRIP BLANK INFORMATION

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

### SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

### SOIL INFORMATION

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE TECHNICIAN SIGNATURE/DATE

ASRD06/22/05

4.1 4

F37167: Chain of Custody
Page 3 of 3

# GC/MS Volatiles

5

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ812-MB | J019630.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ812-MB | J019630.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.0 | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ812-MB | J019630.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 106% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 109% | 83-119% |

# Method Blank Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ813-MB | J019656.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ813-MB | J019656.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ813-MB | J019656.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | 83-119% |

# Blank Spike Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ812-BS | J019631.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 214 | 171* | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 281 | 112 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 111 | 89 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 131 | 105 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 28.2 | 113 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 31.8 | 127* | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 22.3 | 89 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 24.3 | 97 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 25.9 | 104 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 28.5 | 114 | 75-120 |
| 75-25-2 | Bromoform | 25 | 21.0 | 84 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.3 | 113 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 26.4 | 106 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 26.7 | 107 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.6 | 102 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 30.0 | 120 | 67-148 |
| 67-66-3 | Chloroform | 25 | 30.2 | 121* | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 26.6 | 106 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.5 | 106 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.1 | 108 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 136 | 109 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 35.9 | 144 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 28.5 | 114 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 30.5 | 122* | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 29.7 | 119 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 29.3 | 117 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 22.1 | 88 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 23.0 | 92 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 28.2 | 113 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 29.0 | 116 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 24.1 | 96 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 26.8 | 107 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.7 | 91 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.3 | 109 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 27.4 | 110 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 28.0 | 112 | 73-115 |

# Blank Spike Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ812-BS | J019631.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 24.4 | 98 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 25.4 | 102 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 24.8 | 99 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.1 | 100 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 29.2 | 117 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 26.8 | 107 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 25.7 | 103 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 24.0 | 96 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 32.5 | 130 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 155 | 124 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 25.3 | 101 | 62-138 |
| 110-54-3 | Hexane | 25 | 30.5 | 122 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.6 | 110 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 26.8 | 107 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 132 | 106 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 300 | 120 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 31.7 | 127 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 27.9 | 112 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 26.7 | 107 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 25.0 | 100 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 27.3 | 109 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 29.0 | 116 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 168 | 134* | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 25.7 | 103 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 29.2 | 117 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 24.5 | 98 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 277 | 111 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 28.4 | 114 | 80-122 |
| 100-42-5 | Styrene | 25 | 23.2 | 93 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.7 | 91 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.9 | 116 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 28.1 | 112 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 25.2 | 101 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 37.0 | 148* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.2 | 97 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 24.6 | 98 | 66-122 |

# Blank Spike Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ812-BS | J019631.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 26.1 | 104 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.9 | 104 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 24.4 | 98 | 75-126 |
| 108-88-3 | Toluene | 25 | 25.3 | 101 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 28.9 | 116* | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 32.2 | 129 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 26.4 | 106 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 28.4 | 114 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 197 | 158* | 42-146 |
| | m,p-Xylene | 50 | 52.2 | 104 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 24.8 | 99 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 83-119% |

(a) Advisory control limits.

# Blank Spike Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ813-BS | J019655.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 161 | 129 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 251 | 100 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 85.6 | 68 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 105 | 84 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 25.9 | 104 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 28.5 | 114 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.8 | 87 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 25.4 | 102 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 23.3 | 93 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 25.3 | 101 | 75-120 |
| 75-25-2 | Bromoform | 25 | 20.7 | 83 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.8 | 115 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 27.1 | 108 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.7 | 111 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.7 | 103 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 27.3 | 109 | 67-148 |
| 67-66-3 | Chloroform | 25 | 27.2 | 109 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 26.8 | 107 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 27.4 | 110 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.9 | 112 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 115 | 92 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 33.1 | 132 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 26.2 | 105 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 27.6 | 110 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 27.1 | 108 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 26.4 | 106 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 21.1 | 84 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 22.6 | 90 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 24.8 | 99 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 25.3 | 101 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 23.7 | 95 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 24.8 | 99 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.6 | 90 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 25.1 | 100 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 25.1 | 100 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 24.9 | 100 | 73-115 |

# Blank Spike Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ813-BS | J019655.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 25.6 | 102 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 26.1 | 104 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 25.8 | 103 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 26.4 | 106 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 26.3 | 105 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 26.7 | 107 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 25.9 | 104 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 23.9 | 96 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 30.4 | 122 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 137 | 110 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 25.3 | 101 | 62-138 |
| 110-54-3 | Hexane | 25 | 27.0 | 108 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.4 | 110 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 27.5 | 110 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 126 | 101 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 260 | 104 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 28.2 | 113 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 25.7 | 103 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 24.5 | 98 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 20.6 | 82 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 24.9 | 100 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 26.3 | 105 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 131 | 105 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 22.8 | 91 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 28.1 | 112 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 25.6 | 102 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 236 | 94 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 29.5 | 118 | 80-122 |
| 100-42-5 | Styrene | 25 | 23.3 | 93 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 23.2 | 93 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 26.6 | 106 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 28.4 | 114 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 24.8 | 99 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 35.0 | 140* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.7 | 99 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 23.9 | 96 | 66-122 |

# Blank Spike Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ813-BS | J019655.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 26.5 | 106 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 26.7 | 107 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 24.4 | 98 | 75-126 |
| 108-88-3 | Toluene | 25 | 25.6 | 102 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 26.0 | 104 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 30.1 | 120 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 26.1 | 104 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 25.7 | 103 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 162 | 130 | 42-146 |
| | m,p-Xylene | 50 | 52.5 | 105 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 24.7 | 99 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37167-4MS | J019644.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| F37167-4MSD | J019645.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| F37167-4 | J019636.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | F37167-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 114 | 91 | 111 | 89 | 3 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 286 | 114 | 277 | 111 | 3 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 105 | 84 | 107 | 86 | 2 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 133 | 106 | 135 | 108 | 1 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 25.0 | 100 | 24.5 | 98 | 2 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 27.8 | 111 | 27.1 | 108 | 3 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 29.2 | 117 | 28.0 | 112 | 4 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 24.7 | 99 | 24.6 | 98 | 0 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 23.8 | 95 | 23.9 | 96 | 0 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 25.6 | 102 | 24.9 | 100 | 3 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 24.3 | 97 | 23.9 | 96 | 2 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 25.3 | 101 | 24.9 | 100 | 2 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 25.4 | 102 | 24.9 | 100 | 2 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 26.2 | 105 | 25.9 | 104 | 1 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 25.4 | 102 | 25.0 | 100 | 2 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 27.5 | 110 | 26.4 | 106 | 4 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 26.9 | 108 | 26.2 | 105 | 3 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 25.6 | 102 | 25.3 | 101 | 1 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 27.0 | 108 | 26.3 | 105 | 3 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 27.1 | 108 | 26.6 | 106 | 2 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 32.0 | 128 | 31.2 | 125 | 3 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 25.2 | 101 | 25.0 | 100 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 27.0 | 108 | 26.4 | 106 | 2 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 26.2 | 105 | 25.9 | 104 | 1 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 25.7 | 103 | 25.6 | 102 | 0 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 33.2 | 133* | 32.7 | 131* | 2 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 26.5 | 106 | 26.2 | 105 | 1 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 26.9 | 108 | 26.0 | 104 | 3 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 25.3 | 101 | 24.9 | 100 | 2 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 26.6 | 106 | 26.1 | 104 | 2 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 23.5 | 94 | 22.8 | 91 | 3 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 23.7 | 95 | 23.7 | 95 | 0 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 22.3 | 89 | 23.6 | 94 | 6 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 24.0 | 96 | 23.9 | 96 | 0 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 23.7 | 95 | 23.6 | 94 | 0 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37167-4MS | J019644.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| F37167-4MSD | J019645.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| F37167-4 | J019636.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | F37167-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 29.8 | 119 | 29.9 | 120 | 0 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 25.4 | 102 | 25.0 | 100 | 2 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 25.9 | 104 | 25.4 | 102 | 2 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 25.5 | 102 | 25.4 | 102 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 25.5 | 102 | 25.1 | 100 | 2 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 28.2 | 113 | 28.0 | 112 | 1 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 25.5 | 102 | 25.0 | 100 | 2 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 32.3 | 129 | 32.1 | 128 | 1 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 27.5 | 110 | 27.7 | 111 | 1 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 219 | 175* | 217 | 174* | 1 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 21.6 | 86 | 21.3 | 85 | 1 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 26.5 | 106 | 26.2 | 105 | 1 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 26.4 | 106 | 26.1 | 104 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 26.3 | 105 | 25.7 | 103 | 2 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 232 | 186* | 228 | 182* | 2 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 346 | 138 | 334 | 134 | 4 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 27.6 | 110 | 26.6 | 106 | 4 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 24.2 | 97 | 25.0 | 100 | 3 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 23.5 | 94 | 23.2 | 93 | 1 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 30.5 | 122* | 29.5 | 118* | 3 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 26.9 | 108 | 26.3 | 105 | 2 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 25.6 | 102 | 25.0 | 100 | 2 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 142 | 114 | 140 | 112 | 1 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 26.1 | 104 | 26.0 | 104 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 38.2 | 153* | 37.6 | 150* | 2 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 26.4 | 106 | 25.7 | 103 | 3 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 308 | 123 | 300 | 120 | 3 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 28.4 | 114 | 27.7 | 111 | 2 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 22.8 | 91 | 22.2 | 89 | 3 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 22.8 | 91 | 22.8 | 91 | 0 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 25.6 | 102 | 25.1 | 100 | 2 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 36.7 | 147* | 36.1 | 144* | 2 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 28.2 | 113 | 27.9 | 112 | 1 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 36.0 | 144* | 34.6 | 138* | 4 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 32.7 | 131* | 33.0 | 132* | 1 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 24.0 | 96 | 23.7 | 95 | 1 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37167-4MS | J019644.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| F37167-4MSD | J019645.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |
| F37167-4 | J019636.D | 1 | 12/15/05 | MM | n/a | n/a | VJ812 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-1, F37167-3, F37167-4, F37167-5, F37167-7, F37167-11, F37167-14

| CAS No. | Compound | F37167-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 25.8 | 103 | 25.2 | 101 | 2 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 25.5 | 102 | 25.1 | 100 | 2 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 22.8 | 91 | 22.7 | 91 | 0 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 25.0 | 100 | 24.7 | 99 | 1 | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 25.3 | 101 | 25.0 | 100 | 1 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 28.7 | 115 | 28.1 | 112 | 2 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 32.3 | 129 | 32.4 | 130 | 0 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 25.0 | 100 | 24.9 | 100 | 0 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 203 | 162* | 204 | 163* | 0 | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 51.0 | 102 | 50.5 | 101 | 1 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 24.3 | 97 | 24.0 | 96 | 1 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37167-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 100% | 105% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 111% | 110% | 110% | 73-126% |
| 2037-26-5 | Toluene-D8 | 95% | 97% | 91% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 103% | 103% | 108% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37167-8MS | J019667.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| F37167-8MSD | J019668.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| F37167-8 | J019658.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | F37167-8 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 81.3 | 65 | 85.5 | 68 | 5 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 231 | 92 | 241 | 96 | 4 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 79.8 | 64 | 84.3 | 67 | 5 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 107 | 86 | 108 | 86 | 1 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 25.2 | 101 | 26.2 | 105 | 4 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 28.5 | 114 | 28.7 | 115 | 1 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 20.1 | 80 | 20.5 | 82 | 2 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 24.3 | 97 | 24.9 | 100 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 22.4 | 90 | 22.7 | 91 | 1 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 24.4 | 98 | 24.8 | 99 | 2 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 19.3 | 77 | 19.4 | 78 | 1 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 27.6 | 110 | 28.2 | 113 | 2 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 26.0 | 104 | 26.5 | 106 | 2 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 26.2 | 105 | 27.1 | 108 | 3 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 25.5 | 102 | 25.5 | 102 | 0 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 29.7 | 119 | 30.5 | 122 | 3 | 56-164/14 |
| 67-66-3 | Chloroform | 0.79 | J | 25 | 27.6 | 107 | 27.9 | 108 | 1 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 25.5 | 102 | 25.9 | 104 | 2 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 26.3 | 105 | 26.7 | 107 | 2 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 26.5 | 106 | 26.9 | 108 | 1 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 31.9 | 128 | 32.8 | 131 | 3 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 24.8 | 99 | 25.4 | 102 | 2 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 26.7 | 107 | 27.3 | 109 | 2 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 25.8 | 103 | 26.8 | 107 | 4 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 24.9 | 100 | 25.7 | 103 | 3 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 20.0 | 80 | 20.8 | 83 | 4 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 21.2 | 85 | 22.0 | 88 | 4 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 25.0 | 100 | 24.9 | 100 | 0 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 24.6 | 98 | 25.3 | 101 | 3 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 22.7 | 91 | 23.2 | 93 | 2 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 22.6 | 90 | 23.1 | 92 | 2 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 21.3 | 85 | 21.8 | 87 | 2 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 19.9 | 80 | 22.4 | 90 | 12 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 23.7 | 95 | 24.6 | 98 | 4 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 22.7 | 91 | 23.1 | 92 | 2 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37167-8MS | J019667.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| F37167-8MSD | J019668.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| F37167-8 | J019658.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | F37167-8 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 21.4 | 86 | 23.0 | 92 | 7 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 25.3 | 101 | 25.6 | 102 | 1 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 25.1 | 100 | 25.5 | 102 | 2 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 25.9 | 104 | 26.0 | 104 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 25.0 | 100 | 25.7 | 103 | 3 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 25.2 | 101 | 25.5 | 102 | 1 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 25.4 | 102 | 25.7 | 103 | 1 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 22.6 | 90 | 23.5 | 94 | 4 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 28.5 | 114 | 28.8 | 115 | 1 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 102 | 82 | 108 | 86 | 6 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 23.6 | 94 | 23.6 | 94 | 0 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 26.0 | 104 | 26.9 | 108 | 3 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 26.4 | 106 | 26.4 | 106 | 0 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 26.5 | 106 | 27.2 | 109 | 3 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 122 | 98 | 126 | 101 | 3 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 266 | 106 | 271 | 108 | 2 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 29.8 | 119 | 29.6 | 118 | 1 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 23.5 | 94 | 24.8 | 99 | 5 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 22.4 | 90 | 23.6 | 94 | 5 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 19.9 | 80 | 20.5 | 82 | 3 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 23.6 | 94 | 24.0 | 96 | 2 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 25.8 | 103 | 26.1 | 104 | 1 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 92.6 | 74 | 96.2 | 77 | 4 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 20.6 | 82 | 21.8 | 87 | 6 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 24.5 | 98 | 25.5 | 102 | 4 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 26.0 | 104 | 26.9 | 108 | 3 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 229 | 92 | 239 | 96 | 4 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 28.5 | 114 | 29.1 | 116 | 2 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 22.8 | 91 | 22.6 | 90 | 1 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 22.4 | 90 | 22.4 | 90 | 0 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 25.2 | 101 | 25.8 | 103 | 2 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 27.1 | 108 | 28.0 | 112 | 3 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 24.1 | 96 | 24.4 | 98 | 1 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 31.4 | 126* | 31.5 | 126* | 0 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 23.2 | 93 | 23.6 | 94 | 2 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 22.3 | 89 | 22.5 | 90 | 1 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37167
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37167-8MS | J019667.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| F37167-8MSD | J019668.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |
| F37167-8 | J019658.D | 1 | 12/16/05 | MM | n/a | n/a | VJ813 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37167-2, F37167-6, F37167-7, F37167-8, F37167-9, F37167-10, F37167-12

| CAS No. | Compound | F37167-8 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 25.9 | 104 | 26.4 | 106 | 2 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 25.5 | 102 | 25.8 | 103 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 23.2 | 93 | 23.3 | 93 | 0 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 25.0 | 100 | 25.1 | 100 | 0 | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 25.2 | 101 | 25.9 | 104 | 3 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 30.1 | 120 | 30.4 | 122 | 1 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 23.2 | 93 | 24.6 | 98 | 6 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 23.9 | 96 | 25.5 | 102 | 6 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 172 | 138 | 172 | 138 | 0 | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 51.2 | 102 | 51.3 | 103 | 0 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 23.6 | 94 | 23.7 | 95 | 0 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37167-8 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 100% | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 105% | 102% | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | 96% | 96% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 101% | 103% | 109% | 83-119% |

(a) Advisory control limits.

# Metals Analysis



## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F37167
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Aluminum | 200 | 6.6 | anr | |
| Antimony | 5.0 | 1.5 | anr | |
| Arsenic | 10 | 2.8 | -3.0 | <10 |
| Barium | 200 | .5 | -0.28 | <200 |
| Beryllium | 4.0 | .3 | anr | |
| Cadmium | 5.0 | .3 | anr | |
| Calcium | 1000 | 3.8 | anr | |
| Chromium | 10 | .4 | anr | |
| Cobalt | 50 | .5 | anr | |
| Copper | 25 | .4 | anr | |
| Iron | 300 | 7.1 | 8.0 | <300 |
| Lead | 5.0 | 1.2 | anr | |
| Magnesium | 5000 | 9.9 | anr | |
| Manganese | 15 | .2 | -0.030 | <15 |
| Molybdenum | 50 | .8 | | |
| Nickel | 40 | 1.1 | anr | |
| Potassium | 5000 | 14 | anr | |
| Selenium | 10 | 2 | 2.7 | <10 |
| Silver | 10 | .6 | anr | |
| Sodium | 5000 | 150 | anr | |
| Thallium | 10 | 1.5 | anr | |
| Tin | 50 | 1.5 | | |
| Vanadium | 50 | .5 | anr | |
| Zinc | 20 | .6 | anr | |

Associated samples MP9018: F37167-10, F37167-11, F37167-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

# Metals Analysis

6

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37167
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05 12/13/05

| Metal | F37126-4 Original | DUP | RPD | QC Limits | F37126-4 Original | MS | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | anr | | | | | | | | |
| Antimony | anr | | | | | | | | |
| Arsenic | 0.0 | 3.9 | 200.0(a) | 0-12 | 0.0 | 4480 | 4000 | 112.0 | 83-116 |
| Barium | 36.2 | 35.4 | 2.2 | 0-13 | 36.2 | 3980 | 4000 | 98.6 | 82-116 |
| Beryllium | anr | | | | | | | | |
| Cadmium | anr | | | | | | | | |
| Calcium | anr | | | | | | | | |
| Chromium | anr | | | | | | | | |
| Cobalt | anr | | | | | | | | |
| Copper | anr | | | | | | | | |
| Iron | 0.0 | 0.0 (b) | NC | 0-14 | 0.0 | 20200 | 27000 | 74.8N(c) | 76-125 |
| Lead | anr | | | | | | | | |
| Magnesium | anr | | | | | | | | |
| Manganese | 141 | 139 | 1.4 | 0-13 | 141 | 1080 | 1000 | 93.9 | 75-125 |
| Molybdenum | | | | | | | | | |
| Nickel | anr | | | | | | | | |
| Potassium | anr | | | | | | | | |
| Selenium | 0.0 | 0.0 (b) | NC | 0-13 | 0.0 | 4390 | 4000 | 109.8 | 84-121 |
| Silver | anr | | | | | | | | |
| Sodium | anr | | | | | | | | |
| Thallium | anr | | | | | | | | |
| Tin | | | | | | | | | |
| Vanadium | anr | | | | | | | | |
| Zinc | anr | | | | | | | | |

Associated samples MP9018: F37167-10, F37167-11, F37167-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Elevated reporting limit(s) due to matrix interference.
(c) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37167
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | F37126-4 Original | MSD | Spikelot MPFLICP | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | anr | | | | | |
| Antimony | anr | | | | | |
| Arsenic | 0.0 | 4480 | 4000 | 112.0 | 0.0 | 20 |
| Barium | 36.2 | 3960 | 4000 | 98.1 | 0.5 | 20 |
| Beryllium | anr | | | | | |
| Cadmium | anr | | | | | |
| Calcium | anr | | | | | |
| Chromium | anr | | | | | |
| Cobalt | anr | | | | | |
| Copper | anr | | | | | |
| Iron | 0.0 | 20200 | 27000 | 74.8N(a) | 0.0 | 20 |
| Lead | anr | | | | | |
| Magnesium | anr | | | | | |
| Manganese | 141 | 1080 | 1000 | 93.9 | 0.0 | 20 |
| Molybdenum | | | | | | |
| Nickel | anr | | | | | |
| Potassium | anr | | | | | |
| Selenium | 0.0 | 4390 | 4000 | 109.8 | 0.0 | 20 |
| Silver | anr | | | | | |
| Sodium | anr | | | | | |
| Thallium | anr | | | | | |
| Tin | | | | | | |
| Vanadium | anr | | | | | |
| Zinc | anr | | | | | |

Associated samples MP9018: F37167-10, F37167-11, F37167-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F37167
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | BSP Result | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | anr | | | |
| Antimony | anr | | | |
| Arsenic | 3870 | 4000 | 96.8 | 80-120 |
| Barium | 3670 | 4000 | 91.8 | 80-120 |
| Beryllium | anr | | | |
| Cadmium | anr | | | |
| Calcium | anr | | | |
| Chromium | anr | | | |
| Cobalt | anr | | | |
| Copper | anr | | | |
| Iron | 27600 | 27000 | 102.2 | 80-120 |
| Lead | anr | | | |
| Magnesium | anr | | | |
| Manganese | 1020 | 1000 | 102.0 | 80-120 |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | anr | | | |
| Selenium | 4050 | 4000 | 101.3 | 80-120 |
| Silver | anr | | | |
| Sodium | anr | | | |
| Thallium | anr | | | |
| Tin | | | | |
| Vanadium | anr | | | |
| Zinc | anr | | | |

Associated samples MP9018: F37167-10, F37167-11, F37167-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F37167
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | F37126-4 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | anr | | | |
| Antimony | anr | | | |
| Arsenic | 0.00 | 0.00 | NC | 0-10 |
| Barium | 36.2 | 34.9 | 3.6 | 0-10 |
| Beryllium | anr | | | |
| Cadmium | anr | | | |
| Calcium | anr | | | |
| Chromium | anr | | | |
| Cobalt | anr | | | |
| Copper | anr | | | |
| Iron | 0.00 | 0.00 | NC | 0-10 |
| Lead | anr | | | |
| Magnesium | anr | | | |
| Manganese | 141 | 151 | 7.3 | 0-10 |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | anr | | | |
| Selenium | 0.00 | 0.00 | NC | 0-10 |
| Silver | anr | | | |
| Sodium | anr | | | |
| Thallium | anr | | | |
| Tin | | | | |
| Vanadium | anr | | | |
| Zinc | anr | | | |

Associated samples MP9018: F37167-10, F37167-11, F37167-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

# General Chemistry

## QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37167
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19213 | 10 | <10 | mg/l | | | | |
| Solids, Total Dissolved | GN19214 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19213: F37167-1, F37167-2, F37167-3, F37167-4, F37167-5, F37167-6, F37167-7
Batch GN19214: F37167-10, F37167-11, F37167-12, F37167-13, F37167-8, F37167-9

7.1

7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37167
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19213 | F37167-4 | mg/l | 79600 | 76700 | 3.7 | 0-29% |
| Solids, Total Dissolved | GN19214 | F37167-8 | mg/l | 3080 | 3130 | 1.7 | 0-29% |

Associated Samples:
Batch GN19213: F37167-1, F37167-2, F37167-3, F37167-4, F37167-5, F37167-6, F37167-7
Batch GN19214: F37167-10, F37167-11, F37167-12, F37167-13, F37167-8, F37167-9

# SDG – F37169
# SITE - OT-16

Southeast ACCUTEST Laboratories

12/23/05

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT #9050343 LTM/HGL

Accutest Job Number: F37169

Sampling Date: 12/06/05

Report to:

Bhate Environmental

MDAuben@bhate.com

ATTN: Mike DAuben

Total number of pages in report: 48

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6 7

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
Section 2: Case Narrative/Conformance Summary ..... 4
Section 3: Sample Results ..... 6
3.1: F37169-1: 118-MW1601 ..... 6
3.2: F37169-2: 118-MW1602 ..... 11
3.3: F37169-3: 118-MW1603 ..... 16
3.4: F37169-4: 118-MW1604 ..... 21
3.5: F37169-5: TRIP BLANK ..... 26
**Section 4: Misc. Forms** ..... **29**
**4.1:** Chain of Custody ..... 30
Section 5: GC/MS Volatiles - QC Data Summaries ..... 32
**5.1:** Method Blank Summary ..... 33
**5.2:** Blank Spike Summary ..... 36
**5.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 39
Section 6: GC Semi-volatiles - QC Data Summaries ..... 42
6.1: Method Blank Summary ..... 43
6.2: Blank Spike Summary ..... 44
6.3: Matrix Spike/Matrix Spike Duplicate Summary ..... 45
**Section 7: General Chemistry - QC Data Summaries** ..... **46**
**7.1:** Method Blank and Spike Results Summary ..... 47
**7.2:** Duplicate Results Summary ..... 48

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37169

HOLMN
Project No: PROJECT #9050343 LTM/HGL

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F37169-1 | 12/06/05 | 09:37 KG | 12/09/05 | AQ | Ground Water | 118-MW1601 |
| F37169-2 | 12/06/05 | 09:13 KG | 12/09/05 | AQ | Ground Water | 118-MW1602 |
| F37169-3 | 12/06/05 | 08:50 KG | 12/09/05 | AQ | Ground Water | 118-MW1603 |
| F37169-4 | 12/06/05 | 08:28 KG | 12/09/05 | AQ | Ground Water | 118-MW1604 |
| F37169-5 | 12/06/05 | 00:00 KG | 12/09/05 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F37169

**Site:** HOLMN **Report Date** 12/23/2005 11:02:42

4 Samples, 1 Trip Blank were collected on 12/06/2005 and received at Accutest on 12/09/2005 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of F37169. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ811

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37126-4MS, F37126-4MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 1,2,3-Trichlorobenzene, Acetone are outside control limits. Recovered high, not detected in the samples, data integrity not compromized.

Matrix Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Chlorobenzene, m-Dichlorobenzene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone, Naphthalene are outside control limits. Probable cause due to matrix interference.

RPD(s) for MSD for 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichloropropane, 1-Chlorohexane, 2,2-Dichloropropane, 2-Hexanone, 4-Methyl-2-pentanone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, cis-1,2-Dichloroethylene, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, m-Dichlorobenzene, Methyl bromide, Methyl chloride, Methyl ethyl ketone, Methyl iodide, Methyl methacrylate, Methyl Tert Butyl Ether, Methylene bromide, Methylene chloride, n-Butylbenzene, n-Propylbenzene, Naphthalene, o-Chlorotoluene, o-Dichlorobenzene, o-Xylene, p-Chlorotoluene, p-Dichlorobenzene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethylene, Toluene, trans-1,2-Dichloroethylene, trans-1,3-Dichloropropene, Trichloroethylene, Vinyl Acetate, Vinyl chloride are outside control limits for sample F37126-4MSD. Probable cause due to sample homogeneity.

## Extractables by GC By Method SW846 8081A

**Matrix:** AQ **Batch ID:** OP15236

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37236-2MS, F37236-2MSD were used as the QC samples indicated.

F37169-1: All hits confirmed by dual column analysis.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19213

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37167-4DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision,

accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 23, 2005

Svetlana Izosimova, QAO (signature on file)



ACCUTEST.
F37169

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1601 | | |
| **Lab Sample ID:** | F37169-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019623.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | 3.8 | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 4.0 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1601 | | |
| **Lab Sample ID:** | F37169-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1601 | | |
| **Lab Sample ID:** | F37169-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 0.81 | 1.0 | 0.50 | ug/l | J |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1601 | | |
| **Lab Sample ID:** | F37169-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | KK11009.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | 0.19 | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | 0.20 | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 60-57-1 | Dieldrin | 0.028 | 0.049 | 0.0098 | ug/l | J |
| 72-54-8 | 4,4'-DDD | ND | 0.098 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.098 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.098 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.098 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.098 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.098 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.098 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0098 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.098 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0098 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.098 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 84% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 85% | | 31-148% |

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1601 | | |
| **Lab Sample ID:** | F37169-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 3260 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1602 | | |
| **Lab Sample ID:** | F37169-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019624.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | 9.1 | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.7 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1602 | | |
| **Lab Sample ID:** | F37169-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1602 | | |
| **Lab Sample ID:** | F37169-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 5.7 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1602 | | |
| **Lab Sample ID:** | F37169-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK11010.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindanc) | ND | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.049 | 0.0098 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.098 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.098 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.098 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.098 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.098 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.098 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.098 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0098 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.098 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0098 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.098 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 91% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 64% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1602 | | |
| **Lab Sample ID:** | F37169-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 4930 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1603 | | |
| **Lab Sample ID:** | F37169-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019625.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 2.7 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1603 | | |
| **Lab Sample ID:** | F37169-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1603 | | |
| **Lab Sample ID:** | F37169-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 1.3 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1603 | | |
| **Lab Sample ID:** | F37169-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK11011.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.049 | 0.0098 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.098 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.098 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.098 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.098 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.098 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.098 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.098 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0098 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.098 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0098 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.098 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 83% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 46% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1603 | | |
| **Lab Sample ID:** | F37169-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 3650 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1604 | | |
| **Lab Sample ID:** | F37169-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019626.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | 3.0 | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.3 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1604 | | |
| **Lab Sample ID:** | F37169-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1604 | | |
| **Lab Sample ID:** | F37169-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 2.7 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1604 | | |
| **Lab Sample ID:** | F37169-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK11012.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.049 | 0.0098 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.098 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.098 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.098 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.098 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.098 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.098 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.098 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0098 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.098 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0098 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.098 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 87% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 55% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | 118-MW1604 | | |
| **Lab Sample ID:** | F37169-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/09/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 3920 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37169-5 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019622.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37169-5 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37169-5 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/09/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 109% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F37169

BHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/HGL

P.O. _____

Chain of Custody Number [1]: 120720051

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HGL

Collected by: K. Germann

| Field Sample ID (10 Character Max) | ERPIMS LOCID (15 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (Military) (Hours) | Sample Depth (beginning - ending) | | SA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of containers | VOC 8260 | TDS 160.1 | Pestic 8081 | | | | | | Matrix Description | Trip Blank Lot Control Number | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 118-mw1601 (1) | OT-16 | 06122005 | 0937 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | | 1 |
| 118-mw1602 (2) | OT-16 | 06122005 | 0913 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | | 1 |
| 118-mw1603 (3) | OT-16 | 06122005 | 0850 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | | 1 |
| 118-mw1604 (4) | OT-16 | 06122005 | 0828 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | | 1 |
| Trip Blank (5) | | | | | | TB | | | 2 | X | | | | | | | | | | 1 |

Sample Analysis Requested [5] — Quality Assurance Samples [6]

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfers Prior to Receipt by Laboratory

| Relinquished By (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 1. | | | 1. FX | | |
| 2. K Germann | 12-7-05 | 16:00 | 2. [illegible] | 12/08/05 | 0910 |
| 3. FX | | | 3. | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.: _____

Method of Shipment: FedEx Airbill Number: 7902 4542 7808

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Recipient: Delivery Date/Time: _____

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-t) Sample, FD = Field Duplicate (-u) Samples, FR = Field Replicate (-b) Samples, ED = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-a)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099-01 in the Equipment Blank Lot Control

2.4

4.1 4

F37169: Chain of Custody
Page 1 of 2



ACCUTEST. F37169

# ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37169 CLIENT: BHATE PROJECT: LTM

DATE/TIME RECEIVED: 12/9/05 0910 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2-4

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7902 4542 7808

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

**SOIL INFORMATION**

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE DS 12/9/05 TECHNICIAN SIGNATURE/DATE

ASBD06/22/05

4.1 4

F37169: Chain of Custody
Page 2 of 2

# GC/MS Volatiles

5

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary

**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.91 | 1.0 | 0.50 | ug/l | J |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | 83-119% |

# Blank Spike Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 207 | 166* | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 275 | 110 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 74.0 | 59 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 84.6 | 68 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 27.5 | 110 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 30.1 | 120 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.4 | 86 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 24.3 | 97 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 25.0 | 100 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 27.3 | 109 | 75-120 |
| 75-25-2 | Bromoform | 25 | 20.9 | 84 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.2 | 113 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 26.2 | 105 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.2 | 109 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.4 | 102 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 26.8 | 107 | 67-148 |
| 67-66-3 | Chloroform | 25 | 29.1 | 116 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 27.2 | 109 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.5 | 106 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.1 | 108 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 127 | 102 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 34.5 | 138 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.7 | 111 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 29.2 | 117 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 28.4 | 114 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 28.7 | 115 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 21.8 | 87 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 23.5 | 94 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 27.1 | 108 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 27.5 | 110 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 24.3 | 97 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 26.1 | 104 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.8 | 91 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.0 | 108 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.4 | 106 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 26.9 | 108 | 73-115 |

# Blank Spike Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 24.7 | 99 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 25.1 | 100 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 24.7 | 99 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.0 | 100 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 27.9 | 112 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 27.4 | 110 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 25.4 | 102 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 25.2 | 101 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 31.7 | 127 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 153 | 122 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 24.7 | 99 | 62-138 |
| 110-54-3 | Hexane | 25 | 29.1 | 116 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.7 | 111 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 26.9 | 108 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 129 | 103 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 286 | 114 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 28.5 | 114 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 26.4 | 106 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 25.5 | 102 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 24.2 | 97 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 26.9 | 108 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 27.2 | 109 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 159 | 127 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 24.4 | 98 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 28.8 | 115 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 24.9 | 100 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 259 | 104 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 28.4 | 114 | 80-122 |
| 100-42-5 | Styrene | 25 | 23.3 | 93 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.7 | 91 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.2 | 113 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 27.5 | 110 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 25.4 | 102 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 36.4 | 146* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.3 | 97 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 23.9 | 96 | 66-122 |

# Blank Spike Summary

**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 25.7 | 103 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.8 | 103 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 24.3 | 97 | 75-126 |
| 108-88-3 | Toluene | 25 | 25.6 | 102 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 28.1 | 112 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 29.7 | 119 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 24.6 | 98 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 26.8 | 107 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 98.5 | 79 | 42-146 |
| | m,p-Xylene | 50 | 52.3 | 105 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 24.9 | 100 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

5.3

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 5.1 | J | 125 | 97.4 | 74 | 107 | 82 | 9 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 253 | 101 | 289 | 116 | 13 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 71.4 | 57 | 76.0 | 61 | 6 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 89.7 | 72 | 91.2 | 73 | 2 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 19.7 | 79 | 26.4 | 106 | 29 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 23.2 | 93 | 30.1 | 120 | 26* | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 19.8 | 79 | 23.8 | 95 | 18 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 18.0 | 72 | 24.2 | 97 | 29* | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 18.6 | 74 | 25.7 | 103 | 32* | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 20.2 | 81 | 27.6 | 110 | 31* | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 17.4 | 70 | 22.4 | 90 | 25* | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 19.2 | 77 | 26.2 | 105 | 31* | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 19.3 | 77 | 24.2 | 97 | 23* | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 19.9 | 80 | 25.2 | 101 | 24* | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 18.7 | 75* | 25.1 | 100 | 29* | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 21.8 | 87 | 27.8 | 111 | 24* | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 21.7 | 87 | 28.7 | 115 | 28* | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 19.4 | 78 | 23.9 | 96 | 21* | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 19.6 | 78 | 25.6 | 102 | 27* | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 19.5 | 78 | 26.2 | 105 | 29* | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 26.8 | 107 | 33.7 | 135 | 23* | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 21.2 | 85 | 26.3 | 105 | 21* | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 21.8 | 87 | 29.1 | 116 | 29* | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 22.3 | 89 | 27.1 | 108 | 19* | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 21.3 | 85 | 27.0 | 108 | 24* | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 21.9 | 88 | 25.2 | 101 | 14 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 18.8 | 75 | 24.5 | 98 | 26* | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 21.4 | 86 | 28.3 | 113 | 28* | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 20.4 | 82 | 27.3 | 109 | 29* | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 18.7 | 75 | 25.2 | 101 | 30* | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 19.4 | 78 | 24.3 | 97 | 22* | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 16.9 | 68 | 22.9 | 92 | 30* | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 21.2 | 85 | 23.5 | 94 | 10 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 19.1 | 76 | 26.2 | 105 | 31* | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 18.8 | 75 | 25.6 | 102 | 31* | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

5.3 5

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 21.0 | 84 | 25.3 | 101 | 19 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 18.3 | 73* | 24.7 | 99 | 30* | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 18.3 | 73 | 24.6 | 98 | 29* | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 18.4 | 74 | 24.8 | 99 | 30* | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 20.7 | 83 | 27.1 | 108 | 27* | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 20.1 | 80 | 27.1 | 108 | 30* | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 19.1 | 76 | 24.7 | 99 | 26* | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 22.1 | 88 | 28.9 | 116 | 27 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 25.8 | 103 | 27.8 | 111 | 7 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 133 | 106 | 153 | 122 | 14* | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 17.3 | 69 | 21.1 | 84 | 20* | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 24.4 | 98 | 25.4 | 102 | 4 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 19.9 | 80 | 26.0 | 104 | 27* | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 19.6 | 78 | 25.1 | 100 | 25* | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 147 | 118 | 171 | 137* | 15* | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 284 | 114 | 327 | 131 | 14 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 23.3 | 93 | 29.6 | 118 | 24* | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 19.7 | 79 | 26.0 | 104 | 28* | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 18.4 | 74 | 25.4 | 102 | 32* | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 22.6 | 90 | 27.9 | 112 | 21* | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 21.2 | 85 | 27.8 | 111 | 27* | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 20.5 | 82 | 27.1 | 108 | 28* | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 111 | 89 | 124 | 99 | 11* | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 20.2 | 81 | 26.7 | 107 | 28* | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 27.4 | 110 | 33.1 | 132* | 19* | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 18.6 | 74 | 25.9 | 104 | 33* | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 260 | 104 | 293 | 117 | 12 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 21.1 | 84 | 27.0 | 108 | 25* | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 16.4 | 66 | 22.4 | 90 | 31* | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 16.6 | 66* | 22.6 | 90 | 31* | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 21.3 | 85 | 27.2 | 109 | 24* | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 25.7 | 103 | 31.1 | 124* | 19* | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 20.3 | 81 | 26.5 | 106 | 26* | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 28.3 | 113 | 35.4 | 142* | 22* | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 23.5 | 94 | 27.9 | 112 | 17* | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 17.6 | 70 | 23.6 | 94 | 29* | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37169-1, F37169-2, F37169-3, F37169-4, F37169-5

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 18.5 | 74 | 24.7 | 99 | 29* | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 18.7 | 75 | 24.5 | 98 | 27* | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 17.8 | 71 | 22.1 | 88 | 22* | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 18.5 | 74 | 24.6 | 98 | 28* | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 21.0 | 84 | 27.4 | 110 | 26* | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 25.4 | 102 | 28.4 | 114 | 11 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 23.7 | 95 | 27.4 | 110 | 14 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 21.2 | 85 | 26.0 | 104 | 20* | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 93.2 | 75 | 106 | 85 | 13* | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 38.0 | 76 | 50.2 | 100 | 28* | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 17.4 | 70 | 24.0 | 96 | 32* | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37126-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 113% | 109% | 107% | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | 92% | 91% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 103% | 103% | 106% | 83-119% |

(a) Advisory control limits.

# GC Semi-volatiles

6

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15236-MB | KK11008.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37169-1, F37169-2, F37169-3, F37169-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.050 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.050 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.050 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.050 | 0.010 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.050 | 0.010 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.050 | 0.010 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.10 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.10 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.10 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.10 | 0.040 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.10 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.10 | 0.040 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.10 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.050 | 0.010 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.10 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.050 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.050 | 0.010 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.10 | 0.040 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.3 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 97% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 88% | 31-148% |

# Blank Spike Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15236-BS | KK11007.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37169-1, F37169-2, F37169-3, F37169-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 309-00-2 | Aldrin | 0.5 | 0.48 | 96 | 70-127 |
| 319-84-6 | alpha-BHC | 0.5 | 0.52 | 104 | 65-136 |
| 319-85-7 | beta-BHC | 0.5 | 0.51 | 102 | 68-133 |
| 319-86-8 | delta-BHC | 0.5 | 0.37 | 74 | 48-126 |
| 58-89-9 | gamma-BHC (Lindane) | 0.5 | 0.52 | 104 | 69-137 |
| 5103-71-9 | alpha-Chlordane | 0.5 | 0.51 | 102 | 74-127 |
| 5103-74-2 | gamma-Chlordane | 0.5 | 0.53 | 106 | 75-130 |
| 60-57-1 | Dieldrin | 0.5 | 0.53 | 106 | 76-131 |
| 72-54-8 | 4,4'-DDD | 0.5 | 0.56 | 112 | 76-140 |
| 72-55-9 | 4,4'-DDE | 0.5 | 0.49 | 98 | 73-137 |
| 50-29-3 | 4,4'-DDT | 0.5 | 0.44 | 88 | 74-134 |
| 72-20-8 | Endrin | 0.5 | 0.52 | 104 | 78-134 |
| 1031-07-8 | Endosulfan sulfate | 0.5 | 0.50 | 100 | 73-127 |
| 7421-93-4 | Endrin aldehyde | 0.5 | 0.065 | 13 | 5-104 |
| 53494-70-5 | Endrin ketone | 0.5 | 0.51 | 102 | 80-128 |
| 959-98-8 | Endosulfan-I | 0.5 | 0.52 | 104 | 76-128 |
| 33213-65-9 | Endosulfan-II | 0.5 | 0.52 | 104 | 77-131 |
| 76-44-8 | Heptachlor | 0.5 | 0.50 | 100 | 62-137 |
| 1024-57-3 | Heptachlor epoxide | 0.5 | 0.51 | 102 | 74-130 |
| 72-43-5 | Methoxychlor | 0.5 | 0.43 | 86 | 77-131 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 98% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 92% | 31-148% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37169
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15236-MS | KK11015.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |
| OP15236-MSD | KK11016.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |
| F37236-2 | KK11014.D | 1 | 12/12/05 | AA | 12/12/05 | OP15236 | GKK405 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37169-1, F37169-2, F37169-3, F37169-4

| CAS No. | Compound | F37236-2 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | | 0.962 | 0.87 | 90 | 0.86 | 89 | 1 | 73-135/25 |
| 319-84-6 | alpha-BHC | ND | | 0.962 | 0.93 | 97 | 0.90 | 94 | 3 | 75-134/24 |
| 319-85-7 | beta-BHC | ND | | 0.962 | 0.97 | 101 | 0.93 | 97 | 4 | 73-141/23 |
| 319-86-8 | delta-BHC | ND | | 0.962 | 0.71 | 74 | 0.69 | 72 | 3 | 29-148/32 |
| 58-89-9 | gamma-BHC (Lindane) | ND | | 0.962 | 0.96 | 100 | 0.93 | 97 | 3 | 75-140/21 |
| 5103-71-9 | alpha-Chlordane | ND | | 0.962 | 0.94 | 98 | 0.92 | 96 | 2 | 73-135/22 |
| 5103-74-2 | gamma-Chlordane | ND | | 0.962 | 0.95 | 99 | 0.96 | 100 | 1 | 74-138/26 |
| 60-57-1 | Dieldrin | ND | | 0.962 | 0.98 | 102 | 0.97 | 101 | 1 | 74-141/23 |
| 72-54-8 | 4,4'-DDD | ND | | 0.962 | 1.0 | 104 | 1.1 | 114 | 10 | 81-142/24 |
| 72-55-9 | 4,4'-DDE | ND | | 0.962 | 0.94 | 98 | 0.91 | 95 | 3 | 77-139/26 |
| 50-29-3 | 4,4'-DDT | ND | | 0.962 | 0.87 | 90 | 0.89 | 93 | 2 | 65-147/29 |
| 72-20-8 | Endrin | ND | | 0.962 | 0.92 | 96 | 0.96 | 100 | 4 | 72-149/21 |
| 1031-07-8 | Endosulfan sulfate | ND | | 0.962 | 0.90 | 94 | 0.92 | 96 | 2 | 66-140/31 |
| 7421-93-4 | Endrin aldehyde | ND | | 0.962 | 0.097 | 10 | 0.10 | 10 | 3 | 5-113/49 |
| 53494-70-5 | Endrin ketone | ND | | 0.962 | 0.97 | 101 | 0.96 | 100 | 1 | 75-138/25 |
| 959-98-8 | Endosulfan-I | ND | | 0.962 | 0.94 | 98 | 0.92 | 96 | 2 | 74-139/21 |
| 33213-65-9 | Endosulfan-II | ND | | 0.962 | 0.96 | 100 | 0.93 | 97 | 3 | 70-145/25 |
| 76-44-8 | Heptachlor | ND | | 0.962 | 1.0 | 104 | 0.98 | 102 | 2 | 74-136/25 |
| 1024-57-3 | Heptachlor epoxide | ND | | 0.962 | 0.91 | 95 | 0.91 | 95 | 0 | 75-138/21 |
| 72-43-5 | Methoxychlor | ND | | 0.962 | 0.94 | 98 | 0.91 | 95 | 3 | 69-145/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37236-2 | Limits |
|---|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 89% | 84% | 91% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 73% | 76% | 72% | 31-148% |

# General Chemistry

## QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37169
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19213 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19213: F37169-1, F37169-2, F37169-3, F37169-4

7.1

7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37169
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19213 | F37167-4 | mg/l | 79600 | 76700 | 3.7 | 0-29% |

Associated Samples:
Batch GN19213: F37169-1, F37169-2, F37169-3, F37169-4

7.2

7

# SDG – F37126
# SITE - LF-21

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

05/05/06

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM/HGL

Accutest Job Number: F37126

Sampling Date: 12/05/05

Report to:

jmoore@bhate.com

Total number of pages in report: **78**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6 7 8 9

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
**Section 2: Case Narrative/Conformance Summary** ..... **4**
**Section 3: Sample Results** ..... **6**
**3.1:** F37126-1: MW-21-01 ..... 7
**3.2:** F37126-2: MW-21-02 ..... 14
**3.3:** F37126-3: MW-21-03 ..... 21
**3.4:** F37126-4: MW-21-04 ..... 28
**3.5:** F37126-5: MW-21-04 ..... 35
**3.6:** F37126-6: TRIP BLANK ..... 42
**Section 4: Misc. Forms** ..... **45**
**4.1:** Chain of Custody ..... 46
**Section 5: GC/MS Volatiles - QC Data Summaries** ..... **48**
**5.1:** Method Blank Summary ..... 49
**5.2:** Blank Spike Summary ..... 52
**5.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 55
**Section 6: GC Semi-volatiles - QC Data Summaries** ..... **58**
**6.1:** Method Blank Summary ..... 59
**6.2:** Blank Spike Summary ..... 60
**6.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 61
**Section 7: Metals Analysis - QC Data Summaries** ..... **62**
**7.1:** Prep QC MP9005: Hg ..... 63
**7.2:** Prep QC MP9018: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn ..... 67
**Section 8: General Chemistry - QC Data Summaries** ..... **72**
**8.1:** Method Blank and Spike Results Summary ..... 73
**8.2:** Duplicate Results Summary ..... 74
**Section 9: GC Semi-volatiles - QC Data (Accutest Laboratories Gulf Coast, Inc.)** ..... **75**
**9.1:** Method Blank Summary ..... 76
**9.2:** Blank Spike Summary ..... 77
**9.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 78

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37126

HOLMN
Project No: PROJECT # LTM/HGL

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F37126-1 | 12/05/05 | 08:36 KG | 12/07/05 | AQ | Ground Water | MW-21-01 |
| F37126-2 | 12/05/05 | 09:28 KG | 12/07/05 | AQ | Ground Water | MW-21-02 |
| F37126-3 | 12/05/05 | 10:06 KG | 12/07/05 | AQ | Ground Water | MW-21-03 |
| F37126-4 | 12/05/05 | 10:38 KG | 12/07/05 | AQ | Ground Water | MW-21-04 |
| F37126-4D | 12/05/05 | 10:38 KG | 12/07/05 | AQ | Ground Water | MW-21-04 |
| F37126-4S | 12/05/05 | 10:38 KG | 12/07/05 | AQ | Ground Water | MW-21-04 |
| F37126-5 | 12/05/05 | 10:38 KG | 12/07/05 | AQ | Ground Water | MW-21-04 |
| F37126-6 | 12/05/05 | 00:00 KG | 12/07/05 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F37126

**Site:** HOLMN **Report Date** 12/29/2005 11:16:30

4 Samples, 1 Trip Blank were collected on 12/05/2005 and received at Accutest on 12/07/2005 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of F37126. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ811

All samples were analyzed within the recommended method holding time.

Sample(s) F37126-4MS, F37126-4MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Blank Spike Recovery(s) for 1,2,3-Trichlorobenzene, Acetone are outside control limits. Recoveries are biased high, data integrity not affected.

Matrix Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Chlorobenzene, m-Dichlorobenzene are outside control limits. Probable cause due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone, Naphthalene are outside control limits. Probable cause due to matrix interference.

RPD(s) for MSD for 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichloropropane, 1-Chlorohexane, 2,2-Dichloropropane, 2-Hexanone, 4-Methyl-2-pentanone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, cis-1,2-Dichloroethylene, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, m-Dichlorobenzene, Methyl bromide, Methyl chloride, Methyl ethyl ketone, Methyl iodide, Methyl methacrylate, Methyl Tert Butyl Ether, Methylene bromide, Methylene chloride, n-Butylbenzene, n-Propylbenzene, Naphthalene, o-Chlorotoluene, o-Dichlorobenzene, o-Xylene, p-Chlorotoluene, p-Dichlorobenzene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethylene, Toluene, trans-1,2-Dichloroethylene, trans-1,3-Dichloropropene, Trichloroethylene, Vinyl Acetate, Vinyl chloride are outside control limits for sample F37126-4MSD. Probable cause due to sample homogeneity.

F37126-2 for Acetone: CCV outside of control limits; results may be biased low.

F37126-4 for Acetone: CCV outside of control limits; results may be biased low.

## Extractables by GC By Method SW846 8081A

**Matrix:** AQ **Batch ID:** OP15227

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F37126-4MS, F37126-4MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

## Extractables by GC By Method SW846 8151

**Matrix:** AQ **Batch ID:** T:OP5303

F37126-5: Analysis performed at Accutest Laboratories, Houston, TX.

F37126-2: Analysis performed at Accutest Laboratories, Houston, TX.

F37126-3: Analysis performed at Accutest Laboratories, Houston, TX.

F37126-4: Analysis performed at Accutest Laboratories, Houston, TX.

F37126-1: Analysis performed at Accutest Laboratories, Houston, TX.

## Metals By Method SW846 6010B

**Matrix:** AQ **Batch ID:** MP9018

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37126-4DUP, F37126-4MS, F37126-4MSD, F37126-4SDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Nickel, Thallium, Aluminum, Iron, Silver are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

Matrix Spike Duplicate Recovery(s) for Aluminum, Cobalt, Iron, Lead, Nickel, Silver, Thallium are outside control limits. Probable cause due to matrix interference.

Matrix Spike Recovery(s) for Magnesium, Potassium, Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPD(s) for Duplicate for Arsenic, Thallium, Zinc are outside control limits for sample MP9018-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Cadmium, Cobalt, Thallium, Vanadium, Zinc, Calcium, Magnesium, Potassium are outside control limits for sample MP9018-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP9018-SD1 for Calcium: Serial dilution indicates possible matrix interference.

F37126-5 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37126-5 for Lead: Elevated reporting limit(s) due to matrix interference.

F37126-5 for Iron: Elevated reporting limit(s) due to matrix interference.

F37126-5 for Copper: Elevated reporting limit(s) due to matrix interference.

F37126-5 for Antimony: Elevated reporting limit(s) due to matrix interference.

MP9018-SD1 for Magnesium: Serial dilution indicates possible matrix interference.

F37126-4 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37126-2 for Iron: Elevated reporting limit(s) due to matrix interference.

F37126-4 for Lead: Elevated reporting limit(s) due to matrix interference.

F37126-4 for Iron: Elevated reporting limit(s) due to matrix interference.

F37126-4 for Copper: Elevated reporting limit(s) due to matrix interference.

F37126-1 for Iron: Elevated reporting limit(s) due to matrix interference.

F37126-1 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37126-2 for Antimony: Elevated reporting limit(s) due to matrix interference.

F37126-2 for Copper: Elevated reporting limit(s) due to matrix interference.

MP9018-SD1 for Potassium: Serial dilution indicates possible matrix interference.

F37126-2 for Selenium: Elevated reporting limit(s) due to matrix interference.

F37126-3 for Antimony: Elevated reporting limit(s) due to matrix interference.

F37126-3 for Copper: Elevated reporting limit(s) due to matrix interference.

F37126-3 for Iron: Elevated reporting limit(s) due to matrix interference.

F37126-3 for Selenium: Elevated reporting limit(s) due to matrix interference.

## Metals By Method SW846 7470A

**Matrix:** AQ **Batch ID:** MP9005

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37086-4DUP, F37086-4MS, F37086-4MSD were used as the QC samples for metals.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19189

All method blanks for this batch meet method specific criteria.

Sample(s) F37124-4DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 29, 2005

Svetlana Izosimova, QAO (signature on file)

# Sample Results

## Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-01 | | |
| **Lab Sample ID:** | F37126-1 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019615.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-01 | | |
| **Lab Sample ID:** | F37126-1 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | 0.53 | 1.0 | 0.50 | ug/l | J |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-01 | | |
| **Lab Sample ID:** | F37126-1 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 13.3 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-01 | | |
| **Lab Sample ID:** | F37126-1 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10983.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.048 | 0.019 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.048 | 0.014 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.048 | 0.019 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.048 | 0.019 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.048 | 0.014 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.048 | 0.0096 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.048 | 0.0096 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.048 | 0.0096 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.096 | 0.019 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.096 | 0.019 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.096 | 0.019 | ug/l | |
| 72-20-8 | Endrin | ND | 0.096 | 0.038 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.096 | 0.019 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.096 | 0.038 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.096 | 0.019 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.048 | 0.0096 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.096 | 0.019 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.048 | 0.019 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.048 | 0.0096 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.096 | 0.038 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.4 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 94% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 79% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-01 | | |
| **Lab Sample ID:** | F37126-1 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24821.D | 1 | 12/16/05 | ATX | 12/13/05 | T:OP5303 | T:GGG792 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 98% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-01 | | |
| **Lab Sample ID:** | F37126-1 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Antimony | 2.2 U | 5.0 | 2.2 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Arsenic | 11.0 | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Barium | 17.7 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cadmium | 0.60 U | 5.0 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Calcium | 838000 | 100000 | 2600 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Chromium | 0.50 U | 10 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cobalt | 1.0 J | 50 | 0.40 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Copper | 0.80 U | 25 | 0.80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Lead | 1.2 U | 5.0 | 1.2 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Magnesium | 718000 | 500000 | 580 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Manganese | 8.0 J | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 1.1 U | 40 | 1.1 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Potassium | 62000 | 5000 | 36 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Selenium [a] | 96 U | 100 | 96 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Sodium | 1740000 | 500000 | 7700 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Thallium | 7.1 J | 10 | 3.8 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Vanadium | 51.4 | 50 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Zinc | 11.6 J | 20 | 0.80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4713
(3) Instrument QC Batch: MA4723
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



3.1

3

| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-01 | | |
| **Lab Sample ID:** | F37126-1 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 11300 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-02 | | |
| **Lab Sample ID:** | F37126-2 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019616.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | 5.5 | 25 | 5.0 | ug/l | J |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-02 | | |
| **Lab Sample ID:** | F37126-2 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-02 | | |
| **Lab Sample ID:** | F37126-2 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 83-119% |

(a) CCV outside of control limits; results may be biased low.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-02 | | |
| **Lab Sample ID:** | F37126-2 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10984.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 900 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.056 | 0.022 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.056 | 0.017 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.056 | 0.022 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.056 | 0.022 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.056 | 0.017 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.056 | 0.011 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.056 | 0.011 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.056 | 0.011 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.11 | 0.022 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.11 | 0.022 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.11 | 0.022 | ug/l | |
| 72-20-8 | Endrin | ND | 0.11 | 0.044 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.11 | 0.022 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.11 | 0.044 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.11 | 0.022 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.056 | 0.011 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.11 | 0.022 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.056 | 0.022 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.056 | 0.011 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.11 | 0.044 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 72% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 37% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-02 | | |
| **Lab Sample ID:** | F37126-2 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24822.D | 1 | 12/17/05 | ATX | 12/13/05 | T:OP5303 | T:GGG792 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 92% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-02 | | |
| **Lab Sample ID:** | F37126-2 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Antimony [a] | 8.8 U | 10 | 8.8 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Arsenic | 14.8 | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Barium | 41.9 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cadmium | 0.75 J | 5.0 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Calcium | 1780000 | 100000 | 2600 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Chromium | 0.50 U | 10 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cobalt | 5.8 J | 50 | 0.40 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Copper [a] | 80 U | 100 | 80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Lead | 1.2 U | 5.0 | 1.2 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Magnesium | 2010000 | 500000 | 580 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Manganese | 789 | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 1.8 J | 40 | 1.1 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Potassium | 151000 | 5000 | 36 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Selenium [a] | 240 U | 250 | 240 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Sodium | 5080000 | 500000 | 7700 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Thallium | 10.8 | 10 | 3.8 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Vanadium | 24.7 J | 50 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Zinc | 3.4 J | 20 | 0.80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4713
(3) Instrument QC Batch: MA4723
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-02 | | |
| **Lab Sample ID:** | F37126-2 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 29700 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-03 | | |
| **Lab Sample ID:** | F37126-3 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019620.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-03 | | |
| **Lab Sample ID:** | F37126-3 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-03 | | |
| **Lab Sample ID:** | F37126-3 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-03 | | |
| **Lab Sample ID:** | F37126-3 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10985.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.049 | 0.0098 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.098 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.098 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.098 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.098 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.098 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.098 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.098 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0098 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.098 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0098 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.098 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 83% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 74% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-03 | | |
| **Lab Sample ID:** | F37126-3 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24823.D | 1 | 12/17/05 | ATX | 12/13/05 | T:OP5303 | T:GGG792 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 100% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-03 | | |
| **Lab Sample ID:** | F37126-3 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Antimony [a] | 8.8 U | 20 | 8.8 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Arsenic | 12.4 | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Barium | 33.2 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cadmium | 0.60 U | 5.0 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Calcium | 2010000 | 100000 | 2600 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Chromium | 0.50 U | 10 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cobalt | 1.1 J | 50 | 0.40 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Copper [a] | 80 U | 100 | 80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Iron [a] | 7500 U | 15000 | 7500 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Lead | 1.2 U | 5.0 | 1.2 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Magnesium | 2190000 | 500000 | 580 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Manganese | 12.0 J | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 1.1 U | 40 | 1.1 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Potassium | 149000 | 5000 | 36 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Selenium [a] | 240 U | 250 | 240 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Sodium | 5300000 | 500000 | 7700 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Thallium | 7.4 J | 10 | 3.8 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Vanadium | 47.2 J | 50 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Zinc | 2.2 J | 20 | 0.80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4713
(3) Instrument QC Batch: MA4723
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-03 | | |
| **Lab Sample ID:** | F37126-3 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 24200 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-4 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | 5.1 | 25 | 5.0 | ug/l | J |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-4 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-4 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 83-119% |

(a) CCV outside of control limits; results may be biased low.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-4 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10986.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0098 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.049 | 0.0098 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.098 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.098 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.098 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.098 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.098 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.098 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.098 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0098 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.098 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0098 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.098 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 89% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 68% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-4 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24824.D | 1 | 12/17/05 | ATX | 12/13/05 | T:OP5303 | T:GGG792 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 96% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-4 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Antimony | 2.2 U | 5.0 | 2.2 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Arsenic | 2.9 U | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Barium | 36.2 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cadmium | 0.77 J | 5.0 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Calcium | 2310000 | 100000 | 2600 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Chromium | 0.50 U | 10 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cobalt | 3.9 J | 50 | 0.40 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Copper [a] | 80 U | 100 | 80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Lead [a] | 12 U | 20 | 12 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Magnesium | 2500000 | 500000 | 580 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Manganese | 141 | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 1.1 U | 40 | 1.1 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Potassium | 148000 | 5000 | 36 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Selenium [a] | 240 U | 250 | 240 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Sodium | 6220000 | 500000 | 7700 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Thallium | 6.2 J | 10 | 3.8 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Vanadium | 22.1 J | 50 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Zinc | 4.1 J | 20 | 0.80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4713
(3) Instrument QC Batch: MA4723
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-4 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved [a] | 36700 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

(a) Results confirmed by re-analysis.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-5 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019621.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-5 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-5 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-5 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10989.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.019 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.019 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.019 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0097 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0097 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.049 | 0.0097 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.097 | 0.019 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.097 | 0.019 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.097 | 0.019 | ug/l | |
| 72-20-8 | Endrin | ND | 0.097 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.097 | 0.019 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.097 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.097 | 0.019 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0097 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.097 | 0.019 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.019 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0097 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.097 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.4 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 84% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 67% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-5 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24825.D | 1 | 12/17/05 | ATX | 12/13/05 | T:OP5303 | T:GGG792 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 132% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-5 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Antimony [a] | 8.8 U | 10 | 8.8 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Arsenic | 6.6 J | 10 | 2.9 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Barium | 36.3 J | 200 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cadmium | 1.3 J | 5.0 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Calcium | 2500000 | 100000 | 2600 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Chromium | 0.50 U | 10 | 0.50 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Cobalt | 5.2 J | 50 | 0.40 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Copper [a] | 80 U | 100 | 80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Lead [a] | 12 U | 20 | 12 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Magnesium | 2520000 | 500000 | 580 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Manganese | 146 | 15 | 0.20 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 1.1 U | 40 | 1.1 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Potassium | 148000 | 5000 | 36 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Selenium [a] | 240 U | 250 | 240 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Sodium | 6170000 | 500000 | 7700 | ug/l | 100 | 12/13/05 | 12/20/05 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Thallium | 8.6 J | 10 | 3.8 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Vanadium | 22.3 J | 50 | 0.60 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |
| Zinc | 4.9 J | 20 | 0.80 | ug/l | 1 | 12/13/05 | 12/13/05 | DM | SW846 6010B [2] | EPA 200.7 [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4713
(3) Instrument QC Batch: MA4723
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9018

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-21-04 | | |
| **Lab Sample ID:** | F37126-5 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/07/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 32500 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37126-6 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019611.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37126-6 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37126-6 | **Date Sampled:** | 12/05/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/07/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

4

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F37126

**BHATE**

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/HGL

P.O. _____

Chain of Custody Number [1]: 120620051

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HGL

Collected by: K. Ormsem

| Field Sample ID (30 Character Max) | RIP/M4 LOCID (13 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (24Hr hhmm) | Sample Depth (beginning - ending) | | SA Code [3] | Sample Number [3] | Sample Matrix [4] | Number of containers | VOC 8260 | TAL Metals 6010/7470 | Pesticd/Organoch 8081 | Herbicides 8151 | TDS 160.1 | | | | Matrix Description | Trip Blank Lot Control Number | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mw-21-01 (1) | LF-21 | 05122005 | 0836 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 1 |
| mw-21-02 (2) | LF-21 | 05122005 | 0928 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 1 |
| mw-21-03 (3) | LF-21 | 05122005 | 1006 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 1 |
| mw-21-04 (4) | LF-21 | 05122005 | 1038 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 2 |
| Trip Blank (6) | | | | | | TB | | | 4 | | | | | | | | | Trip Blank | | 1&2 |
| mw-21-04 (5) | LF-21 | 05122005 | 1038 | 0 | 0 | FD | 1 | GW | 7 | | | | | | | | | Field Duplicate | | 2 |
| mw-21-04 (4) | LF-21 | 05122005 | 1038 | 0 | 0 | MS | 1 | GW | 7 | | | | | | | | | MS/MSD | | 2 |

Sample Analysis Requested [5] — Quality Assurance Samples [6]

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfers Prior to Receipt by Laboratory

| Relinquished by (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 2. K Ormsem | 12-06-05 | 1650 | 1. FX | 12/7/05 | 0900 |
| 3. | | | 2. | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.: _____

Method of Shipment: Fedex Airbill Number: 7912 9492 4682, 7907 3547 2799

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Recipient: Delivery Date/Time:

1) Chain of Custody Number = date collected + custody number (e.g. 09-03-1999-01)
2) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-a) Sample, FD = Field Duplicate (-b) Sample, FR = Field Replicate (-b) Sample, EB = Equipment Blank (-d) Sample, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-a)
3) Sample Number: Unique sample number collected from a previous location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)
4) Matrix Codes: OS = Soil Gas, WG = Ground-water, WS = Surface Water, SO = Soil, SS = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks
5) Sample Analysis Requested: Analytical method requested and number of containers provided for each.
6) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099001 in the Equipment Blank Lot Control

2.4, 2.4

**F37126: Chain of Custody**
**Page 1 of 2**

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37126 CLIENT: BHate PROJECT: LTM

DATE/TIME RECEIVED: 12/7/05 0900 # OF COOLERS RECEIVED: 2 COOLER TEMPS: 2.4 2.4

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7907 3547 2799

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

**SOIL INFORMATION**

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE dlS 12/7/05 TECHNICIAN SIGNATURE/DATE

4.1 4

F37126: Chain of Custody
Page 2 of 2



ACCUTEST Laboratories F37126

5

# GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary

**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.91 | 1.0 | 0.50 | ug/l | J |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | 83-119% |

# Blank Spike Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 207 | 166* | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 275 | 110 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 74.0 | 59 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 84.6 | 68 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 27.5 | 110 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 30.1 | 120 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.4 | 86 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 24.3 | 97 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 25.0 | 100 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 27.3 | 109 | 75-120 |
| 75-25-2 | Bromoform | 25 | 20.9 | 84 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.2 | 113 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 26.2 | 105 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.2 | 109 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.4 | 102 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 26.8 | 107 | 67-148 |
| 67-66-3 | Chloroform | 25 | 29.1 | 116 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 27.2 | 109 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.5 | 106 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.1 | 108 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 127 | 102 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 34.5 | 138 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.7 | 111 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 29.2 | 117 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 28.4 | 114 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 28.7 | 115 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 21.8 | 87 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 23.5 | 94 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 27.1 | 108 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 27.5 | 110 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 24.3 | 97 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 26.1 | 104 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.8 | 91 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.0 | 108 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.4 | 106 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 26.9 | 108 | 73-115 |

# Blank Spike Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 24.7 | 99 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 25.1 | 100 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 24.7 | 99 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.0 | 100 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 27.9 | 112 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 27.4 | 110 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 25.4 | 102 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 25.2 | 101 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 31.7 | 127 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 153 | 122 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 24.7 | 99 | 62-138 |
| 110-54-3 | Hexane | 25 | 29.1 | 116 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.7 | 111 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 26.9 | 108 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 129 | 103 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 286 | 114 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 28.5 | 114 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 26.4 | 106 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 25.5 | 102 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 24.2 | 97 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 26.9 | 108 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 27.2 | 109 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 159 | 127 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 24.4 | 98 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 28.8 | 115 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 24.9 | 100 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 259 | 104 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 28.4 | 114 | 80-122 |
| 100-42-5 | Styrene | 25 | 23.3 | 93 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.7 | 91 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.2 | 113 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 27.5 | 110 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 25.4 | 102 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 36.4 | 146* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.3 | 97 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 23.9 | 96 | 66-122 |

# Blank Spike Summary

**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 25.7 | 103 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.8 | 103 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 24.3 | 97 | 75-126 |
| 108-88-3 | Toluene | 25 | 25.6 | 102 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 28.1 | 112 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 29.7 | 119 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 24.6 | 98 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 26.8 | 107 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 98.5 | 79 | 42-146 |
| | m,p-Xylene | 50 | 52.3 | 105 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 24.9 | 100 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

5.3

5

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 5.1 | J | 125 | 97.4 | 74 | 107 | 82 | 9 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 253 | 101 | 289 | 116 | 13 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 71.4 | 57 | 76.0 | 61 | 6 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 89.7 | 72 | 91.2 | 73 | 2 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 19.7 | 79 | 26.4 | 106 | 29 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 23.2 | 93 | 30.1 | 120 | 26* | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 19.8 | 79 | 23.8 | 95 | 18 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 18.0 | 72 | 24.2 | 97 | 29* | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 18.6 | 74 | 25.7 | 103 | 32* | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 20.2 | 81 | 27.6 | 110 | 31* | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 17.4 | 70 | 22.4 | 90 | 25* | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 19.2 | 77 | 26.2 | 105 | 31* | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 19.3 | 77 | 24.2 | 97 | 23* | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 19.9 | 80 | 25.2 | 101 | 24* | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 18.7 | 75* | 25.1 | 100 | 29* | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 21.8 | 87 | 27.8 | 111 | 24* | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 21.7 | 87 | 28.7 | 115 | 28* | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 19.4 | 78 | 23.9 | 96 | 21* | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 19.6 | 78 | 25.6 | 102 | 27* | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 19.5 | 78 | 26.2 | 105 | 29* | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 26.8 | 107 | 33.7 | 135 | 23* | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 21.2 | 85 | 26.3 | 105 | 21* | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 21.8 | 87 | 29.1 | 116 | 29* | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 22.3 | 89 | 27.1 | 108 | 19* | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 21.3 | 85 | 27.0 | 108 | 24* | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 21.9 | 88 | 25.2 | 101 | 14 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 18.8 | 75 | 24.5 | 98 | 26* | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 21.4 | 86 | 28.3 | 113 | 28* | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 20.4 | 82 | 27.3 | 109 | 29* | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 18.7 | 75 | 25.2 | 101 | 30* | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 19.4 | 78 | 24.3 | 97 | 22* | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 16.9 | 68 | 22.9 | 92 | 30* | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 21.2 | 85 | 23.5 | 94 | 10 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 19.1 | 76 | 26.2 | 105 | 31* | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 18.8 | 75 | 25.6 | 102 | 31* | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

5.3

5

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 21.0 | 84 | 25.3 | 101 | 19 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 18.3 | 73* | 24.7 | 99 | 30* | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 18.3 | 73 | 24.6 | 98 | 29* | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 18.4 | 74 | 24.8 | 99 | 30* | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 20.7 | 83 | 27.1 | 108 | 27* | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 20.1 | 80 | 27.1 | 108 | 30* | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 19.1 | 76 | 24.7 | 99 | 26* | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 22.1 | 88 | 28.9 | 116 | 27 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 25.8 | 103 | 27.8 | 111 | 7 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 133 | 106 | 153 | 122 | 14* | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 17.3 | 69 | 21.1 | 84 | 20* | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 24.4 | 98 | 25.4 | 102 | 4 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 19.9 | 80 | 26.0 | 104 | 27* | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 19.6 | 78 | 25.1 | 100 | 25* | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 147 | 118 | 171 | 137* | 15* | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 284 | 114 | 327 | 131 | 14 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 23.3 | 93 | 29.6 | 118 | 24* | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 19.7 | 79 | 26.0 | 104 | 28* | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 18.4 | 74 | 25.4 | 102 | 32* | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 22.6 | 90 | 27.9 | 112 | 21* | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 21.2 | 85 | 27.8 | 111 | 27* | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 20.5 | 82 | 27.1 | 108 | 28* | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 111 | 89 | 124 | 99 | 11* | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 20.2 | 81 | 26.7 | 107 | 28* | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 27.4 | 110 | 33.1 | 132* | 19* | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 18.6 | 74 | 25.9 | 104 | 33* | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 260 | 104 | 293 | 117 | 12 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 21.1 | 84 | 27.0 | 108 | 25* | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 16.4 | 66 | 22.4 | 90 | 31* | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 16.6 | 66* | 22.6 | 90 | 31* | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 21.3 | 85 | 27.2 | 109 | 24* | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 25.7 | 103 | 31.1 | 124* | 19* | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 20.3 | 81 | 26.5 | 106 | 26* | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 28.3 | 113 | 35.4 | 142* | 22* | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 23.5 | 94 | 27.9 | 112 | 17* | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 17.6 | 70 | 23.6 | 94 | 29* | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

5.3 5

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5, F37126-6

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 18.5 | 74 | 24.7 | 99 | 29* | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 18.7 | 75 | 24.5 | 98 | 27* | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 17.8 | 71 | 22.1 | 88 | 22* | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 18.5 | 74 | 24.6 | 98 | 28* | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 21.0 | 84 | 27.4 | 110 | 26* | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 25.4 | 102 | 28.4 | 114 | 11 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 23.7 | 95 | 27.4 | 110 | 14 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 21.2 | 85 | 26.0 | 104 | 20* | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 93.2 | 75 | 106 | 85 | 13* | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 38.0 | 76 | 50.2 | 100 | 28* | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 17.4 | 70 | 24.0 | 96 | 32* | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37126-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 113% | 109% | 107% | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | 92% | 91% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 103% | 103% | 106% | 83-119% |

(a) Advisory control limits.

# GC Semi-volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15227-MB | KK10982.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.050 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.050 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.050 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.050 | 0.010 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.050 | 0.010 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.050 | 0.010 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.10 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.10 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.10 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.10 | 0.040 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.10 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.10 | 0.040 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.10 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.050 | 0.010 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.10 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.050 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.050 | 0.010 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.10 | 0.040 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.3 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 93% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 80% | 31-148% |

# Blank Spike Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15227-BS | KK10981.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 309-00-2 | Aldrin | 0.5 | 0.46 | 92 | 70-127 |
| 319-84-6 | alpha-BHC | 0.5 | 0.47 | 94 | 65-136 |
| 319-85-7 | beta-BHC | 0.5 | 0.46 | 92 | 68-133 |
| 319-86-8 | delta-BHC | 0.5 | 0.35 | 70 | 48-126 |
| 58-89-9 | gamma-BHC (Lindane) | 0.5 | 0.48 | 96 | 69-137 |
| 5103-71-9 | alpha-Chlordane | 0.5 | 0.46 | 92 | 74-127 |
| 5103-74-2 | gamma-Chlordane | 0.5 | 0.49 | 98 | 75-130 |
| 60-57-1 | Dieldrin | 0.5 | 0.49 | 98 | 76-131 |
| 72-54-8 | 4,4'-DDD | 0.5 | 0.53 | 106 | 76-140 |
| 72-55-9 | 4,4'-DDE | 0.5 | 0.47 | 94 | 73-137 |
| 50-29-3 | 4,4'-DDT | 0.5 | 0.45 | 90 | 74-134 |
| 72-20-8 | Endrin | 0.5 | 0.50 | 100 | 78-134 |
| 1031-07-8 | Endosulfan sulfate | 0.5 | 0.45 | 90 | 73-127 |
| 7421-93-4 | Endrin aldehyde | 0.5 | 0.26 | 52 | 5-104 |
| 53494-70-5 | Endrin ketone | 0.5 | 0.47 | 94 | 80-128 |
| 959-98-8 | Endosulfan-I | 0.5 | 0.48 | 96 | 76-128 |
| 33213-65-9 | Endosulfan-II | 0.5 | 0.47 | 94 | 77-131 |
| 76-44-8 | Heptachlor | 0.5 | 0.50 | 100 | 62-137 |
| 1024-57-3 | Heptachlor epoxide | 0.5 | 0.46 | 92 | 74-130 |
| 72-43-5 | Methoxychlor | 0.5 | 0.47 | 94 | 77-131 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 91% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 84% | 31-148% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37126
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15227-MS | KK10987.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |
| OP15227-MSD | KK10988.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |
| F37126-4 | KK10986.D | 1 | 12/10/05 | AA | 12/09/05 | OP15227 | GKK404 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | | 0.98 | 0.73 | 74 | 0.78 | 80 | 7 | 73-135/25 |
| 319-84-6 | alpha-BHC | ND | | 0.98 | 0.94 | 96 | 0.97 | 99 | 3 | 75-134/24 |
| 319-85-7 | beta-BHC | ND | | 0.98 | 0.99 | 101 | 0.99 | 101 | 0 | 73-141/23 |
| 319-86-8 | delta-BHC | ND | | 0.98 | 0.71 | 72 | 0.73 | 74 | 3 | 29-148/32 |
| 58-89-9 | gamma-BHC (Lindane) | ND | | 0.98 | 0.96 | 98 | 0.99 | 101 | 3 | 75-140/21 |
| 5103-71-9 | alpha-Chlordane | ND | | 0.98 | 0.89 | 91 | 0.86 | 88 | 3 | 73-135/22 |
| 5103-74-2 | gamma-Chlordane | ND | | 0.98 | 0.88 | 90 | 0.90 | 92 | 2 | 74-138/26 |
| 60-57-1 | Dieldrin | ND | | 0.98 | 0.98 | 100 | 0.98 | 100 | 0 | 74-141/23 |
| 72-54-8 | 4,4'-DDD | ND | | 0.98 | 0.95 | 97 | 1.0 | 102 | 5 | 81-142/24 |
| 72-55-9 | 4,4'-DDE | ND | | 0.98 | 0.79 | 81 | 0.81 | 83 | 3 | 77-139/26 |
| 50-29-3 | 4,4'-DDT | ND | | 0.98 | 0.80 | 82 | 0.81 | 83 | 1 | 65-147/29 |
| 72-20-8 | Endrin | ND | | 0.98 | 0.96 | 98 | 1.0 | 102 | 4 | 72-149/21 |
| 1031-07-8 | Endosulfan sulfate | ND | | 0.98 | 0.88 | 90 | 0.94 | 96 | 7 | 66-140/31 |
| 7421-93-4 | Endrin aldehyde | ND | | 0.98 | 0.31 | 32 | 0.26 | 27 | 18 | 5-113/49 |
| 53494-70-5 | Endrin ketone | ND | | 0.98 | 0.92 | 94 | 0.95 | 97 | 3 | 75-138/25 |
| 959-98-8 | Endosulfan-I | ND | | 0.98 | 0.92 | 94 | 0.94 | 96 | 2 | 74-139/21 |
| 33213-65-9 | Endosulfan-II | ND | | 0.98 | 0.94 | 96 | 0.98 | 100 | 4 | 70-145/25 |
| 76-44-8 | Heptachlor | ND | | 0.98 | 1.0 | 102 | 1.1 | 112 | 10 | 74-136/25 |
| 1024-57-3 | Heptachlor epoxide | ND | | 0.98 | 0.89 | 91 | 0.93 | 95 | 4 | 75-138/21 |
| 72-43-5 | Methoxychlor | ND | | 0.98 | 0.96 | 98 | 0.99 | 101 | 3 | 69-145/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37126-4 | Limits |
|---|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 88% | 93% | 89% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 74% | 76% | 68% | 31-148% |

# Metals Analysis

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9005
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/08/05

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Mercury | 1.0 | .022 | -0.014 | <1.0 |

Associated samples MP9005: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.1.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9005
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/08/05 12/08/05

| Metal | F37086-4 Original | DUP | RPD | QC Limits | F37086-4 Original | MS | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.0 | 0.0 | NC | 0-20 | 0.0 | 2.7 | 3 | 90.0 | 62-131 |

Associated samples MP9005: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

7.1.2

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9005
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/08/05

| Metal | F37086-4 Original | MSD | Spikelot HGFLWS1 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Mercury | 0.0 | 2.7 | 3 | 90.0 | 0.0 | 15 |

Associated samples MP9005: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

7.1.2

7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9005
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/08/05

| Metal | BSP Result | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|
| Mercury | 3.0 | 3 | 100.0 | 80-120 |

Associated samples MP9005: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.1.3

7

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Aluminum | 200 | 6.6 | -12 | <200 |
| Antimony | 5.0 | 1.5 | 3.2 | <5.0 |
| Arsenic | 10 | 2.8 | -3.0 | <10 |
| Barium | 200 | .5 | -0.28 | <200 |
| Beryllium | 4.0 | .3 | -0.59 | <4.0 |
| Cadmium | 5.0 | .3 | -0.26 | <5.0 |
| Calcium | 1000 | 3.8 | -36 | <1000 |
| Chromium | 10 | .4 | -0.050 | <10 |
| Cobalt | 50 | .5 | -0.22 | <50 |
| Copper | 25 | .4 | 0.30 | <25 |
| Iron | 300 | 7.1 | 8.0 | <300 |
| Lead | 5.0 | 1.2 | 1.9 | <5.0 |
| Magnesium | 5000 | 9.9 | -8.3 | <5000 |
| Manganese | 15 | .2 | -0.030 | <15 |
| Molybdenum | 50 | .8 | | |
| Nickel | 40 | 1.1 | -1.4 | <40 |
| Potassium | 5000 | 14 | 9.8 | <5000 |
| Selenium | 10 | 2 | 2.7 | <10 |
| Silver | 10 | .6 | -0.53 | <10 |
| Sodium | 5000 | 150 | 203 | <5000 |
| Thallium | 10 | 1.5 | -4.7 | <10 |
| Tin | 50 | 1.5 | | |
| Vanadium | 50 | .5 | -0.16 | <50 |
| Zinc | 20 | .6 | 0.38 | <20 |

Associated samples MP9018: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05 12/13/05

| Metal | F37126-4 Original | DUP | RPD | QC Limits | F37126-4 Original | MS | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 0.0 | 0.0 | NC | 0-16 | 0.0 | 38800 | 29000 | 133.8N(d | 75-125 |
| Antimony | 0.0 | 0.0 | NC | 0-13 | 0.0 | 1130 | 1000 | 113.0 | 75-125 |
| Arsenic | 0.0 | 3.9 | 200.0(a) | 0-12 | 0.0 | 4480 | 4000 | 112.0 | 83-116 |
| Barium | 36.2 | 35.4 | 2.2 | 0-13 | 36.2 | 3980 | 4000 | 98.6 | 82-116 |
| Beryllium | 0.0 | 0.0 | NC | 0-12 | 0.0 | 88.0 | 100 | 88.0 | 86-119 |
| Cadmium | 0.77 | 0.72 | 6.7 | 0-13 | 0.77 | 84.5 | 100 | 83.7 | 80-115 |
| Calcium | 1490000 | 1460000b | 2.0 | 0-14 | 1490000 | 1510000b | 25000 | 80.0 | 75-125 |
| Chromium | 0.0 | 0.0 | NC | 0-12 | 0.0 | 360 | 400 | 90.0 | 82-120 |
| Cobalt | 3.9 | 4.1 | 5.0 | 0-14 | 3.9 | 835 | 1000 | 83.1 | 83-117 |
| Copper | 0.0 | 0.0 (c) | NC | 0-13 | 0.0 | 579 | 500 | 115.8 | 87-120 |
| Iron | 0.0 | 0.0 (c) | NC | 0-14 | 0.0 | 20200 | 27000 | 74.8N(d) | 76-125 |
| Lead | 0.0 | 0.0 (c) | NC | 0-10 | 0.0 | 840 | 1000 | 84.0 | 84-118 |
| Magnesium | 1870000 | 1840000b | 1.6 | 0-15 | 1870000 | 1880000b | 25000 | 40.0 (e) | 75-125 |
| Manganese | 141 | 139 | 1.4 | 0-13 | 141 | 1080 | 1000 | 93.9 | 75-125 |
| Molybdenum | | | | | | | | | |
| Nickel | 0.0 | 0.0 | NC | 0-10 | 0.0 | 795 | 1000 | 79.5 | 81-121 |
| Potassium | 148000 | 146000 | 1.4 | 0-18 | 148000 | 199000 | 25000 | 204.0(e) | 76-125 |
| Selenium | 0.0 | 0.0 (c) | NC | 0-13 | 0.0 | 4390 | 4000 | 109.8 | 84-121 |
| Silver | 0.0 | 0.0 | NC | 0-14 | 0.0 | 141 | 100 | 141.0N(d | 77-125 |
| Sodium | 10000000 | 9840000b | 1.6 | 0-10 | 10000000 | 9840000b | 25000 | -640.0(e | 75-125 |
| Thallium | 6.2 | 7.9 | 24.1 (a) | 0-14 | 6.2 | 3080 | 4000 | 76.8 | 86-121 |
| Tin | | | | | | | | | |
| Vanadium | 22.1 | 22.5 | 1.8 | 0-14 | 22.1 | 960 | 1000 | 93.8 | 87-118 |
| Zinc | 4.1 | 3.0 | 31.0 (a) | 0-13 | 4.1 | 851 | 1000 | 84.7 | 82-123 |

Associated samples MP9018: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Above linear range.
(c) Elevated reporting limit(s) due to matrix interference.
(d) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
(e) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | F37126-4 Original | MSD | Spikelot MPFLICP | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | 0.0 | 38400 | 29000 | 132.4N(a | 1.0 | 20 |
| Antimony | 0.0 | 1130 | 1000 | 113.0 | 0.0 | 20 |
| Arsenic | 0.0 | 4480 | 4000 | 112.0 | 0.0 | 20 |
| Barium | 36.2 | 3960 | 4000 | 98.1 | 0.5 | 20 |
| Beryllium | 0.0 | 88.7 | 100 | 88.7 | 0.8 | 20 |
| Cadmium | 0.77 | 84.6 | 100 | 83.8 | 0.1 | 20 |
| Calcium | 1490000 | 1510000b | 25000 | 80.0 | 0.0 | 20 |
| Chromium | 0.0 | 358 | 400 | 89.5 | 0.6 | 20 |
| Cobalt | 3.9 | 833 | 1000 | 82.9N(a) | 0.2 | 20 |
| Copper | 0.0 | 574 | 500 | 114.8 | 0.9 | 20 |
| Iron | 0.0 | 20200 | 27000 | 74.8N(a) | 0.0 | 20 |
| Lead | 0.0 | 839 | 1000 | 83.9 | 0.1 | 20 |
| Magnesium | 1870000 | 1870000b | 25000 | 0.0 (c) | 0.5 | 20 |
| Manganese | 141 | 1080 | 1000 | 93.9 | 0.0 | 20 |
| Molybdenum | | | | | | |
| Nickel | 0.0 | 796 | 1000 | 79.6 | 0.1 | 20 |
| Potassium | 148000 | 196000 | 25000 | 192.0(c) | 1.5 | 20 |
| Selenium | 0.0 | 4390 | 4000 | 109.8 | 0.0 | 20 |
| Silver | 0.0 | 139 | 100 | 139.0N(a | 1.4 | 20 |
| Sodium | 10000000 | 9740000b | 25000 | -1040.0c | 1.0 | 20 |
| Thallium | 6.2 | 3060 | 4000 | 76.3 | 0.7 | 20 |
| Tin | | | | | | |
| Vanadium | 22.1 | 953 | 1000 | 93.1 | 0.7 | 20 |
| Zinc | 4.1 | 853 | 1000 | 84.9 | 0.2 | 20 |

Associated samples MP9018: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
(b) Above linear range.
(c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/13/05

| Metal | BSP Result | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | 28200 | 29000 | 97.2 | 80-120 |
| Antimony | 1000 | 1000 | 100.0 | 80-120 |
| Arsenic | 3870 | 4000 | 96.8 | 80-120 |
| Barium | 3670 | 4000 | 91.8 | 80-120 |
| Beryllium | 102 | 100 | 102.0 | 80-120 |
| Cadmium | 99.0 | 100 | 99.0 | 80-120 |
| Calcium | 25300 | 25000 | 101.2 | 80-120 |
| Chromium | 398 | 400 | 99.5 | 80-120 |
| Cobalt | 1000 | 1000 | 100.0 | 80-120 |
| Copper | 497 | 500 | 99.4 | 80-120 |
| Iron | 27600 | 27000 | 102.2 | 80-120 |
| Lead | 1010 | 1000 | 101.0 | 80-120 |
| Magnesium | 25000 | 25000 | 100.0 | 80-120 |
| Manganese | 1020 | 1000 | 102.0 | 80-120 |
| Molybdenum | | | | |
| Nickel | 1010 | 1000 | 101.0 | 80-120 |
| Potassium | 21700 | 25000 | 86.8 | 80-120 |
| Selenium | 4050 | 4000 | 101.3 | 80-120 |
| Silver | 100 | 100 | 100.0 | 80-120 |
| Sodium | 22100 | 25000 | 88.4 | 80-120 |
| Thallium | 4100 | 4000 | 102.5 | 80-120 |
| Tin | | | | |
| Vanadium | 970 | 1000 | 97.0 | 80-120 |
| Zinc | 1020 | 1000 | 102.0 | 80-120 |

Associated samples MP9018: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9018
Matrix Type: AQUEOUS

Methods: SW846 60108
Units: ug/l

Prep Date: 12/13/05

| Metal | F37126-4 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | 0.00 | 0.00 | NC | 0-10 |
| Antimony | 0.00 | 0.00 | NC | 0-10 |
| Arsenic | 0.00 | 0.00 | NC | 0-10 |
| Barium | 36.2 | 34.9 | 3.6 | 0-10 |
| Beryllium | 0.00 | 0.00 | NC | 0-10 |
| Cadmium | 0.770 | 0.00 | 100.0(a) | 0-10 |
| Calcium | 1490000 | 2070000 | 39.0*(b) | 0-10 |
| Chromium | 0.00 | 2.00 | | 0-10 |
| Cobalt | 3.91 | 6.48 | 65.7 (a) | 0-10 |
| Copper | 0.00 | 0.00 | NC | 0-10 |
| Iron | 0.00 | 0.00 | NC | 0-10 |
| Lead | 0.00 | 0.00 | NC | 0-10 |
| Magnesium | 1870000 | 2280000 | 21.8*(b) | 0-10 |
| Manganese | 141 | 151 | 7.3 | 0-10 |
| Molybdenum | | | | |
| Nickel | 0.00 | 0.00 | NC | 0-10 |
| Potassium | 148000 | 119000 | 19.7*(b) | 0-10 |
| Selenium | 0.00 | 0.00 | NC | 0-10 |
| Silver | 0.00 | 0.00 | NC | 0-10 |
| Sodium | 10000000 | 10200000 | 1.8 | 0-10 |
| Thallium | 6.24 | 43.2 | 592.0(a) | 0-10 |
| Tin | | | | |
| Vanadium | 22.1 | 27.4 | 24.3 (a) | 0-10 |
| Zinc | 4.09 | 48.5 | 1085.3(a | 0-10 |

Associated samples MP9018: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

# General Chemistry

## QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19189 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19189: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

8.1

8

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37126
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19189 | F37124-4 | mg/l | 17700 | 20600 | 14.8 | 0-29% |

Associated Samples:
Batch GN19189: F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

8.2
8

# GC Semi-volatiles

## QC Data Summaries

(Accutest Laboratories Gulf Coast, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37126
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** BHATNM: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP5303-MB | GG24815.D | 1 | 12/16/05 | FO | 12/13/05 | OP5303 | GGG792 |

**The QC reported here applies to the following samples:** **Method:** SW846 8151

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 0.050 | 0.020 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 111% | 18-157% |

# Blank Spike Summary



**Job Number:** F37126
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** BHATNM: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP5303-BS | GG24816.D | 1 | 12/16/05 | FO | 12/13/05 | OP5303 | GGG792 |

**The QC reported here applies to the following samples:** **Method:** SW846 8151

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | 2 | 2.0 | 100 | 34-154 |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.4 | 0.39 | 98 | 40-143 |
| 93-76-5 | 2,4,5-T | 0.4 | 0.35 | 88 | 42-147 |
| 1918-00-9 | Dicamba | 0.4 | 0.28 | 70 | 44-129 |
| 88-85-7 | Dinoseb | 0.4 | 0.29 | 73 | 14-81 |
| 75-99-0 | Dalapon | 2 | 2.1 | 105 | 36-129 |
| 120-36-5 | Dichloroprop | 2 | 2.1 | 105 | 41-145 |
| 94-82-6 | 2,4-DB | 4 | 3.9 | 98 | 38-147 |
| 93-65-2 | MCPP | | ND | | 50-150 [a] |
| 94-74-6 | MCPA | | ND | | 50-150 [a] |
| 87-86-5 | Pentachlorophenol | 0.1 | 0.10 | 100 | 27-134 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 110% | 18-157% |

(a) Advisory control limits.

9.2

9

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37126
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** BHATNM: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP5303-MS | GG24819.D | 1 | 12/16/05 | FO | 12/13/05 | OP5303 | GGG792 |
| OP5303-MSD | GG24820.D | 1 | 12/16/05 | FO | 12/13/05 | OP5303 | GGG792 |
| F37126-4 | GG24824.D | 1 | 12/17/05 | FO | 12/13/05 | OP5303 | GGG792 |

**The QC reported here applies to the following samples:** **Method:** SW846 8151

F37126-1, F37126-2, F37126-3, F37126-4, F37126-5

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | | 4 | 3.8 | 95 | 3.8 | 95 | 0 | 36-146/29 |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | | 0.8 | 0.68 | 85 | 0.63 | 79 | 8 | 28-136/25 |
| 93-76-5 | 2,4,5-T | ND | | 0.8 | 0.67 | 84 | 0.51 | 64 | 27 | 33-152/27 |
| 1918-00-9 | Dicamba | ND | | 0.8 | 0.67 | 84 | 0.74 | 93 | 10 | 39-123/23 |
| 88-85-7 | Dinoseb | ND | | 0.8 | 0.45 | 56 | 0.67 | 84* | 39* | 10-66/29 |
| 75-99-0 | Dalapon | ND | | 4 | 4.3 | 108 | 3.7 | 93 | 15 | 36-146/29 |
| 120-36-5 | Dichloroprop | ND | | 4 | 3.7 | 93 | 4.0 | 100 | 8 | 37-144/18 |
| 94-82-6 | 2,4-DB | ND | | 8 | 6.9 | 86 | 7.2 | 90 | 4 | 21-126/29 |
| 93-65-2 | MCPP | ND | | | ND | | ND | | nc | -/0 |
| 94-74-6 | MCPA | ND | | | ND | | ND | | nc | -/0 |
| 87-86-5 | Pentachlorophenol | 0.051 | | 0.2 | 0.25 | 100 | 0.32 | 135* | 25 | 28-128/29 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37126-4 | Limits |
|---|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 124% | 127% | | 18-157% |
| 19719-28-9 | 2,4-DCAA | | | 96% | 18-157% |

9.3

9

# SDG – F37124
# SITE - LF-29

Southeast ACCUTEST Laboratories

12/19/05

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM/HGL

Accutest Job Number: F37124

Sampling Date: 12/05/05

Report to:

Bhate Environmental

MDAuben@bhate.com

ATTN: Mike DAuben

Total number of pages in report: 102

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6 7

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
Section 2: Case Narrative/Conformance Summary ..... 4
Section 3: Sample Results ..... 6
3.1: F37124-1: MW-29-01 ..... 6
3.2: F37124-2: MW-29-03 ..... 13
3.3: F37124-3: MW-29-04 ..... 20
3.4: F37124-4: MW-29-05 ..... 27
3.5: F37124-5: MW-29-06 ..... 34
3.6: F37124-6: MW-29-07 ..... 41
3.7: F37124-7: MW-29-08 ..... 48
3.8: F37124-8: TRIP BLANK ..... 55
3.9: F37124-9: MW-29-05 ..... 58
**Section 4: Misc. Forms** ..... **65**
**4.1:** Chain of Custody ..... 66
Section 5: GC/MS Volatiles - QC Data Summaries ..... 68
5.1: Method Blank Summary ..... 69
5.2: Blank Spike Summary ..... 75
5.3: Matrix Spike/Matrix Spike Duplicate Summary ..... 81
Section 6: GC/MS Semi-volatiles - QC Data Summaries ..... 87
6.1: Method Blank Summary ..... 88
6.2: Blank Spike Summary ..... 94
6.3: Matrix Spike/Matrix Spike Duplicate Summary ..... 97
**Section 7: General Chemistry - QC Data Summaries** ..... **100**
**7.1:** Method Blank and Spike Results Summary ..... 101
**7.2:** Duplicate Results Summary ..... 102

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37124

HOLMN
Project No: PROJECT # LTM/HGL

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F37124-1 | 12/05/05 | 15:50 KG | 12/07/05 | AQ | Ground Water | MW-29-01 |
| F37124-2 | 12/05/05 | 13:59 KG | 12/07/05 | AQ | Ground Water | MW-29-03 |
| F37124-3 | 12/05/05 | 13:10 KG | 12/07/05 | AQ | Ground Water | MW-29-04 |
| F37124-4 | 12/05/05 | 12:20 KG | 12/07/05 | AQ | Ground Water | MW-29-05 |
| F37124-4D | 12/05/05 | 12:20 KG | 12/07/05 | AQ | Water Dup/MSD | MW-29-05 |
| F37124-4S | 12/05/05 | 12:20 KG | 12/07/05 | AQ | Water Matrix Spike | MW-29-05 |
| F37124-5 | 12/05/05 | 15:23 KG | 12/07/05 | AQ | Ground Water | MW-29-06 |
| F37124-6 | 12/05/05 | 14:30 KG | 12/07/05 | AQ | Ground Water | MW-29-07 |
| F37124-7 | 12/05/05 | 14:58 KG | 12/07/05 | AQ | Ground Water | MW-29-08 |
| F37124-8 | 12/05/05 | 00:00 KG | 12/07/05 | AQ | Trip Blank Water | TRIP BLANK |
| F37124-9 | 12/05/05 | 12:20 KG | 12/07/05 | AQ | Ground Water | MW-29-05 |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F37124

**Site:** HOLMN **Report Date** 12/19/2005 11:02:11

7 Samples, 1 Trip Blank were collected on 12/05/2005 and received at Accutest on 12/07/2005 properly preserved, at 2 Deg. C and intact. These Samples received an Accutest job number of F37124. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ809

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37163-8MS, F37163-8MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 2-Hexanone, Acetone are outside control limits. Biased high, analytes not detected in the samples, data integrity not affected.

MS and/or MSD Recovery(s) for 1,2,3-Trichlorobenzene, 2-Chloroethyl vinyl ether are outside control limits. Probable cause due to matrix interferencnce. 2-CEVE affected by preservation, 1,2,3-TCP recovered within limits in Blank Spike.

RPD(s) for MSD for 2-Chloroethyl vinyl ether are outside control limits for sample F37163-8MSD. Probable cause due to sample homogeneity.

**Matrix:** AQ **Batch ID:** VJ810

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37124-4MS, F37124-4MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 1,2,3-Trichlorobenzene, Acetone are outside control limits. Biased high, not detected in the samples, data integrity not affected.

MS and/or MSD Recovery(s) for 1,2,3-Trichlorobenzene, 2-Chloroethyl vinyl ether, Methyl methacrylate, Styrene, Vinyl Acetate are outside control limits. See Blank Spike. Probable cause due to matrix interference.

RPD(s) for MSD for Styrene, Vinyl Acetate are outside control limits for sample F37124-4MSD. Probable cause due to sample homogeneity.

## Extractables by GCMS By Method SW846 8270C

**Matrix:** AQ **Batch ID:** OP15207

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37124-4MS, F37124-4MSD were used as the QC samples indicated.

MS/MSD Recovery(s) for 2,4-Dimethylphenol, 2-Nitroaniline, 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, Benzidine, Nitrobenzene are outside control limits. Probable cause due to matrix interference. For method performance in clean matrix refer to Blank Spike.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19189

All method blanks for this batch meet method specific criteria.

Sample(s) F37124-4DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data QualityObjectives for precision,

accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 19, 2005

Svetlana Izosimova, QAO (signature on file)

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-01 | | |
| Lab Sample ID: | F37124-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019585.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-01 | | |
| Lab Sample ID: | F37124-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-01 | | |
| Lab Sample ID: | F37124-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-01 | | |
| Lab Sample ID: | F37124-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L029236.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 890 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 28 | 11 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.6 | 2.2 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.6 | 2.2 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.6 | 2.2 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.6 | 2.2 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 28 | 11 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 11 | 5.6 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.6 | 2.2 | ug/l | |
| | 3&4-Methylphenol | ND | 5.6 | 2.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.6 | 2.2 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 28 | 11 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 28 | 11 | ug/l | |
| 108-95-2 | Phenol | ND | 5.6 | 2.2 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.6 | 2.2 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.6 | 2.2 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.6 | 1.1 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.6 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.6 | 1.1 | ug/l | |
| 92-87-5 | Benzidine | ND | 28 | 17 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.6 | 1.1 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.6 | 1.1 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.6 | 1.1 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.6 | 2.2 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.6 | 1.1 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.6 | 1.1 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.6 | 2.2 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.6 | 1.1 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.6 | 1.1 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 11 | 4.5 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.6 | 1.1 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.6 | 1.1 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.6 | 2.2 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-01 | | |
| Lab Sample ID: | F37124-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.6 | 1.1 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.6 | 1.1 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.6 | 1.1 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.6 | 1.1 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.6 | 1.1 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.6 | 2.2 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.6 | 2.2 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 11 | 5.6 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.6 | 2.2 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.6 | 1.1 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.6 | 2.2 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.6 | 2.8 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.6 | 2.2 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.6 | 2.2 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.6 | 2.8 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.6 | 1.1 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.6 | 1.1 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.6 | 1.1 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.6 | 2.2 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.6 | 2.2 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.6 | 2.2 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.6 | 2.2 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.6 | 1.1 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.6 | 1.1 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 11 | 4.5 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 11 | 4.5 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 11 | 4.5 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.6 | 1.1 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.6 | 1.1 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.6 | 2.2 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.6 | 2.2 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.6 | 1.1 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.6 | 1.1 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.6 | 1.1 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 43% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 34% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 84% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-01 | | |
| Lab Sample ID: | F37124-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 66% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 75% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-01 | | |
| Lab Sample ID: | F37124-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 32200 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-03 | | |
| Lab Sample ID: | F37124-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019586.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 6.0 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 7.3 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-03 | | |
| Lab Sample ID: | F37124-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-03 | | |
| Lab Sample ID: | F37124-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-03 | | |
| Lab Sample ID: | F37124-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R00167.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 970 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 26 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.2 | 2.1 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.2 | 2.1 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.2 | 2.1 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.2 | 2.1 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 26 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 5.2 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.2 | 2.1 | ug/l | |
| | 3&4-Methylphenol | ND | 5.2 | 2.1 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.2 | 2.1 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 26 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 26 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.2 | 2.1 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.2 | 2.1 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.2 | 2.1 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.2 | 1.0 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.2 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.2 | 1.0 | ug/l | |
| 92-87-5 | Benzidine | ND | 26 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.2 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.2 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.2 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.2 | 2.1 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.2 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.2 | 1.0 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.2 | 2.1 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.2 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.2 | 1.0 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 4.1 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.2 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.2 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.2 | 2.1 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-03 | | |
| Lab Sample ID: | F37124-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.2 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.2 | 1.0 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.2 | 1.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.2 | 1.0 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.2 | 1.0 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.2 | 2.1 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.2 | 2.1 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 5.2 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.2 | 2.1 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.2 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.2 | 2.1 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.2 | 2.6 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.2 | 2.1 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.2 | 2.1 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.2 | 2.6 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.2 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.2 | 1.0 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.2 | 1.0 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.2 | 2.1 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.2 | 2.1 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.2 | 2.1 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.2 | 2.1 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.2 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.2 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 4.1 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 4.1 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 4.1 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.2 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.2 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.2 | 2.1 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.2 | 2.1 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.2 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.2 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.2 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 41% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 27% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 63% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-03 | | |
| Lab Sample ID: | F37124-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 68% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 71% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 74% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-03 | | |
| Lab Sample ID: | F37124-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 7660 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-04 | | |
| Lab Sample ID: | F37124-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019587.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.8 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 8.4 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-04 | | |
| Lab Sample ID: | F37124-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-04 | | |
| Lab Sample ID: | F37124-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-04 | | |
| Lab Sample ID: | F37124-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R00168.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 4.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 1.9 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.9 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 1.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 0.97 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 0.97 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 92-87-5 | Benzidine | ND | 24 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 1.9 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 0.97 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 9.7 | 3.9 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 1.9 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-04 | | |
| Lab Sample ID: | F37124-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 0.97 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 1.9 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 1.9 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 4.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 1.9 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.97 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 2.4 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 2.4 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 0.97 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.9 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.9 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 1.9 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.9 | 0.97 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 1.9 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 1.9 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 0.97 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 43% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 28% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-04 | | |
| Lab Sample ID: | F37124-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 67% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 76% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-04 | | |
| Lab Sample ID: | F37124-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 11000 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-4 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | 3.6 | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.4 | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 1.5 | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 90.6 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-4 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | 0.85 | 1.0 | 0.50 | ug/l | J |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | 4.6 | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-4 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 5.5 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-4 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L029225.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 9.8 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 9.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.8 | 4.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 9.8 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 9.8 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 0.98 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 0.98 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.98 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.98 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.98 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 0.98 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.98 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 0.98 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 9.8 | 3.9 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.98 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.98 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 2.0 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-4 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.98 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 0.98 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 0.98 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 0.98 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 0.98 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.8 | 4.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.98 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 0.98 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 0.98 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.98 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.98 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.8 | 3.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.8 | 3.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.8 | 3.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.9 | 0.98 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.98 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.98 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.98 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 0.98 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 33% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 85% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-4 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 69% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 72% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-4 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 17700 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-06 | | |
| Lab Sample ID: | F37124-5 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019590.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 2.3 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-06 | | |
| Lab Sample ID: | F37124-5 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-06 | | |
| Lab Sample ID: | F37124-5 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-06 | | |
| Lab Sample ID: | F37124-5 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R00169.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 990 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.1 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.1 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.1 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.1 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 5.1 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.1 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.1 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.1 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.1 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.1 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.1 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.1 | 1.0 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.1 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.1 | 1.0 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.1 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.1 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.1 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.1 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.1 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.1 | 1.0 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.1 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.1 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.1 | 1.0 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 4.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.1 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.1 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.1 | 2.0 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-06 | | |
| Lab Sample ID: | F37124-5 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.1 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.1 | 1.0 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.1 | 1.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.1 | 1.0 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.1 | 1.0 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.1 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.1 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 5.1 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.1 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.1 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.1 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.1 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.1 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.1 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.1 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.1 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.1 | 1.0 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.1 | 1.0 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.1 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.1 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.1 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.1 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.1 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.1 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.1 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.1 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.1 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.1 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.1 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.1 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.1 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 45% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 31% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 80% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-06 | | |
| Lab Sample ID: | F37124-5 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 77% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-06 | | |
| Lab Sample ID: | F37124-5 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 17800 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-07 | | |
| Lab Sample ID: | F37124-6 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019591.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.8 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 26.6 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-07 | | |
| Lab Sample ID: | F37124-6 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-07 | | |
| Lab Sample ID: | F37124-6 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 111% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-07 | | |
| Lab Sample ID: | F37124-6 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R00170.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 9.8 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 9.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.8 | 4.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 9.8 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 9.8 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 0.98 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 0.98 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.98 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.98 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.98 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 0.98 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.98 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 0.98 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 9.8 | 3.9 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.98 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.98 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 2.0 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-07 | | |
| Lab Sample ID: | F37124-6 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.98 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 0.98 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 0.98 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 0.98 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 0.98 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.8 | 4.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.98 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 0.98 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 0.98 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.98 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.98 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.8 | 3.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.8 | 3.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.8 | 3.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.9 | 0.98 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.98 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.98 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.98 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 0.98 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 29% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 79% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-07 | | |
| Lab Sample ID: | F37124-6 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 69% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 71% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 71% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-07 | | |
| Lab Sample ID: | F37124-6 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 17300 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-08 | | |
| Lab Sample ID: | F37124-7 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019594.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 23.3 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-08 | | |
| Lab Sample ID: | F37124-7 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-08 | | |
| Lab Sample ID: | F37124-7 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-08 | | |
| Lab Sample ID: | F37124-7 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R00171.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 4.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 1.9 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.9 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 1.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 0.97 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 0.97 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 92-87-5 | Benzidine | ND | 24 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 1.9 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 0.97 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 9.7 | 3.9 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 1.9 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-08 | | |
| Lab Sample ID: | F37124-7 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 0.97 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 1.9 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 1.9 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 4.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 1.9 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.97 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 2.4 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 2.4 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 0.97 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.9 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.9 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 1.9 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.9 | 0.97 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 1.9 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 1.9 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 0.97 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 49% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 34% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 77% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-08 | | |
| Lab Sample ID: | F37124-7 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 75% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 76% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-08 | | |
| Lab Sample ID: | F37124-7 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 15800 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37124-8 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019560.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37124-8 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37124-8 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-9 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019595.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | 3.8 | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.6 | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 1.7 | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 95.0 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-9 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | 0.90 | 1.0 | 0.50 | ug/l | J |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | 5.0 | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-9 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 5.8 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-9 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | R00172.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 4.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 1.9 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.9 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 1.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 1.9 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 0.97 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 0.97 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 92-87-5 | Benzidine | ND | 24 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 1.9 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 0.97 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 9.7 | 3.9 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 1.9 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-9 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 0.97 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 1.9 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 1.9 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 4.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 1.9 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.97 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 2.4 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 2.4 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 0.97 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 0.97 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.9 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.9 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 1.9 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 3.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.9 | 0.97 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 1.9 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 1.9 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 0.97 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | | 19-90% |
| 4165-62-2 | Phenol-d5 | 26% | | 10-68% |
| 118-79-6 | 2,4,6-Tribromophenol | 68% | | 36-137% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-9 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8270C SW846 3510C | Percent Solids: | n/a |
| Project: | HOLMN | | |

ABN Special List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 62% | | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 61% | | 46-135% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-29-05 | | |
| Lab Sample ID: | F37124-9 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 20900 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F37124

BHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/HGL

P.O. _____

Chain of Custody Number [1]: 120620051

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HGL

Collected by: K. Germann

| | Field Sample ID (10 Character Max) | ERPIMS LOCID (15 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (military) (hhmm) | Sample Depth (beginning) | Sample Depth (ending) | BA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of containers | VOC 8260 | SVOC 8270 | TDS 160.1 | | | | | Matrix Description | Trip Blank Lot Control Number | Code [5] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Sample Analysis Requested [6] | | | | | | | | Quality Assurance Samples [6] | | |
| 1 | mw-29-01 | LF-29 | 05122005 | 1550 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 1 |
| 2 | mw-29-03 | LF-29 | 05122005 | 1359 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 1 |
| 3 | mw-29-04 | LF-29 | 05122005 | 1310 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 1 |
| 4 | mw-29-05 | LF-29 | 05122005 | 1220 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 1 |
| 5 | mw-29-06 | LF-29 | 05122005 | 1523 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 2 |
| 6 | mw-29-07 | LF-29 | 05122005 | 1430 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 2 |
| 7 | mw-29-08 | LF-29 | 05122005 | 1458 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 2 |
| 8 | Trip Blank | | | | | | TB | | | 4 | | | | | | | | Trip Blank | | 1&2 |
| 9 | mw-29-05 | LF-29 | 05122005 | 1220 | 0 | 0 | FD | 1 | GW | 5 | | | | | | | | Field Duplicate | | 1 |
| 10 | mw-29-05 | LF-29 | 05122005 | 1220 | 0 | 0 | MS | 1 | GW | 5 | | | | | | | | MS/MSD | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfer Prior to Receipt by Laboratory

| Relinquished By (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 1. | | | 1. | | |
| 2. R Cam | 12-06-05 | 16:00 | 2. FD | | |
| 3. FD | | | 3. [illegible] Carson | 12-7-05 | 9:00 |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.: _____

Method of Shipment: FedEx Airbill Number: 7925 9831 6371, 7909 3541 2793

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Recipient: _____ Delivery Date/Time: 12/7 9:10

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (BA) Codes: N = Normal Sample, TB = Trip Blank (-t) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, ER = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, If sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099001 in the Equipment Blank Lot Control

F37124: Chain of Custody
Page 1 of 2



ACCUTEST laboratories

F37124

# ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37124 CLIENT: BHate PROJECT: Ltm

DATE/TIME RECEIVED: 12-7-05/ 9:00 # OF COOLERS RECEIVED: 2 COOLER TEMPS: 1.4, 2.0

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7907-3541-2793

4.1 4

## COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [X] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

## TRIP BLANK INFORMATION

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

## SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [X] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

## SOIL INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

SUMMARY OF COMMENTS: analysis not checked on coc. Recieved two tB's Both were mpe sample #(6). Recieved only one liter Amber per sample.

TECHNICIAN SIGNATURE/DATE Steven Green / 12-7-05 TECHNICIAN SIGNATURE/DATE

ASR006/22/05

F37124: Chain of Custody
Page 2 of 2



ACCUTEST F37124

# GC/MS Volatiles

5

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ809-MB | J019556.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ809-MB | J019556.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ809-MB | J019556.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | 83-119% |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | 83-119% |

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ809-BS | J019558.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 198 | 158* | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 262 | 105 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 78.1 | 62 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 84.9 | 68 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 27.4 | 110 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 29.8 | 119 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 22.4 | 90 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 24.4 | 98 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 24.6 | 98 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 27.5 | 110 | 75-120 |
| 75-25-2 | Bromoform | 25 | 21.5 | 86 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 30.5 | 122 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 27.1 | 108 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.8 | 111 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.8 | 103 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 26.0 | 104 | 67-148 |
| 67-66-3 | Chloroform | 25 | 29.0 | 116 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 27.8 | 111 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 27.1 | 108 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.9 | 112 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 127 | 102 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 34.3 | 137 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.6 | 110 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 28.8 | 115 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 28.1 | 112 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 29.0 | 116 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 23.6 | 94 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 24.2 | 97 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 26.5 | 106 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 27.3 | 109 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 25.2 | 101 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 26.1 | 104 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 23.5 | 94 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 23.4 | 94 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.6 | 106 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 27.0 | 108 | 73-115 |

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ809-BS | J019558.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 25.0 | 100 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 25.5 | 102 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 26.9 | 108 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 26.4 | 106 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 27.6 | 110 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 28.0 | 112 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 26.0 | 104 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 26.3 | 105 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 31.1 | 124 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 159 | 127* | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 27.2 | 109 | 62-138 |
| 110-54-3 | Hexane | 25 | 28.9 | 116 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 28.5 | 114 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 27.8 | 111 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 132 | 106 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 285 | 114 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 28.1 | 112 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 24.2 | 97 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 25.6 | 102 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 23.9 | 96 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 26.8 | 107 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 26.5 | 106 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 159 | 127 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 25.0 | 100 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 26.4 | 106 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 24.2 | 97 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 258 | 103 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 28.9 | 116 | 80-122 |
| 100-42-5 | Styrene | 25 | 23.8 | 95 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 23.5 | 94 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.0 | 112 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 27.9 | 112 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 26.0 | 104 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 28.7 | 115 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 25.1 | 100 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 24.8 | 99 | 66-122 |

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ809-BS | J019558.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 26.4 | 106 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 26.5 | 106 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 25.2 | 101 | 75-126 |
| 108-88-3 | Toluene | 25 | 26.0 | 104 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 27.7 | 111 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 28.1 | 112 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 25.9 | 104 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 25.3 | 101 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 94.9 | 76 | 42-146 |
| | m,p-Xylene | 50 | 53.3 | 107 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 25.7 | 103 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | 83-119% |

(a) Advisory control limits.

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

5.2 5

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 196 | 157* | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 253 | 101 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 79.3 | 63 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 87.1 | 70 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 25.9 | 104 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 28.4 | 114 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.0 | 84 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 23.8 | 95 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 23.7 | 95 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 26.4 | 106 | 75-120 |
| 75-25-2 | Bromoform | 25 | 20.6 | 82 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.1 | 112 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 25.9 | 104 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.0 | 108 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 24.8 | 99 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 24.7 | 99 | 67-148 |
| 67-66-3 | Chloroform | 25 | 27.5 | 110 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 26.4 | 106 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.1 | 104 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 26.8 | 107 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 122 | 98 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 32.8 | 131 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.1 | 108 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 27.7 | 111 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 27.3 | 109 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 27.7 | 111 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 21.8 | 87 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 22.8 | 91 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 25.8 | 103 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 26.0 | 104 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 23.7 | 95 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 25.8 | 103 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.4 | 90 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.0 | 108 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.1 | 104 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 25.8 | 103 | 73-115 |

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 22.8 | 91 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 24.7 | 99 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 24.4 | 98 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 24.3 | 97 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 26.6 | 106 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 26.4 | 106 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 24.5 | 98 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 23.7 | 95 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 30.2 | 121 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 147 | 118 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 25.5 | 102 | 62-138 |
| 110-54-3 | Hexane | 25 | 27.8 | 111 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.0 | 108 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 27.0 | 108 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 123 | 98 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 263 | 105 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 27.9 | 112 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 25.2 | 101 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 25.1 | 100 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 21.9 | 88 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 25.5 | 102 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 25.7 | 103 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 150 | 120 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 24.1 | 96 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 26.2 | 105 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 23.4 | 94 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 245 | 98 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 27.9 | 112 | 80-122 |
| 100-42-5 | Styrene | 25 | 22.7 | 91 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.8 | 91 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 27.3 | 109 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 26.6 | 106 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 24.5 | 98 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 31.5 | 126* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.0 | 96 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 23.4 | 94 | 66-122 |

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 25.2 | 101 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.4 | 102 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 23.6 | 94 | 75-126 |
| 108-88-3 | Toluene | 25 | 24.6 | 98 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 26.7 | 107 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 27.9 | 112 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 23.9 | 96 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 25.0 | 100 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 99.4 | 80 | 42-146 |
| | m,p-Xylene | 50 | 50.7 | 101 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 24.6 | 98 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37163-8MS | J019566.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8MSD | J019567.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8 | J019563.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8 | J019565.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | F37163-8 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 25 U | | 1250 | 885 | 71 | 896 | 72 | 1 | 45-127/15 |
| 75-05-8 | Acetonitrile | 20 U | | 2500 | 2560 | 102 | 2570 | 103 | 0 | 50-150/30 [a] |
| 107-02-8 | Acrolein | 10 U | | 1250 | 723 | 58 | 781 | 62 | 8 | 26-185/18 |
| 107-13-1 | Acrylonitrile | 10 U | | 1250 | 833 | 67 | 847 | 68 | 2 | 39-140/12 |
| 107-05-1 | Allyl chloride | 10 U | | 250 | 255 | 102 | 251 | 100 | 2 | 50-150/30 [a] |
| 71-43-2 | Benzene | 2.0 | | 250 | 298 | 118 | 292 | 116 | 2 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | 1.0 U | | 250 | 212 | 85 | 208 | 83 | 2 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | 1.0 U | | 250 | 247 | 99 | 241 | 96 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | 1.0 U | | 250 | 247 | 99 | 242 | 97 | 2 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | 1.0 U | | 250 | 269 | 108 | 263 | 105 | 2 | 72-120/8 |
| 75-25-2 | Bromoform | 1.0 U | | 250 | 210 | 84 | 210 | 84 | 0 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | 1.0 U | | 250 | 287 | 115 | 281 | 112 | 2 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | 1.0 U | | 250 | 269 | 108 | 263 | 105 | 2 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | 1.0 U | | 250 | 277 | 111 | 271 | 108 | 2 | 70-125/12 |
| 108-90-7 | Chlorobenzene | 1.0 U | | 250 | 256 | 102 | 253 | 101 | 1 | 79-113/7 |
| 75-00-3 | Chloroethane | 2.0 U | | 250 | 234 | 94 | 223 | 89 | 5 | 56-164/14 |
| 67-66-3 | Chloroform | 1.0 U | | 250 | 283 | 113 | 279 | 112 | 1 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | 2.0 U | | 250 | 264 | 106 | 266 | 106 | 1 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | 1.0 U | | 250 | 268 | 107 | 262 | 105 | 2 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | 1.0 U | | 250 | 275 | 110 | 269 | 108 | 2 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 5.0 U | | 1250 | 121 | 10 | ND | 0* | 200* | 8-137/18 |
| 75-15-0 | Carbon disulfide | 2.0 U | | 250 | 341 | 136 | 330 | 132 | 3 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | 1.0 U | | 250 | 271 | 108 | 266 | 106 | 2 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 U | | 250 | 283 | 113 | 277 | 111 | 2 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | 2.4 | | 250 | 278 | 110 | 272 | 108 | 2 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | 1.0 U | | 250 | 279 | 112 | 274 | 110 | 2 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2.0 U | | 250 | 221 | 88 | 223 | 89 | 1 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | 1.0 U | | 250 | 230 | 92 | 234 | 94 | 2 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 U | | 250 | 262 | 105 | 261 | 104 | 0 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 U | | 250 | 267 | 107 | 263 | 105 | 2 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | 1.0 U | | 250 | 241 | 96 | 245 | 98 | 2 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | 1.0 U | | 250 | 255 | 102 | 247 | 99 | 3 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | 1.0 U | | 250 | 226 | 90 | 227 | 91 | 0 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | 1.0 U | | 250 | 138 | 55 | 139 | 56 | 1 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | 98.7 [b] | | 250 | 360 | 105 | 354 | 102 | 2 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 U | | 250 | 255 | 102 | 254 | 102 | 0 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37163-8MS | J019566.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8MSD | J019567.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8 | J019563.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8 | J019565.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | F37163-8 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 10 U | | 250 | 211 | 84 | 210 | 84 | 0 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | 1.0 U | | 250 | 256 | 102 | 250 | 100 | 2 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | 1.0 U | | 250 | 252 | 101 | 250 | 100 | 1 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | 1.0 U | | 250 | 252 | 101 | 249 | 100 | 1 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | 3.0 | | 250 | 272 | 108 | 264 | 104 | 3 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 U | | 250 | 269 | 108 | 268 | 107 | 0 | 59-116/11 |
| 100-41-4 | Ethylbenzene | 1.0 U | | 250 | 257 | 103 | 251 | 100 | 2 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | 5.0 U | | 250 | 246 | 98 | 250 | 100 | 2 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | 1.0 U | | 250 | 309 | 124 | 298 | 119 | 4 | 67-151/14 |
| 591-78-6 | 2-Hexanone | 5.0 U | | 1250 | 1040 | 83 | 1060 | 85 | 2 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | 2.0 U | | 250 | 257 | 103 | 251 | 100 | 2 | 52-133/13 |
| 110-54-3 | Hexane | 2.0 U | | 250 | 279 | 112 | 274 | 110 | 2 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | 1.0 U | | 250 | 283 | 113 | 274 | 110 | 3 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | 1.0 U | | 250 | 279 | 112 | 273 | 109 | 2 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 U | | 1250 | 1210 | 97 | 1230 | 98 | 2 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | 20 U | | 2500 | 2730 | 109 | 2700 | 108 | 1 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | 2.0 U | | 250 | 255 | 102 | 244 | 98 | 4 | 52-172/16 |
| 74-87-3 | Methyl chloride | 2.0 U | | 250 | 196 | 78 | 198 | 79 | 1 | 53-155/19 |
| 74-88-4 | Methyl iodide | 5.0 U | | 250 | 249 | 100 | 250 | 100 | 0 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | 5.0 U | | 250 | 221 | 88 | 231 | 92 | 4 | 76-115/11 |
| 74-95-3 | Methylene bromide | 2.0 U | | 250 | 264 | 106 | 258 | 103 | 2 | 73-115/9 |
| 75-09-2 | Methylene chloride | 5.0 U | | 250 | 262 | 105 | 262 | 105 | 0 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | 5.0 U | | 1250 | 997 | 80 | 1020 | 82 | 2 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.0 U | | 250 | 240 | 96 | 243 | 97 | 1 | 61-129/9 |
| 91-20-3 | Naphthalene | 2.0 U | | 250 | 287 | 115 | 288 | 115 | 0 | 52-127/13 |
| 76-01-7 | Pentachloroethane | 10 U | | 250 | 254 | 102 | 257 | 103 | 1 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | 20 U | | 2500 | 2500 | 100 | 2520 | 101 | 1 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | 1.0 U | | 250 | 287 | 115 | 283 | 113 | 1 | 73-123/10 |
| 100-42-5 | Styrene | 1.0 U | | 250 | 235 | 94 | 232 | 93 | 1 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 U | | 250 | 230 | 92 | 230 | 92 | 0 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 U | | 250 | 276 | 110 | 275 | 110 | 0 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 U | | 250 | 277 | 111 | 277 | 111 | 0 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 U | | 250 | 250 | 100 | 252 | 101 | 1 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.0 U | | 250 | 357 | 143* | 344 | 138* | 4 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | 2.0 U | | 250 | 248 | 99 | 247 | 99 | 0 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.0 U | | 250 | 241 | 96 | 237 | 95 | 2 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37163-8MS | J019566.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8MSD | J019567.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8 | J019563.D | 1 | 12/12/05 | MM | n/a | n/a | VJ809 |
| F37163-8 | J019565.D | 10 | 12/12/05 | MM | n/a | n/a | VJ809 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-8

| CAS No. | Compound | F37163-8 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 2.0 U | | 250 | 262 | 105 | 256 | 102 | 2 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 2.0 U | | 250 | 263 | 105 | 258 | 103 | 2 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | 1.0 U | | 250 | 237 | 95 | 232 | 93 | 2 | 70-126/9 |
| 108-88-3 | Toluene | 1.0 U | | 250 | 256 | 102 | 251 | 100 | 2 | 67-123/8 |
| 79-01-6 | Trichloroethylene | 459 [b] | | 250 | 717 | 103 | 695 | 94 | 3 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | 2.0 U | | 250 | 271 | 108 | 262 | 105 | 3 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 10 U | | 250 | 215 | 86 | 212 | 85 | 1 | 27-131/22 |
| 75-01-4 | Vinyl chloride | 1.0 U | | 250 | 213 | 85 | 213 | 85 | 0 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | 10 U | | 1250 | 957 | 77 | 968 | 77 | 1 | 37-154/10 |
| | m,p-Xylene | 2.0 U | | 500 | 522 | 104 | 514 | 103 | 2 | 74-123/7 |
| 95-47-6 | o-Xylene | 1.0 U | | 250 | 250 | 100 | 249 | 100 | 0 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37163-8 | F37163-8 | Limits |
|---|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | 102% | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 104% | 104% | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 95% | 96% | 94% | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 105% | 109% | 111% | 83-119% |

(a) Advisory control limits.
(b) Result is from Run #2.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 100 | 80 | 95.0 | 76 | 5 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 294 | 118 | 283 | 113 | 4 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 79.7 | 64 | 75.0 | 60 | 6 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 88.0 | 70 | 84.7 | 68 | 4 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 26.6 | 106 | 26.5 | 106 | 0 | 50-150/30 [a] |
| 71-43-2 | Benzene | 3.6 | | 25 | 31.8 | 113 | 31.5 | 112 | 1 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 22.8 | 91 | 21.8 | 87 | 4 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 23.0 | 92 | 22.5 | 90 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 23.5 | 94 | 23.6 | 94 | 0 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 25.9 | 104 | 25.6 | 102 | 1 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 21.3 | 85 | 20.4 | 82 | 4 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 24.3 | 97 | 26.0 | 104 | 7 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | 2.4 | | 25 | 27.1 | 99 | 26.9 | 98 | 1 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | 1.5 | | 25 | 27.0 | 102 | 26.6 | 100 | 1 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 24.2 | 97 | 24.2 | 97 | 0 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 25.3 | 101 | 24.8 | 99 | 2 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 27.2 | 109 | 26.9 | 108 | 1 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 24.6 | 98 | 24.7 | 99 | 0 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 25.0 | 100 | 24.4 | 98 | 2 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 25.2 | 101 | 24.8 | 99 | 2 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 32.3 | 129 | 32.1 | 128 | 1 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 25.7 | 103 | 25.9 | 104 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 27.4 | 110 | 27.1 | 108 | 1 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 26.7 | 107 | 26.3 | 105 | 2 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 26.3 | 105 | 26.2 | 105 | 0 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 25.1 | 100 | 23.6 | 94 | 6 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 23.1 | 92 | 23.2 | 93 | 0 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | 90.6 | | 25 | 119 | 114 | 117 | 106 | 2 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 25.7 | 103 | 25.4 | 102 | 1 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 23.7 | 95 | 23.8 | 95 | 0 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 23.6 | 94 | 23.5 | 94 | 0 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 21.7 | 87 | 22.1 | 88 | 2 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 24.7 | 99 | 25.9 | 104 | 5 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 24.2 | 97 | 24.9 | 100 | 3 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 24.1 | 96 | 24.4 | 98 | 1 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 30.7 | 123 | 28.6 | 114 | 7 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 23.2 | 93 | 23.6 | 94 | 2 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | 0.85 | J | 25 | 24.3 | 94 | 24.6 | 95 | 1 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 23.5 | 94 | 23.5 | 94 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 25.7 | 103 | 26.0 | 104 | 1 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 25.9 | 104 | 26.0 | 104 | 0 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 24.0 | 96 | 23.7 | 95 | 1 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 29.8 | 119 | 29.4 | 118 | 1 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 29.1 | 116 | 28.6 | 114 | 2 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 143 | 114 | 136 | 109 | 5 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 22.0 | 88 | 22.4 | 90 | 2 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 27.5 | 110 | 27.1 | 108 | 1 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | 4.6 | | 25 | 31.6 | 108 | 31.3 | 107 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 25.1 | 100 | 24.9 | 100 | 1 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 159 | 127 | 151 | 121 | 5 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 329 | 132 | 316 | 126 | 4 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 27.3 | 109 | 26.8 | 107 | 2 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 24.0 | 96 | 24.4 | 98 | 2 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 23.3 | 93 | 24.2 | 97 | 4 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 34.1 | 136* | 32.7 | 131* | 4 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 25.6 | 102 | 25.8 | 103 | 1 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 26.0 | 104 | 25.8 | 103 | 1 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 118 | 94 | 112 | 90 | 5 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 24.7 | 99 | 24.8 | 99 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 29.2 | 117 | 29.8 | 119 | 2 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 26.2 | 105 | 26.0 | 104 | 1 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 303 | 121 | 289 | 116 | 5 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 26.5 | 106 | 25.8 | 103 | 3 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 8.7 | 35* | 0.96 | 4* | 160* | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 21.5 | 86 | 21.5 | 86 | 0 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 25.7 | 103 | 26.1 | 104 | 2 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 29.7 | 119 | 28.4 | 114 | 4 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 24.9 | 100 | 24.5 | 98 | 2 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 30.5 | 122* | 31.2 | 125* | 2 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 26.4 | 106 | 25.8 | 103 | 2 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 22.0 | 88 | 22.7 | 91 | 3 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |



The QC reported here applies to the following samples: Method: SW846 8260B

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 23.8 | 95 | 23.7 | 95 | 0 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 23.8 | 95 | 23.5 | 94 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 21.8 | 87 | 22.0 | 88 | 1 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 23.5 | 94 | 23.6 | 94 | 0 | 67-123/8 |
| 79-01-6 | Trichloroethylene | 5.5 | | 25 | 31.6 | 104 | 31.6 | 104 | 0 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 28.3 | 113 | 27.5 | 110 | 3 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 28.8 | 115 | 28.6 | 114 | 1 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 24.7 | 99 | 24.6 | 98 | 0 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 69.0 | 55 | 35.6 | 28* | 64* | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 48.6 | 97 | 48.4 | 97 | 0 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 23.4 | 94 | 23.2 | 93 | 1 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37124-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | 105% | 105% | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | 94% | 93% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 102% | 107% | 83-119% |

(a) Advisory control limits.

# GC/MS Semi-volatiles



## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MB | L029216.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 5.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.0 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 4.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 2.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MB | L029216.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 5.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.0 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 52% | 19-90% |
| 4165-62-2 | Phenol-d5 | 32% | 10-68% |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MB | L029216.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 87% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 82% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 85% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 84% | 46-135% |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MB | R00162.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 5.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 2.0 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 2.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 2.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.0 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 92-87-5 | Benzidine | ND | 25 | 15 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 2.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 10 | 4.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 2.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.0 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MB | R00162.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 2.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 5.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 2.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.5 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.5 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.0 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.0 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 2.0 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 2.0 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 2.0 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 2.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 4.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 2.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 2.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 54% | 19-90% |
| 4165-62-2 | Phenol-d5 | 32% | 10-68% |

# Method Blank Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MB | R00162.D | 1 | 12/12/05 | ME | 12/08/05 | OP15207 | SR12 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 85% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 86% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 85% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 90% | 46-135% |

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-BS | L029215.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 100 | 31.1 | 31 | 8-45 |
| 95-57-8 | 2-Chlorophenol | 50 | 44.5 | 89 | 62-103 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 46.5 | 93 | 64-103 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 46.8 | 94 | 59-103 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 38.1 | 76 | 43-94 |
| 51-28-5 | 2,4-Dinitrophenol | 100 | 93.8 | 94 | 12-125 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 100 | 105 | 105 | 47-119 |
| 95-48-7 | 2-Methylphenol | 50 | 37.5 | 75 | 54-91 |
| | 3&4-Methylphenol | 100 | 67.4 | 67 | 48-86 |
| 88-75-5 | 2-Nitrophenol | 50 | 46.2 | 92 | 64-104 |
| 100-02-7 | 4-Nitrophenol | 100 | 37.6 | 38 | 22-50 |
| 87-86-5 | Pentachlorophenol | 100 | 96.7 | 97 | 50-111 |
| 108-95-2 | Phenol | 50 | 21.2 | 42 | 25-53 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 46.1 | 92 | 66-104 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 47.1 | 94 | 60-103 |
| 83-32-9 | Acenaphthene | 50 | 46.1 | 92 | 62-101 |
| 208-96-8 | Acenaphthylene | 50 | 43.7 | 87 | 65-113 |
| 120-12-7 | Anthracene | 50 | 47.8 | 96 | 69-107 |
| 92-87-5 | Benzidine | 50 | 27.0 | 54 | 10-125 |
| 56-55-3 | Benzo(a)anthracene | 50 | 48.6 | 97 | 68-106 |
| 50-32-8 | Benzo(a)pyrene | 50 | 47.3 | 95 | 70-114 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 47.3 | 95 | 68-110 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 47.5 | 95 | 63-115 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 46.9 | 94 | 68-112 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 48.7 | 97 | 73-103 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 49.7 | 99 | 69-108 |
| 100-51-6 | Benzyl Alcohol | 50 | 39.9 | 80 | 34-104 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 43.1 | 86 | 64-102 |
| 106-47-8 | 4-Chloroaniline | 50 | 45.7 | 91 | 57-104 |
| 218-01-9 | Chrysene | 50 | 47.0 | 94 | 68-103 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 44.0 | 88 | 57-103 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 48.4 | 97 | 64-106 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 44.0 | 88 | 52-120 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 47.5 | 95 | 71-104 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 39.1 | 78 | 62-100 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 37.4 | 75 | 59-99 |

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-BS | L029215.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 37.6 | 75 | 60-101 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 45.8 | 92 | 65-111 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 44.5 | 89 | 77-111 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 45.8 | 92 | 42-110 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 46.4 | 93 | 62-115 |
| 132-64-9 | Dibenzofuran | 50 | 45.9 | 92 | 69-104 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 49.1 | 98 | 68-109 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 52.8 | 106 | 63-120 |
| 84-66-2 | Diethyl phthalate | 50 | 49.4 | 99 | 64-110 |
| 131-11-3 | Dimethyl phthalate | 50 | 49.2 | 98 | 44-120 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 50.6 | 101 | 64-115 |
| 206-44-0 | Fluoranthene | 50 | 45.9 | 92 | 68-111 |
| 86-73-7 | Fluorene | 50 | 46.1 | 92 | 66-105 |
| 118-74-1 | Hexachlorobenzene | 50 | 46.5 | 93 | 69-103 |
| 87-68-3 | Hexachlorobutadiene | 50 | 39.4 | 79 | 55-90 |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 30.0 | 60 | 26-95 |
| 67-72-1 | Hexachloroethane | 50 | 36.6 | 73 | 59-104 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 48.6 | 97 | 63-118 |
| 78-59-1 | Isophorone | 50 | 45.2 | 90 | 64-107 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 46.1 | 92 | 66-100 |
| 88-74-4 | 2-Nitroaniline | 50 | 46.5 | 93 | 65-111 |
| 99-09-2 | 3-Nitroaniline | 50 | 44.6 | 89 | 61-106 |
| 100-01-6 | 4-Nitroaniline | 50 | 47.1 | 94 | 60-113 |
| 91-20-3 | Naphthalene | 50 | 41.4 | 83 | 62-101 |
| 98-95-3 | Nitrobenzene | 50 | 43.1 | 86 | 61-106 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 42.8 | 86 | 64-109 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 46.0 | 92 | 69-114 |
| 85-01-8 | Phenanthrene | 50 | 47.5 | 95 | 68-104 |
| 129-00-0 | Pyrene | 50 | 47.8 | 96 | 64-105 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 41.1 | 82 | 64-101 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 57% | 19-90% |
| 4165-62-2 | Phenol-d5 | 35% | 10-68% |

# Blank Spike Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-BS | L029215.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 89% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 84% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 87% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 90% | 46-135% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MS | L029226.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |
| OP15207-MSD | L029227.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |
| F37124-4 | L029225.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | | 200 | 104 | 52 | 119 | 60 | 13 | 16-73/41 |
| 95-57-8 | 2-Chlorophenol | ND | | 100 | 75.1 | 75 | 74.1 | 74 | 1 | 53-102/24 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 100 | 78.8 | 79 | 78.4 | 78 | 1 | 60-101/18 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 100 | 78.1 | 78 | 76.9 | 77 | 2 | 55-100/24 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 100 | 20.2 | 20* | 20.3 | 20* | 0 | 36-98/26 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 200 | 158 | 79 | 162 | 81 | 3 | 14-135/39 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 200 | 179 | 90 | 181 | 91 | 1 | 40-127/24 |
| 95-48-7 | 2-Methylphenol | ND | | 100 | 63.2 | 63 | 62.4 | 62 | 1 | 46-100/23 |
| | 3&4-Methylphenol | ND | | 200 | 129 | 65 | 128 | 64 | 1 | 43-100/23 |
| 88-75-5 | 2-Nitrophenol | ND | | 100 | 79.3 | 79 | 77.2 | 77 | 3 | 53-104/25 |
| 100-02-7 | 4-Nitrophenol | ND | | 200 | 110 | 55 | 121 | 61 | 10 | 32-81/28 |
| 87-86-5 | Pentachlorophenol | ND | | 200 | 170 | 85 | 173 | 87 | 2 | 44-118/16 |
| 108-95-2 | Phenol | ND | | 100 | 54.1 | 54 | 57.5 | 58 | 6 | 31-77/26 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 100 | 79.1 | 79 | 78.5 | 79 | 1 | 61-102/18 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 100 | 79.3 | 79 | 76.5 | 77 | 4 | 55-103/21 |
| 83-32-9 | Acenaphthene | ND | | 100 | 80.6 | 81 | 78.6 | 79 | 3 | 55-103/20 |
| 208-96-8 | Acenaphthylene | ND | | 100 | 76.9 | 77 | 74.1 | 74 | 4 | 55-113/20 |
| 120-12-7 | Anthracene | ND | | 100 | 76.8 | 77 | 75.1 | 75 | 2 | 66-105/14 |
| 92-87-5 | Benzidine | ND | | 100 | ND | 0* | ND | 0* | nc | 10-125/50 |
| 56-55-3 | Benzo(a)anthracene | ND | | 100 | 86.3 | 86 | 86.4 | 86 | 0 | 65-103/16 |
| 50-32-8 | Benzo(a)pyrene | ND | | 100 | 71.9 | 72 | 72.8 | 73 | 1 | 65-113/16 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 100 | 86.9 | 87 | 88.1 | 88 | 1 | 62-110/17 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 100 | 83.9 | 84 | 86.8 | 87 | 3 | 58-111/17 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 100 | 88.4 | 88 | 90.5 | 91 | 2 | 63-110/17 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 100 | 91.4 | 91 | 87.7 | 88 | 4 | 68-102/16 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 100 | 89.1 | 89 | 90.0 | 90 | 1 | 65-108/17 |
| 100-51-6 | Benzyl Alcohol | ND | | 100 | 75.9 | 76 | 75.8 | 76 | 0 | 48-106/24 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 100 | 74.5 | 75 | 71.9 | 72 | 4 | 58-101/22 |
| 106-47-8 | 4-Chloroaniline | ND | | 100 | ND | 0* | ND | 0* | nc | 39-101/21 |
| 218-01-9 | Chrysene | ND | | 100 | 90.4 | 90 | 88.5 | 89 | 2 | 65-100/18 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 100 | 73.9 | 74 | 70.8 | 71 | 4 | 49-100/24 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 100 | 80.0 | 80 | 78.5 | 79 | 2 | 54-103/24 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 100 | 73.8 | 74 | 73.0 | 73 | 1 | 49-109/22 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 100 | 86.5 | 87 | 83.7 | 84 | 3 | 65-103/18 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 100 | 70.8 | 71 | 68.0 | 68 | 4 | 50-101/22 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 100 | 66.8 | 67 | 64.8 | 65 | 3 | 50-100/23 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MS | L029226.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |
| OP15207-MSD | L029227.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |
| F37124-4 | L029225.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 100 | 67.9 | 68 | 64.6 | 65 | 5 | 51-101/23 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 100 | 81.5 | 82 | 79.6 | 80 | 2 | 60-110/16 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 100 | 78.5 | 79 | 78.0 | 78 | 1 | 60-111/19 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 100 | ND | 0* | ND | 0* | nc | 18-112/22 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 100 | 85.6 | 86 | 85.6 | 86 | 0 | 57-111/20 |
| 132-64-9 | Dibenzofuran | ND | | 100 | 80.7 | 81 | 78.5 | 79 | 3 | 64-102/17 |
| 84-74-2 | Di-n-butyl phthalate | ND | | 100 | 88.2 | 88 | 87.6 | 88 | 1 | 63-107/17 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 100 | 94.5 | 95 | 97.7 | 98 | 3 | 58-126/23 |
| 84-66-2 | Diethyl phthalate | ND | | 100 | 86.4 | 86 | 84.8 | 85 | 2 | 59-110/18 |
| 131-11-3 | Dimethyl phthalate | ND | | 100 | 86.5 | 87 | 84.1 | 84 | 3 | 40-116/25 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 100 | 90.6 | 91 | 93.0 | 93 | 3 | 55-120/22 |
| 206-44-0 | Fluoranthene | ND | | 100 | 85.1 | 85 | 82.3 | 82 | 3 | 62-108/17 |
| 86-73-7 | Fluorene | ND | | 100 | 82.2 | 82 | 80.2 | 80 | 2 | 60-105/17 |
| 118-74-1 | Hexachlorobenzene | ND | | 100 | 86.9 | 87 | 84.2 | 84 | 3 | 64-102/16 |
| 87-68-3 | Hexachlorobutadiene | ND | | 100 | 72.2 | 72 | 69.3 | 69 | 4 | 45-93/26 |
| 77-47-4 | Hexachlorocyclopentadiene | ND | | 100 | 62.8 | 63 | 58.7 | 59 | 7 | 20-92/34 |
| 67-72-1 | Hexachloroethane | ND | | 100 | 65.6 | 66 | 64.9 | 65 | 1 | 51-105/26 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 100 | 89.1 | 89 | 90.4 | 90 | 1 | 61-111/19 |
| 78-59-1 | Isophorone | ND | | 100 | 79.1 | 79 | 77.3 | 77 | 2 | 59-103/23 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 100 | 78.8 | 79 | 77.0 | 77 | 2 | 56-100/23 |
| 88-74-4 | 2-Nitroaniline | ND | | 100 | 54.0 | 54* | 53.7 | 54* | 1 | 61-107/18 |
| 99-09-2 | 3-Nitroaniline | ND | | 100 | ND | 0* | ND | 0* | nc | 47-107/26 |
| 100-01-6 | 4-Nitroaniline | ND | | 100 | 9.6 | 10* | 10.7 | 11* | 11 | 48-119/21 |
| 91-20-3 | Naphthalene | ND | | 100 | 72.9 | 73 | 70.4 | 70 | 3 | 52-102/23 |
| 98-95-3 | Nitrobenzene | ND | | 100 | 108 | 108* | 106 | 106* | 2 | 51-103/25 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 100 | 73.4 | 73 | 71.3 | 71 | 3 | 57-103/24 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 100 | 80.9 | 81 | 80.1 | 80 | 1 | 62-112/16 |
| 85-01-8 | Phenanthrene | ND | | 100 | 88.6 | 89 | 84.6 | 85 | 5 | 64-103/15 |
| 129-00-0 | Pyrene | ND | | 100 | 89.9 | 90 | 89.3 | 89 | 1 | 59-107/21 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 100 | 72.9 | 73 | 71.0 | 71 | 3 | 54-102/24 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37124-4 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 62% | 63% | 45% | 19-90% |
| 4165-62-2 | Phenol-d5 | 51% | 54% | 33% | 10-68% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37124
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15207-MS | L029226.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |
| OP15207-MSD | L029227.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |
| F37124-4 | L029225.D | 1 | 12/09/05 | NJ | 12/08/05 | OP15207 | SL1522 |

The QC reported here applies to the following samples: Method: SW846 8270C

F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

| CAS No. | Surrogate Recoveries | MS | MSD | F37124-4 | Limits |
|---|---|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 79% | 75% | 85% | 36-137% |
| 4165-60-0 | Nitrobenzene-d5 | 69% | 67% | 69% | 49-119% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 72% | 75% | 45-118% |
| 1718-51-0 | Terphenyl-d14 | 81% | 81% | 72% | 46-135% |

# General Chemistry

## QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37124
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19189 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19189: F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

7.1 7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37124
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19189 | F37124-4 | mg/l | 17700 | 20600 | 14.8 | 0-29% |

Associated Samples:
Batch GN19189: F37124-1, F37124-2, F37124-3, F37124-4, F37124-5, F37124-6, F37124-7, F37124-9

7.2 7

# SDG – F37086
# SITE – DP-30/SD-33

Southeast ACCUTEST Laboratories

12/20/05

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM/HGLC

Accutest Job Number: F37086

Sampling Date: 12/04/05

Report to:

Bhate Environmental

MDAuben@bhate.com

ATTN: Mike DAuben

Total number of pages in report: 84

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6 7 8

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
Section 2: Sample Results ..... 4
2.1: F37086-1: MW30&33-01 ..... 4
2.2: F37086-2: MW30&33-02 ..... 11
2.3: F37086-3: MW30&33-03 ..... 18
2.4: F37086-4: MW30&33-04 ..... 25
2.5: F37086-5: MW30&33-04 D ..... 32
2.6: F37086-6: TRIP BLANK ..... 39
Section 3: Misc. Forms ..... 42
3.1: Chain of Custody ..... 43
**Section 4: GC/MS Volatiles - QC Data Summaries** ..... **45**
**4.1:** Method Blank Summary ..... 46
**4.2:** Blank Spike Summary ..... 52
**4.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 58
Section 5: GC Semi-volatiles - QC Data Summaries ..... 64
5.1: Method Blank Summary ..... 65
5.2: Blank Spike Summary ..... 66
5.3: Matrix Spike/Matrix Spike Duplicate Summary ..... 67
Section 6: Metals Analysis - QC Data Summaries ..... 68
6.1: Prep QC MP9005: Hg ..... 69
6.2: Prep QC MP9012: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn ..... 73
**Section 7: General Chemistry - QC Data Summaries** ..... **78**
**7.1:** Method Blank and Spike Results Summary ..... 79
**7.2:** Duplicate Results Summary ..... 80
**Section 8: GC Semi-volatiles - QC Data (Accutest Laboratories Gulf Coast, Inc.)** ..... **81**
**8.1:** Method Blank Summary ..... 82
**8.2:** Blank Spike Summary ..... 83
**8.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 84

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37086

HOLMN
Project No: PROJECT # LTM/HGLC

| Sample Number | Collected Date | Time By | Received | Matrix Code | Matrix Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F37086-1 | 12/04/05 | 13:11 KG | 12/06/05 | AQ | Ground Water | MW30&33-01 |
| F37086-2 | 12/04/05 | 11:22 KG | 12/06/05 | AQ | Ground Water | MW30&33-02 |
| F37086-3 | 12/04/05 | 12:35 KG | 12/06/05 | AQ | Ground Water | MW30&33-03 |
| F37086-4 | 12/04/05 | 13:47 KG | 12/06/05 | AQ | Ground Water | MW30&33-04 |
| F37086-4D | 12/04/05 | 13:47 KG | 12/06/05 | AQ | Ground Water | MW30&33-04 |
| F37086-4S | 12/04/05 | 13:47 KG | 12/06/05 | AQ | Ground Water | MW30&33-04 |
| F37086-5 | 12/04/05 | 13:47 KG | 12/06/05 | AQ | Ground Water | MW30&33-04 D |
| F37086-6 | 12/04/05 | 00:00 KG | 12/06/05 | AQ | Trip Blank Water | TRIP BLANK |

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-01 | | |
| **Lab Sample ID:** | F37086-1 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019583.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 2.0 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 5.8 | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-01 | | |
| **Lab Sample ID:** | F37086-1 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-01 | | |
| **Lab Sample ID:** | F37086-1 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 26.6 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-01 | | |
| **Lab Sample ID:** | F37086-1 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10921.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.048 | 0.019 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.048 | 0.014 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.048 | 0.019 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.048 | 0.019 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.048 | 0.014 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.048 | 0.0096 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.048 | 0.0096 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.048 | 0.0096 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.096 | 0.019 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.096 | 0.019 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.096 | 0.019 | ug/l | |
| 72-20-8 | Endrin | ND | 0.096 | 0.038 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.096 | 0.019 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.096 | 0.038 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.096 | 0.019 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.048 | 0.0096 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.096 | 0.019 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.048 | 0.019 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.048 | 0.0096 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.096 | 0.038 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.4 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 92% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 87% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-01 | | |
| **Lab Sample ID:** | F37086-1 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24777.D | 1 | 12/13/05 | ATX | 12/09/05 | T:OP5298 | T:GGG790 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 0.050 | 0.020 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 74% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-01 | | |
| **Lab Sample ID:** | F37086-1 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Antimony [a] | 8.8 U | 10 | 8.8 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Arsenic | 8.9 J | 10 | 2.9 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Barium | 12.9 J | 200 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cadmium | 0.60 U | 5.0 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Calcium | 792000 | 50000 | 1300 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Chromium | 0.50 U | 10 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cobalt | 1.9 J | 50 | 0.40 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Copper [a] | 32 U | 50 | 32 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Iron [a] | 3000 U | 6000 | 3000 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Lead | 1.2 U | 5.0 | 1.2 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Magnesium | 1360000 | 250000 | 290 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Manganese | 4.3 J | 15 | 0.20 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 1.3 J | 40 | 1.1 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Potassium | 4140 J | 5000 | 36 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Selenium [a] | 48 U | 100 | 48 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Sodium | 5560000 | 250000 | 3800 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Thallium | 6.8 J | 10 | 3.8 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Vanadium | 29.4 J | 50 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Zinc | 3.3 J | 20 | 0.80 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4710
(3) Instrument QC Batch: MA4713
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9012

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-01 | | |
| **Lab Sample ID:** | F37086-1 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 24500 | 10 | 10 | mg/l | 1 | 12/08/05 08:05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-02 | | |
| **Lab Sample ID:** | F37086-2 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019547.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-02 | | |
| **Lab Sample ID:** | F37086-2 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-02 | | |
| **Lab Sample ID:** | F37086-2 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 1.0 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 97% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 82% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 101% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 112% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-02 | | |
| **Lab Sample ID:** | F37086-2 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10922.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.050 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.050 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.050 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.050 | 0.010 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.050 | 0.010 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.050 | 0.010 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.10 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.10 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.10 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.10 | 0.040 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.10 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.10 | 0.040 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.10 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.050 | 0.010 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.10 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.050 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.050 | 0.010 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.10 | 0.040 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.3 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 84% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 76% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-02 | | |
| **Lab Sample ID:** | F37086-2 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24778.D | 1 | 12/13/05 | ATX | 12/09/05 | T:OP5298 | T:GGG790 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 0.050 | 0.020 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 80% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-02 | | |
| **Lab Sample ID:** | F37086-2 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Antimony [a] | 8.8 U | 10 | 8.8 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Arsenic | 12.9 | 10 | 2.9 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Barium | 15.3 J | 200 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cadmium | 0.60 U | 5.0 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Calcium | 971000 | 50000 | 1300 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Chromium | 0.50 U | 10 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cobalt | 0.73 J | 50 | 0.40 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Copper [a] | 40 U | 50 | 40 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Iron [a] | 3000 U | 6000 | 3000 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Lead | 1.2 U | 5.0 | 1.2 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Magnesium | 1510000 | 250000 | 290 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Manganese | 5.3 J | 15 | 0.20 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 1.1 U | 40 | 1.1 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Potassium | 21000 | 5000 | 36 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Selenium [a] | 60 U | 100 | 60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Sodium | 6960000 | 250000 | 3800 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Thallium | 7.8 J | 10 | 3.8 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Vanadium | 27.2 J | 50 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Zinc | 4.7 J | 20 | 0.80 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4710
(3) Instrument QC Batch: MA4713
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9012

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-02 | | |
| **Lab Sample ID:** | F37086-2 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 24900 | 10 | 10 | mg/l | 1 | 12/08/05 08:05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-03 | | |
| **Lab Sample ID:** | F37086-3 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019548.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 0.63 | 1.0 | 0.50 | ug/l | J |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 1.1 | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-03 | | |
| **Lab Sample ID:** | F37086-3 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-03 | | |
| **Lab Sample ID:** | F37086-3 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 7.6 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 81% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 101% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-03 | | |
| **Lab Sample ID:** | F37086-3 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10923.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1010 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.050 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.050 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.050 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.050 | 0.0099 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.050 | 0.0099 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.050 | 0.0099 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.099 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.099 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.099 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.099 | 0.040 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.099 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.099 | 0.040 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.099 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.050 | 0.0099 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.099 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.050 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.050 | 0.0099 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.099 | 0.040 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 90% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 80% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-03 | | |
| **Lab Sample ID:** | F37086-3 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24779.D | 1 | 12/13/05 | ATX | 12/09/05 | T:OP5298 | T:GGG790 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 0.050 | 0.020 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 82% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-03 | | |
| **Lab Sample ID:** | F37086-3 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Antimony [a] | 8.8 U | 10 | 8.8 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Arsenic | 3.4 J | 10 | 2.9 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Barium | 22.5 J | 200 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cadmium | 0.74 J | 5.0 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Calcium | 990000 | 50000 | 1300 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Chromium | 0.97 J | 10 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cobalt | 1.7 J | 50 | 0.40 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Copper [a] | 80 U | 100 | 80 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Iron [a] | 3800 U | 6000 | 3800 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Lead [a] | 6.0 U | 10 | 6.0 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Magnesium | 1710000 | 250000 | 290 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Manganese | 4.1 J | 15 | 0.20 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 2.1 J | 40 | 1.1 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Potassium | 11100 | 5000 | 36 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Selenium [a] | 60 U | 100 | 60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Sodium | 7760000 | 250000 | 3800 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Thallium | 4.0 J | 10 | 3.8 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Vanadium | 18.0 J | 50 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Zinc | 4.0 J | 20 | 0.80 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4710
(3) Instrument QC Batch: MA4713
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9012

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-03 | | |
| **Lab Sample ID:** | F37086-3 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 30200 | 10 | 10 | mg/l | 1 | 12/08/05 08:05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratorics

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 | | |
| **Lab Sample ID:** | F37086-4 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019543.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 | | |
| **Lab Sample ID:** | F37086-4 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 | | |
| **Lab Sample ID:** | F37086-4 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 86% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 99% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 | | |
| **Lab Sample ID:** | F37086-4 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10924.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.019 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.019 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.019 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0097 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0097 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.049 | 0.0097 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.097 | 0.019 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.097 | 0.019 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.097 | 0.019 | ug/l | |
| 72-20-8 | Endrin | ND | 0.097 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.097 | 0.019 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.097 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.097 | 0.019 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0097 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.097 | 0.019 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.019 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0097 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.097 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.4 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 94% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 51% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 | | |
| **Lab Sample ID:** | F37086-4 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24780.D | 1 | 12/13/05 | ATX | 12/09/05 | T:OP5298 | T:GGG790 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 0.050 | 0.020 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 80% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 | | |
| **Lab Sample ID:** | F37086-4 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Antimony | 2.2 U | 5.0 | 2.2 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Arsenic | 14.4 | 10 | 2.9 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Barium | 12.3 J | 200 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cadmium | 0.60 U | 5.0 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Calcium | 772000 | 50000 | 1300 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Chromium | 0.61 J | 10 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cobalt | 0.40 U | 50 | 0.40 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Copper [a] | 32 U | 50 | 32 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Iron [a] | 3000 U | 6000 | 3000 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Lead | 1.2 U | 5.0 | 1.2 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Magnesium | 1220000 | 250000 | 290 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Manganese | 1.1 J | 15 | 0.20 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 2.0 J | 40 | 1.1 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Potassium | 15800 | 5000 | 36 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Selenium [a] | 48 U | 50 | 48 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Sodium | 5570000 | 250000 | 3800 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Thallium | 3.8 U | 10 | 3.8 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Vanadium | 39.0 J | 50 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Zinc | 1.5 J | 20 | 0.80 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4710
(3) Instrument QC Batch: MA4713
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9012

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 | | |
| **Lab Sample ID:** | F37086-4 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 24300 | 10 | 10 | mg/l | 1 | 12/08/05 08:05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 D | | |
| **Lab Sample ID:** | F37086-5 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019549.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 D | | |
| **Lab Sample ID:** | F37086-5 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 D | | |
| **Lab Sample ID:** | F37086-5 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 95% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 78% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 102% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 113% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 D | | |
| **Lab Sample ID:** | F37086-5 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | KK10927.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 10.0 ml |
| Run #2 | | |

**Pesticide TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.049 | 0.019 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.049 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.049 | 0.019 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.049 | 0.019 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.049 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.049 | 0.0097 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.049 | 0.0097 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.049 | 0.0097 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.097 | 0.019 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.097 | 0.019 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.097 | 0.019 | ug/l | |
| 72-20-8 | Endrin | ND | 0.097 | 0.039 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.097 | 0.019 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.097 | 0.039 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.097 | 0.019 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.049 | 0.0097 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.097 | 0.019 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.049 | 0.019 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.049 | 0.0097 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.097 | 0.039 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.4 | 1.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 90% | | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 51% | | 31-148% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 D | | |
| **Lab Sample ID:** | F37086-5 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | GG24781.D | 1 | 12/13/05 | ATX | 12/09/05 | T:OP5298 | T:GGG790 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 0.050 | 0.020 | ug/l | |
| 1918-02-1 | Picloram | ND | 0.20 | 0.060 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 1.0 | 0.51 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 102% | | 18-157% |

(a) Analysis performed at Accutest Laboratories, Houston, TX.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 D | | |
| **Lab Sample ID:** | F37086-5 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**Metals Analysis**

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 16 U | 200 | 16 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Antimony | 2.2 U | 5.0 | 2.2 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Arsenic | 11.2 | 10 | 2.9 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Barium | 12.0 J | 200 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cadmium | 0.60 U | 5.0 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Calcium | 761000 | 50000 | 1300 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Chromium | 0.75 J | 10 | 0.50 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Cobalt | 1.6 J | 50 | 0.40 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Copper [a] | 32 U | 50 | 32 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Iron [a] | 3000 U | 6000 | 3000 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Lead | 1.2 U | 5.0 | 1.2 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Magnesium | 1190000 | 250000 | 290 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Manganese | 4.1 J | 15 | 0.20 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 12/08/05 | 12/12/05 | JM | SW846 7470A [1] | EPA 245.1 [4] |
| Nickel | 2.7 J | 40 | 1.1 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Potassium | 16100 | 5000 | 36 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Selenium [a] | 48 U | 50 | 48 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Sodium | 5350000 | 250000 | 3800 | ug/l | 50 | 12/12/05 | 12/13/05 | DM | SW846 6010B [3] | SW846 3010A [5] |
| Thallium | 3.8 U | 10 | 3.8 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Vanadium | 37.3 J | 50 | 0.60 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |
| Zinc | 1.6 J | 20 | 0.80 | ug/l | 1 | 12/12/05 | 12/12/05 | RS | SW846 6010B [2] | SW846 3010A [5] |

(1) Instrument QC Batch: MA4709
(2) Instrument QC Batch: MA4710
(3) Instrument QC Batch: MA4713
(4) Prep QC Batch: MP9005
(5) Prep QC Batch: MP9012

(a) Elevated reporting limit(s) due to matrix interference.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW30&33-04 D | | |
| **Lab Sample ID:** | F37086-5 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/06/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 23500 | 10 | 10 | mg/l | 1 | 12/08/05 08:05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37086-6 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019534.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37086-6 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37086-6 | **Date Sampled:** | 12/04/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/06/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 96% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BHATE

*Environmental Engineers and Scientists*

F37086

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/HOL

P.O.

Chain of Custody Number [1]: 120520051

LIMS Number:

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HOL

Collected by: K. Germann

| Field Sample ID (10 Character Max) | ERPIMS LOCID (10 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (Military) (hhmm) | Sample Depth (beginning - ending) | | SA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of containers | VOC 8260 | TAL Metals 6010/7470 | Pesticd/Organoclil 8081 | Herbicides 8151 | TDS 160.1 | | | | Matrix Description | Trip Blank Lot Control Number | Code: ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mw30&33-01 (1) | DP30/SD33 | 04122005 | 1311 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 1 |
| mw30&33-02 (2) | DP30/SD33 | 04122005 | 1122 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 1 |
| mw30&33-03 (3) | DP30/SD33 | 04122005 | 1235 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 1 |
| mw30&33-04 (4) | DP30/SD33 | 04122005 | 1347 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | K6 | + 2 |
| Trip Blank (6) | | | | | | TB | | | 2 | | | | | | | | | Trip Blank | K6 | 1 2 |
| mw30&33-04 D (5) | DP30/SD33 | 04122005 | 1347 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Field Duplicate | K6 | + 2 |
| mw30&33-04 (4) | DP30/SD33 | 04122005 | 1347 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | MS/MSD | K6 | + 2 |

Sample Analysis Requested [5] — Quality Assurance Samples [6]

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

2 Coolers

Custody Transfers Prior to Receipt by Laboratory

| Relinquished By (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 1. [signature] | 12/5/05 | 1600 | 1. F.K. | | |
| 2. | | | 2. [signature] | 12/6/05 | 0900 |
| 3. F.K. | | | 3. | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: Shipped No.:

Method of Shipment: FedEx Airbill Number: 7912-9367-9555

Analytical Lab: Accutest Delivery Location: Orlando, FL 32866

Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date initiated + custody number (e.g. 08-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-t) Sample, FD = Field Duplicate (-d) Sample, FR = Field Replicate (-r) Sample, ER = Equipment Blank (-e) Sample, MS = Matrix Spike, SD = Matrix Spike Duplicate, AM = Ambient Blank (-a)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, If sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: OS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SD = Sediment, Sl. = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099-01 in the Equipment Blank Lot Control

2.6.2.8

F37086: Chain of Custody
Page 1 of 2

# ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37086 CLIENT: BHATE PROJECT: LTM

DATE/TIME RECEIVED: 12/6/05 0900 # OF COOLERS RECEIVED: ___ COOLER TEMPS: 2.6/2.8

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7912 9367 9566

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [X] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

**SOIL INFORMATION**

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS: Received only one amber bottle for 8081, 8151 analysis for each sample "F37086-1-5"

TECHNICIAN SIGNATURE/DATE MJ 12/6/05 TECHNICIAN SIGNATURE/DATE ___

ASR008/03/05

F37086: Chain of Custody
Page 2 of 2

4

# GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-MB | J019532.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-MB | J019532.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | 0.70 | 2.0 | 0.50 | ug/l | J |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.5 | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary

**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-MB | J019532.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 112% | 83-119% |

# Method Blank Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | 83-119% |

# Blank Spike Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-BS | J019531.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 120 | 96 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 169 | 68 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 56.4 | 45 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 54.7 | 44 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 27.4 | 110 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 29.5 | 118 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 15.9 | 64 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 25.6 | 102 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 21.9 | 88 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 25.7 | 103 | 75-120 |
| 75-25-2 | Bromoform | 25 | 16.2 | 65 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 29.8 | 119 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 28.8 | 115 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 29.8 | 119 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 26.5 | 106 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 24.8 | 99 | 67-148 |
| 67-66-3 | Chloroform | 25 | 28.1 | 112 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 29.1 | 116 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 28.7 | 115 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 29.5 | 118 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 81.7 | 65 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 33.8 | 135 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 28.1 | 112 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 28.0 | 112 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 27.9 | 112 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 29.1 | 116 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 14.7 | 59 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 19.6 | 78 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 22.1 | 88 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 26.1 | 104 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 21.1 | 84 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 26.7 | 107 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 20.8 | 83 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 24.8 | 99 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.5 | 106 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 24.5 | 98 | 73-115 |

# Blank Spike Summary

**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-BS | J019531.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

4.2 4

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 17.9 | 72 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 27.1 | 108 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 25.3 | 101 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 26.3 | 105 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 27.5 | 110 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 24.4 | 98 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 26.7 | 107 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 20.8 | 83 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 29.6 | 118 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 103 | 82 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 26.3 | 105 | 62-138 |
| 110-54-3 | Hexane | 25 | 26.1 | 104 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 28.8 | 115 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 29.8 | 119 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 88.4 | 71 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 208 | 83 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 26.8 | 107 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 24.3 | 97 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 26.5 | 106 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 16.2 | 65* | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 21.5 | 86 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 25.6 | 102 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 96.1 | 77 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 19.7 | 79 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 19.5 | 78 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 26.7 | 107 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 166 | 66 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 31.3 | 125* | 80-122 |
| 100-42-5 | Styrene | 25 | 23.9 | 96 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 23.7 | 95 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.7 | 115 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 21.2 | 85 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 21.5 | 86 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 27.8 | 111 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 18.8 | 75 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 21.0 | 84 | 66-122 |

# Blank Spike Summary

**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-BS | J019531.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 28.2 | 113 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 28.7 | 115 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 26.7 | 107 | 75-126 |
| 108-88-3 | Toluene | 25 | 27.1 | 108 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 27.8 | 111 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 28.2 | 113 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 17.5 | 70 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 23.0 | 92 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 74.7 | 60 | 42-146 |
| | m,p-Xylene | 50 | 54.7 | 109 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 26.1 | 104 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 89% | 73-126% |
| 2037-26-5 | Toluene-D8 | 99% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | 83-119% |

(a) Advisory control limits.

# Blank Spike Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 196 | 157* | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 253 | 101 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 79.3 | 63 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 87.1 | 70 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 25.9 | 104 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 28.4 | 114 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.0 | 84 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 23.8 | 95 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 23.7 | 95 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 26.4 | 106 | 75-120 |
| 75-25-2 | Bromoform | 25 | 20.6 | 82 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.1 | 112 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 25.9 | 104 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.0 | 108 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 24.8 | 99 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 24.7 | 99 | 67-148 |
| 67-66-3 | Chloroform | 25 | 27.5 | 110 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 26.4 | 106 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.1 | 104 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 26.8 | 107 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 122 | 98 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 32.8 | 131 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.1 | 108 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 27.7 | 111 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 27.3 | 109 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 27.7 | 111 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 21.8 | 87 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 22.8 | 91 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 25.8 | 103 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 26.0 | 104 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 23.7 | 95 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 25.8 | 103 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.4 | 90 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.0 | 108 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.1 | 104 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 25.8 | 103 | 73-115 |

# Blank Spike Summary

**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 22.8 | 91 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 24.7 | 99 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 24.4 | 98 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 24.3 | 97 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 26.6 | 106 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 26.4 | 106 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 24.5 | 98 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 23.7 | 95 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 30.2 | 121 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 147 | 118 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 25.5 | 102 | 62-138 |
| 110-54-3 | Hexane | 25 | 27.8 | 111 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.0 | 108 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 27.0 | 108 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 123 | 98 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 263 | 105 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 27.9 | 112 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 25.2 | 101 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 25.1 | 100 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 21.9 | 88 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 25.5 | 102 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 25.7 | 103 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 150 | 120 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 24.1 | 96 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 26.2 | 105 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 23.4 | 94 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 245 | 98 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 27.9 | 112 | 80-122 |
| 100-42-5 | Styrene | 25 | 22.7 | 91 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.8 | 91 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 27.3 | 109 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 26.6 | 106 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 24.5 | 98 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 31.5 | 126* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.0 | 96 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 23.4 | 94 | 66-122 |

# Blank Spike Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 25.2 | 101 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.4 | 102 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 23.6 | 94 | 75-126 |
| 108-88-3 | Toluene | 25 | 24.6 | 98 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 26.7 | 107 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 27.9 | 112 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 23.9 | 96 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 25.0 | 100 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 99.4 | 80 | 42-146 |
| | m,p-Xylene | 50 | 50.7 | 101 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 24.6 | 98 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37086-4MS | J019544.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4MSD | J019545.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4 | J019543.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | F37086-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 43.5 | 35* | 40.4 | 32* | 7 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 110 | 44* | 105 | 42* | 5 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 38.5 | 31 | 37.1 | 30 | 4 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 46.1 | 37* | 42.2 | 34* | 9 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 24.6 | 98 | 25.4 | 102 | 3 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 28.2 | 113 | 29.1 | 116 | 3 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 12.8 | 51 | 12.1 | 48* | 6 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 23.0 | 92 | 23.4 | 94 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 18.6 | 74 | 19.1 | 76 | 3 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 22.7 | 91 | 23.1 | 92 | 2 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 12.5 | 50* | 12.4 | 50* | 1 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 27.9 | 112 | 28.6 | 114 | 2 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 27.1 | 108 | 28.1 | 112 | 4 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 28.2 | 113 | 29.3 | 117 | 4 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 24.7 | 99 | 25.3 | 101 | 2 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 25.5 | 102 | 25.3 | 101 | 1 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 26.3 | 105 | 27.2 | 109 | 3 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 26.4 | 106 | 27.5 | 110 | 4 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 26.9 | 108 | 27.9 | 112 | 4 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 27.3 | 109 | 28.3 | 113 | 4 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 31.1 | 124 | 32.0 | 128 | 3 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 25.0 | 100 | 25.9 | 104 | 4 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 26.4 | 106 | 27.4 | 110 | 4 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 25.3 | 101 | 26.0 | 104 | 3 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 26.2 | 105 | 27.2 | 109 | 4 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 11.0 | 44* | 11.0 | 44* | 0 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 15.9 | 64* | 15.4 | 62* | 3 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 19.8 | 79 | 19.3 | 77 | 3 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 23.8 | 95 | 24.5 | 98 | 3 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 18.1 | 72 | 18.1 | 72 | 0 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 23.2 | 93 | 23.7 | 95 | 2 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 17.4 | 70 | 17.4 | 70 | 0 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 21.2 | 85 | 23.0 | 92 | 8 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 23.5 | 94 | 24.9 | 100 | 6 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 20.8 | 83 | 21.0 | 84 | 1 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37086-4MS | J019544.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4MSD | J019545.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4 | J019543.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | F37086-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 13.5 | 54 | 12.8 | 51 | 5 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 25.3 | 101 | 26.1 | 104 | 3 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 22.6 | 90 | 23.0 | 92 | 2 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 24.5 | 98 | 25.3 | 101 | 3 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 25.2 | 101 | 25.9 | 104 | 3 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 21.6 | 86 | 21.2 | 85 | 2 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 25.4 | 102 | 26.2 | 105 | 3 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 18.3 | 73 | 17.9 | 72 | 2 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 26.7 | 107 | 27.9 | 112 | 4 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 65.6 | 52* | 61.0 | 49* | 7 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 22.1 | 88 | 23.5 | 94 | 6 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 24.1 | 96 | 24.4 | 98 | 1 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 26.2 | 105 | 26.8 | 107 | 2 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 27.9 | 112 | 29.5 | 118 | 6 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 81.9 | 66 | 76.5 | 61 | 7 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 171 | 68 | 163 | 65 | 5 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 29.5 | 118 | 30.4 | 122 | 3 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 22.1 | 88 | 22.8 | 91 | 3 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 22.1 | 88 | 23.6 | 94 | 7 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 13.0 | 52* | 13.0 | 52* | 0 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 17.6 | 70* | 17.6 | 70* | 0 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 23.0 | 92 | 22.9 | 92 | 0 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 50.6 | 40* | 47.8 | 38* | 6 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 16.6 | 66 | 16.6 | 66 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 12.1 | 48* | 12.8 | 51* | 6 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 24.4 | 98 | 25.6 | 102 | 5 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 120 | 48* | 114 | 46* | 5 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 28.7 | 115 | 30.1 | 120 | 5 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 21.2 | 85 | 21.4 | 86 | 1 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 20.8 | 83 | 21.5 | 86 | 3 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 25.3 | 101 | 26.3 | 105 | 4 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 18.5 | 74 | 17.9 | 72 | 3 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 19.1 | 76 | 18.4 | 74 | 4 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 18.9 | 76 | 21.1 | 84 | 11 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 16.1 | 64 | 15.3 | 61* | 5 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 16.1 | 64 | 16.7 | 67 | 4 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37086-4MS | J019544.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4MSD | J019545.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4 | J019543.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-2, F37086-3, F37086-4, F37086-5, F37086-6

| CAS No. | Compound | F37086-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 26.9 | 108 | 27.7 | 111 | 3 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 26.7 | 107 | 27.6 | 110 | 3 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 23.7 | 95 | 24.6 | 98 | 4 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 25.8 | 103 | 26.7 | 107 | 3 | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 25.8 | 103 | 26.7 | 107 | 3 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 28.1 | 112 | 28.8 | 115 | 2 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 14.2 | 57 | 13.0 | 52 | 9 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 22.6 | 90 | 23.4 | 94 | 3 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 70.3 | 56 | 64.4 | 52 | 9 | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 51.4 | 103 | 52.9 | 106 | 3 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 23.8 | 95 | 24.5 | 98 | 3 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37086-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | 95% | 99% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 86% | 83% | 86% | 73-126% |
| 2037-26-5 | Toluene-D8 | 101% | 101% | 99% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 103% | 110% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 100 | 80 | 95.0 | 76 | 5 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 294 | 118 | 283 | 113 | 4 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 79.7 | 64 | 75.0 | 60 | 6 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 88.0 | 70 | 84.7 | 68 | 4 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 26.6 | 106 | 26.5 | 106 | 0 | 50-150/30 [a] |
| 71-43-2 | Benzene | 3.6 | | 25 | 31.8 | 113 | 31.5 | 112 | 1 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 22.8 | 91 | 21.8 | 87 | 4 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 23.0 | 92 | 22.5 | 90 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 23.5 | 94 | 23.6 | 94 | 0 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 25.9 | 104 | 25.6 | 102 | 1 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 21.3 | 85 | 20.4 | 82 | 4 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 24.3 | 97 | 26.0 | 104 | 7 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | 2.4 | | 25 | 27.1 | 99 | 26.9 | 98 | 1 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | 1.5 | | 25 | 27.0 | 102 | 26.6 | 100 | 1 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 24.2 | 97 | 24.2 | 97 | 0 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 25.3 | 101 | 24.8 | 99 | 2 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 27.2 | 109 | 26.9 | 108 | 1 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 24.6 | 98 | 24.7 | 99 | 0 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 25.0 | 100 | 24.4 | 98 | 2 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 25.2 | 101 | 24.8 | 99 | 2 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 32.3 | 129 | 32.1 | 128 | 1 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 25.7 | 103 | 25.9 | 104 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 27.4 | 110 | 27.1 | 108 | 1 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 26.7 | 107 | 26.3 | 105 | 2 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 26.3 | 105 | 26.2 | 105 | 0 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 25.1 | 100 | 23.6 | 94 | 6 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 23.1 | 92 | 23.2 | 93 | 0 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | 90.6 | | 25 | 119 | 114 | 117 | 106 | 2 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 25.7 | 103 | 25.4 | 102 | 1 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 23.7 | 95 | 23.8 | 95 | 0 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 23.6 | 94 | 23.5 | 94 | 0 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 21.7 | 87 | 22.1 | 88 | 2 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 24.7 | 99 | 25.9 | 104 | 5 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 24.2 | 97 | 24.9 | 100 | 3 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 24.1 | 96 | 24.4 | 98 | 1 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

4.3 4

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 30.7 | 123 | 28.6 | 114 | 7 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 23.2 | 93 | 23.6 | 94 | 2 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | 0.85 | J | 25 | 24.3 | 94 | 24.6 | 95 | 1 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 23.5 | 94 | 23.5 | 94 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 25.7 | 103 | 26.0 | 104 | 1 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 25.9 | 104 | 26.0 | 104 | 0 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 24.0 | 96 | 23.7 | 95 | 1 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 29.8 | 119 | 29.4 | 118 | 1 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 29.1 | 116 | 28.6 | 114 | 2 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 143 | 114 | 136 | 109 | 5 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 22.0 | 88 | 22.4 | 90 | 2 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 27.5 | 110 | 27.1 | 108 | 1 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | 4.6 | | 25 | 31.6 | 108 | 31.3 | 107 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 25.1 | 100 | 24.9 | 100 | 1 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 159 | 127 | 151 | 121 | 5 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 329 | 132 | 316 | 126 | 4 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 27.3 | 109 | 26.8 | 107 | 2 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 24.0 | 96 | 24.4 | 98 | 2 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 23.3 | 93 | 24.2 | 97 | 4 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 34.1 | 136* | 32.7 | 131* | 4 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 25.6 | 102 | 25.8 | 103 | 1 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 26.0 | 104 | 25.8 | 103 | 1 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 118 | 94 | 112 | 90 | 5 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 24.7 | 99 | 24.8 | 99 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 29.2 | 117 | 29.8 | 119 | 2 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 26.2 | 105 | 26.0 | 104 | 1 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 303 | 121 | 289 | 116 | 5 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 26.5 | 106 | 25.8 | 103 | 3 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 8.7 | 35* | 0.96 | 4* | 160* | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 21.5 | 86 | 21.5 | 86 | 0 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 25.7 | 103 | 26.1 | 104 | 2 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 29.7 | 119 | 28.4 | 114 | 4 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 24.9 | 100 | 24.5 | 98 | 2 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 30.5 | 122* | 31.2 | 125* | 2 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 26.4 | 106 | 25.8 | 103 | 2 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 22.0 | 88 | 22.7 | 91 | 3 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37086-1

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 23.8 | 95 | 23.7 | 95 | 0 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 23.8 | 95 | 23.5 | 94 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 21.8 | 87 | 22.0 | 88 | 1 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 23.5 | 94 | 23.6 | 94 | 0 | 67-123/8 |
| 79-01-6 | Trichloroethylene | 5.5 | | 25 | 31.6 | 104 | 31.6 | 104 | 0 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 28.3 | 113 | 27.5 | 110 | 3 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 28.8 | 115 | 28.6 | 114 | 1 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 24.7 | 99 | 24.6 | 98 | 0 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 69.0 | 55 | 35.6 | 28* | 64* | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 48.6 | 97 | 48.4 | 97 | 0 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 23.4 | 94 | 23.2 | 93 | 1 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37124-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | 105% | 105% | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | 94% | 93% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 102% | 107% | 83-119% |

(a) Advisory control limits.

# GC Semi-volatiles

5

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15204-MB | KK10920.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.050 | 0.020 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.050 | 0.015 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.050 | 0.020 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.050 | 0.015 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.050 | 0.010 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.050 | 0.010 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.050 | 0.010 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.10 | 0.020 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.10 | 0.020 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.10 | 0.020 | ug/l | |
| 72-20-8 | Endrin | ND | 0.10 | 0.040 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.10 | 0.020 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.10 | 0.040 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.10 | 0.020 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.050 | 0.010 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.10 | 0.020 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.050 | 0.020 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.050 | 0.010 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.10 | 0.040 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 2.5 | 1.3 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 91% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 87% | 31-148% |

# Blank Spike Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15204-BS | KK10919.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |



**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 309-00-2 | Aldrin | 0.5 | 0.48 | 96 | 70-127 |
| 319-84-6 | alpha-BHC | 0.5 | 0.52 | 104 | 65-136 |
| 319-85-7 | beta-BHC | 0.5 | 0.55 | 110 | 68-133 |
| 319-86-8 | delta-BHC | 0.5 | 0.41 | 82 | 48-126 |
| 58-89-9 | gamma-BHC (Lindane) | 0.5 | 0.58 | 116 | 69-137 |
| 5103-71-9 | alpha-Chlordane | 0.5 | 0.52 | 104 | 74-127 |
| 5103-74-2 | gamma-Chlordane | 0.5 | 0.54 | 108 | 75-130 |
| 60-57-1 | Dieldrin | 0.5 | 0.56 | 112 | 76-131 |
| 72-54-8 | 4,4'-DDD | 0.5 | 0.63 | 126 | 76-140 |
| 72-55-9 | 4,4'-DDE | 0.5 | 0.52 | 104 | 73-137 |
| 50-29-3 | 4,4'-DDT | 0.5 | 0.70 | 120 | 74-134 |
| 72-20-8 | Endrin | 0.5 | 0.56 | 112 | 78-134 |
| 1031-07-8 | Endosulfan sulfate | 0.5 | 0.57 | 114 | 73-127 |
| 7421-93-4 | Endrin aldehyde | 0.5 | 0.19 | 38 | 5-104 |
| 53494-70-5 | Endrin ketone | 0.5 | 0.61 | 122 | 80-128 |
| 959-98-8 | Endosulfan-I | 0.5 | 0.55 | 110 | 76-128 |
| 33213-65-9 | Endosulfan-II | 0.5 | 0.55 | 110 | 77-131 |
| 76-44-8 | Heptachlor | 0.5 | 0.69 | 122 | 62-137 |
| 1024-57-3 | Heptachlor epoxide | 0.5 | 0.52 | 104 | 74-130 |
| 72-43-5 | Methoxychlor | 0.5 | 0.68 | 130 | 77-131 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 97% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 98% | 31-148% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37086
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15204-MS | KK10925.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |
| OP15204-MSD | KK10926.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |
| F37086-4 | KK10924.D | 1 | 12/08/05 | AA | 12/07/05 | OP15204 | GKK402 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

| CAS No. | Compound | F37086-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | | 1 | 0.89 | 89 | 0.92 | 92 | 3 | 73-135/25 |
| 319-84-6 | alpha-BHC | ND | | 1 | 1.0 | 100 | 1.1 | 110 | 10 | 75-134/24 |
| 319-85-7 | beta-BHC | ND | | 1 | 1.1 | 110 | 1.1 | 110 | 0 | 73-141/23 |
| 319-86-8 | delta-BHC | ND | | 1 | 0.84 | 84 | 0.87 | 87 | 4 | 29-148/32 |
| 58-89-9 | gamma-BHC (Lindane) | ND | | 1 | 1.2 | 120 | 1.2 | 120 | 0 | 75-140/21 |
| 5103-71-9 | alpha-Chlordane | ND | | 1 | 0.95 | 95 | 1.0 | 100 | 5 | 73-135/22 |
| 5103-74-2 | gamma-Chlordane | ND | | 1 | 0.98 | 98 | 1.0 | 100 | 2 | 74-138/26 |
| 60-57-1 | Dieldrin | ND | | 1 | 1.1 | 110 | 1.2 | 120 | 9 | 74-141/23 |
| 72-54-8 | 4,4'-DDD | ND | | 1 | 1.2 | 120 | 1.3 | 130 | 8 | 81-142/24 |
| 72-55-9 | 4,4'-DDE | ND | | 1 | 0.83 | 83 | 0.91 | 91 | 9 | 77-139/26 |
| 50-29-3 | 4,4'-DDT | ND | | 1 | 1.2 | 120 | 1.3 | 130 | 8 | 65-147/29 |
| 72-20-8 | Endrin | ND | | 1 | 1.1 | 110 | 1.2 | 120 | 9 | 72-149/21 |
| 1031-07-8 | Endosulfan sulfate | ND | | 1 | 1.1 | 110 | 1.2 | 120 | 9 | 66-140/31 |
| 7421-93-4 | Endrin aldehyde | ND | | 1 | 0.57 | 57 | 0.46 | 46 | 21 | 5-113/49 |
| 53494-70-5 | Endrin ketone | ND | | 1 | 1.2 | 120 | 1.3 | 130 | 8 | 75-138/25 |
| 959-98-8 | Endosulfan-I | ND | | 1 | 1.1 | 110 | 1.1 | 110 | 0 | 74-139/21 |
| 33213-65-9 | Endosulfan-II | ND | | 1 | 1.1 | 110 | 1.2 | 120 | 9 | 70-145/25 |
| 76-44-8 | Heptachlor | ND | | 1 | 1.4 | 140* | 1.5 | 150* | 7 | 74-136/25 |
| 1024-57-3 | Heptachlor epoxide | ND | | 1 | 1.0 | 100 | 1.1 | 110 | 10 | 75-138/21 |
| 72-43-5 | Methoxychlor | ND | | 1 | 1.4 | 140 | 1.5 | 150* | 7 | 69-145/27 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37086-4 | Limits |
|---|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 90% | 98% | 94% | 60-138% |
| 2051-24-3 | Decachlorobiphenyl | 59% | 64% | 51% | 31-148% |

# Metals Analysis

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9005
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/08/05

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Mercury | 1.0 | .022 | -0.014 | <1.0 |

Associated samples MP9005: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9005
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/08/05 12/08/05

| Metal | F37086-4 Original | DUP | RPD | QC Limits | F37086-4 Original | MS | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.0 | 0.0 | NC | 0-20 | 0.0 | 2.7 | 3 | 90.0 | 62-131 |

Associated samples MP9005: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9005
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/08/05

| Metal | F37086-4 Original | MSD | Spikelot HGFLWS1 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Mercury | 0.0 | 2.7 | 3 | 90.0 | 0.0 | 15 |

Associated samples MP9005: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9005
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 12/08/05

| Metal | BSP Result | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|
| Mercury | 3.0 | 3 | 100.0 | 80-120 |

Associated samples MP9005: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3

6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9012
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/12/05

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Aluminum | 200 | 6.6 | -3.7 | <200 |
| Antimony | 5.0 | 1.5 | -2.4 | <5.0 |
| Arsenic | 10 | 2.8 | -1.6 | <10 |
| Barium | 200 | .5 | 0.040 | <200 |
| Beryllium | 4.0 | .3 | -0.50 | <4.0 |
| Cadmium | 5.0 | .3 | -0.32 | <5.0 |
| Calcium | 1000 | 3.8 | -39 | <1000 |
| Chromium | 10 | .4 | -0.38 | <10 |
| Cobalt | 50 | .5 | -0.59 | <50 |
| Copper | 25 | .4 | 0.54 | <25 |
| Iron | 300 | 7.1 | 72.7 | <300 |
| Lead | 5.0 | 1.2 | 0.83 | <5.0 |
| Magnesium | 5000 | 9.9 | -4.1 | <5000 |
| Manganese | 15 | .2 | 1.0 | <15 |
| Molybdenum | 50 | .8 | | |
| Nickel | 40 | 1.1 | 0.25 | <40 |
| Potassium | 5000 | 14 | 4.2 | <5000 |
| Selenium | 10 | 2 | 2.4 | <10 |
| Silver | 10 | .6 | -0.25 | <10 |
| Sodium | 5000 | 150 | 246 | <5000 |
| Thallium | 10 | 1.5 | -7.1 | <10 |
| Tin | 50 | 1.5 | | |
| Vanadium | 50 | .5 | -0.23 | <50 |
| Zinc | 20 | .6 | 2.1 | <20 |

Associated samples MP9012: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9012
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/12/05 12/12/05

| Metal | F37086-4 Original | DUP | RPD | QC Limits | F37086-4 Original | MS | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 0.0 | 0.0 | NC | 0-16 | 0.0 | 35900 | 29000 | 123.8 | 75-125 |
| Antimony | 1.6 | 0.0 | 0.0 | 0-13 | 1.6 | 1080 | 1000 | 107.5 | 75-125 |
| Arsenic | 14.4 | 14.2 | 1.4 | 0-12 | 14.4 | 4410 | 4000 | 109.9 | 83-116 |
| Barium | 12.3 | 12.0 | 2.5 | 0-13 | 12.3 | 4030 | 4000 | 100.4 | 82-116 |
| Beryllium | 0.0 | 0.0 | NC | 0-12 | 0.0 | 85.7 | 100 | 85.7 | 86-119 |
| Cadmium | 0.0 | 0.0 | NC | 0-13 | 0.0 | 84.7 | 100 | 84.7 | 80-115 |
| Calcium | 651000 | 648000(a | 0.5 | 0-14 | 651000 | 675000(a | 25000 | 96.0 | 75-125 |
| Chromium | 0.61 | 0.60 | 1.7 | 0-12 | 0.61 | 356 | 400 | 88.8 | 82-120 |
| Cobalt | 0.0 | 0.0 | NC | 0-14 | 0.0 | 839 | 1000 | 83.9 | 83-117 |
| Copper | 0.0 | 0.0 (b) | NC | 0-13 | 0.0 | 559 | 500 | 111.8 | 87-120 |
| Iron | 0.0 | 0.0 (b) | NC | 0-14 | 0.0 | 21200 | 27000 | 78.5 | 76-125 |
| Lead | 0.0 | 0.0 | NC | 0-10 | 0.0 | 833 | 1000 | 83.3 | 84-118 |
| Magnesium | 1060000 | 1050000a | 0.9 | 0-15 | 1060000 | 1080000a | 25000 | 80.0 | 75-125 |
| Manganese | 1.1 | 1.1 | 0.0 | 0-13 | 1.1 | 933 | 1000 | 93.2 | 75-125 |
| Molybdenum | | | | | | | | | |
| Nickel | 2.0 | 1.5 | 28.6 (c) | 0-10 | 2.0 | 829 | 1000 | 82.7 | 81-121 |
| Potassium | 15800 | 15800 | 0.0 | 0-18 | 15800 | 88700 | 25000 | 291.6N(d | 76-125 |
| Selenium | 0.0 | 0.0 (b) | NC | 0-13 | 0.0 | 4750 | 4000 | 118.8 | 84-121 |
| Silver | 0.0 | 0.0 | NC | 0-14 | 0.0 | 124 | 100 | 124.0 | 77-125 |
| Sodium | 8590000 | 8430000a | 1.9 | 0-10 | 8590000 | 8390000a | 25000 | -800.0(e | 75-125 |
| Thallium | 3.2 | 0.0 | 200.0(c) | 0-14 | 3.2 | 3090 | 4000 | 77.2 | 86-121 |
| Tin | | | | | | | | | |
| Vanadium | 39.0 | 37.5 | 3.9 | 0-14 | 39.0 | 963 | 1000 | 92.4 | 87-118 |
| Zinc | 1.5 | 2.8 | 60.5 (c) | 0-13 | 1.5 | 867 | 1000 | 86.6 | 82-123 |

Associated samples MP9012: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Above linear range.
(b) Elevated reporting limit(s) due to matrix interference.
(c) RPD acceptable due to low duplicate and sample concentrations.
(d) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
(e) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9012
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/12/05

| Metal | F37086-4 Original | MSD | Spikelot MPFLICP | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | 0.0 | 35900 | 29000 | 123.8 | 0.0 | 20 |
| Antimony | 1.6 | 1070 | 1000 | 106.5 | 0.9 | 20 |
| Arsenic | 14.4 | 4330 | 4000 | 107.9 | 1.8 | 20 |
| Barium | 12.3 | 4040 | 4000 | 100.7 | 0.2 | 20 |
| Beryllium | 0.0 | 85.5 | 100 | 85.5 | 0.2 | 20 |
| Cadmium | 0.0 | 84.4 | 100 | 84.4 | 0.4 | 20 |
| Calcium | 651000 | 661000(a | 25000 | 40.0 (b) | 2.1 | 20 |
| Chromium | 0.61 | 354 | 400 | 88.3 | 0.6 | 20 |
| Cobalt | 0.0 | 835 | 1000 | 83.5 | 0.5 | 20 |
| Copper | 0.0 | 560 | 500 | 112.0 | 0.2 | 20 |
| Iron | 0.0 | 21100 | 27000 | 78.1 | 0.5 | 20 |
| Lead | 0.0 | 831 | 1000 | 83.1 | 0.2 | 20 |
| Magnesium | 1060000 | 1060000a | 25000 | 0.0 (b) | 1.9 | 20 |
| Manganese | 1.1 | 927 | 1000 | 92.6 | 0.6 | 20 |
| Molybdenum | | | | | | |
| Nickel | 2.0 | 828 | 1000 | 82.6 | 0.1 | 20 |
| Potassium | 15800 | 88100 | 25000 | 289.2N(c | 0.7 | 20 |
| Selenium | 0.0 | 4680 | 4000 | 117.0 | 1.5 | 20 |
| Silver | 0.0 | 116 | 100 | 116.0 | 6.7 | 20 |
| Sodium | 8590000 | 8300000a | 25000 | -1160.0b | 1.1 | 20 |
| Thallium | 3.2 | 3060 | 4000 | 76.4 | 1.0 | 20 |
| Tin | | | | | | |
| Vanadium | 39.0 | 957 | 1000 | 91.8 | 0.6 | 20 |
| Zinc | 1.5 | 854 | 1000 | 85.3 | 1.5 | 20 |

Associated samples MP9012: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Above linear range.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
(c) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9012
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/12/05

| Metal | BSP Result | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | 28600 | 29000 | 98.6 | 80-120 |
| Antimony | 990 | 1000 | 99.0 | 80-120 |
| Arsenic | 3780 | 4000 | 94.5 | 80-120 |
| Barium | 4030 | 4000 | 100.8 | 80-120 |
| Beryllium | 96.6 | 100 | 96.6 | 80-120 |
| Cadmium | 97.3 | 100 | 97.3 | 80-120 |
| Calcium | 24800 | 25000 | 99.2 | 80-120 |
| Chromium | 395 | 400 | 98.8 | 80-120 |
| Cobalt | 995 | 1000 | 99.5 | 80-120 |
| Copper | 530 | 500 | 106.0 | 80-120 |
| Iron | 26800 | 27000 | 99.3 | 80-120 |
| Lead | 992 | 1000 | 99.2 | 80-120 |
| Magnesium | 25100 | 25000 | 100.4 | 80-120 |
| Manganese | 1020 | 1000 | 102.0 | 80-120 |
| Molybdenum | | | | |
| Nickel | 1020 | 1000 | 102.0 | 80-120 |
| Potassium | 23200 | 25000 | 92.8 | 80-120 |
| Selenium | 3790 | 4000 | 94.8 | 80-120 |
| Silver | 98.4 | 100 | 98.4 | 80-120 |
| Sodium | 22400 | 25000 | 89.6 | 80-120 |
| Thallium | 4040 | 4000 | 101.0 | 80-120 |
| Tin | | | | |
| Vanadium | 979 | 1000 | 97.9 | 80-120 |
| Zinc | 957 | 1000 | 95.7 | 80-120 |

Associated samples MP9012: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9012
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 12/12/05

| Metal | F37086-4 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | 0.00 | 0.00 | NC | 0-10 |
| Antimony | 1.60 | 0.00 | 100.0(a) | 0-10 |
| Arsenic | 14.4 | 0.00 | 100.0(a) | 0-10 |
| Barium | 12.3 | 12.8 | 3.7 | 0-10 |
| Beryllium | 0.00 | 0.00 | NC | 0-10 |
| Cadmium | 0.00 | 0.00 | NC | 0-10 |
| Calcium | 651000 | 766000 | 17.7*(b) | 0-10 |
| Chromium | 0.610 | 4.20 | 588.5(a) | 0-10 |
| Cobalt | 0.00 | 0.00 | NC | 0-10 |
| Copper | 0.00 | 0.00 | NC | 0-10 |
| Iron | 0.00 | 0.00 | NC | 0-10 |
| Lead | 0.00 | 0.00 | NC | 0-10 |
| Magnesium | 1060000 | 1240000 | 16.6*(b) | 0-10 |
| Manganese | 1.06 | 1.94 | 83.0 (a) | 0-10 |
| Molybdenum | | | | |
| Nickel | 2.00 | 11.5 | 476.0(a) | 0-10 |
| Potassium | 15800 | 10600 | 32.6*(b) | 0-10 |
| Selenium | 0.00 | 0.00 | NC | 0-10 |
| Silver | 0.00 | 0.00 | NC | 0-10 |
| Sodium | 8590000 | 8510000 | 0.9 | 0-10 |
| Thallium | 3.15 | 31.3 | 894.6(a) | 0-10 |
| Tin | | | | |
| Vanadium | 39.0 | 42.9 | 10.0 | 0-10 |
| Zinc | 1.54 | 0.00 | 100.0(a) | 0-10 |

Associated samples MP9012: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

# General Chemistry

## QC Data Summaries

7

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19182 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19182: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

7.1

7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37086
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19182 | F37086-4 | mg/l | 24300 | 24300 | 0.2 | 0-29% |

Associated Samples:
Batch GN19182: F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

7.2 7

# GC Semi-volatiles

## QC Data Summaries

(Accutest Laboratories Gulf Coast, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37086
**Account:** ALSE Accutest Labs S. E.
**Project:** BHATNM: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP5298-MB | GG24773.D | 1 | 12/13/05 | FO | 12/09/05 | OP5298 | GGG790 |

**The QC reported here applies to the following samples:** **Method:** SW846 8151

F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.5 | 1.1 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.060 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.090 | ug/l | |
| 1918-00-9 | Dicamba | ND | 0.20 | 0.060 | ug/l | |
| 88-85-7 | Dinoseb | ND | 0.20 | 0.14 | ug/l | |
| 75-99-0 | Dalapon | ND | 1.0 | 0.30 | ug/l | |
| 120-36-5 | Dichloroprop | ND | 1.0 | 0.67 | ug/l | |
| 94-82-6 | 2,4-DB | ND | 2.0 | 1.1 | ug/l | |
| 93-65-2 | MCPP | ND | 50 | | ug/l | |
| 94-74-6 | MCPA | ND | 50 | | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 0.050 | 0.020 | ug/l | |
| 1918-02-1 | Picloram | ND | 0.20 | 0.060 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 1.0 | 0.51 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 86% | 18-157% |

8.1 8

# Blank Spike Summary



**Job Number:** F37086
**Account:** ALSE Accutest Labs S. E.
**Project:** BHATNM: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP5298-BS | GG24774.D | 1 | 12/13/05 | FO | 12/09/05 | OP5298 | GGG790 |

**The QC reported here applies to the following samples:** **Method:** SW846 8151

F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | 2 | 1.8 | 90 | 34-154 |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.4 | 0.40 | 100 | 40-143 |
| 93-76-5 | 2,4,5-T | 0.4 | 0.36 | 90 | 42-147 |
| 1918-00-9 | Dicamba | 0.4 | 0.31 | 78 | 44-129 |
| 88-85-7 | Dinoseb | 0.4 | 0.26 | 65 | 14-81 |
| 75-99-0 | Dalapon | 2 | 1.6 | 80 | 36-129 |
| 120-36-5 | Dichloroprop | 2 | 1.7 | 85 | 41-145 |
| 94-82-6 | 2,4-DB | 4 | 4.0 | 100 | 38-147 |
| 93-65-2 | MCPP | | ND | | 50-150 [a] |
| 94-74-6 | MCPA | | ND | | 50-150 [a] |
| 87-86-5 | Pentachlorophenol | 0.1 | 0.083 | 83 | 27-134 |
| 1918-02-1 | Picloram | 0.4 | 0.36 | 90 | 21-129 |
| 100-02-7 | 4-Nitrophenol | 2 | 1.7 | 85 | 39-133 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 86% | 18-157% |

(a) Advisory control limits.

8.2

8

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37086
**Account:** ALSE Accutest Labs S. E.
**Project:** BHATNM: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP5298-MS | GG24775.D | 1 | 12/13/05 | FO | 12/09/05 | OP5298 | GGG790 |
| OP5298-MSD | GG24776.D | 1 | 12/13/05 | FO | 12/09/05 | OP5298 | GGG790 |
| F37086-4 | GG24780.D | 1 | 12/13/05 | FO | 12/09/05 | OP5298 | GGG790 |

**The QC reported here applies to the following samples:** **Method:** SW846 8151

F37086-1, F37086-2, F37086-3, F37086-4, F37086-5

| CAS No. | Compound | F37086-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | | 2 | 1.5 | 75 | 1.5 | 75 | 0 | 36-146/29 |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | | 0.4 | 0.32 | 80 | 0.37 | 93 | 14 | 28-136/25 |
| 93-76-5 | 2,4,5-T | ND | | 0.4 | 0.34 | 85 | 0.36 | 90 | 6 | 33-152/27 |
| 1918-00-9 | Dicamba | ND | | 0.4 | 0.30 | 75 | 0.30 | 75 | 0 | 39-123/23 |
| 88-85-7 | Dinoseb | ND | | 0.4 | 0.14 | 35 | ND | 58 | 49* | 10-66/29 |
| 75-99-0 | Dalapon | ND | | 2 | 1.9 | 95 | 1.6 | 80 | 17 | 36-146/29 |
| 120-36-5 | Dichloroprop | ND | | 2 | 1.5 | 75 | 1.6 | 80 | 6 | 37-144/18 |
| 94-82-6 | 2,4-DB | ND | | 4 | 3.7 | 93 | 3.6 | 90 | 3 | 21-126/29 |
| 93-65-2 | MCPP | ND | | | ND | | ND | | nc | -/0 |
| 94-74-6 | MCPA | ND | | | ND | | ND | | nc | -/0 |
| 87-86-5 | Pentachlorophenol | ND | | 0.1 | 0.076 | 76 | 0.082 | 82 | 8 | 28-128/29 |
| 1918-02-1 | Picloram | ND | | 0.4 | 0.40 | 100 | 0.35 | 88 | 13 | 22-128/28 |
| 100-02-7 | 4-Nitrophenol | ND | | 2 | 1.3 | 65 | 1.7 | 85 | 27* | 31-140/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37086-4 | Limits |
|---|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 74% | 113% | 80% | 18-157% |

8.3

# SDG – F37116
# SITE – SS-39

Southeast ACCUTEST Laboratories

12/19/05

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM/HGL

Accutest Job Number: F37116

Sampling Date: 12/05/05

Report to:

Bhate Environmental

MDAuben@bhate.com

ATTN: Mike DAuben

Total number of pages in report: 31

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
Section 2: Case Narrative/Conformance Summary ..... 4
Section 3: Sample Results ..... 5
3.1: F37116-1: MW-39-02 ..... 5
3.2: F37116-2: MW-39-03 ..... 9
3.3: F37116-3: TRIP BLANK ..... 13
**Section 4: Misc. Forms** ..... **16**
**4.1:** Chain of Custody ..... 17
Section 5: GC/MS Volatiles - QC Data Summaries ..... 19
5.1: Method Blank Summary ..... 20
5.2: Blank Spike Summary ..... 23
5.3: Matrix Spike/Matrix Spike Duplicate Summary ..... 26
Section 6: General Chemistry - QC Data Summaries ..... 29
6.1: Method Blank and Spike Results Summary ..... 30
6.2: Duplicate Results Summary ..... 31

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37116

HOLMN
Project No: PROJECT # LTM/HGL

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| F37116-1 | 12/05/05 | 16:56 | KG | 12/07/05 | AQ | Ground Water | MW-39-02 |
| F37116-2 | 12/05/05 | 16:28 | KG | 12/07/05 | AQ | Ground Water | MW-39-03 |
| F37116-3 | 12/05/05 | 00:00 | KG | 12/07/05 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F37116

**Site:** HOLMN **Report Date** 12/19/2005 10:03:28

2 Samples, 1 Trip Blank were collected on 12/05/2005 and received at Accutest on 12/07/2005 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of F37116. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ808

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37086-4MS, F37086-4MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for Methyl methacrylate, n-Propylbenzene are outside control limits. N-Propylbenzene biased high, no hits in samples, data integrity not affected. Methyl methacrilate failed low, data considered minimal.

MS and/or MSD Recovery(s) for 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 2-Chloroethyl vinyl ether, 2-Hexanone, Acetone, Acrylonitrile, Bromoform, Methyl ethyl ketone, Methyl methacrylate, Methylene bromide, Naphthalene are outside control limits. Probable cause due to matrix interference. Refer to Blank Spike.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19189

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37124-4DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 19, 2005

Svetlana Izosimova, QAO (signature on file)

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-02 | | |
| Lab Sample ID: | F37116-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019550.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.6 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-02 | | |
| Lab Sample ID: | F37116-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-02 | | |
| Lab Sample ID: | F37116-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 0.79 | 1.0 | 0.50 | ug/l | J |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 75% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 102% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 113% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-02 | | |
| Lab Sample ID: | F37116-1 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 17200 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-03 | | |
| Lab Sample ID: | F37116-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019551.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.9 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | 5.0 | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-03 | | |
| Lab Sample ID: | F37116-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-03 | | |
| Lab Sample ID: | F37116-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 5.2 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 93% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 74% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 104% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 112% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-03 | | |
| Lab Sample ID: | F37116-2 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Ground Water | Date Received: | 12/07/05 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 10400 | 10 | 10 | mg/l | 1 | 12/12/05 16:00 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result >= MDL but < RL

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37116-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019535.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37116-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F37116-3 | Date Sampled: | 12/05/05 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 12/07/05 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 89% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

4

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F37116

BHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/HGL

P.O. _____

Chain of Custody Number [1]: 120620051

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HGL

Collected by: K. Gorman

| | Field Sample ID (10 Character Max) | BRFS45 LOCID (15 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (Military) (hhmm) | Sample Depth (beginning - ending) | | SA Code (1) | Sample Number [2] | Sample Matrix [3] | Sample Analysis Requested [5]: Number of containers | VOC 8260 | TDS 160.1 | | | | | | | Matrix Description | Quality Assurance Samples [6]: Trip Blank Lot Control Number | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | mw-39-02 | SS-39 | 05122005 | 1656 | 0 | 0 | N | 1 | GW | 4 | ■ | ■ | | | | | | | Water | | 1 |
| 2 | mw-39-03 | SS-39 | 05122005 | 1628 | 0 | 0 | N | 1 | GW | 4 | ■ | ■ | | | | | | | Water | | 1 |
| 3 | Trip Blank | | | | | | TB | | | 2 | ■ | | | | | | | | Trip Blank | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfers Prior to Receipt by Laboratory

| Relinquished By (Signed) | Date | Time | Received by (Signed) | Date | Time |
|---|---|---|---|---|---|
| 1. [signature] | 12-6-05 | 16:00 | 1. | | |
| 2. FX | | | 2. | | |
| 3. | | | 3. [signature] | 12-7-05 | 9:00 |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.: _____

Method of Shipment: FedEx Airbill Number: 7918 0011 9555

Analytical Lab: Accutest Delivery Location: Orlando, Fl.

Lab Recipient: _____ Delivery Date/Time: 12-6

1.) Chain of Custody Number - date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: OS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SD = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099-01 in the Equipment Blank Lot Control

4.1 4

F37116: Chain of Custody
Page 1 of 2



ACCUTEST. laboratories

F37116

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37116 CLIENT: BHate PROJECT: Ltm

DATE/TIME RECEIVED: 12-7-05/ 9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.6

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7914-0011-9555

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [X] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

**SOIL INFORMATION**

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

SUMMARY OF COMMENTS: analysis not checked on COC.
red boxes is BHate's way of checking off analysis [illegible] 12/7/05

TECHNICIAN SIGNATURE/DATE [illegible] Connor/12-7-05 TECHNICIAN SIGNATURE/DATE

ASR006/02/05

4.1 4

F37116: Chain of Custody
Page 2 of 2



ACCUTEST laboratories

F37116

# GC/MS Volatiles

5

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-MB | J019532.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-MB | J019532.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | 0.70 | 2.0 | 0.50 | ug/l | J |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.5 | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-MB | J019532.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 112% | 83-119% |

# Blank Spike Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-BS | J019531.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 120 | 96 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 169 | 68 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 56.4 | 45 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 54.7 | 44 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 27.4 | 110 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 29.5 | 118 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 15.9 | 64 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 25.6 | 102 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 21.9 | 88 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 25.7 | 103 | 75-120 |
| 75-25-2 | Bromoform | 25 | 16.2 | 65 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 29.8 | 119 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 28.8 | 115 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 29.8 | 119 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 26.5 | 106 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 24.8 | 99 | 67-148 |
| 67-66-3 | Chloroform | 25 | 28.1 | 112 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 29.1 | 116 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 28.7 | 115 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 29.5 | 118 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 81.7 | 65 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 33.8 | 135 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 28.1 | 112 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 28.0 | 112 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 27.9 | 112 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 29.1 | 116 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 14.7 | 59 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 19.6 | 78 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 22.1 | 88 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 26.1 | 104 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 21.1 | 84 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 26.7 | 107 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 20.8 | 83 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 24.8 | 99 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.5 | 106 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 24.5 | 98 | 73-115 |

# Blank Spike Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-BS | J019531.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 17.9 | 72 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 27.1 | 108 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 25.3 | 101 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 26.3 | 105 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 27.5 | 110 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 24.4 | 98 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 26.7 | 107 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 20.8 | 83 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 29.6 | 118 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 103 | 82 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 26.3 | 105 | 62-138 |
| 110-54-3 | Hexane | 25 | 26.1 | 104 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 28.8 | 115 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 29.8 | 119 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 88.4 | 71 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 208 | 83 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 26.8 | 107 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 24.3 | 97 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 26.5 | 106 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 16.2 | 65* | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 21.5 | 86 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 25.6 | 102 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 96.1 | 77 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 19.7 | 79 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 19.5 | 78 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 26.7 | 107 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 166 | 66 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 31.3 | 125* | 80-122 |
| 100-42-5 | Styrene | 25 | 23.9 | 96 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 23.7 | 95 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.7 | 115 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 21.2 | 85 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 21.5 | 86 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 27.8 | 111 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 18.8 | 75 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 21.0 | 84 | 66-122 |

# Blank Spike Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ808-BS | J019531.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 28.2 | 113 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 28.7 | 115 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 26.7 | 107 | 75-126 |
| 108-88-3 | Toluene | 25 | 27.1 | 108 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 27.8 | 111 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 28.2 | 113 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 17.5 | 70 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 23.0 | 92 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 74.7 | 60 | 42-146 |
| | m,p-Xylene | 50 | 54.7 | 109 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 26.1 | 104 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 89% | 73-126% |
| 2037-26-5 | Toluene-D8 | 99% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37086-4MS | J019544.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4MSD | J019545.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4 | J019543.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | F37086-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 43.5 | 35* | 40.4 | 32* | 7 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 110 | 44* | 105 | 42* | 5 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 38.5 | 31 | 37.1 | 30 | 4 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 46.1 | 37* | 42.2 | 34* | 9 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 24.6 | 98 | 25.4 | 102 | 3 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 28.2 | 113 | 29.1 | 116 | 3 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 12.8 | 51 | 12.1 | 48* | 6 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 23.0 | 92 | 23.4 | 94 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 18.6 | 74 | 19.1 | 76 | 3 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 22.7 | 91 | 23.1 | 92 | 2 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 12.5 | 50* | 12.4 | 50* | 1 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 27.9 | 112 | 28.6 | 114 | 2 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 27.1 | 108 | 28.1 | 112 | 4 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 28.2 | 113 | 29.3 | 117 | 4 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 24.7 | 99 | 25.3 | 101 | 2 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 25.5 | 102 | 25.3 | 101 | 1 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 26.3 | 105 | 27.2 | 109 | 3 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 26.4 | 106 | 27.5 | 110 | 4 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 26.9 | 108 | 27.9 | 112 | 4 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 27.3 | 109 | 28.3 | 113 | 4 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 31.1 | 124 | 32.0 | 128 | 3 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 25.0 | 100 | 25.9 | 104 | 4 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 26.4 | 106 | 27.4 | 110 | 4 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 25.3 | 101 | 26.0 | 104 | 3 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 26.2 | 105 | 27.2 | 109 | 4 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 11.0 | 44* | 11.0 | 44* | 0 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 15.9 | 64* | 15.4 | 62* | 3 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 19.8 | 79 | 19.3 | 77 | 3 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 23.8 | 95 | 24.5 | 98 | 3 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 18.1 | 72 | 18.1 | 72 | 0 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 23.2 | 93 | 23.7 | 95 | 2 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 17.4 | 70 | 17.4 | 70 | 0 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 21.2 | 85 | 23.0 | 92 | 8 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 23.5 | 94 | 24.9 | 100 | 6 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 20.8 | 83 | 21.0 | 84 | 1 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37086-4MS | J019544.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4MSD | J019545.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4 | J019543.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | F37086-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 13.5 | 54 | 12.8 | 51 | 5 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 25.3 | 101 | 26.1 | 104 | 3 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 22.6 | 90 | 23.0 | 92 | 2 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 24.5 | 98 | 25.3 | 101 | 3 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 25.2 | 101 | 25.9 | 104 | 3 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 21.6 | 86 | 21.2 | 85 | 2 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 25.4 | 102 | 26.2 | 105 | 3 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 18.3 | 73 | 17.9 | 72 | 2 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 26.7 | 107 | 27.9 | 112 | 4 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 65.6 | 52* | 61.0 | 49* | 7 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 22.1 | 88 | 23.5 | 94 | 6 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 24.1 | 96 | 24.4 | 98 | 1 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 26.2 | 105 | 26.8 | 107 | 2 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 27.9 | 112 | 29.5 | 118 | 6 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 81.9 | 66 | 76.5 | 61 | 7 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 171 | 68 | 163 | 65 | 5 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 29.5 | 118 | 30.4 | 122 | 3 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 22.1 | 88 | 22.8 | 91 | 3 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 22.1 | 88 | 23.6 | 94 | 7 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 13.0 | 52* | 13.0 | 52* | 0 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 17.6 | 70* | 17.6 | 70* | 0 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 23.0 | 92 | 22.9 | 92 | 0 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 50.6 | 40* | 47.8 | 38* | 6 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 16.6 | 66 | 16.6 | 66 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 12.1 | 48* | 12.8 | 51* | 6 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 24.4 | 98 | 25.6 | 102 | 5 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 120 | 48* | 114 | 46* | 5 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 28.7 | 115 | 30.1 | 120 | 5 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 21.2 | 85 | 21.4 | 86 | 1 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 20.8 | 83 | 21.5 | 86 | 3 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 25.3 | 101 | 26.3 | 105 | 4 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 18.5 | 74 | 17.9 | 72 | 3 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 19.1 | 76 | 18.4 | 74 | 4 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 18.9 | 76 | 21.1 | 84 | 11 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 16.1 | 64 | 15.3 | 61* | 5 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 16.1 | 64 | 16.7 | 67 | 4 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F37116
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37086-4MS | J019544.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4MSD | J019545.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |
| F37086-4 | J019543.D | 1 | 12/09/05 | MM | n/a | n/a | VJ808 |

The QC reported here applies to the following samples: Method: SW846 8260B

F37116-1, F37116-2, F37116-3

| CAS No. | Compound | F37086-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 26.9 | 108 | 27.7 | 111 | 3 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 26.7 | 107 | 27.6 | 110 | 3 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 23.7 | 95 | 24.6 | 98 | 4 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 25.8 | 103 | 26.7 | 107 | 3 | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 25.8 | 103 | 26.7 | 107 | 3 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 28.1 | 112 | 28.8 | 115 | 2 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 14.2 | 57 | 13.0 | 52 | 9 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 22.6 | 90 | 23.4 | 94 | 3 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 70.3 | 56 | 64.4 | 52 | 9 | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 51.4 | 103 | 52.9 | 106 | 3 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 23.8 | 95 | 24.5 | 98 | 3 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37086-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | 95% | 99% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 86% | 83% | 86% | 73-126% |
| 2037-26-5 | Toluene-D8 | 101% | 101% | 99% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 103% | 110% | 83-119% |

(a) Advisory control limits.

# General Chemistry



## QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37116
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19189 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19189: F37116-1, F37116-2

6.1

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37116
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19189 | F37124-4 | mg/l | 17700 | 20600 | 14.8 | 0-29% |

Associated Samples:
Batch GN19189: F37116-1, F37116-2

6.2
6

# SDG – F38673
# SITE - SS-39
# WELLS MW-39-01 AND MW-39-04

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

02/27/06

# Technical Report for

## Bhate Environmental Associates, Inc.

HOLMN

PROJECT # 9040238.11.02

Accutest Job Number: F38673

Sampling Date: 02/16/06

Report to:

MDAuben@bhate.com
JSolomon@bhate.com
rrenvironmental@zianet.com
keving@zianet.com
YWatts@bhate.com
ATTN: Distribution6

Total number of pages in report: **30**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

1956 - 2006
50
YEARS OF EXCELLENCE
Accutest Laboratories

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
**Section 2: Case Narrative/Conformance Summary** ..... **4**
**Section 3: Sample Results** ..... **5**
**3.1:** F38673-1: MW-39-01 ..... 6
**3.2:** F38673-2: MW-39-04 ..... 10
**3.3:** F38673-3: TRIP BLANK ..... 14
**Section 4: Misc. Forms** ..... **17**
**4.1:** Chain of Custody ..... 18
**Section 5: GC/MS Volatiles - QC Data Summaries** ..... **21**
**5.1:** Method Blank Summary ..... 22
**5.2:** Blank Spike Summary ..... 25
**Section 6: General Chemistry - QC Data Summaries** ..... **28**
**6.1:** Method Blank and Spike Results Summary ..... 29
**6.2:** Duplicate Results Summary ..... 30

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F38673

HOLMN
Project No: PROJECT # 9040238.11.02

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F38673-1 | 02/16/06 | 10:00 KG | 02/17/06 | AQ | Ground Water | MW-39-01 |
| F38673-2 | 02/16/06 | 10:55 KG | 02/17/06 | AQ | Ground Water | MW-39-04 |
| F38673-3 | 02/16/06 | 00:00 KG | 02/17/06 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F38673

**Site:** HOLMN **Report Date** 2/27/2006 8:18:16 AM

2 Samples, 1 Trip Blank were collected on 02/16/2006 and received at Accutest on 02/17/2006 properly preserved, at 1.6 Deg. C and intact. These Samples received an Accutest job number of F38673. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ869

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F38673-3 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19884

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F38669-1DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: February 27, 2006

Svetlana Izosimova, QAO (signature on file)

# Sample Results

## Report of Analysis

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-01 | | |
| Lab Sample ID: | F38673-1 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J020944.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-01 | | |
| Lab Sample ID: | F38673-1 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-01 | | |
| Lab Sample ID: | F38673-1 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 102% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-01 | | |
| Lab Sample ID: | F38673-1 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/17/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 5670 | 10 | 10 | mg/l | 1 | 02/22/06 12:25 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-04 | | |
| Lab Sample ID: | F38673-2 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J020945.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-04 | | |
| Lab Sample ID: | F38673-2 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-04 | | |
| Lab Sample ID: | F38673-2 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 101% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | MW-39-04 | | |
| Lab Sample ID: | F38673-2 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/17/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

General Chemistry

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 14100 | 10 | 10 | mg/l | 1 | 02/22/06 12:25 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38673-3 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J020943.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38673-3 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | 3.0 | 5.0 | 1.0 | ug/l | JB |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38673-3 | Date Sampled: | 02/16/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 02/17/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 100% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

4

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F38673

**BHATE**

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: 9040238.11.02

P.O. _____

Chain of Custody Number [1]: 021620061

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HGL

Collected by: K. Oermann

| | Field Sample ID (10 Characters Max) | BRPM/9 LOCID (10 Characters Max) | Date Collected (dd-mmm-yyyy) | Time Collected (military) (hhmm) | Sample Depth (beginning) | Sample Depth (ending) | SA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of Containers | VOC 8260 | TDS 160.1 | | | | | | | Matrix Description | Trip Blank Lot Control Number | Code ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | mw-39-01 | SS-39 | 16022006 | 1000 | 0 | 0 | N | 1 | WG | 4 | 2 | 1 | | | | | | | Water | | 1 |
| 2 | mw-39-04 | SS-39 | 16022006 | 1055 | 0 | 0 | N | 1 | WG | 4 | 2 | 1 | | | | | | | Water | | 1 |
| 3 | Trip Blank | | | | | | TB | | | 1 | X | | | | | | | | Trip Blank | | 1 |

Sample Analysis Requested [5] — Quality Assurance Samples [6]

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfers Prior to Receipt by Laboratory

| Relinquished by (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 1. [signature] | 2/16/2006 | 1600 | 1. | | |
| 2. | | | 2. [signature] | | |
| 3. [signature] | | | 3. [signature] | 2-17-06 | 9:00 |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.: _____

Method of Shipment: Fedex Airbill Number: _____

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Recipient: _____ Delivery Date/Time: 1/6

1.) Chain of Custody Number – date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-a) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-a)

3.) Sample Number: Unique sample number collected from a particular location per day (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, If sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: OS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, rinsate), etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099-01 in the Equipment Blank Lot Control

F38673: Chain of Custody
Page 1 of 3

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F38673 CLIENT: BHate PROJECT: LTM

DATE/TIME RECEIVED: 2-17-06/ 9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 1.6

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 0542-8326-2556

### COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

### TRIP BLANK INFORMATION

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

### SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

### SOIL INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE Steven Conroy/2-17-06 TECHNICIAN SIGNATURE/DATE

ASR006/02/05

4.1 4

F38673: Chain of Custody
Page 2 of 3

## Job Change Order: F38673_2/21/2006

| | | | |
|---|---|---|---|
| **Requested Date:** | 2/21/2006 | **Received Date:** | 2/17/2006 |
| **Account Name:** | Bhate Environmental Associates, | **Due Date:** | 2/24/2006 |
| **Project Description:** | HOLMN | **Deliverable:** | COMMB |
| **CSR:** | SB | **TAT (Days):** | 14 |

**Sample #:**
F38673-all

**Change:** Per Jim Moore @ Bhate via e-mail 02.21.06 he would like these samples rushed- we can rush it due 02.24.06.. TAT has been changed.

**Above Changes Per:** Jim Moore @ Bhate **Date:** 2/21/2006

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

F3867: Chain of Custody
Page 3 of 3

4.1 4

5

# GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F38673
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ869-MB | J020942.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38673-1, F38673-2, F38673-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



Job Number: F38673
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ869-MB | J020942.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38673-1, F38673-2, F38673-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | 1.2 | 5.0 | 1.0 | ug/l | J |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.60 | 1.0 | 0.50 | ug/l | J |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



Job Number: F38673
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ869-MB | J020942.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38673-1, F38673-2, F38673-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98% | 73-126% |
| 2037-26-5 | Toluene-D8 | 102% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | 83-119% |

# Blank Spike Summary



Job Number: F38673
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ869-BS | J020941.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38673-1, F38673-2, F38673-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 119 | 95 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 215 | 86 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 73.4 | 59 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 117 | 94 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 24.2 | 97 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 26.4 | 106 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 22.5 | 90 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 25.1 | 100 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 24.3 | 97 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 24.6 | 98 | 75-120 |
| 75-25-2 | Bromoform | 25 | 24.2 | 97 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.6 | 114 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 28.3 | 113 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.8 | 111 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.6 | 102 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 26.6 | 106 | 67-148 |
| 67-66-3 | Chloroform | 25 | 25.2 | 101 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 28.3 | 113 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 25.9 | 104 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 26.9 | 108 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 131 | 105 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 29.4 | 118 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.1 | 108 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 26.2 | 105 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 26.8 | 107 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 29.2 | 117 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 22.5 | 90 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 24.2 | 97 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 23.5 | 94 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 25.0 | 100 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 23.6 | 94 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 27.5 | 110 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 24.3 | 97 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 33.7 | 135 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.0 | 104 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 26.2 | 105 | 73-115 |

# Blank Spike Summary



Job Number: F38673
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ869-BS | J020941.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38673-1, F38673-2, F38673-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 21.7 | 87 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 25.9 | 104 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 25.6 | 102 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.0 | 100 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 27.1 | 108 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 27.1 | 108 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 25.8 | 103 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 21.7 | 87 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 28.4 | 114 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 117 | 94 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 28.0 | 112 | 62-138 |
| 110-54-3 | Hexane | 25 | 27.4 | 110 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 29.2 | 117 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 26.4 | 106 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 111 | 89 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 235 | 94 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 22.9 | 92 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 31.0 | 124 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 26.6 | 106 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 21.5 | 86 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 23.8 | 95 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 26.0 | 104 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 112 | 90 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 24.1 | 96 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 24.4 | 98 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 25.3 | 101 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 217 | 87 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 26.8 | 107 | 80-122 |
| 100-42-5 | Styrene | 25 | 23.8 | 95 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 24.8 | 99 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 27.2 | 109 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 22.5 | 90 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 23.5 | 94 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 29.8 | 119 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 22.6 | 90 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 26.7 | 107 | 66-122 |

# Blank Spike Summary



Job Number: F38673
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ869-BS | J020941.D | 1 | 02/24/06 | MM | n/a | n/a | VJ869 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38673-1, F38673-2, F38673-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 26.9 | 108 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 27.3 | 109 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 26.9 | 108 | 75-126 |
| 108-88-3 | Toluene | 25 | 25.9 | 104 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 26.0 | 104 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 28.3 | 113 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 25.1 | 100 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 29.1 | 116 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 83.0 | 66 | 42-146 |
| | m,p-Xylene | 50 | 53.7 | 107 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 27.2 | 109 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98% | 73-126% |
| 2037-26-5 | Toluene-D8 | 100% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 100% | 83-119% |

(a) Advisory control limits.

## General Chemistry

6

## QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F38673
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19884 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19884: F38673-1, F38673-2

6.1

6

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F38673
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19884 | F38669-1 | mg/l | 165 | 201 | 19.7 | 0-29% |

Associated Samples:
Batch GN19884: F38673-1, F38673-2

6.2
6

# SDG – F37153
# SITE – SS-46

Southeast ACCUTEST Laboratories

12/23/05

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM/HGL

Accutest Job Number: F37153

Sampling Date: 12/06/05

Report to:

Bhate Environmental

MDAuben@bhate.com

ATTN: Mike DAuben

Total number of pages in report: 35

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
Section 2: Case Narrative/Conformance Summary ..... 4
Section 3: Sample Results ..... 5
3.1: F37153-1: MW-46-01 ..... 5
3.2: F37153-2: MW-46-02 ..... 9
3.3: F37153-3: MW-46-03 ..... 13
3.4: F37153-4: TRIP BLANK ..... 17
**Section 4: Misc. Forms** ..... **20**
**4.1:** Chain of Custody ..... 21
Section 5: GC/MS Volatiles - QC Data Summaries ..... 23
5.1: Method Blank Summary ..... 24
5.2: Blank Spike Summary ..... 27
5.3: Matrix Spike/Matrix Spike Duplicate Summary ..... 30
Section 6: General Chemistry - QC Data Summaries ..... 33
6.1: Method Blank and Spike Results Summary ..... 34
6.2: Duplicate Results Summary ..... 35

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37153

HOLMN
Project No: PROJECT # LTM/HGL

| Sample Number | Collected Date | Time By | Received | Matrix Code | Matrix Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F37153-1 | 12/06/05 | 10:35 KG | 12/08/05 | AQ | Ground Water | MW-46-01 |
| F37153-2 | 12/06/05 | 10:16 KG | 12/08/05 | AQ | Ground Water | MW-46-02 |
| F37153-3 | 12/06/05 | 10:57 KG | 12/08/05 | AQ | Ground Water | MW-46-03 |
| F37153-4 | 12/06/05 | 00:00 KG | 12/08/05 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F37153

**Site:** HOLMN **Report Date** 12/23/2005 10:36:21

3 Samples 1 Trip Blank were collected on 12/06/2005 and received at Accutest on 12/08/2005 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of F37153. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ811

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37126-4MS, F37126-4MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 1,2,3-Trichlorobenzene, Acetone are outside control limits. Recoveries are biased high, analytes not detected in the samples, data integrity not compromized.

MS/MSD Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone, Naphthalene are outside control limits. Probable cause due to matrix interference.

RPD(s) for MSD for 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichloropropane, 1-Chlorohexane, 2,2-Dichloropropane, 2-Hexanone, 4-Methyl-2-pentanone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, cis-1,2-Dichloroethylene, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, m-Dichlorobenzene, Methyl bromide, Methyl chloride, Methyl ethyl ketone, Methyl iodide, Methyl methacrylate, Methyl Tert Butyl Ether, Methylene bromide, Methylene chloride, n-Butylbenzene, n-Propylbenzene, Naphthalene, o-Chlorotoluene, o-Dichlorobenzene, o-Xylene, p-Chlorotoluene, p-Dichlorobenzene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethylene, Toluene, trans-1,2-Dichloroethylene, trans-1,3-Dichloropropene, Trichloroethylene, Vinyl Acetate, Vinyl chloride are outside control limits for sample F37126-4MSD. Probable cause due to sample homogeneity.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19213

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37167-4DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 23, 2005

Svetlana Izosimova, QAO (signature on file)

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-01 | | |
| **Lab Sample ID:** | F37153-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019612.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 0.99 | 1.0 | 0.50 | ug/l | J |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-01 | | |
| **Lab Sample ID:** | F37153-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-01 | | |
| **Lab Sample ID:** | F37153-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-01 | | |
| **Lab Sample ID:** | F37153-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 8380 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-02 | | |
| **Lab Sample ID:** | F37153-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019613.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-02 | | |
| **Lab Sample ID:** | F37153-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-02 | | |
| **Lab Sample ID:** | F37153-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-02 | | |
| **Lab Sample ID:** | F37153-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 8000 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-03 | | |
| **Lab Sample ID:** | F37153-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019614.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | 0.52 | 1.0 | 0.50 | ug/l | J |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-03 | | |
| **Lab Sample ID:** | F37153-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-03 | | |
| **Lab Sample ID:** | F37153-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-46-03 | | |
| **Lab Sample ID:** | F37153-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 6390 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37153-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019610.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37153-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | 1.5 | 5.0 | 1.0 | ug/l | J |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37153-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

4

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

F37153

Page 1 of 1

Project Number: LTM/HGL

P.O. _____

Chain of Custody Number [1]: 120720052

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HGL

Collected by: K. Germann

| Field Sample ID (30 Characters Max) | ERPIMS LOCID (15 Characters Max) | Date Collected (dd-mmm-yyyy) | Time Collected (Military) (hhmm) | Sample Depth (beginning - ending) | | SA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of containers | VOC 8260 | TDS 160.1 | | | | | | Matrix Description | Trip Blank Lot Control Number | Code ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mw-46-01 | SS-46 | 06122005 | 1035 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | Water | | 1 |
| mw-46-02 | SS-46 | 06122005 | 1016 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | Water | | 1 |
| mw-46-03 | SS-46 | 06122005 | 1057 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | Water | | 1 |
| Trip Blank | | | | | | TB | 2 | | | X | | | | | | | Trip Blank | | 1 |

Sample Analysis Requested [5] — Quality Assurance Samples [6]

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
**4405 Vineland Road Suite C-15**
Orlando, FL 32811

Custody Transfers Prior to Receipt by Laboratory

| Relinquished By (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 2. KGerm FX | 12-7-05 | 1600 | 1. FX [illegible] | 12/8/05 | 0900 |
| 3. | | | 3. | | |

Sample Delivery Details / Laboratory Receipt
Delivered Directly to Lab: _____ Shipped No.: _____
Method of Shipment: FedEx Airbill Number: 7924 5689 0324
Analytical Lab: Accutest Delivery Location: Orlando, FL
Lab Recipient: _____ Delivery Date/Time: _____

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)
2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-t) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)
3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)
4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks
5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each
6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099001 as the Equipment Blank 1 or Control

2.4

4.1 4

F37153: Chain of Custody
Page 1 of 2

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37153 CLIENT: BHATE PROJECT: LTM

DATE/TIME RECEIVED: 12/8/05 0900 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.4

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7924 5689 0324

### COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

### TRIP BLANK INFORMATION

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

### SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

### SOIL INFORMATION

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE ds 12/8/05 TECHNICIAN SIGNATURE/DATE

ASBD06/22/05

4.1 4

F37153: Chain of Custody
Page 2 of 2

# GC/MS Volatiles



## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.91 | 1.0 | 0.50 | ug/l | J |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | 83-119% |

# Blank Spike Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 207 | 166* | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 275 | 110 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 74.0 | 59 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 84.6 | 68 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 27.5 | 110 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 30.1 | 120 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.4 | 86 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 24.3 | 97 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 25.0 | 100 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 27.3 | 109 | 75-120 |
| 75-25-2 | Bromoform | 25 | 20.9 | 84 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.2 | 113 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 26.2 | 105 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.2 | 109 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.4 | 102 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 26.8 | 107 | 67-148 |
| 67-66-3 | Chloroform | 25 | 29.1 | 116 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 27.2 | 109 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.5 | 106 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.1 | 108 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 127 | 102 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 34.5 | 138 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.7 | 111 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 29.2 | 117 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 28.4 | 114 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 28.7 | 115 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 21.8 | 87 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 23.5 | 94 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 27.1 | 108 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 27.5 | 110 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 24.3 | 97 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 26.1 | 104 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.8 | 91 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.0 | 108 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.4 | 106 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 26.9 | 108 | 73-115 |

# Blank Spike Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 24.7 | 99 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 25.1 | 100 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 24.7 | 99 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.0 | 100 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 27.9 | 112 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 27.4 | 110 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 25.4 | 102 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 25.2 | 101 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 31.7 | 127 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 153 | 122 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 24.7 | 99 | 62-138 |
| 110-54-3 | Hexane | 25 | 29.1 | 116 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.7 | 111 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 26.9 | 108 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 129 | 103 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 286 | 114 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 28.5 | 114 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 26.4 | 106 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 25.5 | 102 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 24.2 | 97 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 26.9 | 108 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 27.2 | 109 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 159 | 127 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 24.4 | 98 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 28.8 | 115 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 24.9 | 100 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 259 | 104 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 28.4 | 114 | 80-122 |
| 100-42-5 | Styrene | 25 | 23.3 | 93 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.7 | 91 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.2 | 113 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 27.5 | 110 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 25.4 | 102 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 36.4 | 146* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.3 | 97 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 23.9 | 96 | 66-122 |

# Blank Spike Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 25.7 | 103 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.8 | 103 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 24.3 | 97 | 75-126 |
| 108-88-3 | Toluene | 25 | 25.6 | 102 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 28.1 | 112 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 29.7 | 119 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 24.6 | 98 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 26.8 | 107 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 98.5 | 79 | 42-146 |
| | m,p-Xylene | 50 | 52.3 | 105 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 24.9 | 100 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

5.3

5

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 5.1 | J | 125 | 97.4 | 74 | 107 | 82 | 9 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 253 | 101 | 289 | 116 | 13 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 71.4 | 57 | 76.0 | 61 | 6 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 89.7 | 72 | 91.2 | 73 | 2 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 19.7 | 79 | 26.4 | 106 | 29 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 23.2 | 93 | 30.1 | 120 | 26* | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 19.8 | 79 | 23.8 | 95 | 18 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 18.0 | 72 | 24.2 | 97 | 29* | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 18.6 | 74 | 25.7 | 103 | 32* | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 20.2 | 81 | 27.6 | 110 | 31* | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 17.4 | 70 | 22.4 | 90 | 25* | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 19.2 | 77 | 26.2 | 105 | 31* | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 19.3 | 77 | 24.2 | 97 | 23* | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 19.9 | 80 | 25.2 | 101 | 24* | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 18.7 | 75* | 25.1 | 100 | 29* | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 21.8 | 87 | 27.8 | 111 | 24* | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 21.7 | 87 | 28.7 | 115 | 28* | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 19.4 | 78 | 23.9 | 96 | 21* | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 19.6 | 78 | 25.6 | 102 | 27* | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 19.5 | 78 | 26.2 | 105 | 29* | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 26.8 | 107 | 33.7 | 135 | 23* | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 21.2 | 85 | 26.3 | 105 | 21* | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 21.8 | 87 | 29.1 | 116 | 29* | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 22.3 | 89 | 27.1 | 108 | 19* | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 21.3 | 85 | 27.0 | 108 | 24* | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 21.9 | 88 | 25.2 | 101 | 14 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 18.8 | 75 | 24.5 | 98 | 26* | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 25 | 21.4 | 86 | 28.3 | 113 | 28* | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 20.4 | 82 | 27.3 | 109 | 29* | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 18.7 | 75 | 25.2 | 101 | 30* | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 19.4 | 78 | 24.3 | 97 | 22* | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 16.9 | 68 | 22.9 | 92 | 30* | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 21.2 | 85 | 23.5 | 94 | 10 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 19.1 | 76 | 26.2 | 105 | 31* | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 18.8 | 75 | 25.6 | 102 | 31* | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 21.0 | 84 | 25.3 | 101 | 19 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 18.3 | 73* | 24.7 | 99 | 30* | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 18.3 | 73 | 24.6 | 98 | 29* | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 18.4 | 74 | 24.8 | 99 | 30* | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 20.7 | 83 | 27.1 | 108 | 27* | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 20.1 | 80 | 27.1 | 108 | 30* | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 19.1 | 76 | 24.7 | 99 | 26* | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 22.1 | 88 | 28.9 | 116 | 27 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 25.8 | 103 | 27.8 | 111 | 7 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 133 | 106 | 153 | 122 | 14* | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 17.3 | 69 | 21.1 | 84 | 20* | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 24.4 | 98 | 25.4 | 102 | 4 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 19.9 | 80 | 26.0 | 104 | 27* | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 19.6 | 78 | 25.1 | 100 | 25* | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 147 | 118 | 171 | 137* | 15* | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 284 | 114 | 327 | 131 | 14 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 23.3 | 93 | 29.6 | 118 | 24* | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 19.7 | 79 | 26.0 | 104 | 28* | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 18.4 | 74 | 25.4 | 102 | 32* | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 22.6 | 90 | 27.9 | 112 | 21* | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 21.2 | 85 | 27.8 | 111 | 27* | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 20.5 | 82 | 27.1 | 108 | 28* | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 111 | 89 | 124 | 99 | 11* | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 20.2 | 81 | 26.7 | 107 | 28* | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 27.4 | 110 | 33.1 | 132* | 19* | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 18.6 | 74 | 25.9 | 104 | 33* | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 260 | 104 | 293 | 117 | 12 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 21.1 | 84 | 27.0 | 108 | 25* | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 16.4 | 66 | 22.4 | 90 | 31* | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 16.6 | 66* | 22.6 | 90 | 31* | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 21.3 | 85 | 27.2 | 109 | 24* | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 25.7 | 103 | 31.1 | 124* | 19* | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 20.3 | 81 | 26.5 | 106 | 26* | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 28.3 | 113 | 35.4 | 142* | 22* | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 23.5 | 94 | 27.9 | 112 | 17* | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 17.6 | 70 | 23.6 | 94 | 29* | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37153
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |



**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37153-1, F37153-2, F37153-3, F37153-4

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 18.5 | 74 | 24.7 | 99 | 29* | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 18.7 | 75 | 24.5 | 98 | 27* | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 17.8 | 71 | 22.1 | 88 | 22* | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 18.5 | 74 | 24.6 | 98 | 28* | 67-123/8 |
| 79-01-6 | Trichloroethylene | ND | | 25 | 21.0 | 84 | 27.4 | 110 | 26* | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 25.4 | 102 | 28.4 | 114 | 11 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 23.7 | 95 | 27.4 | 110 | 14 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 21.2 | 85 | 26.0 | 104 | 20* | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 93.2 | 75 | 106 | 85 | 13* | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 38.0 | 76 | 50.2 | 100 | 28* | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 17.4 | 70 | 24.0 | 96 | 32* | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37126-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 113% | 109% | 107% | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | 92% | 91% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 103% | 103% | 106% | 83-119% |

(a) Advisory control limits.

# General Chemistry

## QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37153
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19213 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19213: F37153-1, F37153-2, F37153-3

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37153
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19213 | F37167-4 | mg/l | 79600 | 76700 | 3.7 | 0-29% |

Associated Samples:
Batch GN19213: F37153-1, F37153-2, F37153-3

6.2 6

# SDG – F37150
# SITE - SS-48

Southeast ACCUTEST Laboratories

12/23/05

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM/HGL

Accutest Job Number: F37150

Sampling Date: 12/06/05

Report to:

Bhate Environmental

MDAuben@bhate.com

ATTN: Mike DAuben

Total number of pages in report: 50

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 2 3 4 5 6

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
Section 2: Case Narrative/Conformance Summary ..... 4
Section 3: Sample Results ..... 5
3.1: F37150-1: S55-MW2 ..... 5
3.2: F37150-2: S55-MW3 ..... 9
3.3: F37150-3: S55-MW4 ..... 13
3.4: F37150-4: S55-MW5 ..... 17
3.5: F37150-5: S55-MW6 ..... 21
3.6: F37150-6: S55-MW7 ..... 25
3.7: F37150-7: TRIP BLANK ..... 29
**Section 4: Misc. Forms** ..... **32**
**4.1:** Chain of Custody ..... 33
Section 5: GC/MS Volatiles - QC Data Summaries ..... 35
5.1: Method Blank Summary ..... 36
5.2: Blank Spike Summary ..... 40
5.3: Matrix Spike/Matrix Spike Duplicate Summary ..... 44
Section 6: General Chemistry - QC Data Summaries ..... 48
6.1: Method Blank and Spike Results Summary ..... 49
6.2: Duplicate Results Summary ..... 50

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F37150

HOLMN
Project No: PROJECT # LTM/HGL

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F37150-1 | 12/06/05 | 13:13 KG | 12/08/05 | AQ | Ground Water | S55-MW2 |
| F37150-2 | 12/06/05 | 13:36 KG | 12/08/05 | AQ | Ground Water | S55-MW3 |
| F37150-3 | 12/06/05 | 12:52 KG | 12/08/05 | AQ | Ground Water | S55-MW4 |
| F37150-4 | 12/06/05 | 13:55 KG | 12/08/05 | AQ | Ground Water | S55-MW5 |
| F37150-5 | 12/06/05 | 11:58 KG | 12/08/05 | AQ | Ground Water | S55-MW6 |
| F37150-6 | 12/06/05 | 12:19 KG | 12/08/05 | AQ | Ground Water | S55-MW7 |
| F37150-7 | 12/06/05 | 00:00 KG | 12/08/05 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F37150

**Site:** HOLMN **Report Date** 12/23/2005 10:29:34

6 Samples and 1 Trip Blank were collected on 12/06/2005 and received at Accutest on 12/08/2005 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of F37150. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ810

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37124-4MS, F37124-4MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 1,2,3-Trichlorobenzene, Acetone are outside control limits. Recovery biased high, analytes not detected int eh samples, data integrity not affected.

MS and/or MSD Recovery(s) for 1,2,3-Trichlorobenzene, 2-Chloroethyl vinyl ether, Methyl methacrylate, Styrene, Vinyl Acetate are outside control limits. For method performance in clean matrix see Blank Spike.

RPD(s) for MSD for Styrene, Vinyl Acetate are outside control limits for sample F37124-4MSD. Probable cause due to sample homogeneity.

F37150-3: Sample was not preserved to a pH < 2.

F37150-1: Sample was not preserved to a pH < 2.

F37150-4 for Naphthalene: CCV outside of control limits; results may be biased high.

F37150-4 for Methacrylonitrile: CCV outside of control limits; results may be biased high.

F37150-4 for Acetone: CCV outside of control limits; results may be biased high. Associated BS recovery outside control limits.

**Matrix:** AQ **Batch ID:** VJ811

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37126-4MS, F37126-4MSD were used as the QC samples indicated.

RPD(s) for MSD for Methyl Tert Butyl Ether are outside control limits for sample F37126-4MSD. Probable cause due to sample homogeneity.

## Wet Chemistry By Method EPA 160.1

**Matrix:** AQ **Batch ID:** GN19213

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F37167-4DUP were used as the QC samples for Solids, Total Dissolved.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 23, 2005

Svetlana Izosimova, QAO (signature on file)

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW2 | | |
| **Lab Sample ID:** | F37150-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | J019596.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 2.8 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW2 | | |
| **Lab Sample ID:** | F37150-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW2 | | |
| **Lab Sample ID:** | F37150-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 10.4 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

(a) Sample was not preserved to a pH < 2.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratorics

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW2 | | |
| **Lab Sample ID:** | F37150-1 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 11500 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW3 | | |
| **Lab Sample ID:** | F37150-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019597.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | 0.57 | 1.0 | 0.50 | ug/l | J |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 4.0 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW3 | | |
| **Lab Sample ID:** | F37150-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW3 | | |
| **Lab Sample ID:** | F37150-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 13.0 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW3 | | |
| **Lab Sample ID:** | F37150-2 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 6110 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW4 | | |
| **Lab Sample ID:** | F37150-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | J019598.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 1.4 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW4 | | |
| **Lab Sample ID:** | F37150-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | 0.63 | 1.0 | 0.60 | ug/l | J |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW4 | | |
| **Lab Sample ID:** | F37150-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 25.2 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 83-119% |

(a) Sample was not preserved to a pH < 2.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW4 | | |
| **Lab Sample ID:** | F37150-3 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 10200 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW5 | | |
| **Lab Sample ID:** | F37150-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019599.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | J019607.D | 10 | 12/14/05 | MM | n/a | n/a | VJ811 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | 19.4 | 25 | 5.0 | ug/l | J |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | 83.0 | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 1.4 | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 0.60 | 1.0 | 0.50 | ug/l | J |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | 1.9 | 2.0 | 1.0 | ug/l | J |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected  MDL - Method Detection Limit  J = Indicates an estimated value
RL = Reporting Limit  B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range  N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW5 | | |
| **Lab Sample ID:** | F37150-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | 6.8 | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | 1.4 | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile [b] | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 419 [c] | 10 | 5.0 | ug/l | |
| 91-20-3 | Naphthalene [b] | 5.2 | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | 0.73 | 1.0 | 0.50 | ug/l | J |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW5 | | |
| **Lab Sample ID:** | F37150-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | 0.66 | 1.0 | 0.50 | ug/l | J |
| 79-01-6 | Trichloroethylene | 1.2 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 106% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 93% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | 110% | 83-119% |

(a) CCV outside of control limits; results may be biased high. Associated BS recovery outside control limits.
(b) CCV outside of control limits; results may be biased high.
(c) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW5 | | |
| **Lab Sample ID:** | F37150-4 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 11700 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW6 | | |
| **Lab Sample ID:** | F37150-5 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019600.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 2.0 | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW6 | | |
| **Lab Sample ID:** | F37150-5 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW6 | | |
| **Lab Sample ID:** | F37150-5 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 9.0 | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW6 | | |
| **Lab Sample ID:** | F37150-5 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 6340 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW7 | | |
| **Lab Sample ID:** | F37150-6 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019601.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | J019608.D | 5 | 12/14/05 | MM | n/a | n/a | VJ811 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | 0.94 | 1.0 | 0.50 | ug/l | J |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 1.1 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW7 | | |
| **Lab Sample ID:** | F37150-6 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 161 [a] | 5.0 | 2.5 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW7 | | |
| **Lab Sample ID:** | F37150-6 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | 105% | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | 109% | 83-119% |

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | S55-MW7 | | |
| **Lab Sample ID:** | F37150-6 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 12/08/05 |
| | | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**General Chemistry**

| Analyte | Result | RL | MDL | Units | DF | Analyzed | By | Method |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | 12100 | 10 | 10 | mg/l | 1 | 12/13/05 | LE | EPA 160.1 |

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37150-7 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J019584.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37150-7 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | 1.4 | 5.0 | 1.0 | ug/l | J |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK | | |
| **Lab Sample ID:** | F37150-7 | **Date Sampled:** | 12/06/05 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 12/08/05 |
| **Method:** | SW846 8260B | **Percent Solids:** | n/a |
| **Project:** | HOLMN | | |

**VOA Special List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

4

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request F37150

Page 1 of 1

Project Number: LTM/HGL

P.O. ____

Chain of Custody Number [1]: 120720053

LIMS Number: ____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HGL

Collected by: K. Germann

| Field Sample ID (30 Characters Max) | ERPIMS LOCID (15 Characters Max) | Date Collected (dd-mmm-yyyy) | Time Collected (Military) (hhmm) | Sample Depth (beginning - ending) | | SA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of containers | VOC 8260 | TDS 160.1 | | | | | | | Matrix Description | Trip Blank Lot Control Number | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S55-mw2 (1) | SS-48 | 06122005 | 1313 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| S55-mw3 (2) | SS-48 | 06122005 | 1336 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| S55-mw4 (3) | SS-48 | 06122005 | 1252 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| S55-mw5 (4) | SS-48 | 06122005 | 1355 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| S55-mw6 (5) | SS-48 | 06122005 | 1158 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| S55-mw7 (6) | SS-48 | 06122005 | 1219 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| Trip Blank (7) | | | | | | | | | 2 | X | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

Sample Analysis Requested [5] — Quality Assurance Samples [6]

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, Fl. 32811

Custody Transfers Prior to Receipt by Laboratory

| Relinquished By (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 1. K Germann | 12-9-05 | 1600 | 1. FR [illegible] | 12/8/05 | 0900 |
| 2. FR | | | | | |
| 3. | | | 3. | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: ____ Shipped No.: ____

Method of Shipment: FedEx Airbill Number: 7912 9641 2158

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB – Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10109901 in the Equipment Blank Lot Control

2.4

F37150: Chain of Custody
Page 1 of 2



ACCUTEST. laboratories

F37150

# ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F37150 CLIENT: Shale PROJECT: LTM

DATE/TIME RECEIVED: 12/8/05 0900 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.7

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 7912 9641 2158

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

**SOIL INFORMATION**

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE DS 12/8/05 TECHNICIAN SIGNATURE/DATE

ASBD06/22/05

4.1 4

F37150: Chain of Custody
Page 2 of 2



ACCUTEST. Laboratories

F37150

# GC/MS Volatiles



## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary

**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-MB | J019581.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | 83-119% |

# Method Blank Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-MB | J019605.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-4, F37150-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 73-126% |
| 2037-26-5 | Toluene-D8 | 92% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 111% | 83-119% |

# Blank Spike Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 196 | 157* | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 253 | 101 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 79.3 | 63 | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 87.1 | 70 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 25.9 | 104 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 28.4 | 114 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.0 | 84 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 23.8 | 95 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 23.7 | 95 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 26.4 | 106 | 75-120 |
| 75-25-2 | Bromoform | 25 | 20.6 | 82 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 28.1 | 112 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 25.9 | 104 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.0 | 108 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 24.8 | 99 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 24.7 | 99 | 67-148 |
| 67-66-3 | Chloroform | 25 | 27.5 | 110 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 26.4 | 106 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.1 | 104 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 26.8 | 107 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 122 | 98 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 32.8 | 131 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 27.1 | 108 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 27.7 | 111 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 27.3 | 109 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 27.7 | 111 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 21.8 | 87 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 22.8 | 91 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 25.8 | 103 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 26.0 | 104 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 23.7 | 95 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 25.8 | 103 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 22.4 | 90 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.0 | 108 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 26.1 | 104 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 25.8 | 103 | 73-115 |

# Blank Spike Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 22.8 | 91 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 24.7 | 99 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 24.4 | 98 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 24.3 | 97 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 26.6 | 106 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 26.4 | 106 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 24.5 | 98 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 23.7 | 95 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 30.2 | 121 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 147 | 118 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 25.5 | 102 | 62-138 |
| 110-54-3 | Hexane | 25 | 27.8 | 111 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 27.0 | 108 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 27.0 | 108 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 123 | 98 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 263 | 105 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 27.9 | 112 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 25.2 | 101 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 25.1 | 100 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 21.9 | 88 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 25.5 | 102 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 25.7 | 103 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 150 | 120 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 24.1 | 96 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 26.2 | 105 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 23.4 | 94 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 245 | 98 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 27.9 | 112 | 80-122 |
| 100-42-5 | Styrene | 25 | 22.7 | 91 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 22.8 | 91 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 27.3 | 109 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 26.6 | 106 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 24.5 | 98 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 31.5 | 126* | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.0 | 96 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 23.4 | 94 | 66-122 |

# Blank Spike Summary

**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ810-BS | J019582.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 25.2 | 101 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.4 | 102 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 23.6 | 94 | 75-126 |
| 108-88-3 | Toluene | 25 | 24.6 | 98 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 26.7 | 107 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 27.9 | 112 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 23.9 | 96 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 25.0 | 100 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 99.4 | 80 | 42-146 |
| | m,p-Xylene | 50 | 50.7 | 101 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 24.6 | 98 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | 83-119% |

(a) Advisory control limits.

# Blank Spike Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ811-BS | J019606.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-4, F37150-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 24.4 | 98 | 67-127 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 106% | 83-119% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

5.3

5

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 100 | 80 | 95.0 | 76 | 5 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 294 | 118 | 283 | 113 | 4 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 79.7 | 64 | 75.0 | 60 | 6 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 88.0 | 70 | 84.7 | 68 | 4 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 26.6 | 106 | 26.5 | 106 | 0 | 50-150/30 [a] |
| 71-43-2 | Benzene | 3.6 | | 25 | 31.8 | 113 | 31.5 | 112 | 1 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 22.8 | 91 | 21.8 | 87 | 4 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 23.0 | 92 | 22.5 | 90 | 2 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 23.5 | 94 | 23.6 | 94 | 0 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 25.9 | 104 | 25.6 | 102 | 1 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 21.3 | 85 | 20.4 | 82 | 4 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 24.3 | 97 | 26.0 | 104 | 7 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | 2.4 | | 25 | 27.1 | 99 | 26.9 | 98 | 1 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | 1.5 | | 25 | 27.0 | 102 | 26.6 | 100 | 1 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 24.2 | 97 | 24.2 | 97 | 0 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 25.3 | 101 | 24.8 | 99 | 2 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 27.2 | 109 | 26.9 | 108 | 1 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 24.6 | 98 | 24.7 | 99 | 0 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 25.0 | 100 | 24.4 | 98 | 2 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 25.2 | 101 | 24.8 | 99 | 2 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 32.3 | 129 | 32.1 | 128 | 1 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 25.7 | 103 | 25.9 | 104 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 27.4 | 110 | 27.1 | 108 | 1 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 26.7 | 107 | 26.3 | 105 | 2 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 26.3 | 105 | 26.2 | 105 | 0 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 25.1 | 100 | 23.6 | 94 | 6 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 23.1 | 92 | 23.2 | 93 | 0 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | 90.6 | | 25 | 119 | 114 | 117 | 106 | 2 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 25.7 | 103 | 25.4 | 102 | 1 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 23.7 | 95 | 23.8 | 95 | 0 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 23.6 | 94 | 23.5 | 94 | 0 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 21.7 | 87 | 22.1 | 88 | 2 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 24.7 | 99 | 25.9 | 104 | 5 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 24.2 | 97 | 24.9 | 100 | 3 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 24.1 | 96 | 24.4 | 98 | 1 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 30.7 | 123 | 28.6 | 114 | 7 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 23.2 | 93 | 23.6 | 94 | 2 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | 0.85 | J | 25 | 24.3 | 94 | 24.6 | 95 | 1 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 23.5 | 94 | 23.5 | 94 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 25.7 | 103 | 26.0 | 104 | 1 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 25.9 | 104 | 26.0 | 104 | 0 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 24.0 | 96 | 23.7 | 95 | 1 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 29.8 | 119 | 29.4 | 118 | 1 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 29.1 | 116 | 28.6 | 114 | 2 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 143 | 114 | 136 | 109 | 5 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 22.0 | 88 | 22.4 | 90 | 2 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 27.5 | 110 | 27.1 | 108 | 1 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | 4.6 | | 25 | 31.6 | 108 | 31.3 | 107 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 25.1 | 100 | 24.9 | 100 | 1 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 159 | 127 | 151 | 121 | 5 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 329 | 132 | 316 | 126 | 4 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 27.3 | 109 | 26.8 | 107 | 2 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 24.0 | 96 | 24.4 | 98 | 2 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 23.3 | 93 | 24.2 | 97 | 4 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 34.1 | 136* | 32.7 | 131* | 4 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 25.6 | 102 | 25.8 | 103 | 1 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 26.0 | 104 | 25.8 | 103 | 1 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 118 | 94 | 112 | 90 | 5 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 24.7 | 99 | 24.8 | 99 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 29.2 | 117 | 29.8 | 119 | 2 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 26.2 | 105 | 26.0 | 104 | 1 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 303 | 121 | 289 | 116 | 5 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 26.5 | 106 | 25.8 | 103 | 3 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 8.7 | 35* | 0.96 | 4* | 160* | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 21.5 | 86 | 21.5 | 86 | 0 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 25.7 | 103 | 26.1 | 104 | 2 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 29.7 | 119 | 28.4 | 114 | 4 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 24.9 | 100 | 24.5 | 98 | 2 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 30.5 | 122* | 31.2 | 125* | 2 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 26.4 | 106 | 25.8 | 103 | 2 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 22.0 | 88 | 22.7 | 91 | 3 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37124-4MS | J019592.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4MSD | J019593.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |
| F37124-4 | J019589.D | 1 | 12/13/05 | MM | n/a | n/a | VJ810 |

5.3 5

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6, F37150-7

| CAS No. | Compound | F37124-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 23.8 | 95 | 23.7 | 95 | 0 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 23.8 | 95 | 23.5 | 94 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 21.8 | 87 | 22.0 | 88 | 1 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 23.5 | 94 | 23.6 | 94 | 0 | 67-123/8 |
| 79-01-6 | Trichloroethylene | 5.5 | | 25 | 31.6 | 104 | 31.6 | 104 | 0 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 28.3 | 113 | 27.5 | 110 | 3 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 28.8 | 115 | 28.6 | 114 | 1 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 24.7 | 99 | 24.6 | 98 | 0 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 69.0 | 55 | 35.6 | 28* | 64* | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 48.6 | 97 | 48.4 | 97 | 0 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 23.4 | 94 | 23.2 | 93 | 1 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37124-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | 105% | 105% | 73-126% |
| 2037-26-5 | Toluene-D8 | 93% | 94% | 93% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | 102% | 107% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F37150
**Account:** BHATNM Bhate Environmental Associates, Inc.
**Project:** HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F37126-4MS | J019618.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4MSD | J019619.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |
| F37126-4 | J019617.D | 1 | 12/14/05 | MM | n/a | n/a | VJ811 |

5.3 5

**The QC reported here applies to the following samples:** **Method:** SW846 8260B

F37150-4, F37150-6

| CAS No. | Compound | F37126-4 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 25 | 20.2 | 81 | 26.7 | 107 | 28* | 61-129/9 |

| CAS No. | Surrogate Recoveries | MS | MSD | F37126-4 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | 103% | 104% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 113% | 109% | 107% | 73-126% |
| 2037-26-5 | Toluene-D8 | 91% | 92% | 91% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 103% | 103% | 106% | 83-119% |

# General Chemistry



## QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37150
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|---|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19213 | 10 | <10 | mg/l | | | | |

Associated Samples:
Batch GN19213: F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F37150
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

| Analyte | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|---|---|---|---|---|---|---|---|
| Solids, Total Dissolved | GN19213 | F37167-4 | mg/l | 79600 | 76700 | 3.7 | 0-29% |

Associated Samples:
Batch GN19213: F37150-1, F37150-2, F37150-3, F37150-4, F37150-5, F37150-6

6.2 6

# SDG – F38226
# PURGE WATER

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

02/07/06

# Technical Report for

Bhate Environmental Associates, Inc.

HOLMN

PROJECT # LTM

Accutest Job Number: F38226

Sampling Date: 01/31/06

Report to:

MDAuben@bhate.com
JSolomon@bhate.com
rrenvironmental@zianet.com
keving@zianet.com
YWatts@bhate.com
ATTN: Distribution6

Total number of pages in report: **34**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

1956 - 2006
50
YEARS OF EXCELLENCE
Accutest Laboratories

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sections: 1 3 4 5 6

# Table of Contents

-1-


**Section 1: Sample Summary** ..... **3**
**Section 2: Case Narrative/Conformance Summary** ..... **4**
**Section 3: Sample Results** ..... **6**
**3.1:** F38226-1: LTM PURGE ..... 7
**3.2:** F38226-2: TRIP BLANK ..... 11
**Section 4: Misc. Forms** ..... **14**
**4.1:** Chain of Custody ..... 15
**Section 5: GC/MS Volatiles - QC Data Summaries** ..... **17**
**5.1:** Method Blank Summary ..... 18
**5.2:** Blank Spike Summary ..... 21
**5.3:** Matrix Spike/Matrix Spike Duplicate Summary ..... 24
**Section 6: Metals Analysis - QC Data Summaries** ..... **27**
**6.1:** Prep QC MP9167: Hg ..... 28
**6.2:** Prep QC MP9170: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn ..... 31

# Sample Summary

Bhate Environmental Associates, Inc.

Job No: F38226

HOLMN
Project No: PROJECT # LTM

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F38226-1 | 01/31/06 | 08:00 KG | 02/01/06 | AQ | Ground Water | LTM PURGE |
| F38226-2 | 01/31/06 | 00:00 KG | 02/01/06 | AQ | Trip Blank Water | TRIP BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Bhate Environmental Associates, Inc. **Job No:** F38226

**Site:** HOLMN **Report Date** 2/7/2006 8:44:13 AM

1 Sample and 1 Trip Blank were collected on 01/31/2006 and received at Accutest on 02/01/2006 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of F38226. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VJ852

All samples were analyzed within the recommended method holding time.

Sample(s) F38226-1MS, F38226-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

BS, MS/MSD Recovery(s) for Acrolein are outside control limits. Spiking mix decomposition.

MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether, Hexane are outside control limits. 2-CEVE affected by preservation, Hexane biased high, no hits in the samples, data integrity not affected. Probable cause due to matrix interference.

## Metals By Method EPA 200.7

**Matrix:** AQ **Batch ID:** MP9170

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F38184-1DUP, F38184-1MS, F38184-1SDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Potassium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

Matrix Spike Recovery(s) for Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPD(s) for Duplicate for Antimony, Selenium, Vanadium are outside control limits for sample MP9170-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Antimony, Selenium, Magnesium, Potassium, Sodium are outside control limits for sample MP9170-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP9170-MB1 for Antimony: Possible positive bias, but all sample results < DL.

MP9170-SD1 for Magnesium: Serial dilution indicates possible matrix interference.

MP9170-SD1 for Potassium: Serial dilution indicates possible matrix interference.

MP9170-SD1 for Sodium: Serial dilution indicates possible matrix interference.

F38226-1 for Iron: Analyzed by method 6010B.

F38226-1 for Magnesium: Analyzed by method 6010B.

F38226-1 for Selenium: Analyzed by method 6010B.

## Metals By Method EPA 245.1

**Matrix:** AQ **Batch ID:** MP9167

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F38226-1MS, F38226-1DUP were used as the QC samples for metals.

RPD(s) for Duplicate for Mercury are outside control limits for sample MP9167-D1. RPD acceptable due to low duplicate and sample concentrations.

## Metals By Method SW846 6010B

**Matrix:** AQ **Batch ID:** MP9170

F38226-1 for Sodium: Analyzed by method 6010B.

2

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: February 07, 2006

Svetlana Izosimova, QAO (signature on file)

## Sample Results

## Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | LTM PURGE | | |
| Lab Sample ID: | F38226-1 | Date Sampled: | 01/31/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/01/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J020545.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 2.7 | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | LTM PURGE | | |
| Lab Sample ID: | F38226-1 | Date Sampled: | 01/31/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/01/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 77.9 | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | LTM PURGE | | |
| Lab Sample ID: | F38226-1 | Date Sampled: | 01/31/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/01/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | 0.57 | 1.0 | 0.50 | ug/l | J |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 102% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | LTM PURGE | | |
| Lab Sample ID: | F38226-1 | Date Sampled: | 01/31/06 |
| Matrix: | AQ - Ground Water | Date Received: | 02/01/06 |
| | | Percent Solids: | n/a |
| Project: | HOLMN | | |

Metals Analysis

| Analyte | Result | RL | MDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 37.5 J | 200 | 16 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Antimony | 2.2 U | 5.0 | 2.2 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Arsenic | 3.1 J | 10 | 2.9 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Barium | 13.8 J | 200 | 0.50 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Beryllium | 0.70 U | 4.0 | 0.70 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Cadmium | 0.60 U | 5.0 | 0.60 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Calcium | 454000 | 1000 | 26 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Chromium | 0.50 U | 10 | 0.50 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Cobalt | 2.7 J | 50 | 0.40 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Copper | 0.80 U | 25 | 0.80 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Iron [a] | 7.5 U | 300 | 7.5 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Lead | 1.2 U | 10 | 1.2 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Magnesium [a] | 425000 | 5000 | 5.8 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Manganese | 359 | 15 | 0.20 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Mercury | 0.080 U | 1.0 | 0.080 | ug/l | 1 | 02/01/06 | 02/02/06 | JM | EPA 245.1 [1] | EPA 245.1 [4] |
| Nickel | 7.7 J | 40 | 1.1 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Potassium | 55400 | 5000 | 36 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Selenium [a] | 35.7 | 10 | 2.4 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Silver | 0.90 U | 10 | 0.90 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Sodium [a] | 1330000 | 500000 | 7700 | ug/l | 100 | 02/02/06 | 02/03/06 | RS | SW846 6010B [3] | EPA 200.7 [5] |
| Thallium | 3.8 U | 10 | 3.8 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Vanadium | 13.6 J | 50 | 0.60 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |
| Zinc | 9.6 J | 20 | 0.70 | ug/l | 1 | 02/02/06 | 02/02/06 | RS | EPA 200.7 [2] | EPA 200.7 [5] |

(1) Instrument QC Batch: MA4781
(2) Instrument QC Batch: MA4783
(3) Instrument QC Batch: MA4784
(4) Prep QC Batch: MP9167
(5) Prep QC Batch: MP9170

(a) Analyzed by method 6010B.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38226-2 | Date Sampled: | 01/31/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 02/01/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | J020547.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38226-2 | Date Sampled: | 01/31/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 02/01/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.0 | 0.50 | ug/l | |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | TRIP BLANK | | |
| Lab Sample ID: | F38226-2 | Date Sampled: | 01/31/06 |
| Matrix: | AQ - Trip Blank Water | Date Received: | 02/01/06 |
| Method: | SW846 8260B | Percent Solids: | n/a |
| Project: | HOLMN | | |

VOA Special List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% | | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 100% | | 83-119% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

4

# Misc. Forms

## Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BHATE

*Environmental Engineers and Scientists*

F38226

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: TBA

P.O. _____

Chain of Custody Number [1]: 013120061

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: USACE

Collected by: K. Germann

Sample Analysis Requested [5] — Quality Assurance Samples [6]

| Field Sample ID (10 Character Max) | PRPIMS LOCID (15 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (military) (hhmm) | Sample Depth (beginning - ending) | SA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of containers | VOC's 8260 | T.A.L. Metals | | | | | | | Matrix Description | Trip Blank Lot Control Number | Code [2] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 LTM Purge | LTM HAFB | 31Jan2006 | 0800 | 0 0 | N | 1 | WG | 4 | X | X | | | | | | | Ground Water | | 1 |
| 2 Trip Blank | | | | | TB | | | | X | | | | | | | | Trip Blank | | 1 |

COMMENTS: ATTN: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Please RUSH!

Custody Transfer Prior to Receipt by Laboratory

| Relinquished By (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 1. [signature] | 1/31/2006 | 1600 | 1. [signature] | 2/1/06 | 0900 |
| 2. FX | | | 2. | | |
| 3. | | | 3. | | |

Sample Delivery Details / Laboratory Receipt

| | | | |
|---|---|---|---|
| Delivered Directly to Lab: | | Shipped No.: | |
| Method of Shipment: | FED EX | AirBill Number: | 854283237502 |
| Analytical Lab: | ACCUTEST | Delivery Location: | Orlando FL 32811 |
| Lab Recipient: | | Delivery Date/Time: | |

1.) Chain of Custody Number = date collected + custody number (e.g. 08-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-t) Sample, FD = Field Duplicate (-d) Samples, FR = Field Replicate (-h) Samples, EB = Equipment Blank (-e) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-a)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SD = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099E1 in the Equipment Blank Lot Control

2-6

4.1 4

**F38226: Chain of Custody**
**Page 1 of 2**

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F38226 CLIENT: BHATE PROJECT: LTM

DATE/TIME RECEIVED: 2/1/06 0900 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.6

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8542 8325 7502

**COOLER INFORMATION**

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] NO COC RECEIVED
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

**SAMPLE INFORMATION**

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] CORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] TIMES ON COC DON'T MATCH LABEL
- [ ] ID'S ON COC DON'T MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING INSTRUCTIONS
- [ ] UNCLEAR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED

**SOIL INFORMATION**

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 2/1/06 TECHNICIAN SIGNATURE/DATE

ASBD06/22/05

4.1 4

F38226: Chain of Custody
Page 2 of 2

5

# GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-MB | J020542.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 25 | 5.0 | ug/l | |
| 75-05-8 | Acetonitrile | ND | 20 | 10 | ug/l | |
| 107-02-8 | Acrolein | ND | 10 | 5.0 | ug/l | |
| 107-13-1 | Acrylonitrile | ND | 10 | 5.0 | ug/l | |
| 107-05-1 | Allyl chloride | ND | 10 | 5.0 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 100-44-7 | Benzyl Chloride | ND | 1.0 | 0.60 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.50 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.50 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.50 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 75-00-3 | Chloroethane | ND | 2.0 | 1.0 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 544-10-5 | 1-Chlorohexane | ND | 2.0 | 1.0 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.50 | ug/l | |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | 5.0 | 2.5 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 1.0 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.50 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.50 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.0 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.50 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.50 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.40 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 1.0 | 0.50 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |

# Method Blank Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-MB | J020542.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | 10 | | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.30 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 97-63-2 | Ethyl methacrylate | ND | 5.0 | 2.0 | ug/l | |
| 76-13-1 | Freon 113 | ND | 1.0 | 0.60 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.5 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | 0.56 | 2.0 | 0.50 | ug/l | J |
| 110-54-3 | Hexane | ND | 2.0 | 1.0 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.50 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 5.0 | 2.5 | ug/l | |
| 126-98-7 | Methacrylonitrile | ND | 20 | 10 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 2.0 | 1.0 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 2.0 | 1.0 | ug/l | |
| 74-88-4 | Methyl iodide | ND | 5.0 | 2.5 | ug/l | |
| 80-62-6 | Methyl methacrylate | ND | 5.0 | 2.5 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 2.0 | 0.50 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.0 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 5.0 | 2.5 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.0 | 1.0 | ug/l | |
| 76-01-7 | Pentachloroethane | ND | 10 | 5.0 | ug/l | |
| 107-12-0 | Propionitrile | ND | 20 | 10 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.50 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.50 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.50 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.89 | 1.0 | 0.50 | ug/l | J |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 2.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | ug/l | |

# Method Blank Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-MB | J020542.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 2.0 | 1.0 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.50 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 2.0 | 0.50 | ug/l | |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | 10 | 5.0 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.50 | ug/l | |
| 108-05-4 | Vinyl Acetate | ND | 10 | 5.0 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.50 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.50 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | 73-126% |
| 2037-26-5 | Toluene-D8 | 95% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 101% | 83-119% |

# Blank Spike Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-BS | J020541.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 83.2 | 67 | 44-142 |
| 75-05-8 | Acetonitrile | 250 | 229 | 92 | 50-150 [a] |
| 107-02-8 | Acrolein | 125 | 33.4 | 27* | 32-168 |
| 107-13-1 | Acrylonitrile | 125 | 111 | 89 | 35-130 |
| 107-05-1 | Allyl chloride | 25 | 26.2 | 105 | 50-150 [a] |
| 71-43-2 | Benzene | 25 | 27.9 | 112 | 80-120 |
| 100-44-7 | Benzyl Chloride | 25 | 21.9 | 88 | 50-150 [a] |
| 108-86-1 | Bromobenzene | 25 | 25.2 | 101 | 76-114 |
| 74-97-5 | Bromochloromethane | 25 | 24.8 | 99 | 75-121 |
| 75-27-4 | Bromodichloromethane | 25 | 24.8 | 99 | 75-120 |
| 75-25-2 | Bromoform | 25 | 23.7 | 95 | 60-129 |
| 104-51-8 | n-Butylbenzene | 25 | 26.2 | 105 | 76-122 |
| 135-98-8 | sec-Butylbenzene | 25 | 26.8 | 107 | 84-122 |
| 98-06-6 | tert-Butylbenzene | 25 | 26.1 | 104 | 77-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.5 | 102 | 82-112 |
| 75-00-3 | Chloroethane | 25 | 20.5 | 82 | 67-148 |
| 67-66-3 | Chloroform | 25 | 26.3 | 105 | 78-118 |
| 544-10-5 | 1-Chlorohexane | 25 | 25.5 | 102 | 82-130 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.1 | 104 | 80-121 |
| 106-43-4 | p-Chlorotoluene | 25 | 27.2 | 109 | 78-120 |
| 110-75-8 | 2-Chloroethyl vinyl ether | 125 | 134 | 107 | 23-132 |
| 75-15-0 | Carbon disulfide | 25 | 31.4 | 126 | 65-147 |
| 56-23-5 | Carbon tetrachloride | 25 | 29.3 | 117 | 69-137 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 26.9 | 108 | 75-117 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 28.2 | 113 | 67-134 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 29.9 | 120 | 84-127 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 23.1 | 92 | 54-125 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 23.9 | 96 | 68-116 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 24.3 | 97 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 24.8 | 99 | 78-122 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 23.5 | 94 | 72-116 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 28.2 | 113 | 68-134 |
| 124-48-1 | Dibromochloromethane | 25 | 24.0 | 96 | 68-118 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 27.3 | 109 | 43-173 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 25.7 | 103 | 81-120 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 27.0 | 108 | 73-115 |

# Blank Spike Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-BS | J020541.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | 25 | 22.9 | 92 | 50-150 [a] |
| 541-73-1 | m-Dichlorobenzene | 25 | 26.6 | 106 | 78-116 |
| 95-50-1 | o-Dichlorobenzene | 25 | 26.6 | 106 | 77-115 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.4 | 102 | 77-113 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 28.1 | 112 | 74-125 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 23.6 | 94 | 69-115 |
| 100-41-4 | Ethylbenzene | 25 | 26.2 | 105 | 82-115 |
| 97-63-2 | Ethyl methacrylate | 25 | 20.1 | 80 | 50-150 [a] |
| 76-13-1 | Freon 113 | 25 | 31.2 | 125 | 72-148 |
| 591-78-6 | 2-Hexanone | 125 | 93.8 | 75 | 60-125 |
| 87-68-3 | Hexachlorobutadiene | 25 | 29.0 | 116 | 62-138 |
| 110-54-3 | Hexane | 25 | 28.3 | 113 | 70-148 |
| 98-82-8 | Isopropylbenzene | 25 | 28.8 | 115 | 83-129 |
| 99-87-6 | p-Isopropyltoluene | 25 | 26.6 | 106 | 85-125 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 102 | 82 | 61-128 |
| 126-98-7 | Methacrylonitrile | 250 | 262 | 105 | 50-150 [a] |
| 74-83-9 | Methyl bromide | 25 | 25.7 | 103 | 60-165 |
| 74-87-3 | Methyl chloride | 25 | 27.2 | 109 | 58-152 |
| 74-88-4 | Methyl iodide | 25 | 28.1 | 112 | 61-140 |
| 80-62-6 | Methyl methacrylate | 25 | 20.4 | 82 | 71-128 |
| 74-95-3 | Methylene bromide | 25 | 24.4 | 98 | 75-114 |
| 75-09-2 | Methylene chloride | 25 | 24.9 | 100 | 66-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 102 | 82 | 58-127 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 25.6 | 102 | 67-127 |
| 91-20-3 | Naphthalene | 25 | 23.0 | 92 | 62-129 |
| 76-01-7 | Pentachloroethane | 25 | 25.9 | 104 | 50-150 [a] |
| 107-12-0 | Propionitrile | 250 | 238 | 95 | 50-150 [a] |
| 103-65-1 | n-Propylbenzene | 25 | 28.0 | 112 | 80-122 |
| 100-42-5 | Styrene | 25 | 22.3 | 89 | 58-125 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 24.8 | 99 | 73-118 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 28.1 | 112 | 78-132 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 23.9 | 96 | 67-119 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 23.5 | 94 | 74-115 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 28.6 | 114 | 65-125 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 23.6 | 94 | 68-114 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 27.6 | 110 | 66-122 |

# Blank Spike Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VJ852-BS | J020541.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 26.3 | 105 | 77-119 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 25.8 | 103 | 81-120 |
| 127-18-4 | Tetrachloroethylene | 25 | 27.1 | 108 | 75-126 |
| 108-88-3 | Toluene | 25 | 26.2 | 105 | 81-114 |
| 79-01-6 | Trichloroethylene | 25 | 27.4 | 110 | 80-115 |
| 75-69-4 | Trichlorofluoromethane | 25 | 22.9 | 92 | 65-163 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | 25 | 22.5 | 90 | 38-130 |
| 75-01-4 | Vinyl chloride | 25 | 26.4 | 106 | 70-151 |
| 108-05-4 | Vinyl Acetate | 125 | 151 | 121 | 42-146 |
| | m,p-Xylene | 50 | 55.5 | 111 | 83-118 |
| 95-47-6 | o-Xylene | 25 | 23.1 | 92 | 77-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% | 73-126% |
| 2037-26-5 | Toluene-D8 | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 98% | 83-119% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F38226-1MS | J020550.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1MSD | J020551.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1 | J020545.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |



The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | F38226-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 125 | 82.1 | 66 | 82.4 | 66 | 0 | 45-127/15 |
| 75-05-8 | Acetonitrile | ND | | 250 | 225 | 90 | 226 | 90 | 0 | 50-150/30 [a] |
| 107-02-8 | Acrolein | ND | | 125 | 28.1 | 22* | 29.0 | 23* | 3 | 26-185/18 |
| 107-13-1 | Acrylonitrile | ND | | 125 | 110 | 88 | 106 | 85 | 4 | 39-140/12 |
| 107-05-1 | Allyl chloride | ND | | 25 | 25.8 | 103 | 26.6 | 106 | 3 | 50-150/30 [a] |
| 71-43-2 | Benzene | ND | | 25 | 28.9 | 116 | 28.8 | 115 | 0 | 72-125/7 |
| 100-44-7 | Benzyl Chloride | ND | | 25 | 21.1 | 84 | 21.1 | 84 | 0 | 50-150/30 [a] |
| 108-86-1 | Bromobenzene | ND | | 25 | 24.3 | 97 | 24.0 | 96 | 1 | 72-113/10 |
| 74-97-5 | Bromochloromethane | ND | | 25 | 24.5 | 98 | 24.2 | 97 | 1 | 73-121/9 |
| 75-27-4 | Bromodichloromethane | ND | | 25 | 25.0 | 100 | 25.5 | 102 | 2 | 72-120/8 |
| 75-25-2 | Bromoform | ND | | 25 | 23.0 | 92 | 22.4 | 90 | 3 | 55-127/11 |
| 104-51-8 | n-Butylbenzene | ND | | 25 | 25.0 | 100 | 25.3 | 101 | 1 | 69-122/10 |
| 135-98-8 | sec-Butylbenzene | ND | | 25 | 25.6 | 102 | 25.9 | 104 | 1 | 75-125/9 |
| 98-06-6 | tert-Butylbenzene | ND | | 25 | 25.0 | 100 | 25.4 | 102 | 2 | 70-125/12 |
| 108-90-7 | Chlorobenzene | ND | | 25 | 25.8 | 103 | 25.5 | 102 | 1 | 79-113/7 |
| 75-00-3 | Chloroethane | ND | | 25 | 23.5 | 94 | 24.5 | 98 | 4 | 56-164/14 |
| 67-66-3 | Chloroform | ND | | 25 | 27.2 | 109 | 27.2 | 109 | 0 | 75-120/8 |
| 544-10-5 | 1-Chlorohexane | ND | | 25 | 24.5 | 98 | 25.0 | 100 | 2 | 77-127/9 |
| 95-49-8 | o-Chlorotoluene | ND | | 25 | 25.6 | 102 | 25.9 | 104 | 1 | 76-122/9 |
| 106-43-4 | p-Chlorotoluene | ND | | 25 | 26.3 | 105 | 26.5 | 106 | 1 | 73-120/9 |
| 110-75-8 | 2-Chloroethyl vinyl ether | ND | | 125 | ND | 0* | ND | 0* | nc | 8-137/18 |
| 75-15-0 | Carbon disulfide | ND | | 25 | 30.5 | 122 | 31.2 | 125 | 2 | 60-151/12 |
| 56-23-5 | Carbon tetrachloride | ND | | 25 | 26.7 | 107 | 26.5 | 106 | 1 | 56-145/12 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 25 | 27.4 | 110 | 27.6 | 110 | 1 | 70-122/10 |
| 75-35-4 | 1,1-Dichloroethylene | ND | | 25 | 26.0 | 104 | 26.7 | 107 | 3 | 61-137/15 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 25 | 27.1 | 108 | 27.4 | 110 | 1 | 80-126/9 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | | 25 | 23.0 | 92 | 22.6 | 90 | 2 | 49-127/18 |
| 106-93-4 | 1,2-Dibromoethane | ND | | 25 | 23.9 | 96 | 23.6 | 94 | 1 | 67-113/10 |
| 107-06-2 | 1,2-Dichloroethane | 2.7 | | 25 | 28.4 | 103 | 28.2 | 102 | 1 | 64-124/7 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 25 | 25.1 | 100 | 25.6 | 102 | 2 | 74-123/8 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 25 | 24.0 | 96 | 24.1 | 96 | 0 | 70-116/8 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 25 | 26.9 | 108 | 26.8 | 107 | 0 | 64-133/13 |
| 124-48-1 | Dibromochloromethane | ND | | 25 | 23.4 | 94 | 23.3 | 93 | 0 | 63-119/9 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 25 | 21.4 | 86 | 22.1 | 88 | 3 | 35-184/21 |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | | 25 | 25.1 | 100 | 25.1 | 100 | 0 | 74-125/9 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 25 | 24.5 | 98 | 25.1 | 100 | 2 | 65-112/10 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F38226-1MS | J020550.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1MSD | J020551.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1 | J020545.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |

5.3

5

The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | F38226-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1476-11-5 | cis-1,4-Dichloro-2-Butene | ND | | 25 | 23.9 | 96 | 24.3 | 97 | 2 | 50-150/30 [a] |
| 541-73-1 | m-Dichlorobenzene | ND | | 25 | 25.8 | 103 | 26.0 | 104 | 1 | 74-114/7 |
| 95-50-1 | o-Dichlorobenzene | ND | | 25 | 25.7 | 103 | 25.8 | 103 | 0 | 73-114/8 |
| 106-46-7 | p-Dichlorobenzene | ND | | 25 | 25.3 | 101 | 25.2 | 101 | 0 | 74-112/7 |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | | 25 | 27.2 | 109 | 27.7 | 111 | 2 | 70-127/11 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 25 | 23.3 | 93 | 23.3 | 93 | 0 | 59-116/11 |
| 100-41-4 | Ethylbenzene | ND | | 25 | 26.5 | 106 | 26.5 | 106 | 0 | 73-119/8 |
| 97-63-2 | Ethyl methacrylate | ND | | 25 | 21.7 | 87 | 21.8 | 87 | 0 | 50-150/30 [a] |
| 76-13-1 | Freon 113 | ND | | 25 | 28.8 | 115 | 28.9 | 116 | 0 | 67-151/14 |
| 591-78-6 | 2-Hexanone | ND | | 125 | 115 | 92 | 115 | 92 | 0 | 54-131/11 |
| 87-68-3 | Hexachlorobutadiene | ND | | 25 | 24.7 | 99 | 24.3 | 97 | 2 | 52-133/13 |
| 110-54-3 | Hexane | ND | | 25 | 40.9 | 164* | 39.9 | 160* | 2 | 62-153/12 |
| 98-82-8 | Isopropylbenzene | ND | | 25 | 28.2 | 113 | 27.9 | 112 | 1 | 79-127/8 |
| 99-87-6 | p-Isopropyltoluene | ND | | 25 | 25.2 | 101 | 25.4 | 102 | 1 | 77-126/8 |
| 108-10-1 | 4-Methyl-2-pentanone | ND | | 125 | 125 | 100 | 125 | 100 | 0 | 57-136/11 |
| 126-98-7 | Methacrylonitrile | ND | | 250 | 275 | 110 | 303 | 121 | 10 | 50-150/30 [a] |
| 74-83-9 | Methyl bromide | ND | | 25 | 29.8 | 119 | 29.8 | 119 | 0 | 52-172/16 |
| 74-87-3 | Methyl chloride | ND | | 25 | 26.1 | 104 | 27.7 | 111 | 6 | 53-155/19 |
| 74-88-4 | Methyl iodide | ND | | 25 | 25.2 | 101 | 25.7 | 103 | 2 | 52-141/12 |
| 80-62-6 | Methyl methacrylate | ND | | 25 | 22.2 | 89 | 21.8 | 87 | 2 | 76-115/11 |
| 74-95-3 | Methylene bromide | ND | | 25 | 24.7 | 99 | 24.4 | 98 | 1 | 73-115/9 |
| 75-09-2 | Methylene chloride | ND | | 25 | 25.1 | 100 | 25.7 | 103 | 2 | 61-129/11 |
| 78-93-3 | Methyl ethyl ketone | ND | | 125 | 109 | 87 | 108 | 86 | 1 | 51-128/10 |
| 1634-04-4 | Methyl Tert Butyl Ether | 77.9 | | 25 | 101 | 92 | 101 | 92 | 0 | 61-129/9 |
| 91-20-3 | Naphthalene | ND | | 25 | 20.9 | 84 | 21.3 | 85 | 2 | 52-127/13 |
| 76-01-7 | Pentachloroethane | ND | | 25 | 26.0 | 104 | 25.6 | 102 | 2 | 50-150/30 [a] |
| 107-12-0 | Propionitrile | ND | | 250 | 248 | 99 | 244 | 98 | 2 | 50-150/30 [a] |
| 103-65-1 | n-Propylbenzene | ND | | 25 | 26.9 | 108 | 27.3 | 109 | 1 | 73-123/10 |
| 100-42-5 | Styrene | ND | | 25 | 22.2 | 89 | 21.7 | 87 | 2 | 64-124/11 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 25 | 23.9 | 96 | 24.1 | 96 | 1 | 69-118/8 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 25 | 27.5 | 110 | 27.0 | 108 | 2 | 72-133/8 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 25 | 24.9 | 100 | 25.1 | 100 | 1 | 64-120/10 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 25 | 24.4 | 98 | 24.3 | 97 | 0 | 72-116/9 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 25 | 24.8 | 99 | 25.1 | 100 | 1 | 58-121/12 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 25 | 24.6 | 98 | 24.4 | 98 | 1 | 63-116/13 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 25 | 25.0 | 100 | 24.9 | 100 | 0 | 58-120/11 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F38226
Account: BHATNM Bhate Environmental Associates, Inc.
Project: HOLMN

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F38226-1MS | J020550.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1MSD | J020551.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |
| F38226-1 | J020545.D | 1 | 02/02/06 | MM | n/a | n/a | VJ852 |

5.3

5

The QC reported here applies to the following samples: Method: SW846 8260B

F38226-1, F38226-2

| CAS No. | Compound | F38226-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 25 | 25.8 | 103 | 26.2 | 105 | 2 | 68-122/10 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 25 | 24.5 | 98 | 24.8 | 99 | 1 | 70-125/9 |
| 127-18-4 | Tetrachloroethylene | ND | | 25 | 24.5 | 98 | 24.5 | 98 | 0 | 70-126/9 |
| 108-88-3 | Toluene | ND | | 25 | 25.3 | 101 | 25.5 | 102 | 1 | 67-123/8 |
| 79-01-6 | Trichloroethylene | 0.57 | J | 25 | 27.9 | 109 | 27.5 | 108 | 1 | 73-117/10 |
| 75-69-4 | Trichlorofluoromethane | ND | | 25 | 22.5 | 90 | 22.6 | 90 | 0 | 52-164/16 |
| 110-57-6 | Trans-1,4-Dichloro-2-Butene | ND | | 25 | 24.1 | 96 | 24.3 | 97 | 1 | 27-131/22 |
| 75-01-4 | Vinyl chloride | ND | | 25 | 21.0 | 84 | 22.7 | 91 | 8 | 63-161/18 |
| 108-05-4 | Vinyl Acetate | ND | | 125 | 162 | 130 | 162 | 130 | 0 | 37-154/10 |
| | m,p-Xylene | ND | | 50 | 54.8 | 110 | 55.1 | 110 | 1 | 74-123/7 |
| 95-47-6 | o-Xylene | ND | | 25 | 22.4 | 90 | 22.4 | 90 | 0 | 68-123/7 |

| CAS No. | Surrogate Recoveries | MS | MSD | F38226-1 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 101% | 101% | 86-115% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 103% | 103% | 73-126% |
| 2037-26-5 | Toluene-D8 | 94% | 96% | 97% | 86-112% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | 97% | 102% | 83-119% |

(a) Advisory control limits.

# Metals Analysis

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F38226
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9167
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 02/01/06

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Mercury | 1.0 | .022 | 0.035 | <1.0 |

Associated samples MP9167: F3B226-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F38226
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9167
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 02/01/06 02/01/06

| Metal | F38226-1 Original | DUP | RPD | QC Limits | F38226-1 Original | MS | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.033 | 0.0 | 200.0(a) | 0-10 | 0.033 | 2.8 | 3 | 92.3 | 70-130 |

Associated samples MP9167: F38226-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F38226
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9167
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 02/01/06

| Metal | BSP Result | Spikelot HGFLWS1 | % Rec | QC Limits |
|---|---|---|---|---|
| Mercury | 3.2 | 3 | 105.0 | 85-115 |

Associated samples MP9167: F38226-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3

6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F38226
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9170
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 02/02/06

| Metal | RL | IDL | MB raw | final |
|---|---|---|---|---|
| Aluminum | 200 | 13 | 5.0 | <200 |
| Antimony | 5.0 | 1.5 | 5.2 | * (a) |
| Arsenic | 10 | 2.1 | -3.6 | <10 |
| Barium | 200 | .5 | 0.27 | <200 |
| Beryllium | 4.0 | .2 | -0.17 | <4.0 |
| Cadmium | 5.0 | .5 | 0.24 | <5.0 |
| Calcium | 1000 | 16 | -110 | <1000 |
| Chromium | 10 | .5 | 0.20 | <10 |
| Cobalt | 50 | .5 | 0.070 | <50 |
| Copper | 25 | .4 | -1.6 | <25 |
| Iron | 300 | 16 | 9.6 | <300 |
| Lead | 10 | 1.2 | -2.6 | <10 |
| Magnesium | 5000 | 9.9 | 2.1 | <5000 |
| Manganese | 15 | .2 | 0.25 | <15 |
| Molybdenum | 50 | .8 | | |
| Nickel | 40 | .6 | 0.010 | <40 |
| Potassium | 5000 | 16 | 13.3 | <5000 |
| Selenium | 10 | 1.6 | 0.020 | <10 |
| Silver | 10 | .6 | 0.54 | <10 |
| Sodium | 5000 | 65 | 401 | <5000 |
| Thallium | 10 | 1.B | -4.7 | <10 |
| Tin | 50 | 1.4 | | |
| Vanadium | 50 | .6 | 0.36 | <50 |
| Zinc | 20 | 1.1 | -13 | <20 |

Associated samples MP9170: F38226-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Possible positive bias, but all sample results < DL.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F38226
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9170
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 02/02/06 02/02/06

| Metal | F38184-1 Original | DUP | RPD | QC Limits | F38184-1 Original | MS | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 0.0 | 0.0 | NC | 0-20 | 0.0 | 34000 | 29000 | 117.2 | 70-130 |
| Antimony | 6.5 | 2.8 | 79.6 (a) | 0-20 | 6.5 | 1090 | 1000 | 108.4 | 70-130 |
| Arsenic | 0.0 | 0.0 | NC | 0-20 | 0.0 | 4180 | 4000 | 104.5 | 70-130 |
| Barium | 29.4 | 28.7 | 2.4 | 0-20 | 29.4 | 3890 | 4000 | 96.5 | 70-130 |
| Beryllium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 92.9 | 100 | 92.9 | 70-130 |
| Cadmium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 94.1 | 100 | 94.1 | 70-130 |
| Calcium | 58900 | 58200 | 1.2 | 0-20 | 58900 | 80600 | 25000 | 86.8 | 70-130 |
| Chromium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 384 | 400 | 96.0 | 70-130 |
| Cobalt | 0.0 | 0.0 | NC | 0-20 | 0.0 | 937 | 1000 | 93.7 | 70-130 |
| Copper | 0.0 | 0.0 | NC | 0-20 | 0.0 | 563 | 500 | 112.6 | 70-130 |
| Iron | 815 | 831 | 1.9 | 0-20 | 815 | 25900 | 27000 | 92.9 | 70-130 |
| Lead | 0.0 | 0.0 | NC | 0-20 | 0.0 | 973 | 1000 | 97.3 | 70-130 |
| Magnesium | 97100 | 96100 | 1.0 | 0-20 | 97100 | 117000 | 25000 | 79.6 | 70-130 |
| Manganese | 89.4 | 88.4 | 1.1 | 0-20 | 89.4 | 1070 | 1000 | 98.1 | 70-130 |
| Molybdenum | | | | | | | | | |
| Nickel | 0.0 | 0.0 | NC | 0-20 | 0.0 | 950 | 1000 | 95.0 | 70-130 |
| Potassium | 57400 | 56500 | 1.6 | 0-20 | 57400 | 98100 | 25000 | 162.8N(c | 70-130 |
| Selenium | 6.6 | 4.6 | 35.7 (a) | 0-20 | 6.6 | 4140 | 4000 | 103.3 | 70-130 |
| Silver | 0.0 | 0.0 | NC | 0-20 | 0.0 | 108 | 100 | 108.0 | 70-130 |
| Sodium | 1220000 | 1210000b | 0.8 | 0-20 | 1220000 | 1270000b | 25000 | 200.0(d) | 70-130 |
| Thallium | 0.0 | 0.0 | NC | 0-20 | 0.0 | 4170 | 4000 | 104.3 | 70-130 |
| Tin | | | | | | | | | |
| Vanadium | 0.0 | 1.1 | 200.0(a) | 0-20 | 0.0 | 963 | 1000 | 96.3 | 70-130 |
| Zinc | 0.0 | 0.0 | NC | 0-20 | 0.0 | 1050 | 1000 | 105.0 | 70-130 |

Associated samples MP9170: F38226-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Above linear range.
(c) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
(d) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F38226
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9170
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 02/02/06

| Metal | BSP Result | Spikelot MPFLICP | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | 29100 | 29000 | 100.3 | B5-115 |
| Antimony | 1010 | 1000 | 101.0 | 85-115 |
| Arsenic | 3900 | 4000 | 97.5 | 85-115 |
| Barium | 4150 | 4000 | 103.8 | 85-115 |
| Beryllium | 98.6 | 100 | 98.6 | 85-115 |
| Cadmium | 98.7 | 100 | 98.7 | 85-115 |
| Calcium | 24500 | 25000 | 98.0 | 85-115 |
| Chromium | 408 | 400 | 102.0 | 85-115 |
| Cobalt | 991 | 1000 | 99.1 | 85-115 |
| Copper | 550 | 500 | 110.0 | 85-115 |
| Iron | 27400 | 27000 | 101.5 | 85-115 |
| Lead | 981 | 1000 | 98.1 | 85-115 |
| Magnesium | 25000 | 25000 | 100.0 | 85-115 |
| Manganese | 1050 | 1000 | 105.0 | 85-115 |
| Molybdenum | | | | |
| Nickel | 1020 | 1000 | 102.0 | 85-115 |
| Potassium | 25800 | 25000 | 103.2 | 85-115 |
| Selenium | 3720 | 4000 | 93.0 | 85-115 |
| Silver | 96.1 | 100 | 96.1 | 85-115 |
| Sodium | 22600 | 25000 | 90.4 | 85-115 |
| Thallium | 3900 | 4000 | 97.5 | 85-115 |
| Tin | | | | |
| Vanadium | 1010 | 1000 | 101.0 | 85-115 |
| Zinc | 963 | 1000 | 96.3 | 85-115 |

Associated samples MP9170: F38226-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F38226
Account: BHATNM - Bhate Environmental Associates, Inc.
Project: HOLMN

QC Batch ID: MP9170
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 02/02/06

| Metal | F38184-1 Original | SDL 1:5 | RPD | QC Limits |
|---|---|---|---|---|
| Aluminum | 0.00 | 0.00 | NC | 0-10 |
| Antimony | 6.49 | 0.00 | 100.0(a) | 0-10 |
| Arsenic | 0.00 | 0.00 | NC | 0-10 |
| Barium | 29.4 | 30.3 | 3.0 | 0-10 |
| Beryllium | 0.00 | 0.00 | NC | 0-10 |
| Cadmium | 0.00 | 0.00 | NC | 0-10 |
| Calcium | 58900 | 64800 | 10.0 | 0-10 |
| Chromium | 0.00 | 0.00 | NC | 0-10 |
| Cobalt | 0.00 | 0.00 | NC | 0-10 |
| Copper | 0.00 | 0.00 | NC | 0-10 |
| Iron | 815 | 900 | 10.0 | 0-10 |
| Lead | 0.00 | 0.00 | NC | 0-10 |
| Magnesium | 97100 | 113000 | 16.4*(b) | 0-10 |
| Manganese | 89.4 | 96.2 | 7.6 | 0-10 |
| Molybdenum | | | | |
| Nickel | 0.00 | 0.00 | NC | 0-10 |
| Potassium | 57400 | 43600 | 24.0*(b) | 0-10 |
| Selenium | 6.59 | 0.00 | 100.0(a) | 0-10 |
| Silver | 0.00 | 3.02 | | 0-10 |
| Sodium | 1220000 | 956000 | 21.8*(b) | 0-10 |
| Thallium | 0.00 | 18.9 | | 0-10 |
| Tin | | | | |
| Vanadium | 0.00 | 0.00 | NC | 0-10 |
| Zinc | 0.00 | 0.00 | NC | 0-10 |

Associated samples MP9170: F38226-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

# APPENDIX C

# FIELD SAMPLING AND MONITORING WELL GAUGING DOCUMENTATION

# Appendix C-1

# 2002/2003 TDS Data

# TDS Laboratory Results Summary
## Second and Third Quarters 2002, and Second Quarter FY2003

| Site | Well ID | Second Quarter (June) 2002 Laboratory TDS (mg/L) | Third Quarter (September) 2002 Laboratory TDS (mg/L) | Second Quarter (March) FY2003 Laboratory TDS (mg/L) |
|---|---|---|---|---|
| Background | MW-BG-02 | **2,460** | **2,250** | 1,700 |
| | MW-BG-03 | **9,560** | 28,700 | **8,340** |
| | MW-BG-04 | 63,900 | 55,100 | 51,000 |
| Lake Holloman | MW-17 | 25,500 | 25,500 | 25,600 |
| | MW-18 | 16,700 | 22,700 | 14,100 |
| Lake Stinky | MWS-09/S-9 | 14,500 | 13,200 | 13,000 |
| DP-30/SD-33 | MW30&33-01 | 30,200 | 21,200 | 23,700 |
| | MW30&33-02 | 35,500 | 36,800 | 34,500 |
| | MW30&33-03 | 33,600 | 36,800 | 32,000 |
| | MW30&33-04 | 27,700 | 21,800 | 26,400 |
| DP-63 | DP63-MW01 | NS | NS | 25,100 |
| | DP63-MW02 | NS | NS | 24,600 |
| | DP63-MW04 | NS | NS | 24,300 |
| FT-31 | 31-MW-11 | 26,600 | 24,800 | 25,800 |
| | 31-MW-13 | 25,700 | 21,700 | 24,600 |
| | S31-MW7 | 23,600 | 21,400 | 22,600 |
| | S31-MW8 | NS | 21,900 | NS |
| LF-01 | 1W2 | 35,500 | 35,700 | 37,800 |
| | S1-MW1 | 21,100 | 17,800 | 22,500 |
| | S1-MW2 | 48,300 | 46,500 | 48,000 |
| | S1-MW4 | 38,200 | 36,700 | 37,300 |
| | S1-MW5 | 22,600 | 21,500 | 19,000 |
| LF-10 | S10-MW3 | 32,100 | 30,900 | 31,700 |
| | S10-MW4 | 36,500 | 40,100 | 38,400 |
| | S10-MW5 | 59,300 | 74,300 | 74,900 |
| | S10-MW6 | 26,400 | 25,100 | 23,600 |
| | S10-MW7 | 16,700 | 13,300 | 17,700 |
| LF-19 | MW-19-01 | **8,600** | **8,750** | 7,020 |
| | MW-19-02 | 30,300 | 30,400 | 27,000 |
| | MW-19-03 | 51,700 | 53,200 | 45,500 |

# TDS Laboratory Results Summary
## Second and Third Quarters 2002, and Second Quarter FY2003

| Site | Well ID | Second Quarter (June) 2002 Laboratory TDS (mg/L) | Third Quarter (September) 2002 Laboratory TDS (mg/L) | Second Quarter (March) FY2003 Laboratory TDS (mg/L) |
|---|---|---|---|---|
| LF-21 | MW-21-01 | 12,300 | 9,610 | 11,900 |
| | MW-21-02 | 29,300 | 31,200 | 29,500 |
| | MW-21-03 | 37,900 | 37,700 | 29,700 |
| | MW-21-04 | 35,100 | 37,400 | 30,300 |
| LF-22 | MW-22-01 | 6,560 | 6,820 | 6,350 |
| | MW-22-02 | 30,800 | 32,300 | 29,700 |
| | MW-22-03 | 32,900 | 28,600 | 18,500 |
| | MW-22-04 | 13,800 | 12,300 | 10,400 |
| LF-23 | MW-23-01 | 52,000 | 53,000 | 37,900 |
| | MW-23-02 | 56,600 | 53,400 | 56,700 |
| | MW-23-03 | 52,300 | 47,800 | 44,700 |
| | MW-23-04 | 27,700 | 26,600 | 23,900 |
| LF-29 | MW-29-01 | 36,500 | 35,100 | 31,600 |
| | MW-29-03 | 10,300 | 9,570 | 10,000 |
| | MW-29-05 | 24,300 | 25,200 | 21,600 |
| | MW-29-07 | 22,500 | 19,300 | 17,400 |
| | MW-29-08 | 20,900 | 18,900 | 17,500 |
| LF-58 | MW-58-01 | 10,500 | 9,260 | 9,180 |
| | MW-58-03 | 13,700 | 11,800 | 11,000 |
| OT-04 | MW-04-01 | 20,700 | 19,000 | 18,300 |
| OT-14 | MW-14-01 | 11,800 | 11,500 | 12,000 |
| | MW-14-02 | 11,100 | 6,030 | 34,300 |
| OT-16 | 118-MW1601 | 3,680 | 3,230 | 3,190 |
| | 118-MW1603 | 3,960 | 3,370 | 3,630 |
| | 118-MW1604 | 4,800 | 3,960 | 4,210 |
| OT-24 | MW-24-01 | 18,900 | 18,100 | 17,500 |
| | MW-24-03 | 21,500 | 21,500 | 19,300 |
| | MW-24-05 | 26,100 | 26,100 | 26,500 |

# TDS Laboratory Results Summary
## Second and Third Quarters 2002, and Second Quarter FY2003

| Site | Well ID | Second Quarter (June) 2002 Laboratory TDS (mg/L) | Third Quarter (September) 2002 Laboratory TDS (mg/L) | Second Quarter (March) FY2003 Laboratory TDS (mg/L) |
|---|---|---|---|---|
| OT-37 | MW-37-01 | 13,100 | 14,100 | 13,600 |
| | MW-37-03 | 9,060 | 9,160 | 9,810 |
| | MW-37-06 | 18,700 | 19,600 | 19,600 |
| OT-38 | MW-38-01 | 12,100 | 11,900 | 12,600 |
| | MW-38-02 | 13,100 | 12,600 | 13,200 |
| OT-41 | MW-41-01 | 16,600 | 16,800 | 16,900 |
| | MW-41-04 | 16,900 | 16,400 | 17,800 |
| OT-44 | S50-MW1 | 3,760 | 3,180 | 3,140 |
| | S50-MW3 | 3,300 | 2,900 | 3,080 |
| | S50-MW6 | 3,540 | 3,540 | 3,850 |
| SD-08 | MW-08-01 | 10,900 | 10,400 | 10,600 |
| | MW-08-04 | 10,300 | 12,400 | 8,860 |
| | MW-08-05 | 4,530 | 4,730 | 2,650 |
| SD-28 | MW-28-02 | 3,650 | 3,430 | 3,410 |
| | MW-28-03 | 3,360 | 3,010 | 3,130 |
| SS-02/SS-05 | MW-02&5-01 | 10,900 | 8,400 | 7,780 |
| | MW-02&5-02 | 18,000 | 17,000 | 14,700 |
| | MW-02&5-04 | 5,580 | 5,350 | 4,660 |
| | MW-02&5-06 | 63,800 | 62,200 | 62,400 |
| | MW-02&5-07 | 72,100 | 73,600 | 70,100 |
| | MW-02&5-08 | 72,600 | 64,600 | 72,600 |
| SS-17 | MW-BX-01 | 7,040 | 6,090 | 6,040 |
| | MW-BX-02 | 16,500 | 8,460 | 17,000 |
| | TH-22 | 4,780 | 4,330 | 3,960 |
| | W-4 | 4,000 | 2,980 | 3,120 |
| SS-26 | MW-26-01 | 11,400 | 22,200 | 11,400 |
| | MW-26-02 | 10,400 | 11,000 | 9,130 |
| SS-36 | 129-MW04 | 4,330 | 3,770 | 2,920 |
| | MW-36-01 | 11,100 | 16,100 | 10,100 |

## TDS Laboratory Results Summary
## Second and Third Quarters 2002, and Second Quarter FY2003

| Site | Well ID | Second Quarter (June) 2002 Laboratory TDS (mg/L) | Third Quarter (September) 2002 Laboratory TDS (mg/L) | Second Quarter (March) FY2003 Laboratory TDS (mg/L) |
|---|---|---|---|---|
| SS-39 | MW-39-01 | 6,640 | 6,620 | 5,880 |
| | MW-39-02 | 16,200 | 16,400 | 12,200 |
| | MW-39-03 | 12,600 | 12,200 | 12,200 |
| | MW-39-04 | 7,220 | 11,800 | 5,960 |
| SS-46 | MW-46-01 | 6,740 | 7,580 | 6,960 |
| | MW-46-02 | 9,340 | 8,260 | 7,710 |
| | MW-46-03 | 7,760 | 7,440 | 7,380 |
| SS-48 | S55-MW2 | 6,360 | 6,320 | 4,890 |
| | S55-MW3 | 9,380 | 7,660 | 8,720 |
| | S55-MW4 | 8,380 | 5,800 | 5,010 |
| | S55-MW5 | 19,700 | 16,400 | 12,600 |
| | S55-MW6 | 10,300 | 8,650 | 5,900 |
| | S55-MW7 | 8,740 | 9,080 | 10,000 |
| SS-56 | MW-56-01 | 5,280 | 4,250 | 4,110 |
| | WR-WCC-2 | NS | NS | NS |
| | WR-WCC-3 | NS | NS | 2,500 |
| | WR-WCC-4 | NS | NS | NS |
| | WR-WCC-5 | NS | NS | 5,270 |
| SS-59 | T38-MW-02 | 35,000 | 36,900 | 41,700 |
| | T38-MW-08 | 21,700 | 22,200 | 24,600 |
| | T38-MW-11 | 29,100 | 27,300 | 31,300 |
| | T38-MW-12 | 29,700 | 28,300 | 27,800 |
| | T38-MW-13 | 31,500 | 30,300 | 30,200 |
| SS-61 | SS61-MW01 | 16,300 | 18,800 | 17,300 |
| | SS61-MW02 | 14,100 | 13,800 | 13,000 |
| | SS61-MW05 | 8,410 | 7,540 | 7,320 |
| | SS61-MW09 | 3,050 | 3,010 | 2,880 |
| | SS61-MW11 | 13,200 | 13,800 | 15,100 |
| SWMU 54 | S54-MW8 | 11,700 | 9,730 | 10,600 |

# TDS Laboratory Results Summary
## Second and Third Quarters 2002, and Second Quarter FY2003

| Site | Well ID | Second Quarter (June) 2002 Laboratory TDS (mg/L) | Third Quarter (September) 2002 Laboratory TDS (mg/L) | Second Quarter (March) FY2003 Laboratory TDS (mg/L) |
|---|---|---|---|---|
| WP-49 | MW-02 | 8,720 | 8,850 | NS |
| | MW-06 | 80,700 | 81,600 | 95,400 |
| | MW-07 | 11,400 | 11,100 | 11,000 |
| | MW-1 | NA | 53,100 | 53,700 |
| | MW-10 | 51,300 | 50,400 | 54,800 |
| | MW-11 | 43,600 | 54,600 | 48,700 |
| | MW-13 | 43,100 | 46,600 | 50,900 |
| | MW-15 | 57,300 | 53,300 | 55,700 |
| | MW-16 | 25,500 | 23,300 | 25,100 |
| | MW-3 | 11,800 | 8,000 | 14,000 |
| | MW-4 | 17,800 | 19,700 | 19,300 |
| | MW-9 | 31,200 | 29,200 | 30,400 |
| | MWS-01 | 12,500 | 11,600 | 11,600 |
| | MWS-02 | NS | NS | NS |
| | MWS-04 | 61,200 | 62,400 | 77,300 |
| | MWS-06 | 39,900 | 39,900 | 47,200 |
| | MWS-07 | 49,900 | 48,700 | 58,700 |
| | MWS-08 | 43,100 | 39,700 | 46,600 |
| | MWS-16 | NS | NS | NS |

Notes:
mg/L = milligrams per liter
NS = Not Sampled
TDS = Total Dissolved Solids

# Appendix C-2

# 2005 Groundwater Level Summary Table

# 2005 Groundwater Level Summary Table

| Site | Well ID | Date | TOC (ft amsl) 2003 LTM Survey Data | State Planar Easting (ft) | State Plannar Northing (ft) | DTW (ft below TOC) | Groundwater Elevation (ft amsl) |
|---|---|---|---|---|---|---|---|
| OT-16 | 118-MW1601 | 6-Dec-05 | 4079.04 | 1694170.87 | 669452.75 | -7.35 | 4071.69 |
| | 118-MW1602 | 6-Dec-05 | 4077.89 | 1694114.75 | 669359.68 | -6.32 | 4071.57 |
| | 118-MW1603 | 6-Dec-05 | 4077.01 | 1694133.37 | 669299.00 | -5.53 | 4071.48 |
| | 118-MW1604 | 6-Dec-05 | 4077.14 | 1694194.87 | 669313.50 | -5.75 | 4071.39 |
| SS-02/SS-05 | MW-02&5-03 | 7-Dec-05 | 4093.87 | 1695537.12 | 673677.93 | -16.20 | 4077.67 |
| | MW-02&5-05 | 7-Dec-05 | 4092.45 | 1695712.12 | 674221.62 | -14.92 | 4077.53 |
| | MW-02&5-06 | 7-Dec-05 | 4082.37 | 1696110.50 | 673919.43 | -5.38 | 4076.99 |
| | MW-02&5-08 | 7-Dec-05 | 4083.96 | 1695918.37 | 674361.06 | -5.36 | 4078.60 |
| SD-08 | MW-08-03 | 7-Dec-05 | 4088.28 | 1695008.75 | 672496.25 | -12.14 | 4076.14 |
| | MW-08-04 | 7-Dec-05 | 4085.91 | 1695241.75 | 672561.50 | -10.17 | 4075.74 |
| | MW-08-05 | 7-Dec-05 | 4084.45 | 1695101.50 | 672407.12 | -10.94 | 4073.51 |
| | MW-08-06 | 7-Dec-05 | 4084.58 | 1695347.62 | 672450.06 | -9.74 | 4074.84 |
| LF-21 | MW-21-01 | 5-Dec-05 | 4046.59 | 1683173.25 | 667815.25 | -8.89 | 4037.70 |
| | MW-21-02 | 5-Dec-05 | 4042.97 | 1682684.75 | 666881.31 | -10.94 | 4032.03 |
| | MW-21-03 | 5-Dec-05 | 4041.77 | 1682523.37 | 666907.31 | -10.14 | 4031.63 |
| | MW-21-04 | 5-Dec-05 | 4039.99 | 1682400.00 | 666941.00 | -8.67 | 4031.32 |
| LF-29 | MW-29-01 | 5-Dec-05 | 4100.87 | 1689606.00 | 678053.06 | -25.27 | 4075.60 |
| | MW-29-03 | 5-Dec-05 | 4097.14 | 1689003.12 | 677215.62 | -20.00 | 4077.14 |
| | MW-29-04 | 5-Dec-05 | 4098.54 | 1689179.00 | 677064.93 | -21.05 | 4077.49 |
| | MW-29-05 | 5-Dec-05 | 4101.36 | 1689489.75 | 677394.81 | -23.42 | 4077.94 |
| | MW-29-06 | 5-Dec-05 | 4098.93 | 1689296.50 | 677979.81 | -23.82 | 4075.11 |
| | MW-29-07 | 5-Dec-05 | 4098.29 | 1689076.37 | 677615.31 | -21.27 | 4077.02 |
| | MW-29-08 | 5-Dec-05 | 4100.43 | 1689084.87 | 677960.06 | -23.60 | 4076.83 |
| SS-39 | MW-39-01 | 16-Feb-06 | 4059.86 | 1671304.75 | 685835.81 | -24.97 | 4034.89 |
| | MW-39-02 | 16-Feb-06 | 4051.15 | 1670490.87 | 685113.06 | -18.22 | 4032.93 |
| | MW-39-03 | 16-Feb-06 | 4040.63 | 1670844.37 | 685126.18 | -7.92 | 4032.71 |
| | MW-39-04 | 16-Feb-06 | 4053.35 | 1671166.37 | 685323.31 | -20.21 | 4033.14 |
| SS-46 | MW-46-01 | 6-Dec-05 | 4082.09 | 1691811.25 | 672146.81 | -7.16 | 4074.93 |
| | MW-46-02 | 6-Dec-05 | 4082.09 | 1691882.62 | 672131.00 | -6.82 | 4075.27 |
| | MW-46-03 | 6-Dec-05 | 4081.76 | 1691903.62 | 672233.93 | -7.29 | 4074.47 |

## 2005 Groundwater Level Summary Table

| Site | Well ID | Date | TOC (ft amsl) 2003 LTM Survey Data | State Planar Easting (ft) | State Plannar Northing (ft) | DTW (ft below TOC) | Groundwater Elevation (ft amsl) |
|---|---|---|---|---|---|---|---|
| SS-17 | MW-BX-01 | 7-Dec-05 | 4070.74 | 1694460.00 | 668131.00 | -8.42 | 4062.32 |
| | MW-BX-02 | 7-Dec-05 | 4070.54 | 1694228.00 | 668110.00 | -5.30 | 4065.24 |
| | W-4 | 7-Dec-05 | 4074.40 | 1694326.00 | 668556.31 | -7.16 | 4067.24 |
| DP-30/SD-33 | MW30&33-01 | 4-Dec-05 | 4104.70 | 1692958.87 | 676386.75 | -21.03 | 4083.67 |
| | MW30&33-02 | 4-Dec-05 | 4104.00 | 1693092.12 | 675818.68 | -23.03 | 4080.97 |
| | MW30&33-03 | 4-Dec-05 | 4102.98 | 1693206.62 | 675869.06 | -21.96 | 4081.02 |
| | MW30&33-04 | 4-Dec-05 | 4102.30 | 1693284.25 | 675966.00 | -22.96 | 4079.34 |
| LF-01 | S1-MW1 | 8-Dec-05 | 4099.39 | 1696393.00 | 679319.56 | -11.05 | 4088.34 |
| | S1-MW2 | 8-Dec-05 | 4098.62 | 1696407.00 | 675144.50 | -18.19 | 4080.43 |
| | S1-MW3 | 8-Dec-05 | 4096.97 | 1695527.00 | 674286.43 | -16.96 | 4080.01 |
| | S1-MW5 | 8-Dec-05 | 4114.89 | 1694155.00 | 678182.50 | -31.39 | 4083.50 |
| | 1W2 | 8-Dec-05 | 4100.69 | 1694414.00 | 675658.50 | -20.27 | 4080.42 |
| SS-48 | S55-MW2 | 6-Dec-05 | 4081.39 | 1693316.00 | 671348.37 | -6.96 | 4074.43 |
| | S55-MW3 | 6-Dec-05 | 4080.22 | 1693259.00 | 671298.37 | -5.73 | 4074.49 |
| | S55-MW4 | 6-Dec-05 | 4080.16 | 1693290.00 | 671264.37 | -5.75 | 4074.41 |
| | S55-MW5 | 6-Dec-05 | 4079.16 | 1693209.00 | 671252.37 | -5.15 | 4074.01 |
| | S55-MW6 | 6-Dec-05 | 4078.29 | 1693124.00 | 671224.37 | -5.57 | 4072.72 |
| | S55-MW7 | 6-Dec-05 | 4078.70 | 1693191.00 | 671188.37 | -4.90 | 4073.80 |

Notes:
TOC = Top of Casing
ft = Feet
amsl = Above mean sea level
DTW = Depth to water

# Appendix C-3

# Monitoring Well Sample Collection Forms

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-01 | Location ID: SW-MW1 | Date: 12/8/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 OS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 11.05 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 26.99 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 15.94 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 2.55 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/8/2005 | 1327 | | 0 | N/A | 18.75 | 7.40 | 20.23 | 7.20 | | 85 | In well reading |
| 12/8/2005 | 1334 | | 2.25 | N/A | 18.9 | 7.27 | 24.77 | 6.16 | 70.00 | 108 | |
| 12/8/2005 | 1337 | | 4.5 | N/A | 19.17 | 6.96 | 25.93 | 4.53 | 150.00 | 90 | |
| 12/8/2005 | 1339 | | 6.75 | N/A | 19.07 | 6.90 | 26.59 | 4.46 | 120.00 | 89 | |
| 12/8/2005 | 1342 | | 9 | N/A | 18.83 | 6.86 | 26.96 | 4.40 | 110.00 | 92 | |
| 12/8/2005 | 1346 | | 0 | N/A | 19.03 | 6.86 | 26.67 | 6.89 | | 94 | In well reading |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-01 | Location ID: SW-MW2 | Date: 12/8/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 18.19 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 37.31 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 19.12 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 3.06 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/8/2005 | 1250 | | 0 | N/A | 18.71 | 7.12 | 41.48 | 7.62 | | 41 | In well reading |
| 12/8/2005 | 1258 | | 1.75 | N/A | 18.16 | 7.30 | 47.06 | 6.03 | 110.00 | 94 | Soft bottom |
| 12/8/2005 | 1302 | | 3.5 | N/A | 19.13 | 7.01 | 47.98 | 5.06 | 140.00 | 83 | |
| 12/8/2005 | 1305 | | 5.25 | N/A | 19.07 | 6.93 | 48.35 | 4.88 | 190.00 | 82 | |
| 12/8/2005 | 1307 | | 7 | N/A | 19.12 | 6.90 | 48.67 | 4.87 | 100.00 | 85 | |
| 12/8/2005 | 1308 | | 8.75 | N/A | 19.23 | 6.89 | 48.61 | 4.97 | 120.00 | 85 | |
| 12/8/2005 | 1310 | | 10.5 | N/A | 19.09 | 6.89 | 48.59 | 5.03 | 110.00 | 86 | |
| 12/8/2005 | 1316 | | 0 | N/A | 19.14 | 6.91 | 48.63 | 6.53 | | 91 | In well reading |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-01 | Location ID: SW-MW3 | Date: 12/8/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C* B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 16.96 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 28.88 | (E) Casing Volume Multiplier (gal/in ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 11.92 | Screen Length (in ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.91 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/in ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.36 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/8/2005 | 1224 | | 0 | N/A | 18.73 | 6.62 | 26.2 | 4.29 | | -108 | In well reading |
| 12/8/2005 | 1229 | | 2 | N/A | 18.14 | 6.91 | 27.53 | 4.28 | 33.00 | -120 | Strong Odor |
| 12/8/2005 | 1232 | | 4 | N/A | 19.06 | 6.66 | 32.04 | 3.09 | 70.00 | -139 | |
| 12/8/2005 | 1234 | | 6 | N/A | 18.87 | 6.66 | 32.02 | 2.78 | 70.00 | -140 | |
| 12/8/2005 | 1239 | | 0 | N/A | 19.03 | 6.68 | 33.46 | 3.74 | | -121 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-01 | Location ID: SW-MW5 | Date: 12/8/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 31.39 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 44.33 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 12.94 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 2.07 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/8/2005 | 1146 | | 0 | N/A | 18.25 | 7.07 | 24.28 | 4.93 | | 119 | In well reading |
| 12/8/2005 | 1152 | | 2.33 | N/A | 18.25 | 7.19 | 24.08 | 5.87 | 160.00 | 113 | Soft Bottom |
| 12/8/2005 | 1154 | | 4.66 | N/A | 18.56 | 6.97 | 24.6 | 3.99 | 85.00 | 85 | |
| 12/8/2005 | 1159 | | 7 | N/A | 18.54 | 6.88 | 24.65 | 4.27 | 82.00 | 63 | |
| 12/8/2005 | 1206 | | 0 | N/A | 18.74 | 6.85 | 24.92 | 5.26 | | 72 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8280A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-01 | Location ID: 1W2 | Date: 12/8/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 20.27 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 37.65 | (E) Casing Volume Multiplier (gal/in ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 17.38 | Screen Length (in ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 2.78 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/in ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/8/2005 | 1115 | | 0 | N/A | 19.57 | 6.50 | 34.44 | 5.21 | | 77 | In well reading |
| 12/8/2005 | 1122 | | 2.83 | N/A | 18.36 | 7.28 | 35.58 | 7.05 | Over | 92 | Soft Bottom |
| 12/8/2005 | 1127 | | 5.66 | N/A | 18.94 | 7.08 | 36.14 | 5.76 | Over | 99 | |
| 12/8/2005 | 1129 | | 8.5 | N/A | 18.87 | 7.06 | 36.25 | 5.85 | Over | 102 | |
| 12/8/2005 | 1135 | | 0 | N/A | 19.11 | 7.03 | 36.92 | 6.61 | | 109 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| LOCATION | Site: | SS-02/05 | Location ID: | MW-02&5-03 | Date: 12/7/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| EQUIPMENT | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| WELL INFO | (A) Initial Depth to Water (ft BTOC): | 16.20 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 24.06 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 7.86 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.26 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| CASING INFO | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 1258 | | 0 | N/A | 21.52 | 7.58 | 3.319 | 7.11 | | -10 | In well reading. |
| 12/7/2005 | 1304 | | 1.33 | N/A | 21.05 | 7.39 | 4.185 | 6.35 | 75.00 | 17 | |
| 12/7/2005 | 1306 | | 2.66 | N/A | 21.5 | 7.27 | 6.609 | 4.46 | 55.00 | 15 | |
| 12/7/2005 | 1309 | | 4 | N/A | 21.55 | 7.41 | 7.191 | 4.18 | 60.00 | 15 | |
| 12/7/2005 | 1312 | | 0 | N/A | 21.98 | 8.09 | 3.612 | 5.65 | | 20 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| Conversions | Stabilization Criteria | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION

Page 1 of 1

| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | SS-02/05 | Location ID: | MW-02&5-05 | Date: 12/7/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 14.92 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 22.85 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 7.93 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.27 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 1431 | | 0 | N/A | 19.29 | 7.02 | 13.49 | 3.13 | | -282 | In well reading. |
| 12/7/2005 | 1437 | | 1.125 | N/A | 19.1 | 7.19 | 14.02 | 4.85 | 65.00 | -260 | Slow recovery, gray water, strong odor. |
| 12/7/2005 | 1443 | | 2.25 | N/A | 19.75 | 6.82 | 13.58 | 2.87 | 12.00 | -253 | |
| 12/7/2005 | 1451 | | 3.375 | N/A | 19.86 | 6.89 | 13.72 | 3.59 | 15.00 | -245 | |
| 12/7/2005 | 1453 | | 4.5 | N/A | 19.89 | 6.90 | 13.76 | 3.99 | 7.00 | -243 | |
| 12/7/2005 | 1457 | | 0 | N/A | 20.17 | 6.97 | 13.57 | 4.44 | | -236 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-02/05 | Location ID: MW-02&5-06 | Date: 12/7/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 5.38 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 15.10 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 9.72 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.56 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 1337 | | 0 | N/A | 18.99 | 5.88 | 64.45 | 4.21 | | 78 | In well reading. |
| 12/7/2005 | 1343 | | 1.67 | N/A | 19.27 | 6.70 | 64.49 | 3.99 | 45.00 | 67 | |
| 12/7/2005 | 1345 | | 3.34 | N/A | 19.72 | 6.70 | 65.05 | 2.89 | 50.00 | 73 | |
| 12/7/2005 | 1347 | | 5 | N/A | 19.87 | 6.72 | 65.47 | 2.68 | 40.00 | 77 | |
| 12/7/2005 | 1351 | | 0 | N/A | 20.23 | 6.72 | 65.76 | 2.86 | | 81 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-02/05 | Location ID: MW-02&5-08 | Date: 12/7/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 5.36 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 15.13 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 9.77 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.56 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in): | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 1404 | | 0 | N/A | 17.2 | 6.58 | 71.62 | 4.18 | | 112 | In well reading. |
| 12/7/2005 | 1409 | | 1.67 | N/A | 18.31 | 6.63 | 74.16 | 3.67 | 19.00 | 96 | |
| 12/7/2005 | 1411 | | 3.34 | N/A | 19.42 | 6.60 | 75.33 | 2.17 | 12.00 | 89 | |
| 12/7/2005 | 1413 | | 5 | N/A | 20.09 | 6.60 | 75.96 | 1.99 | 14.00 | 87 | |
| 12/7/2005 | 1420 | | 0 | N/A | 19.82 | 6.59 | 75.82 | 2.50 | | 85 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SD-08 | Location ID: MW-08-03 | Date: 12/7/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 12.14 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 23.35 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 11.21 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E) 1.79 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 1219 | | 0 | N/A | 21.43 | 6.18 | 10.48 | 3.26 | | -54 | In well reading. |
| 12/7/2005 | 1224 | | 1.83 | N/A | 20.71 | 6.76 | 11.82 | 4.61 | 110.00 | -35 | |
| 12/7/2005 | 1228 | | 3.66 | N/A | 22.05 | 6.78 | 15.03 | 2.33 | 240.00 | -21 | |
| 12/7/2005 | 1230 | | 5.5 | N/A | 22.28 | 6.85 | 15.82 | 2.37 | 230.00 | -13 | |
| 12/7/2005 | 1237 | | 0 | N/A | 22.56 | 6.83 | 15.61 | 2.19 | | 2 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SD-08 | Location ID: MW-08-04 | Date: 12/7/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 10.17 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 17.90 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 7.73 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.24 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/in ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 1012 | | 0 | N/A | 19.17 | 7.44 | 7.389 | 3.07 | | 55 | In well reading |
| 12/7/2005 | 1017 | | 1.416 | N/A | 18.64 | 7.31 | 7.337 | 5.06 | 39.00 | -41 | |
| 12/7/2005 | 1027 | | 2.832 | N/A | 19.62 | 7.24 | 6.878 | 4.58 | 29.00 | -48 | |
| 12/7/2005 | 1032 | | 4.25 | N/A | 19.91 | 7.31 | 6.796 | 5.14 | 25.00 | -35 | |
| 12/7/2005 | 1037 | | 0 | N/A | 20.22 | 7.36 | 6.663 | 5.37 | | -18 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 60105/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | SD-08 | Location ID: | MW-08-05 | Date: 12/7/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 10.94 | Casing: Type | PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 18.96 | (E) Casing Volume Multiplier (gal/in ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 8.02 | Screen Length (in ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.28 | Screen Info: Type: | Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/in ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 1144 | | 0 | N/A | 20.09 | 7.80 | 2.29 | 3.56 | | -224 | In well reading |
| 12/7/2005 | 1147 | | 1.33 | N/A | 18.99 | 7.21 | 2.27 | 4.36 | 34.00 | -227 | Odor, roots in well |
| 12/7/2005 | 1149 | | 2.66 | N/A | 20.36 | 7.00 | 2.316 | 2.63 | 45.00 | -231 | |
| 12/7/2005 | 1152 | | 4 | N/A | 20.39 | 6.98 | 2.319 | 2.17 | 55.00 | -231 | |
| 12/7/2005 | 1159 | | 0 | N/A | 20.48 | 6.94 | 2.331 | 2.77 | | -244 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SD-08 | Location ID: MW-08-06 | Date: 12/7/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 9.74 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 18.27 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 8.53 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.36 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 942 | | 0 | N/A | 19.62 | 6.36 | 20.25 | 3.98 | | 100 | In well reading |
| 12/7/2005 | 948 | | 1.5 | N/A | 18.71 | 6.88 | 23.3 | 5.17 | 700.00 | 92 | Roots in well |
| 12/7/2005 | 951 | | 3 | N/A | 20.03 | 6.95 | 24.57 | 3.46 | 150.00 | 88 | |
| 12/7/2005 | 953 | | 4.5 | N/A | 20.12 | 7.00 | 26.69 | 4.05 | 141.00 | 86 | |
| 12/7/2005 | 956 | | 0 | N/A | 20.06 | 7.18 | 21.82 | 3.41 | | 84 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: OT-16 | Location ID: 118-MW1601 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 7.35 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 16.49 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 9.14 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.46 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 910 | | 0 | N/A | 17.96 | 7.39 | 7.767 | 4.99 | | 210 | In well reading |
| 12/6/2005 | 913 | | 1.66 | N/A | 17.56 | 7.44 | 6.453 | 5.66 | 2.00 | 213 | |
| 12/6/2005 | 915 | | 3.33 | N/A | 20.52 | 7.24 | 4.01 | 5.41 | 35.00 | 213 | |
| 12/6/2005 | 919 | | 5 | N/A | 21.65 | 7.56 | 4.956 | 4.98 | 32.00 | 212 | |
| 12/6/2005 | 925 | | 0 | N/A | 21.65 | 7.68 | 4.343 | 4.63 | | 209 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE, AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: OT-16 | Location ID: 118-MW1602 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 6.32 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 14.65 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A) 8.33 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E) 1.33 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 825 | | 0 | N/A | 17.65 | 7.46 | 5.765 | 5.98 | | 79 | In well reading |
| 12/6/2005 | 828 | | 1.33 | N/A | 18.24 | 7.46 | 5.789 | 5.01 | 130.00 | 74 | |
| 12/6/2005 | 831 | | 2.66 | N/A | 20.15 | 7.43 | 5.53 | 5.15 | 280.00 | 232 | |
| 12/6/2005 | 833 | | 4 | N/A | 22.25 | 7.46 | 5.397 | 5.24 | 280.00 | 229 | |
| 12/6/2005 | 839 | | 0 | N/A | 21.98 | 7.51 | 5.673 | 5.09 | | 234 | In well reading |
| | | | | | | | | | | | |

| **Colorimeter Results** | | | | | **No. Containers/Volume/Type** | | | **Preserv.** | **Filter (Y/N)** | **Method** | **Parameter(s)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time** | **Analyte** | **Dilution** | **Result** | **Units** | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE, AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: OT-16 | Location ID: 118-MW1603 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 5.53 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 14.05 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 8.52 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.36 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 845 | | 0 | N/A | 17.99 | 7.94 | 3.978 | 6.94 | | 201 | In well reading |
| 12/6/2005 | 848 | | 1.66 | N/A | 18.65 | 7.39 | 3.54 | 6.31 | 180.00 | 214 | |
| 12/6/2005 | 852 | | 3.33 | N/A | 20.64 | 7.26 | 3.912 | 4.32 | 130.00 | 207 | |
| 12/6/2005 | 855 | | 5 | N/A | 20.63 | 7.21 | 3.981 | 4.27 | 130.00 | 202 | |
| 12/6/2005 | 900 | | 0 | N/A | 20.56 | 7.43 | 3.385 | 4.23 | | 202 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: OT-16 | Location ID: 118-MW1604 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 5.75 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 13.35 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 7.60 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.22 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 802 | | 0 | N/A | 17.79 | 8.31 | 3.257 | 6.94 | | 197 | In well reading |
| 12/6/2005 | 804 | | 1.66 | N/A | 20.38 | 7.34 | 3.231 | 6.87 | over | 220 | |
| 12/6/2005 | 806 | | 3.33 | N/A | 21.66 | 7.24 | 3.096 | 5.43 | 160.00 | 213 | |
| 12/6/2005 | 809 | | 5 | N/A | 21.82 | 7.20 | 3.095 | 5.23 | 160.00 | 206 | |
| 12/6/2005 | 815 | | 0 | N/A | 21.69 | 7.19 | 3.451 | 5.24 | | 207 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | SS-17 | Location ID: | MW-BX-01 | Date: 12/7/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | Q3D0291 YSI 600QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | N/A | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | N/A | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 8.42 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 12.71 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 4.29 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 0.69 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 843 | | 0 | N/A | 20.67 | 6.79 | 4.254 | 3.23 | | 27 | In well reading. |
| 12/7/2005 | 847 | | 0.75 | N/A | 21.14 | 6.83 | 4.37 | 4.87 | 200.00 | -13 | Gray water, odor |
| 12/7/2005 | 849 | | 1.5 | N/A | 22.62 | 6.59 | 4.481 | 2.94 | 400.00 | -23 | |
| 12/7/2005 | 850 | | 2.25 | N/A | 22.84 | 6.55 | 4.553 | 3.14 | 400.00 | -26 | |
| 12/7/2005 | 854 | | 0 | N/A | 22.98 | 6.56 | 4.568 | 4.55 | | -30 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | SS-17 | Location ID: | MW-BX-02 | Date: 12/7/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | N/A | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | N/A | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 5.30 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 12.51 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 7.21 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.15 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 812 | | 0 | N/A | 17.48 | 6.86 | 5.006 | 3.59 | | -65 | In well reading. |
| 12/7/2005 | 817 | | 1.17 | N/A | 16.74 | 6.74 | 5.002 | 4.99 | 210.00 | -80 | Black water, strong odor, insects in well. |
| 12/7/2005 | 819 | | 2.34 | N/A | 19.33 | 6.56 | 5.25 | 3.43 | 150.00 | -85 | |
| 12/7/2005 | 822 | | 3.51 | N/A | 19.39 | 6.48 | 5.321 | 2.83 | 140.00 | -88 | |
| 12/7/2005 | 826 | | 0 | N/A | 19.82 | 6.44 | 5.54 | 3.56 | | -81 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-17 | Location ID: W4 | Date: 12/7/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: N/A | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: N/A | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 7.16 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 14.02 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 6.86 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.10 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/2005 | 904 | | 0 | N/A | 19.61 | 6.94 | 2.722 | 6.00 | | 50 | In well reading. |
| 12/7/2005 | 910 | | 1 | N/A | 19.26 | 6.82 | 2.681 | 5.17 | over | 67 | |
| 12/7/2005 | 911 | | 2 | N/A | 19.01 | 6.78 | 2.678 | 4.92 | over | 69 | |
| 12/7/2005 | 913 | | 3 | N/A | 19.86 | 6.76 | 2.748 | 4.68 | over | 74 | |
| 12/7/2005 | 914 | | 4 | N/A | 20 | 6.73 | 2.777 | 4.47 | over | 79 | |
| 12/7/2005 | 922 | | 0 | N/A | 19.94 | 6.70 | 2.778 | 5.23 | | 86 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-21 | Location ID: MW-21-01 | Date: 12/5/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 8.89 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 16.47 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 7.58 | Screen Length (in ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.21 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 956 | | 0 | N/A | 20.81 | 6.39 | 37.66 | 4.06 | | -89 | In well reading. |
| 12/5/2005 | 959 | | 1.33 | N/A | 20.82 | 6.41 | 38.27 | 4.06 | 150.00 | -71 | Slow recovery. |
| 12/5/2005 | 1001 | | 2.66 | N/A | 20.86 | 6.44 | 37.81 | 4.61 | 26.00 | -51 | |
| 12/5/2005 | 1004 | | 4 | N/A | 20.99 | 6.45 | 37.86 | 4.45 | 30.00 | -36 | |
| 12/5/2005 | 1014 | | 0 | N/A | 19.76 | 6.53 | 38.57 | 6.48 | | 151 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | LF-21 | Location ID: | MW-21-02 | Date: 12/5/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 10.94 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 15.73 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 4.79 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 0.77 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 855 | | 0 | N/A | 20.53 | 6.38 | 33.22 | 6.03 | | 86 | In well reading. |
| 12/5/2005 | 906 | | 0.83 | N/A | 18.99 | 6.39 | 30.67 | 8.45 | over | -122 | Soft bottom, roots in well, odor, gray color |
| 12/5/2005 | 918 | | 1.66 | N/A | 20.21 | 6.46 | 34.39 | 5.27 | 450.00 | -91 | |
| 12/5/2005 | 925 | | 2.5 | N/A | 19.6 | 6.50 | 34.16 | 6.34 | 445.00 | -94 | |
| 12/5/2005 | 941 | | 0 | N/A | 20.53 | 6.51 | 35.21 | 7.49 | | -42 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-21 | Location ID: MW-21-03 | Date: 12/5/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 10.14 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 16.10 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 5.96 | Screen Length (in ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 0.95 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 948 | | 0 | N/A | 19.46 | 6.27 | 37.25 | 5.66 | | 123 | In well reading. |
| 12/5/2005 | 954 | | 1 | N/A | 19.45 | 6.46 | 36.62 | 6.19 | 120.00 | -75 | Odor, roots in well. |
| 12/5/2005 | 956 | | 2 | N/A | 20.81 | 6.39 | 37.66 | 4.06 | 70.00 | -89 | |
| 12/5/2005 | 959 | | 3 | N/A | 20.82 | 6.41 | 38.27 | 4.06 | 60.00 | -71 | |
| 12/5/2005 | 1001 | | 4 | N/A | 20.86 | 6.44 | 37.81 | 4.61 | 34.00 | -51 | |
| 12/5/2005 | 1004 | | 5 | N/A | 20.99 | 6.45 | 37.86 | 4.45 | 36.00 | -36 | |
| 12/5/2005 | 1014 | | 0 | N/A | 19.76 | 6.53 | 38.57 | 6.48 | | 151 | In well reading. |

| **Colorimeter Results** | | | | | **No. Containers/Volume/Type** | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time** | **Analyte** | **Dilution** | **Result** | **Units** | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | LF-21 | Location ID: | MW-21-04 | Date: 12/5/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 8.67 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 13.40 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 4.73 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 0.76 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1022 | | 0 | N/A | 17.83 | 6.23 | 40.65 | 3.17 | | -159 | In well reading. |
| 12/5/2005 | 1028 | | 0.875 | N/A | 16.96 | 6.24 | 39.55 | 7.34 | 130.00 | -55 | Soft bottom, odor, black water. |
| 12/5/2005 | 1029 | | 1.75 | N/A | 19.21 | 6.26 | 40.72 | 4.80 | 130.00 | -53 | |
| 12/5/2005 | 1032 | | 2.625 | N/A | 19.4 | 6.30 | 41.19 | 3.90 | 60.00 | -40 | |
| 12/5/2005 | 1035 | | 3.5 | N/A | 19.41 | 6.28 | 41.54 | 4.23 | 55.00 | -35 | |
| 12/5/2005 | 1036 | | 0 | N/A | 19.03 | 6.28 | 41.59 | 5.18 | | -11 | In well reading. |

| **Colorimeter Results** | | | | | **No. Containers/Volume/Type** | | | **Preserv.** | **Filter (Y/N)** | **Method** | **Parameter(s)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time** | **Analyte** | **Dilution** | **Result** | **Units** | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-29 | Location ID: MW-29-01 | Date: 12/5/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 25.27 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 36.13 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 10.86 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.74 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1537 | | 0 | N/A | 18.41 | 6.90 | 36.31 | 9.55 | | 134 | In well reading. |
| 12/5/2005 | 1543 | | 1.83 | N/A | 18.35 | 7.18 | 36.16 | 9.90 | 260.00 | 149 | |
| 12/5/2005 | 1546 | | 3.66 | N/A | 18.62 | 7.10 | 37.48 | 9.56 | 190.00 | 147 | |
| 12/5/2005 | 1549 | | 5.5 | N/A | 18.64 | 7.06 | 38.11 | 9.72 | 185.00 | 146 | |
| 12/5/2005 | 1555 | | 0 | N/A | 18.69 | 7.07 | 36.82 | 9.58 | | 147 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| LOCATION | Site: | LF-29 | Location ID: | MW-29-03 | Date: 12/5/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| EQUIPMENT | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| WELL INFO | (A) Initial Depth to Water (ft BTOC): | 20.00 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 26.53 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 6.53 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.04 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| CASING INFO | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1331 | | 0 | N/A | 18.53 | 7.24 | 10.88 | 6.69 | | 156 | In well reading. |
| 12/5/2005 | 1338 | | 0.8 | N/A | 18.78 | 7.30 | 10.84 | 6.98 | 110.00 | 172 | Slow recovery. |
| 12/5/2005 | 1343 | | 1.6 | N/A | 19.27 | 7.18 | 10.93 | 4.97 | 45.00 | 132 | |
| 12/5/2005 | 1351 | | 2.4 | N/A | 19.29 | 7.21 | 10.97 | 5.63 | 34.00 | 98 | |
| 12/5/2005 | 1356 | | 3.2 | N/A | 19.26 | 7.22 | 10.98 | 5.73 | 11.00 | 95 | |
| 12/5/2005 | 1358 | | 4 | N/A | 19.3 | 7.22 | 10.95 | 5.88 | 12.00 | 96 | |
| 12/5/2005 | 1403 | | 0 | N/A | 19.27 | 7.22 | 10.99 | 6.58 | | 98 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-29 | Location ID: MW-29-04 | Date: 12/5/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 21.05 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 28.73 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 7.68 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.23 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/in ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1242 | | 0 | N/A | 19.25 | 7.14 | 10.95 | 8.42 | | 70 | In well reading. |
| 12/5/2005 | 1247 | | 1.33 | N/A | 18.11 | 7.14 | 12 | 7.55 | 260.00 | 116 | slow recovery |
| 12/5/2005 | 1256 | | 2.66 | N/A | 18.86 | 6.91 | 11.61 | 6.01 | 95.00 | 94 | |
| 12/5/2005 | 1307 | | 4 | N/A | 18.92 | 6.98 | 11.88 | 7.45 | 90.00 | 100 | |
| 12/5/2005 | 1313 | | 0 | N/A | 19.21 | 6.96 | 12.09 | 7.16 | | 106 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: LF-29 | Location ID: MW-29-05 | Date: 12/5/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 23.42 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 31.54 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 8.12 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.30 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1207 | | 0 | N/A | 18.63 | 6.38 | 22.99 | 6.62 | | 16 | In well reading. |
| 12/5/2005 | 1213 | | 1.33 | N/A | 17.57 | 6.85 | 22.8 | 6.53 | 45.00 | 68 | Soft bottom. |
| 12/5/2005 | 1215 | | 2.66 | N/A | 18.9 | 6.77 | 23.11 | 3.88 | 50.00 | 52 | |
| 12/5/2005 | 1218 | | 4 | N/A | 18.89 | 6.73 | 23.22 | 3.62 | 50.00 | 64 | |
| 12/5/2005 | 1229 | | 0 | N/A | 18.97 | 6.71 | 23.44 | 6.58 | | 59 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | LF-29 | Location ID: | MW-29-06 | Date: 12/5/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 23.82 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 32.50 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 8.68 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.39 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1515 | | 0 | N/A | 18.41 | 6.83 | 20.45 | 9.94 | | 125 | In well reading. |
| 12/5/2005 | 1516 | | 1.66 | N/A | 18.62 | 6.91 | 20.46 | 7.84 | 170.00 | 125 | |
| 12/5/2005 | 1519 | | 3.33 | N/A | 18.62 | 6.96 | 20.5 | 7.46 | 200.00 | 125 | |
| 12/5/2005 | 1521 | | 5 | N/A | 18.61 | 6.95 | 20.57 | 7.25 | 190.00 | 127 | |
| 12/5/2005 | 1528 | | 0 | N/A | 18.59 | 7.02 | 20.59 | 8.50 | | 139 | In well reading. |
| | | | | | | | | | | | |

**Colorimeter Results**

| Time | Analyte | Dilution | Result | Units |
|---|---|---|---|---|
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |

| No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|
| 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| LOCATION | Site: | LF-29 | Location ID: | MW-29-07 | Date: 12/5/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| EQUIPMENT | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| WELL INFO | (A) Initial Depth to Water (ft BTOC): | 21.27 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 29.04 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 7.77 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.24 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| CASING INFO | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1414 | | 0 | N/A | 18.79 | 6.80 | 20.49 | 4.43 | | 113 | In well reading. |
| 12/5/2005 | 1419 | | 1 | N/A | 18.36 | 7.07 | 20.21 | 6.94 | 140.00 | 147 | |
| 12/5/2005 | 1422 | | 2 | N/A | 18.65 | 6.93 | 20.29 | 4.84 | 210.00 | 137 | |
| 12/5/2005 | 1425 | | 3 | N/A | 18.62 | 6.90 | 20.36 | 4.80 | 240.00 | 130 | |
| 12/5/2005 | 1429 | | 4 | N/A | 18.58 | 6.88 | 20.36 | 4.90 | 250.00 | 127 | |
| 12/5/2005 | 1434 | | 0 | N/A | 18.65 | 6.89 | 20.36 | 6.06 | | 127 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| LOCATION | Site: | LF-29 | Location ID: | MW-29-08 | Date: 12/5/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| EQUIPMENT | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| WELL INFO | (A) Initial Depth to Water (ft BTOC): | 23.60 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 29.19 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 5.59 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 0.89 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| CASING INFO | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1446 | | 0 | N/A | 18.97 | 6.82 | 16.31 | 5.24 | | 122 | In well reading. |
| 12/5/2005 | 1451 | | 0.875 | N/A | 18.25 | 6.97 | 16.37 | 7.47 | 55.00 | 147 | |
| 12/5/2005 | 1453 | | 1.75 | N/A | 18.86 | 6.89 | 16.28 | 6.67 | 75.00 | 144 | |
| 12/5/2005 | 1456 | | 2.625 | N/A | 18.78 | 6.84 | 16.29 | 6.58 | 29.00 | 139 | |
| 12/5/2005 | 1457 | | 3.5 | N/A | 18.78 | 6.84 | 16.27 | 6.44 | 30.00 | 139 | |
| 12/5/2005 | 1503 | | 0 | N/A | 18.78 | 6.84 | 16.25 | 6.63 | | 141 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | DP-30/SD-33 | Location ID: | MW30&33-01 | Date: 12/4/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 21.03 | Casing: Type | PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 31.21 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 10.18 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.63 | Screen Info: Type: | Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/4/2005 | 1252 | | 0 | N/A | 18.93 | 6.96 | 27.63 | 6.72 | | 197 | In well reading. |
| 12/4/2005 | 1259 | | 1.25 | N/A | 17.74 | 7.13 | 27.25 | 4.48 | 240.00 | 223 | Soft bottom |
| 12/4/2005 | 1302 | | 2.5 | N/A | 18.62 | 6.97 | 27.45 | 3.40 | 180.00 | 215 | |
| 12/4/2005 | 1305 | | 3.75 | N/A | 18.51 | 6.93 | 27.81 | 3.07 | over | 211 | |
| 12/4/2005 | 1308 | | 5 | N/A | 18.52 | 6.91 | 28.11 | 2.57 | 190.00 | 209 | |
| 12/4/2005 | 1319 | | 0 | N/A | 18.8 | 6.89 | 27.6 | 4.17 | | 205 | In well reading. |

**Colorimeter Results**

| Time | Analyte | Dilution | Result | Units |
|---|---|---|---|---|
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |

| No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|
| 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | DP-30/SD-33 | Location ID: | MW30&33-02 | Date: 12/4/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 23.03 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 31.70 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 8.67 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.39 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/4/2005 | 1052 | | 0 | N/A | 19.02 | 8.11 | 32.31 | 6.44 | | 265 | In well reading. |
| 12/4/2005 | 1103 | | 1.1 | N/A | 17.26 | 7.37 | 33.58 | 5.22 | 85.00 | 251 | |
| 12/4/2005 | 1109 | | 2.2 | N/A | 18.77 | 7.12 | 34.72 | 4.50 | 85.00 | 232 | |
| 12/4/2005 | 1116 | | 3.3 | N/A | 18.78 | 7.05 | 35.01 | 4.56 | 29.00 | 222 | |
| 12/4/2005 | 1118 | | 4.4 | N/A | 18.82 | 7.04 | 35.06 | 4.53 | 17.00 | 218 | |
| 12/4/2005 | 1120 | | 5.5 | N/A | 18.81 | 7.03 | 34.82 | 4.62 | 19.00 | 216 | |
| 12/4/2005 | 1204 | | 0 | N/A | 18.65 | 7.48 | 33.14 | 6.16 | | 222 | In well reading. |

| **Colorimeter Results** | | | | | **No. Containers/Volume/Type** | | | **Preserv.** | **Filter (Y/N)** | **Method** | **Parameter(s)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time** | **Analyte** | **Dilution** | **Result** | **Units** | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | DP-30/SD-33 | Location ID: | MW30&33-03 | Date: 12/4/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 21.96 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 26.58 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 4.62 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 0.74 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/4/2005 | 1215 | | 0 | N/A | 18.77 | 6.60 | 36.01 | 5.06 | | 221 | In well reading. |
| 12/4/2005 | 1220 | | 0.83 | N/A | 18.06 | 7.09 | 35.98 | 4.95 | 60.00 | 234 | Slow recovery |
| 12/4/2005 | 1227 | | 1.66 | N/A | 18.96 | 6.94 | 36.57 | 3.42 | 60.00 | 211 | |
| 12/4/2005 | 1233 | | 2.5 | N/A | 19.05 | 6.95 | 36.33 | 3.52 | 60.00 | 205 | |
| 12/4/2005 | 1235 | | 0 | N/A | 19.07 | 6.95 | 36.06 | 4.40 | | 204 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: DP-30/SD-33 | Location ID: MW30&33-04 | Date: 12/4/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 22.96 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 30.84 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 7.88 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.26 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/4/2005 | 1329 | | 0 | N/A | 18.81 | 6.83 | 26.46 | 7.16 | | 197 | In well reading. |
| 12/4/2005 | 1336 | | 1.375 | N/A | 17.77 | 7.16 | 25.75 | 5.16 | 650.00 | 222 | |
| 12/4/2005 | 1339 | | 2.75 | N/A | 18.49 | 7.02 | 26.28 | 3.08 | 350.00 | 216 | |
| 12/4/2005 | 1341 | | 4.125 | N/A | 18.59 | 7.01 | 26.32 | 2.69 | 300.00 | 213 | |
| 12/4/2005 | 1343 | | 5.5 | N/A | 18.66 | 7.00 | 26.42 | 2.77 | 305.00 | 211 | |
| 12/4/2005 | 1407 | | 0 | N/A | 18.65 | 6.98 | 26.48 | 4.41 | | 202 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

EBI-LATE
Environmental Engineers and Scientist

Page 1 of 1

| | | | | | |
|---|---|---|---|---|---|
| LOCATION | Site: | SS-39 | Location ID: | MW-39-01 | Date: 2/16/2006 |
| | Project Name: | LTM HAFB | Project No./Phase: | 9040238.11.02 | Recorded By: K. Germann |
| EQUIPMENT | Pump Type/ID#: | Bailer | Water Quality Meter/ID#: | YSI | PID Type/ID#: |
| | Water Level Indicator Type/ID#: | Geotech 100 | Other Equipment/ID#: | GeoTech | Decon Method: |
| | Tubing Type/Diameter (in): | | Other Equipment/ID#: | | PPE Level: D C B A |
| WELL INFO | (A) Initial Depth to Water (ft BTOC): | 24.97' | Casing: Type Sch 40 | Diam. (in) 2" | Weather: Clear, Cool |
| | (B) Total Well Depth (ft BTOC): | 29.56' | (E) Casing Volume Multiplier (gal/lin ft): | .16 gal/ft | Background PID (ppm): |
| | (C) Water Column Thickness (ft) (B-A): | 4.59' | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): |
| | (D) Well Volume (gal) (C x E): | 0.73 gal. | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): |

| CASING INFO | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/16/06 | 0942 | | .75 | N/A | 19.74 | 8.59 | 5.777 | 83.6 | 20 | 114 | slow Recovery |
| 2/16/06 | 0948 | | 1.00 | N/A | 19.03 | 7.94 | 5.957 | 76.5 | 40 | 175 | Bailed dry & Sampled. |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| | | | | | 1 | 500ml | Poly | None | N | 160.1 | TDS |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-39 | Location ID: MW-39-02 | Date: 12/5/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 18.47 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 27.10 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 8.63 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.38 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1645 | | 0 | N/A | 18.9 | 6.80 | 16.5 | 6.50 | | 163 | In well reading |
| 12/5/2005 | 1651 | | 1.66 | N/A | 17.69 | 6.96 | 17.73 | 8.06 | 14.00 | 175 | Roots in well |
| 12/5/2005 | 1653 | | 3.33 | N/A | 18.51 | 6.92 | 18.08 | 7.17 | 190.00 | 168 | |
| 12/5/2005 | 1655 | | 5 | N/A | 19.47 | 6.93 | 18.98 | 7.64 | 180.00 | 161 | |
| 12/5/2005 | 1659 | | 0 | N/A | 19.31 | 7.01 | 18.35 | 9.31 | | 155 | In well reading |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-39 | Location ID: MW-39-03 | Date: 12/5/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 8.10 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 15.54 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 7.44 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.19 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5/2005 | 1614 | | 0 | N/A | 15.91 | 7.57 | 12.85 | 6.78 | | 120 | In well reading |
| 12/5/2005 | 1622 | | 1.66 | N/A | 16.03 | 7.11 | 14.3 | 5.83 | over | 136 | Soft bottom, roots in well |
| 12/5/2005 | 1625 | | 3.33 | N/A | 17.51 | 6.86 | 16.24 | 3.88 | 75.00 | 115 | |
| 12/5/2005 | 1626 | | 5 | N/A | 17.26 | 6.83 | 16.62 | 3.87 | 70.00 | 114 | |
| 12/5/2005 | 1632 | | 0 | N/A | 16.72 | 7.03 | 14.42 | 6.80 | | 160 | In well reading |
| | | | | | | | | | | | |

**Colorimeter Results**

| Time | Analyte | Dilution | Result | Units |
|---|---|---|---|---|
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

| No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|
| 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

# MONITORING WELL SAMPLE COLLECTION FORM

BHATE
Environmental Engineers and Scientist

Page 1 of 1

| | | | | | |
|---|---|---|---|---|---|
| LOCATION | Site: | SS-39 | Location ID: | MW-39-04 | Date: 2/16/2006 |
| | Project Name: | LTM HAFB | Project No./Phase: | 90402 38.11.02 | Recorded By: K. Germann |
| EQUIPMENT | Pump Type/ID#: | Bailer | Water Quality Meter/ID#: | YSI | PID Type/ID#: |
| | Water Level Indicator Type/ID#: | Geotech 100 | Other Equipment/ID#: | Geotech | Decon Method: |
| | Tubing Type/Diameter (in): | | Other Equipment/ID#: | | PPE Level: D C B A |
| WELL INFO | (A) Initial Depth to Water (ft BTOC): | 20.21' | Casing: Type Sch 40 | Diam. (in) 2" | Weather: Clear, Cool |
| | (B) Total Well Depth (ft BTOC): | 25.24' | (E) Casing Volume Multiplier (gal/lin ft): | .16 gal/ft | Background PID (ppm): |
| | (C) Water Column Thickness (ft) (B-A): | 5.03 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): |
| | (D) Well Volume (gal) (C x E): | .80 gal | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): |

| CASING INFO | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/16/06 | 1018 | | .75 | N/A | 20.52 | 7.20 | 12,640 | 23.0 | 120 | -194 | BLACK WATER, ROOTS, odor |
| 2/16/06 | 1025 | | 1.00 | N/A | 20.02 | 7.29 | 13,550 | 33.2 | 60 | -183 | slow recovery, Bailed dry @ 1 gal. and sampled. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| | | | | | 1 | 500ml | Poly | None | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-46 | Location ID: MW-46-01 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 7.16 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 14.98 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 7.82 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.25 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier (gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1027 | | 0 | N/A | 24.1 | 7.10 | 9.393 | 3.22 | | 189 | In well reading. |
| 12/6/2005 | 1031 | | 1.33 | N/A | 23.82 | 7.25 | 9.365 | 3.72 | 95.00 | 192 | |
| 12/6/2005 | 1034 | | 2.66 | N/A | 24.45 | 7.20 | 9.456 | 2.54 | 110.00 | 184 | |
| 12/6/2005 | 1035 | | 4 | N/A | 24.59 | 7.21 | 9.494 | 2.95 | 117.00 | 181 | |
| 12/6/2005 | 1037 | | 0 | N/A | 24.11 | 7.21 | 9.449 | 2.58 | | 178 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-46 | Location ID: MW-46-02 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 6.82 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 9.73 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 2.91 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 0.47 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1004 | | 0 | N/A | 22.37 | 6.89 | 5.997 | 4.85 | | 161 | In well reading. |
| 12/6/2005 | 1010 | | 0.66 | N/A | 20.52 | 7.35 | 5.807 | 4.81 | 140.00 | 193 | |
| 12/6/2005 | 1012 | | 1.32 | N/A | 22.27 | 7.42 | 5.425 | 3.45 | 220.00 | 185 | |
| 12/6/2005 | 1014 | | 2 | N/A | 23.59 | 7.37 | 6.471 | 2.68 | 210.00 | 182 | |
| 12/6/2005 | 1018 | | 0 | N/A | 23.67 | 7.54 | 6.554 | 2.54 | | 179 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | SS-46 | Location ID: | MW-46-03 | Date: 12/6/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 7.29 | Casing: Type | PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 14.31 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 7.02 | Screen Length (in ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.12 | Screen Info: Type: | Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1045 | | 0 | N/A | 23.63 | 7.25 | 6.597 | 3.33 | | 184 | In well reading. |
| 12/6/2005 | 1051 | | 1 | N/A | 23.28 | 7.33 | 6.728 | 3.53 | 40.00 | 241 | |
| 12/6/2005 | 1053 | | 2 | N/A | 24.24 | 7.26 | 6.801 | 2.62 | 24.00 | 239 | |
| 12/6/2005 | 1055 | | 3 | N/A | 24.36 | 7.20 | 6.952 | 2.32 | 12.00 | 235 | |
| 12/6/2005 | 1056 | | 4 | N/A | 24.35 | 7.20 | 6.922 | 2.23 | 12.00 | 235 | |
| 12/6/2005 | 1100 | | 0 | N/A | 23.73 | 7.20 | 6.907 | 2.13 | | 228 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | SS-48 | Location ID: | S55-MW2 | Date: 12/6/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 6.96 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 17.85 | (E) Casing Volume Multiplier (gal/in ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 10.89 | Screen Length (in ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.74 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/in ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1301 | | 0 | N/A | 24.04 | 7.22 | 3.5 | 4.44 | | 166 | In well reading. |
| 12/6/2005 | 1307 | | 1.83 | N/A | 23.89 | 7.24 | 3.706 | 4.30 | 40.00 | 194 | Soft bottom. |
| 12/6/2005 | 1310 | | 3.66 | N/A | 24.12 | 7.15 | 4.233 | 2.70 | 40.00 | 187 | |
| 12/6/2005 | 1311 | | 5.5 | N/A | 23.47 | 7.24 | 3.72 | 3.37 | 39.00 | 185 | |
| 12/6/2005 | 1315 | | 0 | N/A | 23.91 | 7.24 | 3.571 | 4.58 | | 184 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 60106/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| LOCATION | Site: SS-48 | Location ID: S55-MW3 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| EQUIPMENT | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| WELL INFO | (A) Initial Depth to Water (ft BTOC): 5.73 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 17.20 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 11.47 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.84 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| CASING INFO | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1323 | | 0 | N/A | 23.76 | 6.92 | 5.438 | 2.44 | | -10 | In well reading. |
| 12/6/2005 | 1331 | | 1.83 | N/A | 23.71 | 7.18 | 5.892 | 3.74 | 65.00 | -187 | Soft bottom, odor, sheen on water. |
| 12/6/2005 | 1333 | | 3.66 | N/A | 24.29 | 7.14 | 5.881 | 2.10 | 180.00 | -203 | |
| 12/6/2005 | 1335 | | 5.5 | N/A | 24.34 | 7.18 | 5.818 | 1.75 | 190.00 | -197 | |
| 12/6/2005 | 1338 | | 0 | N/A | 24.16 | 7.17 | 5.72 | 3.27 | | -211 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| Conversions | Stabilization Criteria | | | | | | | | | | |
| 1 L = 0.28 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-48 | Location ID: S55-MW4 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 5.75 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 18.32 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 12.57 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 2.01 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1232 | | 0 | N/A | 22.3 | 7.38 | 3.819 | 2.81 | | 157 | In well reading. |
| 12/6/2005 | 1238 | | 1.4 | N/A | 22.47 | 7.21 | 4.871 | 5.44 | over | 206 | Soft bottom. |
| 12/6/2005 | 1240 | | 2.8 | N/A | 23.07 | 7.14 | 4.859 | 2.74 | 260.00 | 200 | |
| 12/6/2005 | 1245 | | 4.2 | N/A | 22.74 | 7.13 | 4.842 | 2.99 | 210.00 | 191 | |
| 12/6/2005 | 1247 | | 5.6 | N/A | 23.06 | 6.98 | 7.47 | 2.62 | 260.00 | 190 | |
| 12/6/2005 | 1249 | | 7 | N/A | 22.89 | 7.25 | 4.591 | 2.92 | 270.00 | 186 | |
| 12/6/2005 | 1252 | | 0 | N/A | 22.92 | 7.23 | 3.875 | 3.59 | | 185 | In well reading. |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-48 | Location ID: S55-MW5 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 5.15 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 18.44 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 13.29 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 2.13 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1345 | | 0 | N/A | 24.53 | 6.55 | 16.37 | 1.93 | | -240 | In well reading. |
| 12/6/2005 | 1350 | | 2.17 | N/A | 24.39 | 7.04 | 18.44 | 4.05 | 290.00 | -206 | Soft bottom, odor |
| 12/6/2005 | 1353 | | 4.33 | N/A | 25.02 | 7.02 | 18.83 | 2.87 | 330.00 | -216 | |
| 12/6/2005 | 1355 | | 6.5 | N/A | 25 | 7.01 | 19.87 | 2.87 | 330.00 | -216 | |
| 12/6/2005 | 1358 | | 0 | N/A | 24.81 | 7.29 | 10.31 | 3.83 | | -246 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | |
|---|---|---|---|
| **LOCATION** | Site: SS-48 | Location ID: S55-MW6 | Date: 12/6/2005 |
| | Project Name: LTM | Project No./Phase: | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: N/A | Water Quality Meter/ID#: O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: Heron | Other Equipment/ID#: | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): N/A | Other Equipment/ID#: | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): 5.57 | Casing: Type PVC Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): 17.33 | (E) Casing Volume Multiplier (gal/lin ft): 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): 11.76 | Screen Length (lin ft): Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): 1.88 | Screen Info: Type: Unk Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Riser/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.39 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1148 | | 0 | N/A | 22.02 | 7.25 | 3.738 | 6.07 | | 143 | In well reading. |
| 12/6/2005 | 1154 | | 2 | N/A | 22.29 | 7.18 | 7.518 | 3.68 | 150.00 | 176 | Soft bottom. |
| 12/6/2005 | 1156 | | 4 | N/A | 23.67 | 7.26 | 6.408 | 3.39 | 23.00 | 172 | |
| 12/6/2005 | 1158 | | 6 | N/A | 23.84 | 7.22 | 7.145 | 3.64 | 25.00 | 171 | |
| 12/6/2005 | 1201 | | 0 | N/A | 23.36 | 7.58 | 4.553 | 4.40 | | 169 | In well reading. |
| | | | | | | | | | | | |

| Colorimeter Results | | | | | No. Containers/Volume/Type | | | Preserv. | Filter (Y/N) | Method | Parameter(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Analyte | Dilution | Result | Units | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |

| Conversions | Stabilization Criteria | | | |
|---|---|---|---|---|
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 |
| | Cond | +/- 25 | ORP | +/- 10 |

# MONITORING WELL SAMPLE COLLECTION FORM

bhate associates
ENGINEERING, SCIENCE AND CONSTRUCTION



| | | | | | |
|---|---|---|---|---|---|
| **LOCATION** | Site: | SS-48 | Location ID: | S55-MW7 | Date: 12/6/2005 |
| | Project Name: | LTM | Project No./Phase: | | Recorded By: K. Germann |
| **EQUIPMENT** | Pump Type/ID#: | N/A | Water Quality Meter/ID#: | O3D0291 YSI 600 QS | PID Type/ID#: N/A |
| | Water Level Indicator Type/ID#: | Heron | Other Equipment/ID#: | | Decon Method: DI/Liquinox |
| | Tubing Type/Diameter (in): | N/A | Other Equipment/ID#: | | PPE Level: D C B A |
| **WELL INFO** | (A) Initial Depth to Water (ft BTOC): | 4.90 | Casing: Type PVC | Diam. (in) 2.0" | Weather: Clear, Breezy |
| | (B) Total Well Depth (ft BTOC): | 16.42 | (E) Casing Volume Multiplier (gal/lin ft): | 0.16 | Background PID (ppm): N/A |
| | (C) Water Column Thickness (ft) (B-A): | 11.52 | Screen Length (lin ft): | Unk | Breathing Zone PID (ppm): N/A |
| | (D) Well Volume (gal) (C x E): | 1.84 | Screen Info: Type: Unk | Size: Unk | Well Opening PID (ppm): N/A |

| **CASING INFO** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Riseer/Well Casing Inner Diameter (in) | 0.50 | 1.00 | 1.50 | 2.00 | 3.00 | 4.00 | 5.0 | 6.0 | 8.0 | 10 |
| (D) Casing Volume Multiplier(gal/lin ft) | 0.02 | 0.04 | 0.10 | 0.16 | 0.38 | 0.65 | 1.02 | 1.47 | 2.61 | 4.08 |

| DATE (mmddyy) | TIME (24 Hr) | Water Level (BTOC) | Volume Removed (gal) | Pumping Rate (gpm) | Temp (C) | pH | Cond. (mS/cm) | Dissolved Oxygen (mg/l) | Turbidity (NTU) | Oxidation Reduction Potential (mV) | Remarks (odor, clarity, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/2005 | 1213 | | 0 | N/A | 21.81 | 6.78 | 8.581 | 4.50 | | 197 | In well reading. |
| 12/6/2005 | 1216 | | 2 | N/A | 23.36 | 6.81 | 8.938 | 3.13 | 250.00 | 187 | Soft bottom. |
| 12/6/2005 | 1219 | | 4 | N/A | 23.32 | 6.84 | 8.744 | 3.47 | 85.00 | 181 | |
| 12/6/2005 | 1220 | | 6 | N/A | 23.08 | 6.85 | 8.714 | 3.47 | 80.00 | 177 | |
| 12/6/2005 | 1225 | | 0 | N/A | 23.1 | 6.79 | 8.699 | 3.55 | | 179 | In well reading. |
| | | | | | | | | | | | |

| **Colorimeter Results** | | | | | **No. Containers/Volume/Type** | | | **Preserv.** | **Filter (Y/N)** | **Method** | **Parameter(s)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time** | **Analyte** | **Dilution** | **Result** | **Units** | 3 | 40 ml | VOAs | HCL | N | 8260A | VOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8270C | SVOCs |
| N/A | N/A | N/A | N/A | N/A | 1 | 250 ml | Plastic | HNO3 | Y (.45) | 6010B/7470A | TAL Metals |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8081A | Pesticides/Organochlorides |
| N/A | N/A | N/A | N/A | N/A | 1 | 1 Liter | Glass Amber | - | N | 8151A | Herbicides |
| N/A | N/A | N/A | N/A | N/A | 1 | 500 ml | Plastic | - | N | 160.1 | TDS |
| **Conversions** | **Stabilization Criteria** | | | | | | | | | | |
| 1 L = 0.26 gals | Temp | +/- 0.5 | DO | +/- 0.2 | | | | | | | |
| 1 gal = 3.79 L | pH | +/- 0.1 | Turb | +/- 10 | | | | | | | |
| | Cond | +/- 25 | ORP | +/- 10 | | | | | | | |

# Appendix C-4

# Field Parameter Data Reports

LF-01 RPT
LF-01.DAT
-- Data Report --

From 12/08/05 11:15 to 12/08/05 13:46
Number of samples: 29

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Well |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/08/05 11:15 | 19.57 | 38.420 | 34.440 | 24.970 | 65.7 | 5.21 | 36 | 6.50 | -42.0 | 77 | 2 |
| 12/08/05 11:22 | 18.36 | 40.750 | 35.580 | 26.490 | 87.6 | 7.05 | 36 | 7.28 | -79.2 | 92 | 2 |
| 12/08/05 11:27 | 18.94 | 40.880 | 36.140 | 26.570 | 72.4 | 5.76 | 36 | 7.08 | -69.5 | 99 | 2 |
| 12/08/05 11:29 | 18.87 | 41.050 | 36.250 | 26.680 | 73.5 | 5.85 | 37 | 7.06 | -68.5 | 102 | 2 |
| 12/08/05 11:35 | 19.11 | 41.600 | 36.920 | 27.040 | 83.7 | 6.61 | 37 | 7.03 | -67.1 | 109 | 2 |
| 12/08/05 11:46 | 18.25 | 27.870 | 24.280 | 18.120 | 58.1 | 4.93 | 34 | 7.07 | -69.1 | 119 | 5 |
| 12/08/05 11:52 | 18.25 | 27.650 | 24.080 | 17.970 | 69.1 | 5.87 | 35 | 7.19 | -74.9 | 113 | 5 |
| 12/08/05 11:54 | 18.56 | 28.050 | 24.600 | 18.230 | 47.3 | 3.99 | 34 | 6.97 | -64.3 | 85 | 5 |
| 12/08/05 11:59 | 18.54 | 28.120 | 24.650 | 18.280 | 50.5 | 4.27 | 35 | 6.88 | -60.0 | 63 | 5 |
| 12/08/05 12:06 | 18.74 | 28.310 | 24.920 | 18.400 | 62.6 | 5.26 | 36 | 6.85 | -58.7 | 72 | 5 |
| 12/08/05 12:24 | 18.73 | 29.760 | 26.200 | 19.350 | 51.4 | 4.29 | 33 | 6.62 | -47.5 | -108 | 3 |
| 12/08/05 12:29 | 18.14 | 31.680 | 27.530 | 20.590 | 51.0 | 4.28 | 35 | 6.91 | -61.3 | -120 | 3 |
| 12/08/05 12:32 | 19.06 | 36.140 | 32.040 | 23.490 | 38.2 | 3.09 | 35 | 6.66 | -49.7 | -139 | 3 |
| 12/08/05 12:34 | 18.87 | 36.260 | 32.020 | 23.570 | 34.3 | 2.78 | 34 | 6.66 | -49.8 | -140 | 3 |
| 12/08/05 12:39 | 19.03 | 37.770 | 33.460 | 24.550 | 46.5 | 3.74 | 35 | 6.68 | -50.3 | -121 | 3 |
| 12/08/05 12:50 | 18.71 | 47.150 | 41.480 | 30.650 | 98.0 | 7.62 | 38 | 7.12 | -71.4 | 41 | 2 |
| 12/08/05 12:58 | 18.16 | 54.140 | 47.060 | 35.190 | 79.1 | 6.03 | 36 | 7.30 | -80.0 | 94 | 2 |
| 12/08/05 13:02 | 19.13 | 54.050 | 47.980 | 35.130 | 67.7 | 5.06 | 37 | 7.01 | -66.2 | 83 | 2 |
| 12/08/05 13:05 | 19.07 | 54.530 | 48.350 | 35.440 | 65.3 | 4.88 | 37 | 6.93 | -62.3 | 82 | 2 |
| 12/08/05 13:07 | 19.12 | 54.820 | 48.670 | 35.630 | 65.4 | 4.87 | 37 | 6.90 | -61.2 | 85 | 2 |
| 12/08/05 13:08 | 19.23 | 54.640 | 48.610 | 35.520 | 66.7 | 4.97 | 37 | 6.89 | -60.7 | 85 | 2 |
| 12/08/05 13:10 | 19.09 | 54.780 | 48.590 | 35.600 | 68.1 | 5.08 | 37 | 6.89 | -60.5 | 86 | 2 |
| 12/08/05 13:16 | 19.14 | 54.760 | 48.630 | 35.590 | 87.5 | 6.53 | 39 | 6.91 | -61.3 | 91 | 2 |
| 12/08/05 13:27 | 18.75 | 22.980 | 20.230 | 14.940 | 83.9 | 7.20 | 37 | 7.40 | -84.8 | 85 | 1 |
| 12/08/05 13:34 | 18.90 | 28.030 | 24.770 | 18.220 | 73.5 | 6.16 | 36 | 7.27 | -78.6 | 108 | 1 |
| 12/08/05 13:37 | 19.17 | 29.180 | 25.930 | 18.970 | 54.6 | 4.53 | 36 | 6.96 | -64.0 | 90 | 1 |
| 12/08/05 13:39 | 19.07 | 29.990 | 26.590 | 19.490 | 53.8 | 4.46 | 36 | 6.90 | -60.9 | 89 | 1 |
| 12/08/05 13:42 | 18.83 | 30.560 | 26.960 | 19.860 | 52.9 | 4.40 | 36 | 6.86 | -59.1 | 92 | 1 |
| 12/08/05 13:46 | 19.03 | 30.110 | 26.670 | 19.570 | 83.0 | 6.89 | 38 | 6.86 | -59.2 | 94 | 1 |

12/8/05

SS-02-05
SS-02-05.DAT
-- Data Report --

From 12/07/05 12:58 to 12/07/05 14:57
Number of samples: 21

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/07/05 12:58 | 21.52 | 3.556 | 3.319 | 2.311 | 81.5 | 7.11 | 36 | 7.58 | -93.6 | -10 | 3 |
| 12/07/05 13:04 | 21.05 | 4.526 | 4.185 | 2.942 | 72.3 | 6.35 | 35 | 7.39 | -84.3 | 17 | 3 |
| 12/07/05 13:06 | 21.50 | 7.083 | 6.609 | 4.604 | 51.7 | 4.46 | 34 | 7.27 | -78.8 | 15 | 3 |
| 12/07/05 13:09 | 21.55 | 7.699 | 7.191 | 5.004 | 48.5 | 4.18 | 34 | 7.41 | -85.4 | 15 | 3 |
| 12/07/05 13:12 | 21.98 | 3.832 | 3.612 | 2.491 | 65.4 | 5.65 | 35 | 8.09 | -117.8 | 20 | 3 |
| 12/07/05 13:37 | 18.99 | 72.810 | 64.450 | 47.330 | 61.2 | 4.21 | 34 | 5.88 | -12.3 | 78 | 6 |
| 12/07/05 13:43 | 19.27 | 72.420 | 64.490 | 47.070 | 58.1 | 3.99 | 34 | 6.70 | -51.3 | 67 | 6 |
| 12/07/05 13:45 | 19.72 | 72.350 | 65.050 | 47.020 | 42.5 | 2.89 | 34 | 6.70 | -51.4 | 73 | 6 |
| 12/07/05 13:47 | 19.87 | 72.570 | 65.470 | 47.170 | 39.5 | 2.68 | 34 | 6.72 | -52.4 | 77 | 6 |
| 12/07/05 13:51 | 20.23 | 72.360 | 65.760 | 47.030 | 42.3 | 2.86 | 36 | 6.72 | -52.4 | 81 | 6 |
| 12/07/05 14:04 | 17.20 | 84.170 | 71.620 | 54.710 | 62.0 | 4.18 | 36 | 6.58 | -45.7 | 112 | 8 |
| 12/07/05 14:09 | 18.31 | 85.010 | 74.160 | 55.260 | 55.9 | 3.67 | 37 | 6.63 | -48.0 | 96 | 8 |
| 12/07/05 14:11 | 19.42 | 84.320 | 75.330 | 54.810 | 33.6 | 2.17 | 36 | 6.60 | -46.9 | 89 | 8 |
| 12/07/05 14:13 | 20.09 | 83.820 | 75.960 | 54.490 | 31.0 | 1.99 | 36 | 6.60 | -46.7 | 87 | 8 |
| 12/07/05 14:20 | 19.82 | 84.150 | 75.820 | 54.700 | 38.8 | 2.50 | 37 | 6.59 | -46.2 | 85 | 8 |
| 12/07/05 14:31 | 19.29 | 15.150 | 13.490 | 9.844 | 35.8 | 3.13 | 36 | 7.02 | -66.5 | -282 | 5 |
| 12/07/05 14:37 | 19.10 | 15.810 | 14.020 | 10.270 | 55.4 | 4.85 | 37 | 7.19 | -74.6 | -260 | 5 |
| 12/07/05 14:43 | 19.75 | 15.090 | 13.580 | 9.807 | 33.1 | 2.87 | 33 | 6.82 | -57.3 | -253 | 5 |
| 12/07/05 14:51 | 19.86 | 15.210 | 13.720 | 9.889 | 41.5 | 3.59 | 33 | 6.89 | -60.5 | -245 | 5 |
| 12/07/05 14:53 | 19.89 | 15.250 | 13.760 | 9.914 | 46.2 | 3.99 | 33 | 6.90 | -61.2 | -243 | 5 |
| 12/07/05 14:57 | 20.17 | 14.940 | 13.570 | 9.714 | 51.6 | 4.44 | 33 | 6.97 | -64.3 | -236 | 5 |

SD-08
SD-08.DAT
-- Data Report --

From 12/07/05 09:42 to 12/07/05 12:37
Number of samples: 20

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/07/05 09:42 | 19.62 | 22.560 | 20.250 | 14.670 | 47.0 | 3.98 | 37 | 6.36 | -35.3 | 100 | 6 |
| 12/07/05 09:48 | 18.71 | 26.480 | 23.300 | 17.210 | 61.0 | 5.17 | 38 | 6.88 | -59.9 | 92 | 6 |
| 12/07/05 09:51 | 20.03 | 27.150 | 24.570 | 17.650 | 42.0 | 3.46 | 37 | 6.95 | -63.6 | 88 | 6 |
| 12/07/05 09:53 | 20.12 | 29.430 | 26.690 | 19.130 | 49.7 | 4.05 | 38 | 7.00 | -65.8 | 86 | 6 |
| 12/07/05 09:56 | 20.06 | 24.100 | 21.820 | 15.660 | 40.9 | 3.41 | 37 | 7.18 | -74.6 | 84 | 6 |
| 12/07/05 10:12 | 19.17 | 8.314 | 7.389 | 5.404 | 34.1 | 3.07 | 35 | 7.44 | -86.8 | 55 | 4 |
| 12/07/05 10:17 | 18.64 | 8.351 | 7.337 | 5.428 | 55.7 | 5.06 | 37 | 7.31 | -80.2 | -41 | 4 |
| 12/07/05 10:27 | 19.62 | 7.665 | 6.878 | 4.982 | 51.3 | 4.58 | 38 | 7.24 | -77.2 | -48 | 4 |
| 12/07/05 10:32 | 19.91 | 7.528 | 6.796 | 4.893 | 57.8 | 5.14 | 39 | 7.31 | -80.6 | -35 | 4 |
| 12/07/05 10:37 | 20.22 | 7.300 | 6.633 | 4.745 | 60.8 | 5.37 | 39 | 7.36 | -83.0 | -18 | 4 |
| 12/07/05 11:44 | 20.09 | 2.527 | 2.290 | 1.642 | 39.5 | 3.56 | 32 | 7.80 | -103.8 | -224 | 5 |
| 12/07/05 11:47 | 18.99 | 2.564 | 2.270 | 1.667 | 47.3 | 4.36 | 33 | 7.21 | -75.8 | -227 | 5 |
| 12/07/05 11:49 | 20.36 | 2.541 | 2.316 | 1.652 | 29.4 | 2.63 | 32 | 7.00 | -65.9 | -231 | 5 |
| 12/07/05 11:52 | 20.39 | 2.543 | 2.319 | 1.653 | 24.3 | 2.17 | 33 | 6.98 | -64.7 | -231 | 5 |
| 12/07/05 11:59 | 20.48 | 2.552 | 2.331 | 1.659 | 31.0 | 2.77 | 34 | 6.94 | -62.9 | -244 | 5 |
| 12/07/05 12:19 | 21.43 | 11.250 | 10.480 | 7.313 | 38.3 | 3.26 | 33 | 6.18 | -26.6 | -54 | 3 |
| 12/07/05 12:24 | 20.71 | 12.880 | 11.820 | 8.371 | 53.7 | 4.61 | 34 | 6.76 | -54.4 | -35 | 3 |
| 12/07/05 12:28 | 22.05 | 15.930 | 15.030 | 10.360 | 28.1 | 2.33 | 33 | 6.78 | -55.4 | -21 | 3 |
| 12/07/05 12:30 | 22.28 | 16.690 | 15.820 | 10.850 | 28.9 | 2.37 | 34 | 6.85 | -58.7 | -13 | 3 |
| 12/07/05 12:37 | 22.56 | 16.380 | 15.610 | 10.640 | 26.7 | 2.19 | 34 | 6.83 | -57.4 | 2 | 3 |

OT-16
OT-16.DAT
-- Data Report --

From 12/06/05 08:02 to 12/06/05 09:25
Number of samples: 20

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Well |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/06/05 08:02 | 17.79 | 3.777 | 3.257 | 2.455 | 73.9 | 6.94 | 40 | 8.31 | | 197.0 | 4 |
| 12/06/05 08:04 | 20.38 | 3.173 | 3.231 | 2.564 | 69.7 | 6.87 | 39 | 7.34 | | 220.6 | 4 |
| 12/06/05 08:06 | 21.66 | 3.098 | 3.096 | 2.345 | 43.0 | 5.43 | 37 | 7.24 | | 213.5 | 4 |
| 12/06/05 08:09 | 21.82 | 3.156 | 3.095 | 2.567 | 41.3 | 5.23 | 37 | 7.20 | | 206.4 | 4 |
| 12/06/05 08:15 | 21.69 | 3.196 | 3.451 | 2.654 | 40.6 | 5.24 | 39 | 7.19 | | 207.0 | 4 |
| 12/06/05 08:25 | 17.65 | 5.590 | 5.765 | 2.184 | 56.7 | 5.98 | 40 | 7.46 | | 79.7 | 2 |
| 12/06/05 08:28 | 18.24 | 5.770 | 5.789 | 2.314 | 56.2 | 5.01 | 39 | 7.46 | | 74.9 | 2 |
| 12/06/05 08:31 | 20.15 | 5.013 | 5.530 | 2.142 | 42.2 | 5.15 | 37 | 7.43 | | 232.8 | 2 |
| 12/06/05 08:33 | 22.25 | 5.243 | 5.397 | 2.745 | 44.6 | 5.24 | 34 | 7.46 | | 229.9 | 2 |
| 12/06/05 08:39 | 21.98 | 5.847 | 5.673 | 2.785 | 41.3 | 5.09 | 35 | 7.51 | | 234.6 | 2 |
| 12/06/05 08:45 | 17.99 | 3.867 | 3.978 | 2.745 | 69.5 | 6.94 | 41 | 7.94 | | 201.6 | 3 |
| 12/06/05 08:48 | 18.65 | 3.759 | 3.540 | 2.968 | 67.4 | 6.31 | 39 | 7.39 | | 214.3 | 3 |
| 12/06/05 08:52 | 20.64 | 3.657 | 3.912 | 2.759 | 39.4 | 4.32 | 34 | 7.26 | | 207.6 | 3 |
| 12/06/05 08:55 | 20.63 | 3.134 | 3.981 | 2.184 | 37.1 | 4.27 | 34 | 7.21 | | 202.3 | 3 |
| 12/06/05 09:00 | 20.56 | 3.776 | 3.385 | 2.534 | 37.1 | 4.23 | 34 | 7.43 | | 202.7 | 3 |
| 12/06/05 09:10 | 17.96 | 5.654 | 6.767 | 2.199 | 39.7 | 4.99 | 41 | 7.39 | | 210.6 | 1 |
| 12/06/05 09:13 | 17.56 | 5.340 | 6.453 | 2.765 | 52.9 | 5.66 | 40 | 7.44 | | 212.3 | 1 |
| 12/06/05 09:15 | 20.52 | 5.897 | 4.010 | 2.453 | 43.0 | 5.41 | 36 | 7.24 | | 213.5 | 1 |
| 12/06/05 09:19 | 21.65 | 5.867 | 4.956 | 2.174 | 40.4 | 4.98 | 36 | 7.56 | | 212.9 | 1 |
| 12/06/05 09:25 | 21.65 | 5.001 | 4.343 | 2.123 | 39.6 | 4.63 | 35 | 7.68 | | 209.4 | 1 |

12/6/05

SS-17
SS-17.DAT
-- Data Report --

From 12/07/05 08:12 to 12/07/05 09:22
Number of samples: 16

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/07/05 08:12 | 17.48 | 5.846 | 5.006 | 3.800 | 38.3 | 3.59 | 38 | 6.86 | -59.3 | -65 | 2 |
| 12/07/05 08:17 | 16.74 | 5.938 | 5.002 | 3.860 | 52.3 | 4.99 | 39 | 6.74 | -53.5 | -80 | 2 |
| 12/07/05 08:19 | 19.33 | 5.888 | 5.250 | 3.827 | 37.9 | 3.43 | 39 | 6.56 | -44.6 | -85 | 2 |
| 12/07/05 08:22 | 19.39 | 5.959 | 5.321 | 3.873 | 31.4 | 2.83 | 39 | 6.48 | -41.1 | -88 | 2 |
| 12/07/05 08:26 | 19.82 | 6.148 | 5.540 | 3.996 | 39.8 | 3.56 | 39 | 6.44 | -39.2 | -81 | 2 |
| 12/07/05 08:43 | 20.67 | 4.638 | 4.254 | 3.015 | 36.5 | 3.23 | 37 | 6.79 | -55.9 | 27 | 1 |
| 12/07/05 08:47 | 21.14 | 4.719 | 4.370 | 3.067 | 55.6 | 4.87 | 39 | 6.83 | -57.6 | -13 | 1 |
| 12/07/05 08:49 | 22.62 | 4.694 | 4.481 | 3.051 | 34.5 | 2.94 | 38 | 6.59 | -46.0 | -23 | 1 |
| 12/07/05 08:50 | 22.84 | 4.750 | 4.553 | 3.087 | 37.0 | 3.14 | 39 | 6.55 | -44.2 | -26 | 1 |
| 12/07/05 08:54 | 22.98 | 4.751 | 4.568 | 3.088 | 53.8 | 4.55 | 40 | 6.56 | -44.3 | -30 | 1 |
| 12/07/05 09:04 | 19.61 | 3.034 | 2.722 | 1.972 | 66.1 | 6.00 | 39 | 6.94 | -62.8 | 50 | 4 |
| 12/07/05 09:10 | 19.26 | 3.012 | 2.681 | 1.958 | 56.6 | 5.17 | 39 | 6.82 | -57.1 | 67 | 4 |
| 12/07/05 09:11 | 19.01 | 3.024 | 2.678 | 1.966 | 53.6 | 4.92 | 39 | 6.78 | -55.4 | 69 | 4 |
| 12/07/05 09:13 | 19.86 | 3.047 | 2.748 | 1.981 | 51.8 | 4.68 | 39 | 6.76 | -54.1 | 74 | 4 |
| 12/07/05 09:14 | 20.00 | 3.070 | 2.777 | 1.996 | 49.6 | 4.47 | 39 | 6.73 | -52.9 | 79 | 4 |
| 12/07/05 09:22 | 19.94 | 3.075 | 2.778 | 1.999 | 58.0 | 5.23 | 39 | 6.70 | -51.6 | 86 | 4 |

LF-21
LF-21.DAT
-- Data Report --

From 12/05/05 08:01 to 12/05/05 10:56
Number of samples: 23

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/05/05 08:01 | 21.32 | 14.510 | 13.500 | 9.434 | 123.2 | 10.39 | 43 | 8.33 | -130.6 | 248 | 1 |
| 12/05/05 08:12 | 19.76 | 14.630 | 13.160 | 9.507 | 123.2 | 10.70 | 41 | 7.77 | -102.7 | 320 | 1 |
| 12/05/05 08:21 | 21.27 | 15.240 | 14.160 | 9.908 | 62.8 | 5.29 | 39 | 7.06 | -67.8 | 106 | 1 |
| 12/05/05 08:34 | 21.36 | 15.510 | 14.430 | 10.080 | 73.8 | 6.19 | 40 | 7.05 | -67.4 | 133 | 1 |
| 12/05/05 08:45 | 21.95 | 16.030 | 15.100 | 10.420 | 91.4 | 7.58 | 41 | 7.09 | -69.4 | 145 | 1 |
| 12/05/05 08:55 | 20.53 | 36.320 | 33.220 | 23.610 | 76.7 | 6.03 | 38 | 6.38 | -34.8 | 86 | 2 |
| 12/05/05 09:06 | 18.99 | 34.650 | 30.670 | 22.520 | 103.7 | 8.45 | 40 | 6.39 | -35.2 | -122 | 2 |
| 12/05/05 09:18 | 20.21 | 37.860 | 34.390 | 24.610 | 67.1 | 5.27 | 40 | 6.46 | -38.4 | -91 | 2 |
| 12/05/05 09:25 | 19.60 | 38.090 | 34.160 | 24.760 | 79.9 | 6.34 | 40 | 6.50 | -40.7 | -94 | 2 |
| 12/05/05 09:41 | 20.53 | 38.500 | 35.210 | 25.020 | 96.2 | 7.49 | 41 | 6.51 | -41.0 | -42 | 2 |
| 12/05/05 09:48 | 19.46 | 41.650 | 37.250 | 27.070 | 72.1 | 5.66 | 39 | 6.27 | -29.6 | 123 | 3 |
| 12/05/05 09:54 | 19.45 | 40.960 | 36.620 | 26.620 | 78.7 | 6.19 | 40 | 6.46 | -38.5 | -75 | 3 |
| 12/05/05 09:56 | 20.81 | 40.930 | 37.660 | 26.610 | 52.9 | 4.06 | 39 | 6.39 | -35.3 | -89 | 3 |
| 12/05/05 09:59 | 20.82 | 41.590 | 38.270 | 27.040 | 53.1 | 4.06 | 39 | 6.41 | -36.3 | -71 | 3 |
| 12/05/05 10:01 | 20.86 | 41.060 | 37.810 | 26.690 | 60.2 | 4.61 | 40 | 6.44 | -37.5 | -51 | 3 |
| 12/05/05 10:04 | 20.99 | 41.000 | 37.860 | 26.650 | 58.2 | 4.45 | 39 | 6.45 | -37.9 | -36 | 3 |
| 12/05/05 10:14 | 19.76 | 42.870 | 38.570 | 27.860 | 83.5 | 6.48 | 40 | 6.53 | -42.1 | 151 | 3 |
| 12/05/05 10:22 | 17.83 | 47.100 | 40.650 | 30.620 | 40.1 | 3.17 | 37 | 6.23 | -27.9 | -159 | 4 |
| 12/05/05 10:28 | 16.96 | 46.720 | 39.550 | 30.360 | 91.2 | 7.34 | 40 | 6.24 | -28.4 | -55 | 4 |
| 12/05/05 10:29 | 19.21 | 45.790 | 40.720 | 29.760 | 62.0 | 4.80 | 39 | 6.26 | -28.9 | -53 | 4 |
| 12/05/05 10:32 | 19.40 | 46.130 | 41.190 | 29.980 | 50.6 | 3.90 | 39 | 6.30 | -30.8 | -40 | 4 |
| 12/05/05 10:35 | 19.41 | 46.510 | 41.540 | 30.230 | 55.0 | 4.23 | 39 | 6.28 | -30.1 | -35 | 4 |
| 12/05/05 10:56 | 19.03 | 46.940 | 41.590 | 30.510 | 66.9 | 5.18 | 39 | 6.28 | -29.9 | -11 | 4 |

12/05/05

LF-29
LF-29.DAT
-- Data Report --

From 12/05/05 12:07 to 12/05/05 15:55
Number of samples: 39

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/05/05 12:07 | 18.63 | 26.170 | 22.990 | 17.010 | 78.0 | 6.62 | 37 | 6.38 | -34.8 | 16 | 5 |
| 12/05/05 12:13 | 17.57 | 26.570 | 22.800 | 17.270 | 75.4 | 6.53 | 37 | 6.85 | -57.9 | 68 | 5 |
| 12/05/05 12:15 | 18.90 | 26.160 | 23.110 | 17.000 | 45.9 | 3.88 | 37 | 6.77 | -53.7 | 52 | 5 |
| 12/05/05 12:18 | 18.89 | 26.280 | 23.220 | 17.090 | 42.8 | 3.62 | 37 | 6.73 | -52.0 | 64 | 5 |
| 12/05/05 12:29 | 18.97 | 26.500 | 23.440 | 17.220 | 78.0 | 6.58 | 40 | 6.71 | -50.9 | 59 | 5 |
| 12/05/05 12:42 | 19.25 | 12.300 | 10.950 | 7.997 | 95.1 | 8.42 | 39 | 7.14 | -71.7 | 70 | 4 |
| 12/05/05 12:47 | 18.11 | 13.820 | 12.000 | 8.985 | 83.8 | 7.55 | 39 | 7.14 | -72.0 | 116 | 4 |
| 12/05/05 12:56 | 18.86 | 13.150 | 11.610 | 8.550 | 67.6 | 6.01 | 39 | 6.91 | -60.8 | 94 | 4 |
| 12/05/05 13:07 | 18.92 | 13.430 | 11.880 | 8.732 | 84.0 | 7.45 | 40 | 6.98 | -63.9 | 100 | 4 |
| 12/05/05 13:13 | 19.21 | 13.590 | 12.090 | 8.834 | 81.2 | 7.16 | 39 | 6.96 | -63.2 | 106 | 4 |
| 12/05/05 13:31 | 18.53 | 12.410 | 10.880 | 8.070 | 74.5 | 6.69 | 37 | 7.24 | -76.8 | 156 | 3 |
| 12/05/05 13:38 | 18.78 | 12.310 | 10.840 | 7.999 | 78.1 | 6.98 | 38 | 7.30 | -79.6 | 172 | 3 |
| 12/05/05 13:43 | 19.27 | 12.270 | 10.930 | 7.975 | 56.2 | 4.97 | 37 | 7.18 | -73.9 | 132 | 3 |
| 12/05/05 13:51 | 19.29 | 12.320 | 10.970 | 8.005 | 63.6 | 5.63 | 38 | 7.21 | -75.3 | 98 | 3 |
| 12/05/05 13:56 | 19.26 | 12.330 | 10.980 | 8.017 | 64.8 | 5.73 | 38 | 7.22 | -75.7 | 95 | 3 |
| 12/05/05 13:58 | 19.30 | 12.280 | 10.950 | 7.985 | 66.5 | 5.88 | 38 | 7.22 | -75.9 | 96 | 3 |
| 12/05/05 14:03 | 19.27 | 12.340 | 10.990 | 8.024 | 74.4 | 6.58 | 38 | 7.22 | -75.8 | 98 | 3 |
| 12/05/05 14:14 | 18.79 | 23.250 | 20.490 | 15.120 | 51.7 | 4.43 | 37 | 6.80 | -55.4 | 113 | 7 |
| 12/05/05 14:19 | 18.36 | 23.150 | 20.210 | 15.050 | 80.3 | 6.94 | 38 | 7.07 | -68.4 | 147 | 7 |
| 12/05/05 14:22 | 18.65 | 23.090 | 20.290 | 15.010 | 56.3 | 4.84 | 37 | 6.93 | -61.5 | 137 | 7 |
| 12/05/05 14:25 | 18.62 | 23.190 | 20.360 | 15.070 | 55.9 | 4.80 | 37 | 6.90 | -60.2 | 130 | 7 |
| 12/05/05 14:29 | 18.58 | 23.210 | 20.360 | 15.080 | 56.9 | 4.90 | 38 | 6.88 | -59.1 | 127 | 7 |
| 12/05/05 14:34 | 18.65 | 23.170 | 20.360 | 15.060 | 70.5 | 6.06 | 39 | 6.89 | -59.5 | 127 | 7 |
| 12/05/05 14:46 | 18.97 | 25.090 | 22.200 | 16.310 | 61.9 | 5.24 | 38 | 6.82 | -56.2 | 122 | 8 |
| 12/05/05 14:51 | 18.25 | 25.190 | 21.940 | 16.370 | 87.0 | 7.47 | 39 | 6.97 | -63.7 | 147 | 8 |
| 12/05/05 14:53 | 18.86 | 25.040 | 22.100 | 16.280 | 78.5 | 6.67 | 39 | 6.89 | -59.5 | 144 | 8 |
| 12/05/05 14:56 | 18.78 | 25.070 | 22.090 | 16.290 | 77.3 | 6.58 | 39 | 6.84 | -57.4 | 139 | 8 |
| 12/05/05 14:57 | 18.78 | 25.030 | 22.050 | 16.270 | 75.6 | 6.44 | 39 | 6.84 | -57.1 | 139 | 8 |
| 12/05/05 15:03 | 18.78 | 25.000 | 22.020 | 16.250 | 77.9 | 6.63 | 39 | 6.84 | -57.3 | 141 | 8 |
| 12/05/05 15:15 | 18.41 | 23.400 | 20.450 | 15.210 | 115.2 | 9.94 | 40 | 6.83 | -57.0 | 125 | 6 |
| 12/05/05 15:16 | 18.62 | 23.300 | 20.460 | 15.140 | 91.2 | 7.84 | 39 | 6.91 | -60.9 | 125 | 6 |
| 12/05/05 15:19 | 18.62 | 23.340 | 20.500 | 15.170 | 86.8 | 7.46 | 39 | 6.96 | -63.1 | 125 | 6 |
| 12/05/05 15:21 | 18.61 | 23.430 | 20.570 | 15.230 | 84.4 | 7.25 | 39 | 6.95 | -62.7 | 127 | 6 |
| 12/05/05 15:28 | 18.59 | 23.460 | 20.590 | 15.250 | 98.9 | 8.50 | 40 | 7.02 | -66.2 | 139 | 6 |
| 12/05/05 15:37 | 18.41 | 41.540 | 36.310 | 27.000 | 119.3 | 9.55 | 40 | 6.90 | -60.0 | 134 | 1 |
| 12/05/05 15:43 | 18.35 | 41.430 | 36.160 | 26.930 | 123.4 | 9.90 | 40 | 7.18 | -73.7 | 149 | 1 |
| 12/05/05 15:46 | 18.62 | 42.680 | 37.480 | 27.740 | 120.5 | 9.56 | 40 | 7.10 | -69.8 | 147 | 1 |

LF-29

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/05/05 15:49 | 18.64 | 43.380 | 38.110 | 28.190 | 123.0 | 9.72 | 41 | 7.06 | -68.1 | 146 | 1 |
| 12/05/05 15:55 | 18.69 | 41.870 | 36.820 | 27.210 | 120.4 | 9.58 | 41 | 7.07 | -68.7 | 147 | 1 |

30-33
30-33.DAT
-- Data Report --

From 12/04/05 10:52 to 12/04/05 14:07
Number of samples: 24

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % | DO % | ConcDO mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/04/05 10:52 | 19.02 | 36.480 | 32.310 | 23.710 | 79.7 | | 6.44 | 40 | 8.11 | -111.5 | 265 | 2 |
| 12/04/05 11:03 | 17.26 | 39.400 | 33.580 | 25.610 | 63.2 | | 5.22 | 39 | 7.37 | -76.7 | 251 | 2 |
| 12/04/05 11:09 | 18.77 | 39.410 | 34.720 | 25.610 | 56.1 | | 4.50 | 39 | 7.12 | -65.1 | 232 | 2 |
| 12/04/05 11:16 | 18.78 | 39.730 | 35.010 | 25.820 | 57.0 | | 4.56 | 40 | 7.05 | -62.0 | 222 | 2 |
| 12/04/05 11:18 | 18.82 | 39.750 | 35.060 | 25.840 | 56.7 | | 4.53 | 40 | 7.04 | -61.7 | 218 | 2 |
| 12/04/05 11:20 | 18.81 | 39.490 | 34.820 | 25.670 | 57.7 | | 4.62 | 40 | 7.03 | -61.1 | 216 | 2 |
| 12/04/05 12:04 | 18.65 | 37.720 | 33.140 | 24.520 | 76.1 | | 6.16 | 41 | 7.48 | -82.2 | 222 | 2 |
| 12/04/05 12:15 | 18.77 | 40.860 | 36.010 | 26.560 | 63.5 | | 5.06 | 39 | 6.60 | -41.2 | 221 | 3 |
| 12/04/05 12:20 | 18.06 | 41.470 | 35.980 | 26.960 | 61.4 | | 4.95 | 39 | 7.09 | -63.6 | 234 | 3 |
| 12/04/05 12:27 | 18.96 | 41.340 | 36.570 | 26.870 | 43.1 | | 3.42 | 38 | 6.94 | -57.0 | 211 | 3 |
| 12/04/05 12:33 | 19.05 | 40.990 | 36.330 | 26.640 | 44.4 | | 3.52 | 40 | 6.95 | -57.2 | 205 | 3 |
| 12/04/05 12:35 | 19.07 | 40.660 | 36.060 | 26.430 | 55.4 | | 4.40 | 41 | 6.95 | -57.1 | 204 | 3 |
| 12/04/05 12:52 | 18.93 | 31.260 | 27.630 | 20.320 | 81.3 | | 6.72 | 42 | 6.96 | -57.6 | 197 | 1 |
| 12/04/05 12:59 | 17.74 | 31.640 | 27.250 | 20.560 | 53.0 | | 4.48 | 39 | 7.13 | -65.7 | 223 | 1 |
| 12/04/05 13:02 | 18.62 | 31.260 | 27.450 | 20.320 | 40.9 | | 3.40 | 39 | 6.97 | -58.5 | 215 | 1 |
| 12/04/05 13:05 | 18.51 | 31.750 | 27.810 | 20.640 | 36.8 | | 3.07 | 39 | 6.93 | -56.4 | 211 | 1 |
| 12/04/05 13:08 | 18.52 | 32.080 | 28.110 | 20.850 | 30.9 | | 2.57 | 39 | 6.91 | -55.3 | 209 | 1 |
| 12/04/05 13:19 | 18.80 | 31.310 | 27.600 | 20.350 | 50.2 | | 4.17 | 41 | 6.89 | -54.3 | 205 | 1 |
| 12/04/05 13:29 | 18.81 | 30.010 | 26.460 | 19.500 | 85.9 | | 7.16 | 42 | 6.83 | -51.6 | 197 | 4 |
| 12/04/05 13:36 | 17.77 | 29.870 | 25.750 | 19.420 | 60.6 | | 5.16 | 40 | 7.16 | -67.3 | 222 | 4 |
| 12/04/05 13:39 | 18.49 | 30.010 | 26.280 | 19.510 | 36.8 | | 3.08 | 39 | 7.02 | -60.7 | 216 | 4 |
| 12/04/05 13:41 | 18.59 | 29.990 | 26.320 | 19.490 | 32.1 | | 2.69 | 39 | 7.01 | -60.2 | 213 | 4 |
| 12/04/05 13:43 | 18.66 | 30.060 | 26.420 | 19.540 | 33.1 | | 2.77 | 39 | 7.00 | -59.5 | 211 | 4 |
| 12/04/05 14:07 | 18.65 | 30.130 | 26.480 | 19.580 | 52.8 | | 4.41 | 40 | 6.98 | -58.6 | 202 | 4 |

12/4/05

SS-39
SS-39.DAT
-- Data Report --

From 12/05/05 16:14 to 12/05/05 16:59
Number of samples: 10

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/05/05 16:14 | 15.91 | 15.550 | 12.850 | 10.110 | 72.5 | 6.78 | 36 | 7.57 | -92.6 | 120 | 3 |
| 12/05/05 16:22 | 16.03 | 17.260 | 14.300 | 11.220 | 62.9 | 5.83 | 37 | 7.11 | -70.3 | 136 | 3 |
| 12/05/05 16:25 | 17.51 | 18.960 | 16.240 | 12.320 | 43.5 | 3.88 | 36 | 6.86 | -58.1 | 115 | 3 |
| 12/05/05 16:26 | 17.26 | 19.510 | 16.620 | 12.680 | 43.2 | 3.87 | 37 | 6.83 | -56.6 | 114 | 3 |
| 12/05/05 16:32 | 16.72 | 17.130 | 14.420 | 11.140 | 74.3 | 6.80 | 38 | 7.03 | -66.4 | 160 | 3 |
| 12/05/05 16:45 | 18.90 | 18.670 | 16.500 | 12.140 | 74.7 | 6.50 | 37 | 6.80 | -55.2 | 163 | 2 |
| 12/05/05 16:51 | 17.69 | 20.610 | 17.730 | 13.390 | 91.1 | 8.06 | 39 | 6.96 | -63.1 | 175 | 2 |
| 12/05/05 16:53 | 18.51 | 20.640 | 18.080 | 13.420 | 82.4 | 7.17 | 39 | 6.92 | -61.4 | 168 | 2 |
| 12/05/05 16:55 | 19.47 | 21.230 | 18.980 | 13.800 | 89.6 | 7.64 | 39 | 6.93 | -61.4 | 161 | 2 |
| 12/05/05 16:59 | 19.31 | 20.580 | 18.350 | 13.380 | 108.6 | 9.31 | 41 | 7.01 | -65.4 | 155 | 2 |

12/5/05

SS-39 2162006

SS-39.DAT

-- Data Report --

From 02/16/06 09:42 to 02/16/06 10:25

Number of samples: 4

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | pH | ORP mV | Well |
|---|---|---|---|---|---|---|---|---|---|
| 02/16/06 09:42 | 19.74 | 6.423 | 5.777 | 4.175 | 83.6 | 7.49 | 8.59 | 114 | 1 |
| 02/16/06 09:48 | 19.03 | 6.758 | 5.987 | 4.392 | 76.5 | 6.94 | 7.94 | 175 | 1 |
| 02/16/06 10:18 | 20.56 | 13.820 | 12.640 | 8.980 | 23.0 | 1.97 | 7.20 | -194 | 4 |
| 02/16/06 10:25 | 20.02 | 13.900 | 12.580 | 9.035 | 33.2 | 2.88 | 7.29 | -183 | 4 |

SS-46
SS-46.DAT
-- Data Report --

From 12/06/05 10:04 to 12/06/05 13:23
Number of samples: 16

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/06/05 10:04 | 22.37 | 6.314 | 5.997 | 4.104 | 56.9 | 4.85 | 36 | 6.89 | -60.6 | 161 | 2 |
| 12/06/05 10:10 | 20.52 | 6.349 | 5.807 | 4.127 | 54.6 | 4.81 | 36 | 7.35 | -82.5 | 193 | 2 |
| 12/06/05 10:12 | 22.27 | 5.723 | 5.425 | 3.720 | 40.3 | 3.45 | 35 | 7.42 | -86.0 | 185 | 2 |
| 12/06/05 10:14 | 23.59 | 6.649 | 6.471 | 4.322 | 32.3 | 2.68 | 35 | 7.37 | -83.8 | 182 | 2 |
| 12/06/05 10:18 | 23.67 | 6.756 | 6.554 | 4.655 | 33.5 | 2.54 | 34 | 7.54 | -88.5 | 179 | 2 |
| 12/06/05 10:27 | 24.10 | 9.557 | 9.393 | 6.212 | 39.5 | 3.22 | 35 | 7.10 | -70.7 | 189 | 1 |
| 12/06/05 10:31 | 23.82 | 9.581 | 9.365 | 6.228 | 45.5 | 3.72 | 36 | 7.25 | -77.7 | 192 | 1 |
| 12/06/05 10:34 | 24.45 | 9.556 | 9.456 | 6.211 | 31.3 | 2.54 | 36 | 7.20 | -75.3 | 184 | 1 |
| 12/06/05 10:35 | 24.59 | 9.569 | 9.494 | 6.220 | 36.5 | 2.95 | 36 | 7.21 | -75.7 | 181 | 1 |
| 12/06/05 10:37 | 24.11 | 9.612 | 9.449 | 6.248 | 31.6 | 2.58 | 36 | 7.21 | -75.9 | 178 | 1 |
| 12/06/05 10:45 | 23.63 | 6.775 | 6.597 | 4.404 | 40.1 | 3.33 | 36 | 7.25 | -77.9 | 184 | 3 |
| 12/06/05 10:51 | 23.28 | 6.957 | 6.728 | 4.522 | 42.3 | 3.53 | 36 | 7.33 | -81.6 | 241 | 3 |
| 12/06/05 10:53 | 24.24 | 6.901 | 6.801 | 4.485 | 31.9 | 2.62 | 36 | 7.26 | -78.3 | 239 | 3 |
| 12/06/05 10:55 | 24.36 | 7.037 | 6.952 | 4.574 | 28.4 | 2.32 | 36 | 7.20 | -75.6 | 235 | 3 |
| 12/06/05 10:56 | 24.35 | 7.009 | 6.922 | 4.556 | 27.2 | 2.23 | 36 | 7.20 | -75.3 | 235 | 3 |
| 12/06/05 11:00 | 23.73 | 7.080 | 6.907 | 4.602 | 25.7 | 2.13 | 36 | 7.20 | -75.3 | 228 | 3 |
| ~~12/06/05 13:23~~ | ~~23.95~~ | ~~6.045~~ | ~~5.923~~ | ~~3.929~~ | ~~27.8~~ | ~~2.30~~ | ~~35~~ | ~~6.89~~ | ~~60.4~~ | ~~179~~ | ~~3~~ |

Delete KDP

KDP
12/6/05

SS-48
SS-48.DAT
-- Data Report --

From 12/06/05 11:48 to 12/06/05 13:58
Number of samples: 32

| DateTime M/D/Y | Temp C | SpCond mS/cm | Cond mS/cm | TDS g/L | DO % % | DO Conc mg/L | Charge | pH | pHmV mV | ORP mV | Site |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/06/05 11:48 | 22.02 | 3.963 | 3.738 | 2.576 | 70.4 | 6.07 | 37 | 7.25 | -77.9 | 143 | 6 |
| 12/06/05 11:54 | 22.29 | 7.928 | 7.518 | 5.154 | 43.4 | 3.68 | 35 | 7.18 | -74.3 | 176 | 6 |
| 12/06/05 11:56 | 23.67 | 6.575 | 6.408 | 4.273 | 40.8 | 3.39 | 36 | 7.26 | -78.4 | 172 | 6 |
| 12/06/05 11:58 | 23.84 | 7.307 | 7.145 | 4.750 | 44.1 | 3.64 | 36 | 7.22 | -76.1 | 171 | 6 |
| 12/06/05 12:01 | 23.36 | 4.701 | 4.553 | 3.055 | 52.4 | 4.40 | 37 | 7.58 | -93.8 | 169 | 6 |
| 12/06/05 12:13 | 21.81 | 9.138 | 8.581 | 5.940 | 52.9 | 4.50 | 36 | 6.78 | -55.0 | 197 | 7 |
| 12/06/05 12:16 | 23.36 | 9.228 | 8.938 | 5.998 | 37.9 | 3.13 | 37 | 6.81 | -56.7 | 187 | 7 |
| 12/06/05 12:19 | 23.32 | 9.034 | 8.744 | 5.872 | 41.9 | 3.47 | 38 | 6.84 | -58.0 | 181 | 7 |
| 12/06/05 12:20 | 23.08 | 9.046 | 8.714 | 5.880 | 41.7 | 3.47 | 38 | 6.85 | -58.7 | 177 | 7 |
| 12/06/05 12:25 | 23.10 | 9.132 | 8.699 | 5.885 | 41.6 | 3.55 | 38 | 6.79 | -58.5 | 179 | 7 |
| 12/06/05 12:32 | 22.30 | 4.027 | 3.819 | 2.618 | 32.7 | 2.81 | 36 | 7.38 | -84.0 | 157 | 4 |
| 12/06/05 12:38 | 22.47 | 5.118 | 4.871 | 3.327 | 63.8 | 5.44 | 38 | 7.21 | -75.7 | 206 | 4 |
| 12/06/05 12:40 | 23.07 | 5.045 | 4.859 | 3.279 | 32.5 | 2.74 | 36 | 7.14 | -72.7 | 200 | 4 |
| 12/06/05 12:45 | 22.74 | 5.061 | 4.842 | 3.289 | 35.3 | 2.99 | 37 | 7.13 | -72.2 | 191 | 4 |
| 12/06/05 12:47 | 23.06 | 7.758 | 7.470 | 5.042 | 31.3 | 2.62 | 37 | 6.98 | -64.9 | 190 | 4 |
| 12/06/05 12:49 | 22.89 | 4.784 | 4.591 | 3.110 | 34.5 | 2.92 | 37 | 7.25 | -77.7 | 186 | 4 |
| 12/06/05 12:52 | 22.92 | 4.036 | 3.875 | 2.623 | 42.2 | 3.59 | 37 | 7.23 | -76.7 | 185 | 4 |
| 12/06/05 13:01 | 24.04 | 3.565 | 3.500 | 2.317 | 53.3 | 4.44 | 37 | 7.22 | -76.5 | 166 | 2 |
| 12/06/05 13:07 | 23.89 | 3.786 | 3.706 | 2.461 | 51.6 | 4.30 | 37 | 7.24 | -77.6 | 194 | 2 |
| 12/06/05 13:10 | 24.12 | 4.305 | 4.233 | 2.799 | 32.5 | 2.70 | 36 | 7.15 | -73.2 | 187 | 2 |
| 12/06/05 13:11 | 23.47 | 3.832 | 3.720 | 2.491 | 40.1 | 3.37 | 37 | 7.24 | -77.4 | 185 | 2 |
| 12/06/05 13:15 | 23.91 | 3.646 | 3.571 | 2.370 | 54.9 | 4.58 | 38 | 7.24 | -77.5 | 184 | 2 |
| 12/06/05 13:23 | 23.76 | 5.570 | 5.438 | 3.620 | 29.3 | 2.44 | 36 | 6.92 | -61.7 | -10 | 3 |
| 12/06/05 13:31 | 23.71 | 6.041 | 5.892 | 3.927 | 45.0 | 3.74 | 36 | 7.18 | -74.6 | -187 | 3 |
| 12/06/05 13:33 | 24.29 | 5.961 | 5.881 | 3.875 | 25.6 | 2.10 | 35 | 7.14 | -72.5 | -203 | 3 |
| 12/06/05 13:35 | 24.34 | 5.892 | 5.818 | 3.830 | 21.4 | 1.75 | 35 | 7.18 | -74.4 | -197 | 3 |
| 12/06/05 13:38 | 24.16 | 5.813 | 5.720 | 3.778 | 39.7 | 3.27 | 36 | 7.17 | -74.2 | -211 | 3 |
| 12/06/05 13:45 | 24.53 | 16.510 | 16.370 | 10.730 | 24.5 | 1.93 | 35 | 6.55 | -43.9 | -240 | 5 |
| 12/06/05 13:50 | 24.39 | 18.660 | 18.440 | 12.130 | 51.7 | 4.05 | 37 | 7.04 | -67.7 | -206 | 5 |
| 12/06/05 13:53 | 25.02 | 18.820 | 18.830 | 12.230 | 37.0 | 2.87 | 37 | 7.02 | -66.9 | -216 | 5 |
| 12/06/05 13:55 | 25.00 | 19.870 | 19.870 | 12.910 | 37.1 | 2.87 | 37 | 7.01 | -66.5 | -216 | 5 |
| 12/06/05 13:58 | 24.81 | 10.350 | 10.310 | 6.727 | 47.7 | 3.83 | 37 | 7.29 | -79.7 | -246 | 5 |

12/6/05

# Appendix C-5

# Chain-of-Custodies

F37235

BHATE

Environmental Engineers and Scientists

## Chain of Custody and Analytical Request

Project Name / Site Name: LTM

Client Name: BHATE

Collected by: [illegible]

| | Field Sample ID (Alphanumeric Field) | Matrix CODE (Alphanumeric) | Date Collected (dd-mmm-yyyy) | Time Collected (military) | Sample Depth (beginning - ending) | | Sample Type (Grab, Composite) | Sample Number | Sample Matrix | Number of Containers | 5260B/8010 | VOC 8260 | TPH 1662 | | | | | | Sample Description | Chain ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SW-MW1 | LF-01 | 8-Dec-05 | 12:02 | 0 | 0 | N | 1 | GW | 2 | X | | X | | | | | | Water | 1 |
| 2 | SW-MW2 | LF-02 | 8-Dec-05 | 12:11 | 0 | 0 | N | 1 | GW | 2 | X | | X | | | | | | Water | 1 |
| 3 | SW-MW3 | LF-03 | 8-Dec-05 | 12:25 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | 1 |
| 4 | SW-MW5 | LF-04 | 8-Dec-05 | 12:05 | 0 | 0 | N | 1 | GW | 2 | X | | X | | | | | | Water | 1 |
| 5 | PW2 | LF-05 | 8-Dec-05 | 11:31 | 0 | 0 | N | 1 | OW | 2 | X | | X | | | | | | Water | 1 |
| 6 | Trip Blank | | | | | | AB | | | 2 | | X | | | | | | | Trip Blank | 1 |
| | Trip Blank | | | | | | | | | | | | | | | | | | | |

COMMENTS: Accutest Laboratories, 4405 Vineland Road Suite C-15, Orlando, FL 32811

Relinquished by (Sign): K. Co Date: 12-09-05 Time: 16:00

Received by: 1. 2. 3.

Sample Delivery method: Delivered Directly to Lab / Shipped No. / Method of Shipment: Fedex / Airbill Number: / Required Lab: / Courier: / Delivery Location: Orlando, FL / Laboratory: / Delivery Date/Time:

VOCS 8260B
Metals 6010B
TDS 160.1

F37235: Chain of Custody
Page 1 of 2



ACCUTEST

F37235

F37167

HBHATE

Environmental Engineers and Scientists

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: 1.3M0[illegible]

P.O. _____

Chain of Custody Number: 1.3M[illegible]

LIMS Number: _____

Purchase Order: [illegible]

Project Name / Site Name: LEM

Client Name: HBATE

Collected by: K. Overton

Sample Analysis Requested

Quality Assurance Samples

| Sample ID | Sampling Date | Sampling Time | Time Collected (military) | Sample Depth (feet below surface) | | Matrix | Sample Type | Number of Containers | Metals 601/6010 | VOC 8260 | TDS / TSS | | | | | Metals Analysis | Sample Number Outside Vendor | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-02A5-03 | SS-02/03 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 4 | | X | X | | | | Water | | 1 |
| MW-02A5-04 | SS-02/04 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 4 | | X | X | | | | Water | | 1 |
| MW-02A5-06 | SS-02/07 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 4 | | X | X | | | | Water | | 1 |
| MW-02A5-08 | SS-02/08 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 4 | | X | X | | | | Water | | 1 |
| MW-02A5-09 | SS-02/09 | 7-Dec-05 | | 0 | 0 | FD | 2 | GW | 4 | | X | X | | | | Water, Field Dup | | 1 |
| MW-02A5-08 | SS-02/10 | 7-Dec-05 | | 0 | 0 | MS | 3 | GW | 4 | | X | X | | | | Water, MS/MSD | | 1 |
| MW-BX-01 | SS-17 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 4 | | X | X | | | | Water | | 1 |
| MW-BX-02 | SS-17 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 4 | | X | X | | | | Water | | 1 |
| W4 | SS-17 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 4 | | X | X | | | | Water | | 1 |
| W6 | SS-17 | 7-Dec-05 | | 0 | 0 | FD | 2 | GW | 4 | | X | X | | | | Water, Field Dup | | 1 |
| W6 | SS-17 | 7-Dec-05 | | 0 | 0 | MS | 2 | GW | 4 | | X | X | | | | Water, MS/MSD | | 1 |
| MW-08-03 | SD-08 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 5 | X | X | X | | | | Water | | 1 |
| MW-08-04 | SD-08 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 5 | X | X | X | | | | Water | | 1 |
| MW-08-05 | SD-08 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 5 | X | X | X | | | | Water | | 1 |
| MW-08-06 | SD-08 | 7-Dec-05 | | 0 | 0 | W | 3 | GW | 1 | | | X | | | | Water | | 1 |
| Trip Blank | | | | | | AB | | WQ | 3 | | X | | | | | Water | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Relinquished by (Signature) Date Time: K G 12-8-05 16:00

Received by (signature) Date Time: 12/8/05 09:10

Sample Delivery Details / Laboratory Receipt
Delivered Directly to Lab: _____ Shipped Via: _____
Delivered at Shipper: _____ Shipper: _____ AirBill Number: 7912 7862 7135
Accepted by: _____ Delivery Location: Orlando, FL
Lab Receipt: _____ Delivery Date/Time: _____

24

F37167: Chain of Custody
Page 2 of 3



ACCUTEST. laboratories

F37167

F37169

BHATE

Environmental Engineers and Scientists

# Chain of Custody and Analytical Request

Page 1 of 1

Project Manager: LTM/KL

P.O. #

Chain of Custody Number (*): 12072005

LIMS Number:

Facility/Site I.D.: ROLMN

Project Name / Site Name: LTM

Client Name: SGE

Collected by: K. Gassaway

| Field Sample ID (10 Character Max) | | Sample Location (12 Character Max) | Date Collected (MM/DD/YYYY) | Time Collected (Military) (Minutes) | Sample Depth (Beginning - Ending) | | PA Code (*) | Sample Number (*) | Sample Matrix (*) | Number of containers | VOC 8260 | TDS 160.1 | Fecal 9221 | | | | | | Matrix Description | Trip Blank Lot Control Number | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 118-mw1601 | 6 | OT-16 | 06122005 | 0937 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | | 1 |
| 118-mw1602 | 7 | OT-16 | 06122005 | 0913 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | | 1 |
| 118-mw1603 | 8 | OT-16 | 06122005 | 0830 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | | 1 |
| 118-mw1604 | 9 | OT-16 | 06122005 | 0828 | 0 | 0 | N | 1 | GW | 5 | X | X | X | | | | | | Water | | 1 |
| Trip Blank | 5 | | | | | | TB | | | 2 | X | | | | | | | | | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Relinquished by (Signature): K Gassaway Date: 12-7-05 Time: 16:00

Received by (Signature): EX Date: 12/8/05 Time: 0910

Sample Delivery Details / Laboratory Receipt
Delivered Directly to Lab:
Method of Shipment: Fedex
Analytical Lab: Accutest
Lab Designate:
Shipper No.:
Airbill Number: 7998 4343 7808
Delivery Location: Orlando, FL
Delivery Date/Time:

1) Chain of Custody Number – date authorized + assigned number (e.g. 05-03-2705-04)
2.) Sample Type (DQ Code): N = Normal Sample, TB = Trip Blank, C = Grab, FD = Field Duplicate (a) Sample, FM = Field Duplicate (b) Sample, RB = Equipment Blank (c) Sample, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank Col
3.) Sample Number: Unique sample number collected from particular location per day. (e.g. Groundwater sample collected from MW-1 on 05/03/99 = 01, if sampled again on 05/03/99 = 02, etc)
4.) Matrix Code: GW = Ground Water, WT = Surface Water, SO = Soil, SD = Sediment, SL = Sludge, SB = Surface Soil Sample, WO = Aqueous Waste (specify type, e.g. industrial, municipal, etc), SW = Solid Waste
5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each
6.) Quality control samples assigned by the client (trip and field blanks, matrix spikes) consistent with the sample (N), SL, etc.) e.g. Equipment blank collected in conjunction with MW-1 on 05/03/99 – SB 01 (designated the same) in the Equipment Blank Lot Control.

2-4

F37169: Chain of Custody
Page 1 of 2

HBHATE F37126

*Environmental Engineers and Scientists*

**Chain of Custody and Analytical Request**

Page 1 of 1

Project Number: LTM/HOL

P.O. _____

Chain of Custody Number: 12003051

LIMS Number: _____

Facility/Site I.D.: HOLBOI

Project Name / Site Name: LTM

Client Name: HOL

Collected by: R. Ousmann

Sample Analysis Requested** | Quality Assurance Samples**

| Field Sample ID (20 Character Max) | | HBHATE LOCID (10 Character Max) | Date Collected (MM-DD-YYYY) | Time Collected (military) (Hours) | Sample Depth (beginning-ending) | | Sample Matrix** | Sample Type** | Sample Matrix** | VOC 8260 | T.A.L. Metals 6010/7470 | Pesticide/Organochl. 8081 | Herbicides 8151 | TDS 160.1 | | | | Matrix Description | Trip Blank Lot Control Number | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mw-21-01 | 1 | LF-21 | 05122005 | 0836 | 0 | 0 | N | T | GW | 7 | | | | | | | | Water | | 1 |
| mw-21-02 | 2 | LF-21 | 05122005 | 0926 | 0 | 0 | N | T | GW | 7 | | | | | | | | Water | | 1 |
| mw-21-03 | 3 | LF-21 | 05122005 | 1006 | 0 | 0 | N | T | GW | 7 | | | | | | | | Water | | 1 |
| mw-21-04 | 4 | LF-21 | 05122005 | 1038 | 0 | 0 | N | T | GW | 7 | | | | | | | | Water | | 2 |
| Trip Blank | 6 | | | | | | TB | | | 4 | | | | | | | | Trip Blank | | 1&2 |
| mw-21-04 | 5 | LF-21 | 05122005 | 1038 | 0 | 0 | FD | T | GW | 7 | | | | | | | | Field Duplicate | | 2 |
| mw-21-04 | 4 | LF-21 | 05122005 | 1038 | 0 | 0 | MS | T | GW | 7 | | | | | | | | MS/MSD | | 2 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Relinquished by (Signature) Date Time | Received by (Signature) Date Time
1. K Cameron 12/05 16:00 | 1. FX
2. | 2. 12/5/05 0900
3. FX | 3.

Sample Delivery Details (Laboratory Sample)
Delivered Directly to Lab: _____ Shipped No.: _____
Method of Shipment: Fedex Airbill Number: 9123 9483 4862, 7997 3547 3799
Analytical Lab: Accutest Delivery Location: Orlando, FL
Lab Recipient: Delivery Date/Time: _____

1) Chained Custody Number = Area authorized + custody number (e.g. SP-02-1999-01)
2) Sample Type(Int.) Codes: N=Normal Sample, TB= Trip Blank (-a) Sample, FB= Field Duplicate (-a) Sample, FR = Field Replicate (-a) Sample, EB= Equipment Blank (-a) Sample, IMB = Matrix Spike, SD = Matrix Spike Duplicate, AB= Ambient Blank (-a)
3) Sample Matrix: Unless otherwise indicated, use a particular location per day, (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)
4) Matrix Codes: OB= Bail Out, WC= Groundwater, SW = Surface Water, SO = Soil, SD = Sediment, SL = Sludge, SS = Surface Soil Sample, WQ= Aqueous Blank Sample (Air, equipment, rinsate, etc), SQ = Soil Blank
5) Sample Analysis Requested: Analytical method requested, and number of containers provided for each.
6) Quality assurance samples are assigned by date (dd-mm-yy) and the sample number associated with the sample (01, 02, etc) in a Sequential Matrix assigned in accordance with SOP-1 as 10/10/99 will be designated 1 (MMDD). In the Equipment Blank Lot Control

2-4, 2-4

F37126: Chain of Custody
Page 1 of 2



ACCUTEST. Laboratories

F37126

F37124

GEHATE

Environmental Engineers and Scientists

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LTM/HOL

P.O. _____

Chain of Custody Number[1]: 122020051

LIMS Number: _____

Facility/Base I.D.: HOLNW

Project Name / Site Name: LTM

Client Name: HOL

Collected by: E. Gonzalez

Sample Analysis Requested[3] — Quality Assurance Sampling[4]

| | Field Sample ID (16 Character Max) | IMPOrm LOCID (16 Character Max) | Date Collected (MM-DD-YYYY) | Time Collected (24 Hours) | Sample Depth (Beginning - ending) | | Sample Type[2] | Sample Number[3] | Sample Matrix[4] | Number of Containers | VOC 8260 | SVOC 8270 | TCL 160.1 | | | | | Matrix Description | Trip Blank Lot Control Number | ID Codes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | mw-29-01 | LF-29 | 05122005 | 1550 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 1 |
| 2 | mw-29-03 | LF-29 | 05122005 | 1359 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 1 |
| 3 | mw-29-04 | LF-29 | 05122005 | 1310 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 1 |
| 4 | mw-29-05 | LF-29 | 05122005 | 1220 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 1 |
| 5 | mw-29-06 | LF-29 | 05122005 | 1523 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 2 |
| 6 | mw-29-07 | LF-29 | 05122005 | 1430 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 2 |
| 7 | mw-29-08 | LF-29 | 05122005 | 1458 | 0 | 0 | N | 1 | GW | 5 | | | | | | | | Water | | 2 |
| 8 | Trip Blank | | | | | | TB | | | 4 | | | | | | | | Trip Blank | | 1&2 |
| 9 | mw-29-05 | LF-29 | 05122005 | 1230 | 0 | 0 | FD | 1 | GW | 5 | | | | | | | | Field Duplicate | | 1 |
| 10 | mw-29-05 | LF-29 | 05122005 | 1220 | 0 | 0 | MS | 1 | GW | 5 | | | | | | | | MS/MSD | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfer Prior to Receipt by Laboratory

Relinquished by (Signature) Date Time — Received by (Signature) Date Time

1. R Cam 12-06-05 1600
2. Fed Ex
3. [illegible] 12-7-05 9:00

Sample Delivery Status (Laboratory Use Only)

Delivered Directly to Lab: _____ Shipped Via: _____

Method of Shipment: FedEx Airbill Number: 7925 9881 8771, 7989 3341 3795

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Receipt: Delivery Date/Time: 12/7/05 9:00

1.) Chain of Custody Number = date indicated + sequence number (e.g. 06-01-2000-01)

2.) Sample Type (N/C) Codes: N = Normal Sample, TB = Trip Blank (4) Sample, FD = Field Duplicate (4) Sample, FR = Field Replicate (4) Sample, ER = Equipment Blank (4) Sample, RB = Rinsate Blank (4) Sample, SD = Source Split (Duplicate, All = Particular Matrix (4)

3.) Sample Number: Unique sample number enclosed from a particular location per day. (e.g. Unique sample number enclosed from MW-4 on 10/10/99 = 01, If sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: OW = Bottle Cap, WO = Unknown, WE = Surface Water, SO = Soil, SD = Sediment, SL = Sludge, SE = Surface Soil Samples, WQ = Aqueous Wash Samples (Trip, equipment, rinsate, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (delivery) and the sample number associated with the sample (2, 4, 6, and 8 for Duplicate) that collected in accordance with SOP-1 on 10/10/99 will be assigned 1 (10/10/99) in the Equipment Blank Lot Control

BHATE

Environmental Engineers and Scientists

F37086

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LT04303

P.O.

Chain of Custody Number (1): 12022005

LIMS Number:

Job Sublime I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: DCL

Collected by: K. Gennaro

| Field Sample ID (Client-Assigned) | DEPTH LOCID (Client-Assigned) | Date Collected (MM-DD-YYYY) | Time Collected (Military) | Sample Depth (beginning - ending) | | DA Code (1) | Sample Matrix (2) | Sample Type (3) | Number of containers | VOC 8260 | TAL Metals 6010/7470 | Pesticide/Organochl 8081 | Herbicides 8151 | TDS 160.1 | | | | Matrix Description | Trip Blank Lot Control Number | Sample ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mw30&33-01 | DP30/SD33 | 04122005 | 1311 | 0 | 0 | N | 3 | GW | 7 | | | | | | | | | Water | | 1 |
| mw30&33-02 | DP30/SD33 | 04122005 | 1122 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 1 |
| mw30&33-03 | DP30/SD33 | 04122005 | 1235 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | | 1 |
| mw30&33-04 | DP30/SD33 | 04122005 | 1347 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Water | KG | 1 |
| Trip Blank | | | | | | TB | | | 2 | | | | | | | | | Trip Blank | KG | 1 |
| mw30&33-04 D | DP30/SD33 | 04122005 | 1347 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | Field Duplicate | KG | 1 |
| mw30&33-04 | DP30/SD33 | 04122005 | 1347 | 0 | 0 | N | 1 | GW | 7 | | | | | | | | | MS/MSD | KG | 1 |

COMMENTS: Attention: Sample Accessing
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfer Inter-to Sample/Lab/Laboratory

| Relinquished by (Signature) | Date | Time | Received by (Signature) | Date | Time |
|---|---|---|---|---|---|
| 1. | | | 1. | | |
| 2. | | | 2. | | |
| 3. | | | 3. | | |

Sample Delivery Details (Laboratory Receipt)
Delivered Directly to Lab: Shipment No.:
Method of Shipment: Fedex Airbill Number: 7912-9367-4555
Analytical Lab: Accutest Delivery Location: Orlando, FL 32806
Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date assigned + custody number (e.g. 05-01-1999-01)
2.) Sample Type (Qc) Codes: N = Normal Sample, TB = Trip Blank (-1) Sample, FD = Field Duplicate (-1) Sample, EB = Equipment Blank (-1) Sample, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-1)
3.) Sample Number: Polysample number assigned from equivalent location per day, e.g. One monitor sample collected from MW-1 on 10/10/99 = -1, If sampled again on 10/10/99 = 02, etc.)
4.) Matrix Codes: GW = Ground Water, WW = Surface Water, SO = Soil, SD = Sediment, SL = Sludge, SW = Surface Soil Sample, WQ = Aqueous Blank Sample (trip, equipment, ambient, etc.), SQ = Soil Blank
5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each
6.) Quality assurance samples not assigned by date (sequence) and the sample number associated with the sample (E1, S2, etc) (e.g. Equipment Blank collected in association with MW-1 on 10/10/99 = -E1 be assigned 1110E99; Trip Blank 1 on Cooler

2-6, 2-8

F37086: Chain of Custody
Page 1 of 2

F37116

**GBHATS**

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: LINFIOL

P.O. _____

Chain of Custody Number (*): 170620031

LIMS Number: _____

Facility/Base I.D.: HOLMN

Project Name / Site Name: E134

Client Name: LIGL

Collected by: K. Ottaman

| | Field Sample ID (10 Character Max) | EPA SESD ID (12 Character Max) | Date Collected (dd-mm-yyyy) | Time Collected (military) (24hrs) | Sample Depth Beginning (feet) | Sample Depth Ending (feet) | Sample Type (Field Code) | Sample Matrix (Field Code) | Number of Containers | VOC 8260 | TDS 160.1 | | | | | | | Matrix Description | Trip Blank Lot Ground Number | Client ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | mw-39-02 | SS-39 | 05122005 | 1656 | 0 | 0 | N | 1 | GW | 4 | [redacted] | | | | | | | Water | | 1 |
| 2 | mw-39-03 | SS-39 | 05122005 | 1628 | 0 | 0 | N | 1 | GW | 4 | [redacted] | | | | | | | Water | | 1 |
| 3 | Trip Blank | | | | | | TB | | | 2 | [redacted] | | | | | | | Trip Blank | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfers Prior to Receipt by Laboratory

| Relinquished by (Signature) | Date | Time | Received by (signature) | Date | Time |
|---|---|---|---|---|---|
| 1. [signature] | 12-6-05 | 16:00 | 1. | | |
| 2. [signature] | | | 2. [signature] | 12-7-05 | 9:00 |
| 3. | | | 3. [signature] | | |

Sample Delivery Details/Laboratory Receipt
Delivered Directly to Lab: _____ Shipped Via: _____
Method of Shipment: Fedex AB&B Number: 7958 0011 9928
Analytical Lab: Accutest Delivery Location: Orlando, FL
Lab Analyzer: _____ Delivery Date/Time: 12-6

1.) Date of Custody Number = date collected + sequence number (eg. 09-02-2005-01)
2.) Sample Type: Field Codes: N = Initial Sample, TB = Trip Blank (-0 Sample, EQ = Field Duplicate (-0 Sample, FR = Field Replicate (-0 Sample, RS = Replicate Sample (-0 Sample, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-0)
3.) Sample Number: Unique sample number collected from a particular location per day (eg. Groundwater sample collected from MW-1 on 9/1/05 = 01, If sampled again on 9/2/05 = 02, etc.)
4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SS = Sediment, SL = Sludge, SW = Surface Soil Sample, WQ = Aqueous Blank Sample (trip, equipment, ambient, etc), SQ = Soil Blanks
5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each
6.) Quality control samples are assigned by date collected and the sample number associated with the sample (01, 02, etc) (eg. Equipment blank collected in conjunction with MW-1 on 9/1/05 will be designated as 9/1/05-1 in the Equipment Blank Lot Ground

F37116: Chain of Custody
Page 1 of 2

F36673

SHATE

*Environmental Engineers and Scientists*

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: 9040238.11.02

P.O. ____

Chain of Custody Number [1]: 021620061

LIMS Number: ____

Facility/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HGL

Collected by: K. Germann

| | Field Sample ID (10 Characters Max) | BRIDGE LOCID (10 Characters Max) | Date Collected (dd-mmm-yyyy) | Time Collected (Military) (hhmm) | Sample Depth (beginning - ending) | | SA Code [2] | Sample Number [3] | Sample Matrix [4] | Number of Containers | VOC 8260 | TDS 160.1 | | | | | | Matrix Description | Trip Blank Lot Control Number | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Sample Analysis Requested [5] | | | | | | | | Quality Assurance Samples [6] | |
| 1 | mw-39-01 | SS-39 | 16022006 | 1000 | 0 | 0 | N | 1 | WG | 4 | X | X | | | | | | Water | | 1 |
| 2 | mw-39-04 | SS-39 | 16022006 | 1055 | 0 | 0 | N | 1 | WG | 4 | X | X | | | | | | Water | | 1 |
| 3 | Trip Blank | | | | | | TB | | | 1 | X | | | | | | | Trip Blank | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfers Prior to Receipt by Laboratory

| Relinquished By (Signed) | Date | Time | Received by (signed) | Date | Time |
|---|---|---|---|---|---|
| 1. | | | 1. | | |
| 2. [signature] | 2/16/2006 | 1600 | 2. [signature] | | |
| 3. [signature] | | | 3. [signature] | 2-17-06 | 9:00 |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: ____ Shipped No.: ____

Method of Shipment: FedEx Airbill Number: ____

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Recipient: Delivery Date/Time: 1/6

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-e) Sample, FD = Field Duplicate (-e) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-f) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-s)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10100901 in the Equipment Blank Lot Control

F37153

BHATE

Environmental Engineers and Scientists

# Chain of Custody and Analytical Request

Date: 1 of 1

Project Number: LTM/HCL

P.O.

Chain of Custody Number [1]: 12072005

LIMS Number:

Facility/Site I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: HCL

Collected by: K. German

Sample Analysis Requested [2]

Quality Assurance Sample [3]

| Field Sample ID (16 Character Max) | | BA/Field LOCID (15 Character Max) | Date Collected (MM-DD-YYYY) | Time Collected (Military Hours) | Sample Depth (beginning - ending) | | BA Code [4] | Sample Number [5] | Sample Matrix [6] | Number of containers | VOC 8260 | TDS 160.1 | | | | | | | Matrix Description | Trip Blank Lot Control Number | Group ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mw-46-01 | | SS-46 | 06122005 | 1035 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| mw-46-02 | | SS-46 | 06122005 | 1016 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| mw-46-03 | | SS-46 | 06122005 | 1057 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| Trip Blank | | | | | | | TB | 2 | | | X | | | | | | | | Trip Blank | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfer Prior to Sample by Laboratory

Relinquished By (Print): K German FK Date: 12-20-05 Time: 1600

Received by (Print): FK Date: 12/20/05 Time: 0900

Sample Delivery Sample / Laboratory Sample

Delivered Directly to Lab: Shipped No.

Method of Shipment: Fedex AirBill Number: 7954 9869 0124

Analytical Lab: Accutest Delivery Location: Orlando, FL

Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 05-21-1999-01)

2.) Sample Type (BA) Codes: N = Normal Sample, TB = Trip Blank (-a) Sample, FD = Field Duplicate (-d) Sample, FS = Field Replicate (-r) Sample, RB = Equipment Blank (-e) Sample, AQ = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-a)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. three above sample collected from MW-1 on 10/10/99 = 01, 02 and 03, 10/11/99 = 01, etc.)

4.) Matrix Codes: GW = Groundwater, SW = Surface Water, DW = Tap, SO = Soil, SD = Sediment, SL = Sludge, SE = Surface Soil Samples, WQ = Aqueous Blank Sample (min. equipment, residual, etc), SQ = Soil Sample

5.) Sample Analysis Requested: Analytical method requested and sample of maximum parameter for each

6.) Quality Assurance samples assigned by date (Month) with the sample number associated with the sample (01, 02, and 03). Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101 RB1 (in the Equipment Blank Lot Control

2-4

F37153: Chain of Custody
Page 1 of 2



ACCUTEST

F37153

BHATE

Environmental Engineers and Scientists

# Chain of Custody and Analytical Request F37150

Page 1 of 1

Project Number: LTM/ERGL

P.O. _____

Chain of Custody Number [1]: 1 (07/2005)

LDAS Number: _____

Pad/Lagoon/Site I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: ERL

Collected by: E. Cermeno

Sample Analysis Requested [2] | Quality Assurance Sample [3]

| Field Sample ID (10 Characters Max) | | SITE/WELL LOCATION (11 Characters Max) | Date Collected (MM-DD-YYYY) | Time Collected (military) (optional) | Sample Depth (beginning - ending) | | Sub Code [4] | Sample Number [5] | Sample Matrix [6] | Number of Containers | VOC 8260 | TPH (8015) | | | | | | | Matrix Description | Trip Blank Log Control Number | Cooler ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SS5-mw2 | 2 | SS-48 | 06122005 | 1315 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| SS5-mw3 | 3 | SS-48 | 06122005 | 1336 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| SS5-mw4 | 4 | SS-48 | 06122005 | 1232 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| SS5-mw5 | 5 | SS-48 | 06122005 | 1355 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| SS5-mw6 | 6 | SS-48 | 06122005 | 1458 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| SS5-mw7 | 7 | SS-48 | 06122005 | 1219 | 0 | 0 | N | 1 | GW | 4 | X | X | | | | | | | Water | | 1 |
| Trip Blank | 7 | | | | | | | | | 2 | X | | | | | | | | | | 1 |

COMMENTS: Attention: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

Custody Transfers Prior to Sampling Laboratory

| Relinquished By (Signature) | Date | Time | Received By (Signature) | Date | Time |
|---|---|---|---|---|---|
| 1. KC | 12-7-05 | 1600 | 1. PK | 12/8/05 | 0900 |
| 2. PK | | | 2. | | |
| 3. | | | 3. | | |

Sample Delivery Details / Laboratory Receipt
Delivered Directly to Lab: _____ Shipped No.: _____
Method of Shipment: FedEx Airbill Number: 7912 8041 2138
Analytical Lab: Accutest Delivery Location: Orlando, FL
Lab Employee: _____ Delivery Date/Time: _____

1) Chain of Custody Number – for reference / records (e.g. 05-06-1 999-07)
2) Sample Type (QA) Code: N = Normal Sample, TB = Trip Blank (-a) Sample, FD = Field Duplicate (-d) Sample, FS = Field Replicate (-r) Sample, RB = Equipment Blank (-E) Sample, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-I)
3) Sample Number: Unique sample number selected from predefined lists per day (e.g. One-to-two sample collected from MW-1 on 10/10/99 = 01, Resampled again on 10/10/99 = 02, etc.)
4) Matrix Codes: GW = Ground Water, WS = Surface Water, SD = Soil, SO = Sediment, SL = Sludge, SS = Surface Soil Sample, WQ = Aqueous (Rinsate/Decontamination, equipment, ambient, etc), SQ = Solid Matrix
5) Sample Analysis Requests: Analytical methods requested not answer of standard provided for work.
6) Quality assurance samples are assigned by date (mmddyy) and the sample number associated with the sample (01, 02, etc) (e.g. Replicate blank collected in association with MW-4 on 10/10/99 will be designated as 101099-01 in the Replicate Blank Log Original)

2.4

F37150: Chain of Custody
Page 1 of 2



ACCUTEST.

F37150

SBHATE

Environmental Engineers and Scientists

F38226

# Chain of Custody and Analytical Request

Page 1 of 1

Project Number: TBA

P.O. _____

Chain of Custody Number (C): 013120001

LIMS Number: _____

Pre/By/Base I.D.: HOLMN

Project Name / Site Name: LTM

Client Name: WSACE

Collected by: K. Harmon

| Field Sample ID (10 Character Max) | | Sample Location (10 Character Max) | Date Collected (dd-mmm-yyyy) | Time Collected (military) (hhmm) | Sample Depth (beginning - ending) | | Sub Code (2) | Sample Number (4) | Sample Matrix (4) | VOC's 8260 | TAL Metals | | | | | | | Media Description | Trip Blank Lot Control Number | Order (2) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) LTM Purge | | LTM HAPB | 31Jan2006 | 0900 | 0 | 0 | N | 1 | WG | 4 | N | N | | | | | | Ground Water | | 1 |
| (2) Trip Blank | | | | | | | TB | | | | N | | | | | | | Trip Blank | | 1 |

COMMENTS: ATTN: Sample Receiving
Accutest Laboratories
4405 Vineland Road Suite C-15
Orlando, FL 32811

PLEASE RUSH!

Custody Transfer Prior to Sample for Laboratory

| | Relinquished by (Print) | Date | Time | Received by (Print) | Date | Time |
|---|---|---|---|---|---|---|
| 1. | [illegible] | 1/31/2006 | 1600 | [illegible] | 1/31/06 | 0900 |
| 2. | | | | | | |
| 3. | | | | | | |

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped Via: _____

Method of Shipment: FED EX AB&B Number: 8342 2530 3792

Analytical Lab: ACCUTEST Delivery Location: Orlando FL 32811

Lab Receipt: _____ Delivery Date/Time: _____

1.) Chain of Custody Number – Internal + sample numbering (8-63 [illegible]);

2.) Sample Type (D/O Code): N = Normal Sample, TB = Trip Blank (-6) Sample, FD = Field Duplicate (-0 Sample), FB = Equipment Blank (-0 Sample), MS = Matrix Spike Duplicate, MD = Matrix Spike Duplicate, AB = Analytical Blank (-0)

3.) Sample Matrix: Unless sample matrix collected from signals for transfer per day (e.g. Groundwater sample collected from MW-1 on 10/1/00 – GW, if sampled each on 10/2/00 – GW, etc.)

4.) Matrix Codes: OIL = Bulk Oil, WO = Groundwater, SW = Surface Water, SO = Soil, SD = Sediment, SL = Sludge, DW = Surface Soil Sample, WQ = Aqueous Blank Sample (pH, conductivity, turbidity, etc.), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested not number of constituents required for each.

6.) Quality assurance compliance assigned by date (dd-mmm-yy) and the sample number associated with the sample (01, 02, and 03 e.g. temperature blank, collected in accordance with [illegible] on 10/10/99 will be designated. However, in the Standard Work List Control

26

F38226: Chain of Custody
Page 1 of 2

# Appendix C-6

# Daily Quality Control Reports

# DAILY QUALITY CONTROL REPORT

PROJECT NAME: LTM
Date: 12/4/2005
Location: Holloman AFB, NM
Weather: Cold, Breezy, clear

**PERSONNEL:**

| Name | Company |
|---|---|
| Kevin Germann | R&R |
| Lacey Keller | |

**FIELD INSTALLATIONS:**

| ID No.s | Drilled From: | Drilled To: |
|---|---|---|
| | | |

**EQUIPMENT:**

| Description | License No. |
|---|---|
| | |

**ENVIRONMENTAL SAMPLES COLLECTED:**

| Sample ID No. | Analytes |
|---|---|
| MW 30+33-01 | VOC, TAL Metals, 8081, 8151, TDS |
| MW 30+33-02 | " " |
| MW 30+33-03 | " " |
| MW 30+33-04 | " " |

**Brief Description of Work Performed:**
Calibrate All Field instruments and mob to Field to collect samples. Collected samples at DP-30/SD-33 Well I.D's MW 30+33-01, MW 30+33-02, MW 30+33-03, MW 30+33-04.

**Health and Safety Levels:**
Level D

**Problems Encountered:**
NONE

**Changes from Work Plan:**
NONE

**Remarks:**

**Signature:** Kevin D. Germann

# DAILY QUALITY CONTROL REPORT

**PROJECT NAME:** LTM **Date:** 12/5/2005
**Location:** Holloman AFB, NM **Weather:** Clear, Breezy

**PERSONNEL:**

| Name | Company |
|---|---|
| Kevin Germann | KWL |
| Caron Keller | |

**FIELD INSTALLATIONS:**

| ID No.s | Drilled From: | Drilled To: |
|---|---|---|
| | | |

**EQUIPMENT:**

| Description | License No. |
|---|---|
| | |

**ENVIRONMENTAL SAMPLES COLLECTED:**

| Sample ID No. | Analytes |
|---|---|
| MW-21-01 | 8260, 6010/7470, 8081, 8151, TDS |
| MW-21-02 | ↓ |
| MW-21-03 | |
| MW-21-04 | |
| MW-29-01 | 8260, 8270, TDS |
| MW-29-03 | 8260, 8270, TDS |
| MW-29-04 | 8260, 8270, TDS |
| MW-29-05 | 8260, 8270, TDS |
| MW-29-06 | 8260, 8270, TDS |

**Brief Description of Work Performed:**
Calibrate all field instruments and mob to field to collect samples. Collected samples @ LF-21, LF-29, SS-39

**Health and Safety Levels:**
Level D

**Problems Encountered:**
Instruments and decon kept in vehicle to prevent errant function and frozen $H_2O$ tanks.

**Changes from Work Plan:**
NONE

**Remarks:**

| | |
|---|---|
| MW-29-07 | 8260, 8270, TDS |
| MW-29-08 | 8260, 8270, TDS |
| MW-39-01 | 8260, TDS — Dry Well! |
| MW-39-02 | 8260, TDS |
| MW-39-03 | 8260, TDS |
| MW-39-04 | 8260, TDS — Dry Well! |

**Signature:** Kevin D. Germann

# DAILY QUALITY CONTROL REPORT

**PROJECT NAME:** LTM **Date:** 12/6/2005

**Location:** Holloman AFB, NM **Weather:** Clear, Breezy

**PERSONNEL:**

| Name | Company |
|---|---|
| Kwin Geemann | R&R |
| Caron Koller | |

**FIELD INSTALLATIONS:**

| ID No.s | Drilled From: | Drilled To: |
|---|---|---|
| | | |

**EQUIPMENT:**

| Description | License No. |
|---|---|
| | |

**ENVIRONMENTAL SAMPLES COLLECTED:**

| Sample ID No. | Analytes |
|---|---|
| 118-MW-1601 | 8260, 8081, TDS |
| 118-MW-1602 | ↓ |
| 118-MW-1603 | |
| 118-MW-1604 | |
| MW-46-01 | 8260, TDS |
| MW-46-02 | ↓ |
| MW-46-03 | |
| SSS-MW2 | 8260, TDS |
| SSS-MW3 | 8260, TDS |

**Brief Description of Work Performed:**
Calibrate all field equipment/instruments and mob to field to collect samples. Collected samples @ OT-16, SS-46, SS-48

**Health and Safety Levels:**
Level D

**Problems Encountered:**
Cold Temperatures

**Changes from Work Plan:**
NONE

**Remarks:**
SSS-MW4 8260, TDS
SSS-MW5 ↓
SSS-MW6
SSS-MW7

**Signature:** Kwin D. Geemann

# DAILY QUALITY CONTROL REPORT

**PROJECT NAME:** LTM **Date:** 12/7/05

**Location:** Holloman AFB, NM **Weather:** Clear, Breezy

**PERSONNEL:**

| Name | Company |
|---|---|
| Kevin Germann | R&R |
| Caron Keller | R&R |

**FIELD INSTALLATIONS:**

| ID No.s | Drilled From: | Drilled To: |
|---|---|---|
| | | |

**EQUIPMENT:**

| Description | License No. |
|---|---|
| | |

**ENVIRONMENTAL SAMPLES COLLECTED:**

| Sample ID No. | Analytes |
|---|---|
| MW-0245-03 | 8260 & TDS |
| MW-0245-05 | ↓ |
| MW-0245-06 | ↓ |
| MW-0245-08 | ↓ |
| MW-BX-01 | ↓ |
| MW-BX-02 | ↓ |
| W-4 | ↓ |
| MW-08-01 | 6010/7470, 8260, TDS * Dry |
| MW-08-03 | " " |

**Brief Description of Work Performed:**
Calibrate all field instruments/equipment and mob to field to collect samples. Collected samples @ SS02/SS05, SS-17, SD-08

**Health and Safety Levels:**
Level D

**Problems Encountered:**
Well ID# MW-08-01 was dry upon arrival. This well is located at site SD-08. Well ID# TH22 at SS-17 was removed in 2003 as a result of housing construction activities

**Changes from Work Plan:**
NONE

**Remarks:**
MW-08-04 6010/7470/8260/TDS
MW-08-06 " " * TDS only
MW-08-05 " "

**Signature:** Kevin D. Germann

# DAILY QUALITY CONTROL REPORT

**PROJECT NAME:** LTM **Date:** 12/8/05

**Location:** Holloman AFB, NM **Weather:** Clear, Breezy

**PERSONNEL:**

| Name | Company |
|---|---|
| Kevin German | R+L |
| Caron Keller | |

**FIELD INSTALLATIONS:**

| ID No.s | Drilled From: | Drilled To: |
|---|---|---|
| | | |

**EQUIPMENT:**

| Description | License No. |
|---|---|
| | |

**ENVIRONMENTAL SAMPLES COLLECTED:**

| Sample ID No. | Analytes |
|---|---|
| SW-MW1 | 6010/7470/TDS |
| SW-MW2 | 6010/7470/TDS |
| SW-MW3 | 6010/7470/TDS/8260 |
| SW-MW5 | 6010/7470/TDS |
| IW2 | 6010/7470/TDS |

**Brief Description of Work Performed:**
Calibrate Field equipment and instruments, mob to Field to collect Samples. Collected samples @ LF-01. Recorded Field data and log information on spreadsheets

**Health and Safety Levels:**
Level D

**Problems Encountered:**
NONE

**Changes from Work Plan:**
NONE

**Remarks:**

**Signature:** Kevin J. German

BHATE

# DAILY QUALITY CONTROL REPORT

Project Number/Name: LTM HAFB DQCR No.: 1

Date 2/16/06 Time On-Site: 0930 Time Off-Site: 1100

Site Name: SS-39 Weather: cool, clear Temperature: 50° Wind: N/A

Contractor Personnel On-Site: Kevin Germann, R&R Environmental

Visitors On-Site: N/A

Summary of Work Performed: Calibrate field equipment and mob to field to collect well samples from MW-39-01 and MW-39-04. Also collected depth to water measurements only on MW-39-03 and MW-39-02.

Level of Health & Safety Protection: Level D

Equipment Used: YSI water quality meter, Geotech 100' IP and 1.5" weighted disposable poly bailer (dedicated)

Calibration(s) Performed: YSI multiparameter water quality meter.

Equipment Problem(s)/Remedies: Roots encountered in MW-39-04. Did not encumber sampling effort. IP would not detect water in MW-39-01.

Samples Collected* VOC's and TDS from MW-39-01 and MW-39-04.

Sample Collection Method(s): Manual bailer

Quality Control: No field duplicates or ms/msd collected on these two wells

Proposed Schedule for Tomorrow: N/A

Additional Remarks: N/A

Signature: Kevin T. Germann Job Title: Technician

*Indicates sample media: groundwater, surface water, soil or sediment; sample type: composite, grab, split, duplicate, rinsate, and sample I.D. numbers

# Appendix C-7

# Instrument Calibration Records

Instrument (Name/Model No./ Serial No.): 600 QS 03D0291
Manufacturer YSI Date Purchased 2002

| Calibration Date | Initial Settings | Standard/Gas Used | Procedure | Adjustments Made | Final Settings | Signature | Comments |
|---|---|---|---|---|---|---|---|
| 12/4/05 | 7.04 | YSI 3822 | PH | 7.00 | 7.01 | [illegible] | |
| 12/4/05 | 10.03 | YSI 3823 | PH | 10.00 | 10.02 | [illegible] | |
| 12/4/05 | | YSI 3682 | ORP | N/A | | [illegible] | ✓ OK |
| 12/4/05 | | YSI 3165 | Cond | N/A | | [illegible] | ✓ OK |
| 12/4/05 | | AMBIENT | DO | N/A | | [illegible] | ✓ OK |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Instrument (Name/Model No./ Serial No.): 600 QS 03D0291
Manufacturer YSI Date Purchased 2002

| Calibration Date | Initial Settings | Standard/Gas Used | Procedure | Adjustments Made | Final Settings | Signature | Comments |
|---|---|---|---|---|---|---|---|
| 12/5/05 | 100 | YSI 3165 | Conduct | N/A | 99.55 | KG | |
| | 724.37 | ambient | DO % | N/A | 101.9% | KG | |
| | 7.0 | YSI 3822 | Ph | YES | 6.99 | KG | |
| | 10.0 | YSI 3823 | Ph | YES | 10.01 | KG | |
| | 244.0 | YSI 3682 | ORP | YES | 243.9 | KG | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Instrument (Name/Model No./ Serial No.): 600 QS 03D0291
Manufacturer YSI Date Purchased 2002

| Calibration Date | Initial Settings | Standard/Gas Used | Procedure | Adjustments Made | Final Settings | Signature | Comments |
|---|---|---|---|---|---|---|---|
| 12/6/2005 | 100 | YSI 3165 | cond. | YES | 99.96 | KDG | |
| | 769.52 | ambient | DO% | N/A | 101.3% | KDG | |
| | 7.0 | YSI 3822 | pH | YES | 6.99 | KDG | |
| | 10 | YSI 3823 | pH | YES | 10.05 | KDG | |
| | 237.5 | YSI 3682 | ORP | YES | 237.7 | KDG | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

30.13
769.52

18.47°C

Instrument (Name/Model No./ Serial No.): 600 QS 03D0291
Manufacturer YSI Date Purchased 2002

| Calibration Date | Initial Settings | Standard/Gas Used | Procedure | Adjustments Made | Final Settings | Signature | Comments |
|---|---|---|---|---|---|---|---|
| 12/7/2005 | 100 | YSI 3165 | cond | NO | 99.93 | KLB | |
| | 769.26 | Ambient | DO% | N/A | 98.6% | KLB | |
| | 7.0 | YSI 3822 | Ph | YES | 6.99 | KLB | |
| | 10 | YSI 3823 | Ph | YES | 10.01 | KLB | |
| | 237.5 | YSI 3682 | ORP | YES | 236.4 | KLB | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Instrument (Name/Model No./ Serial No.): 600 QS 03D0291
Manufacturer YSI Date Purchased 2002

| Calibration Date | Initial Settings | Standard/Gas Used | Procedure | Adjustments Made | Final Settings | Signature | Comments |
|---|---|---|---|---|---|---|---|
| 12/8/2005 | 100 | YSI 3165 | cond | NO | 99.68 | [illegible] | |
| | 769.26 | AMBIENT | DO% | N/A | 97.6% | [illegible] | |
| | 7.0 | YSI 3822 | PH | NO | 6.98 | [illegible] | |
| | 10.0 | YSI 3823 | PH | NO | 10.04 | [illegible] | |
| | 237.5 | YSI 3682 | ORP | YES | 237.9 | [illegible] | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Instrument (Name/Model No./ Serial No.): 600 QS

Manufacturer YSI Date Purchased 2002

| Calibration Date | Initial Settings | Standard/Gas Used | Procedure | Adjustments Made | Final Settings | Signature | Comments |
|---|---|---|---|---|---|---|---|
| 2/16/2006 | | Ambient | DO % | N/A | 83% | [illegible] | DO Membrane OK |
| | 7.0 | YSI | Ph 7.0 | Yes | 7.01 | [illegible] | |
| | 10.0 | YSI | Ph 10.0 | YES | 9.98 | [illegible] | |
| | 234.5 | YSI | ORP | NO | 234.9 | [illegible] | |
| | 100.00 | YSI | cond | YES | 99.30 | [illegible] | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |