RCRA FACILITY INVESTIGATION REPORT

ERP SITE NO. DP-62, RITAS DRAW

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Holloman Air Force Base
New Mexico

August 2004

Contract No.: DACA45-03-D-0012
Delivery Order No.: 05, WAD 03
Bhate Project No.: 9030024.03

Headquarters, Air Combat Command
Langley Air Force Base, Virginia

49 CES/CEV
Holloman Air Force Base, New Mexico

RCRA FACILITY INVESTIGATION REPORT

ERP SITE NO. DP-62, RITAS DRAW
HOLLOMAN AIR FORCE BASE, NEW MEXICO

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Waste Bureau

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Holloman Air Force Base
New Mexico

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August 2004

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ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
bgs	Below ground surface
Bhate	Bhate Environmental Associates, Inc.
DO	Delivery Order
DPT	Direct push technology
EPA	Environmental Protection Agency
ERP	Environmental Restoration Program
FSP	Field Sampling Plan
GPS	Global positioning system
HAFB	Holloman Air Force Base
HTW	Hazardous and Toxic waste
IDW	Investigation derived waste
JP-4	Jet fuel
JP-X	Combination of JP-4 and UDMH
µg/kg	Micrograms per kilogram
µg/L	Micrograms per liter
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
MSL	Mean sea level
NFA	No Further Action
NMED	New Mexico Environment Department
NMWQCC	New Mexico Water Quality Control Commission
PA	Preliminary Assessment
PID	Photo ionization detector
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SI	Site Inspection
SOP	Standard Operating Procedures
SSL	Soil Screening Level
SVOC	Semi-volatile organic compound
SWMU	Solid Waste Management Unit
TAL	Target Analyte List

TDS	Total dissolved solids
TPH	Total petroleum hydrocarbons
UDMH	Unsymmetrical dimethylhydrazine
USACE	United States Army Corps of Engineers
USCS	United Soil Classification System
USGS	United States Geological Service
UTL	Upper tolerance limit
VOC	Volatile organic compound

1 INTRODUCTION

The U.S. Army Corps of Engineers, Omaha District (USACE) has retained Bhate Environmental Associates, Inc. (Bhate) under the Service Contract with the USACE (Contract No. DACA45-02-D-0012, Delivery Order (DO) No. 5) to conduct a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) at site DP-62 (Ritas Draw) at Holloman Air Force Base (HAFB), New Mexico. The RFI was conducted on behalf of the HAFB Environmental Restoration Program (ERP) for the New Mexico Environment Department (NMED), and this report presents the findings of the RFI.

1.1 Objectives

The objective of this RFI is to generate data to characterize potential contaminant sources as well as determine the nature and extent of contamination derived from soil sampling as requested by NMED. Additionally, the data generated provides further support for HAFBs request for No Further Action (NFA) at DP-62.

1.2 Purpose of the RCRA Facility Investigation

The purpose of this RFI is to address verbal comments made by the NMED during a March 4, 2003, site visit to DP-62. The NMED comments from the site visit were recorded in the meeting minutes and are the primary basis for the scope of work described in the *Final Phase II RCRA Facility Investigation Work Plan* (Bhate, November 2003b) and carried out during the investigation activities.

The key concern was that not enough data was collected from areas immediately adjacent to the debris. It was decided that shallow soil samples should be advanced in the immediate proximity of the exposed drums. NMED stated that four soil borings with two soil samples collected from each boring for laboratory analysis would be sufficient. The samples are to be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and RCRA-8 metals.

The initial request for NFA was based on the original *Preliminary Assessment/Site Inspection* (PA/SI) conducted in 1998 (Foster Wheeler Environmental Corporation and Groundwater Technology, Inc., 1998). The PA/SI was submitted to NMED by HAFB in 1999. Section 2.2 of this document summarizes the original PA/SI conducted for the site.

1.3 Scope of Work

The approach adopted to meet the stated primary objective consisted of a field investigation to determine if contamination is present in subsurface soil immediately adjacent to partially buried drums located on the sloped edge of an arroyo which intermittently drains into Ritas Draw. The RFI at DP-62 included the following activities:

- Advancement of 4 soil borings and collection of two soil samples from each soil boring on the basis of field screening criteria for laboratory analysis
- Laboratory analysis of the soil samples for VOCs by Environmental Protection Agency (EPA) Method 8260B, SVOCs by EPA Method 8270C, total petroleum hydrocarbons (TPH) by EPA Method 8015, and RCRA metals by EPA Method 6010B/7471A
- Removal of drums and debris from the site if the soil analytical results did not identify the presence of hazardous constituents

All work was conducted in accordance with HAFB Standard Operating Procedures (SOPs) provided in the *Basewide Quality Assurance Project Plan* (QAPP) (Bhate, November 2003a) and the *Basewide Health and Safety Plan* (Bhate, August 2003).

2 SITE BACKGROUND

HAFB is situated in south central New Mexico, in the northwest central part of Otero County (Figure 1). HAFB has a population of 6,000 and occupies about 50,000 acres in the northeast quarter of Section 1, Township 17 South, Range 8 East. The White Sands Missile Range testing facilities occupy additional land extending northward from the Base. Private and public owned lands border the remainder of HAFB. The major highway servicing HAFB is Highway 70, which runs southwest from the town of Alamogordo and separates HAFB from publicly owned lands to the south. Alamogordo which has a population of approximately 35,000 is located approximately 7 miles east of the base.

2.1 Site Description and Operational History

DP-62 (formerly identified as Area of Concern (AOC) - Ritas Draw) is located in a remote portion of the North Base Area, approximately 300 feet northwest of ERP Site OT-04 (Acid Trailer Burial Site – Solid Waste Management Unit (SWMU) 102). DP-62 is one of many smaller arroyos that terminate into Ritas Draw. A site plan is presented as Figure 2, and surface features, illustrated in the photographs presented in Appendix A, indicate a dendritic drainage pattern across the DP-62 site with a terminus at Ritas Draw. A change in elevation of approximately 30 feet exists from south to north across DP-62. The site terrain generally slopes downward to the north and is near vertical in some locations.

In 1998, during the initial field reconnaissance in the area of AOC-Ritas Draw, two partially buried drums were discovered. These drums were believed to be related to early missile testing that occurred on HAFB during the 1950s. The drums were empty, and the original contents of the drums are unknown. Appendix A contains photographs that illustrate location of the drums as well as additional surface area features.

At the nearby Acid Trailer Burial Site (OT-04, SWMU 102), waste materials were dumped and buried on a one-half acre tract of land along the banks of the DP-62 arroyo. The waste materials appear to have been placed in three drainages of a side channel to Ritas Draw and appear to have been subsequently covered with soil from the surrounding area. The majority of the waste at OT-04 may have originated from the former Unconventional Fuels Storage Area, which is located approximately ½-mile to the south. The Unconventional Fuels Storage Area housed propellants, oxidizers, and other fuel components that were used by the 6585th Test Group for rocket and sled tests conducted at HAFB. Compounds typically stored at the facility included, but were not limited to, the following: JP-4 (jet fuel), unsymmetrical dimethylhydrazine (UDMH), aniline, inhibited red fuming nitric acid, inhibited white fuming nitric acid, liquid oxygen, JPX (a combination of JP-4 and UDMH), dyes, and other like compounds (Foster Wheeler Environmental Corporation and Groundwater Technology, Inc., 1998).

2.2 Basis for the RCRA Facility Investigation

In 1998, a PA/SI was performed at DP-62 which was known as AOC-Ritas Draw (Foster Wheeler Environmental Corporation and Groundwater Technology, Inc., 1998). The PA portion of the investigation did not conclusively identify a source for the operational material debris present at the site. However, given the proximity to OT-04 (Acid Trailer Burial Site), it was speculated that similar materials were most likely present at DP-62. The SI field investigation activities at DP-62 consisted of a geophysical survey followed by the installation of direct push technology (DPT) soil borings and DPT groundwater monitoring points.

2.2.1 Geophysical Survey

A geophysical survey utilizing a Geometrics G858G gradiometer (magnetometer) was performed on the surface of the site utilizing a grid pattern. Figure 3 is a color-contoured map prepared from the results of the survey. The survey identified approximately five areas of high magnetic response which are assumed to be the result of buried metal objects such as drums or debris. Also, the survey map illustrates the location of each drum exposed on the surface.

2.2.2 Soil Sampling

Based on the geophysical survey results, four soil borings were installed in 1998 at DP-62 in locations suspected to contain buried debris (Figure 4). The DPT borings encountered interbedded layers of silt, fine-grained sand, and clay to a depth of 20 feet. Copies of the Drilling/Boring Logs from the PA/SI Report for AOC-Ritas Draw can be found in Appendix B.

Three DPT borings (RITA-1, RITA-2, and RITA-4) were advanced in the immediate proximity of areas of high magnetic response and visible surface disturbance. DPT boring RITA-3 was installed at the confluence of drainage to determine if contamination was present down slope of the debris. DPT borings RITA-1 and RITA-2 were completed to depths of 20 feet and 18 feet, respectively. In boring RITA-2, refusal was encountered upon encountering hard, dry silt (ML) at 18 feet bgs. Futhermore, both borings were determined to be dry, and groundwater sampling was not attempted. After sample collection, borings RITA-1 and RITA-2 were properly abandoned using bentonite in accordance with the approved Field Sampling Plan (FSP). DPT borings RITA-3 and RITA-4 were completed to depths of 9 feet and 10 feet, respectively, with groundwater encountered at 6.5 and 7.5 feet bgs, respectively.

Based upon screening criteria, two soil samples from each boring were submitted for laboratory analysis. The soil samples were analyzed for VOCs by EPA SW-846 Method 8260A, SVOCs by EPA SW-846 Method 8270B, explosives (Nitroaromatics and Nitramines) by EPA SW-846 Method 8330, and Target Analyte List (TAL) Metals by EPA SW-846 Method 6010B/7471A.

SVOCs and explosives were not detected in the soil samples. VOCs were not detected with the exception of acetone at 20 micrograms per kilogram (µg/kg) and 25 µg/kg in samples from 12 and 18 feet below ground surface (bgs) at boring RITA-2. Acetone was also detected in the laboratory blanks and was presumed to be a laboratory artifact in the samples. Results from the analysis of metals in soil samples were compared to EPA Region 6 Media Specific Screening levels. Only arsenic exceeded the risk based screening level in samples RITA-1 (9 feet bgs) at 2.0 milligrams per kilogram (mg/kg), RITA-2 (12 feet bgs) at 17.4 mg/kg, and duplicate sample RITA-2-DUP (12 feet bgs) at 9.1 mg/kg (Foster Wheeler Environmental Corporation and Groundwater Technology, Inc., 1998). Table 1 is a copy of the soil analytical results extracted from the PA/SI Report for AOC-Ritas Draw.

2.2.3 Groundwater Sampling

Following completion of borings RITA-3 and RITA-4, groundwater samples were collected using a temporary well screen that was inserted into the drill rods and exposed after retracting the drilling rods. Groundwater samples were collected from boring RITA-3 and RITA-4 using a peristaltic pump and Teflon™ tubing. After sample collection, both borings were properly abandoned using bentonite in accordance with the FSP.

Groundwater samples were analyzed for VOCs by EPA SW-846 Method 8260A, SVOCs by EPA SW-846 Method 8270B, explosives (Nitroaromatics and Nitramines) by EPA SW-846 Method 8330, and TAL Metals by EPA SW-846 Method 6010B/7470A. No VOCs, SVOCs, or explosives were detected in groundwater samples (Foster Wheeler Environmental Corporation and Groundwater Technology, Inc., 1998). Eight metals were detected in one or more samples; however, only the detections of arsenic and antimony exceeded the screening criteria for drinking water. The metals detected included:

- Arsenic (0.029 mg/L (milligrams per liter) to 0.032 mg/L)
- Antimony (0.032 mg/L to 0.036 mg/L)
- Calcium (799 mg/L to 828 mg/L)
- Iron (0.63 mg/L)
- Potassium (54.6 mg/L to 63.8 mg/L)
- Magnesium (1,660 mg/L to 1,840 mg/L)
- Manganese (0.11 mg/L to 0.36 mg/L)
- Sodium (9,490 mg/L to 11,600 mg/L)

Table 2 is a copy of the groundwater analytical results table extracted from the PA/SI Report for AOC-Ritas Draw. Table 3 is a copy of the screening for chemicals of potential concern table extracted from the PA/SI Report for AOC-Ritas Draw.

2.3 Screening Level Human Health Risk Evaluation

The PA/SI report provides a screening level evaluation to identify chemicals of potential concern. The evaluation involves a comparison of detected concentrations of constituents in each media with EPA Region 6 Medium-Specific Screening Levels and the New Mexico Water Quality Control Commission (NMWQCC) Human Health Standards for groundwater of 10,000 mg/L total dissolved solids (TDS) concentration or less. If the concentration was below both criteria it was eliminated which is the case for VOCs, TPH, SVOCs and explosives results. A second tier screening was used for metal concentrations which were compared to Basewide background values (Radian 1993b). If the metal was below these ranges it was eliminated. Finally, the metals were also compared to concentration ranges from regional data and were not further evaluated if below these ranges.

Review of the soil data in Table 1 indicates arsenic concentrations exceed the screening levels in Table 3. The 9-foot sample from RITA-1 (2 mg/kg) and the 12 foot sample from the RITA-2 (17.4 mg/kg) as well as the duplicate sample collected from RITA-2 (Rita-2-Dup 9.1 mg/kg) meet or exceed the Medium-Specific Screening Level for Industrial Soil for arsenic as a carcinogen of 2 mg/kg. The two samples from RITA-2 also exceed the Basewide upper tolerance limits (UTL) for arsenic of 6.883 mg/kg but are well within the observed range of <0.1 to 97 mg/kg for arsenic for the Western United States (United States Geological Service (USGS), 1984).

The groundwater analytical results presented in Table 2 indicate arsenic concentration in RITA-3 (32 µg/L) the duplicate sample collected from RITA-3 (29 µg/L) and RITA-4 (17 -B µg/L) exceed the Medium-Specific Screening Level for Tap Water for arsenic (noncancer, 2.3 µg/L) and (carcinogen, 0.045 µg/L) but remains below the Basewide UTL of 35.4 µg/L presented in Table 3. Arsenic concentrations in RITA-3, RITA-3-DP (duplicate), and RITA-4 did not exceed the MCL of 50 µg/L which was established at the time the PA/SI was performed, they do however exceed the current MCL of 10 µg/L. Groundwater results from RITA-3, RITA-3-DP, and RITA-4 with antimony concentrations of 34 µg/L, 36 µg/L, and 32 µg/L respectively exceed both the Drinking Water Maximum Concentration Limit (MCL) of 6 µg/L and Screening Level for Tap Water of 15 µg/L but fall short of the Basewide UTL of 87.1 µg/L. Finally, the sample from RITA-4 presented 360 µg/L manganese which does not exceed the Tap Water Screening Level of 1,700 µg/L but does exceed the NMWQCC standard of 200 µg/L. Although no Basewide UTL has been established for manganese, the concentration does not exceed the typical range of <1 to 1,000 µg/L for manganese in groundwater for natural elemental concentrations (Dragun, 1998).

These data show that arsenic and antimony concentrations in groundwater will routinely exceed their particular MCLs and do not result from past practices or activities at DP-62.

Furthermore, groundwater beneath HAFB has been classified as a Class III B aquifer according to EPA guidance due to total dissolved solids concentrations in excess of 10,000 mg/L. The

groundwater has therefore been designated as unfit for human consumption on the basis of the New Mexico Water Quality Control Commission. The State Engineer also designates any water containing greater than 10,000 mg/L TDS not protectable pursuant to Section 70-2-12-B.(15)n NMSA, 1978.

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3 ECOLOGICAL SETTING

3.1 Physiography, Topography, and Surface Water Hydrology

HAFB is located in the Tularosa Basin which is bounded by the San Andreas Mountains to the west and the Sacramento Mountains to the east. The basin's interior plain has low relief, with altitudes ranging from about 4,000 feet above mean sea level (MSL) in the southwest to approximately 4,400 feet above MSL in the northeast. The bordering mountains rise abruptly to altitudes of 7,000 to 12,000 feet above MSL.

The climate in the Tularosa Basin is arid with annual precipitation averaging 7.9 inches. Most of the precipitation falls as rain from May to October. The winter period is characterized by clear skies with light and intermittent snowfall. March through May is characterized by strong winds with extensive periods of blowing sand and dust. The mean annual evaporation rate in the basin is 67 inches per year. This evaporation rate results in a net annual precipitation rate of minus 59 inches per year which results in a net loss of groundwater due to evapotranspiration (Radian, 1993a).

3.2 Geology

The Tularosa Basin is a bolson, or a basin with no surface drainage outlet. The sediments of the basin are carried in by water that does not escape. Sediments in the basin are derived from the limestone, dolomite, and gypsum deposits found in the surrounding mountains. Coarse and heterogeneous alluvial materials are present along the boundary of the basin and the mountains. Fine-grained and fluvial sediments derived from the mountains are located in the center part of the basin. The near surface sediments are alluvial, eolian, and playa or lacustrine in origin. In many locations, wind and water have reworked the sediments into discontinuous layers of silt, sand, and clay. These fine-grained sediments contain gypsum crystals (Radian, 1993a).

3.3 Hydrogeology

Groundwater occurs in unconfined conditions within the unconsolidated bolson deposits beneath HAFB. The primary source of recharge is stream runoff from the western side of the Sacramento Mountains. Water migrates through these alluvial deposits into the finer grained sediments of the center of the basin. The depth to water beneath the base ranges from less than 5 feet to 50 feet bgs. Basewide, groundwater flow direction is influenced by the surface water flow along southwest trending arroyos. In general, groundwater flow direction is west and southwest depending upon the immediate proximity of these drainage features.

Groundwater quality in the Tularosa Basin is of potable quality at the recharge areas in close proximity to the Sacramento Mountains and becomes increasingly mineralized toward the central portion of the basin and discharge areas (Radian, 1993a). At several SWMU located across the base, monitoring wells contain water with greater than 10,000 mg/L total dissolved solids (TDS)

(Foster Wheeler, 2002). There are no potable water wells on HAFB. Potable water for the base and the city of Alamogordo is derived from the nearby Sacramento Mountains. The only production water well, used for livestock irrigation, is located 13 miles southwest of DP-62. At present, a Basewide study of groundwater quality, particularly TDS, is being performed by others. The purpose of the study is to further document the characteristics and quality of groundwater.

4 SITE CHARACTERIZATION

4.1 Overview of Investigation Activities

The field work for the RFI was conducted in accordance with HAFB SOPs provided in the *Basewide QAPP* (Bhate, November 2003a). These SOPs outline methodologies for soil boring advancement, soil sampling, soil sample description, field screening, sample management, equipment decontamination, and chain-of-custody procedures.

Prior to boring advancement, all necessary HAFB utility clearance permits (digging permits), flightline, and security permits were obtained. On March 31, 2004, four hand augured soil borings (Figure 5) were advanced at the site to an approximate depth of 5 feet bgs. Continuous soil samples were collected from these borings. A portion of each sample was screened in the field for VOCs using a photo ionization detector (PID).

Based on headspace screening results or other relevant observations (such as staining, odor, or soil type), one soil sample from each soil boring was selected for laboratory analyses. The sample obtained from the bottom of the boring was selected if the screening failed to identify an appropriate interval. A total of 5 soil samples, including one field duplicate sample, were submitted to the laboratory for analysis. The samples were placed on ice and shipped under strict chain-of-custody to Associated Laboratories located in Orange, California. The location of each boring and exposed drum was surveyed using the HAFB global positioning system.

4.2 Soil Borings, Lithologic Sampling, and Logging

Each soil boring was logged in the field and visually classified according to the Unified Soil Classification System (USCS). Soils at the site consisted of light yellow sand. Soil boring logs are included in Appendix B.

4.3 Laboratory Sample Analysis

Five soil samples (including the field duplicate) were analyzed for VOCs by EPA SW-846 Method 8260B, SVOCs by EPA SW-846 Method 8270C, TPH by EPA SW-846 Method 8015, and RCRA metals (arsenic, barium, chromium, cadmium, lead, mercury, selenium, and silver). The RCRA metals were analyzed by Method 6010B with the exception of mercury, which was analyzed by Method 7471A.

4.4 Drum Removal

Because the analytical results of soil sampling around the drums did not identify the presence of hazardous constituents, the drums exposed on the surface were to be removed and recycled as scrap metal by Bhate.

4.5 Equipment Decontamination

All reusable equipment associated with soil sampling was decontaminated in accordance with the HAFB SOPs provided in the *Basewide QAPP* (Bhate, November 2003a).

4.6 Waste Handling

All investigation derived waste (IDW) produced during the investigation process was handled in accordance with the HAFB SOPs provided in the *Basewide QAPP* (Bhate, November 2003a).

5 SOIL ANALYTICAL RESULTS

Four soil samples and one duplicate sample were submitted to Associated Laboratories of Orange, California, for laboratory analysis. The soil samples were analyzed for VOCs, SVOCs, TPH, and RCRA metals. All data was validated in accordance with the *Basewide QAPP* (Bhate, November 2003a), and the Quality Control Summary Report is included as Appendix D.

To provide a screening level human health evaluation and environmental risk evaluation, the analytical results from the RFI soil sampling were compared with the most recent NMED Residential Soil Screening Levels available on the NMED web site: (http://www.nmenv.state.nm.us/HWB/data/SSL%20guidance%20revision%202.0%20%2002-2004.pdf). The NMED SSLs are derived using default exposure parameter values and assumed to be appropriately conservative and protective for the majority of site conditions relevant to soil exposures within New Mexico.

5.1 Volatile Organic Compounds

No VOCs were detected above the method detection limits for the samples submitted for laboratory analysis. VOC analytical results are summarized in Table 4. As there were no compounds detected, specific SSLs are not provided.

5.2 Semi-Volatile Organic Compounds

No SVOCs were detected above the method detection limits for the samples submitted for laboratory analysis. SVOC analytical results are summarized in Table 4. As there were no compounds detected, specific SSLs are not provided.

5.3 Total Petroleum Hydrocarbons

No TPH compounds were detected above the method detection limits for the samples submitted for laboratory analysis. TPH analytical results are summarized in Table 5.

5.4 RCRA Metals

Five of the eight RCRA metals were detected above the method detection limits. Analytical results for RCRA metals are summarized in Table 5, and are illustrated on Figure 5.

- Arsenic was detected in soil borings SB-01, SB-02, and SB-03 at 1,869 µg/kg, 2,219 µg/kg, and 1,834 µg/kg respectively. A duplicate sample collected from SB-01 also contained 1,530 µg/kg arsenic These concentrations are below the Residential Soil Screening Level (SSL) of 3,900 µg/kg.
- Barium was detected above the method detection limit in all four soil borings at concentrations ranging from 21,024 to 48,356 µg/kg. These concentrations are below the Residential SSL for barium which is 5,450,000 µg/kg.

- Cadmium was detected in one sample collected from soil boring SB-01 at 192 µg/kg that is well below the Residential SSL for cadmium of 74,100 µg/kg.
- Chromium was detected in all four soil samples at concentrations ranging from 2,932 to 8,503 µg/kg. These values are well below the Residential SSL for chromium of 234,000 µg/kg.
- Selenium was also detected in all four of the soil borings at concentrations ranging from 1,764 to 3,866 µg/kg. These values are well below the Residential SSL for selenium of 391,000 µg/kg.

6 SUMMARY AND CONCLUSIONS

The RFI, in addition to the data generated during the PA/SI, conducted at DP-62 has generated sufficient data to characterize potential contaminant sources and determine to the extent possible, the nature and extent of contamination in the soil and groundwater media in the immediate vicinity of the drums. Completion of these tasks allows the formulation of conclusions and recommendations for the site.

6.1 Summary

During the PA/SI, soil and groundwater samples were collected to characterize the nature and extent of contamination in the soil and groundwater at DP-62. Data gaps as identified by NMED were addressed during the RFI and additional soils were collected from specific areas that had the greatest potential for environmental impacts resulting from historical waste disposal practices based on visual observations and the previous geophysical survey.

Chemical analysis of the four soil samples collected from DP-62 during this RFI indicate that VOCs, SVOCs, TPH, and RCRA metals are not present in the soil media at the site above residential SSLs. Likewise, soil and groundwater collected during the PA/SI indicate that VOCs, SVOCs, TPH, and explosives are not present at the site above the applicable standards. The presence of arsenic in soil above Medium-Specific Screening levels has been determined to be within the observed range for arsenic in the Western United States (USGS, 1984). Similarly, the presence of antimony concentrations above its MCL was found to be within the respective Basewide UTL established for antimony (Radian, 1993a). Finally, the occurrence of manganese in one groundwater sample in excess of both the Tap Water Screening Level and NMWQCC standard did not exceed the typical range for manganese in groundwater for natural elemental concentrations (Dragun, 1998).

6.2 Conclusions

Based on the findings of the PA/SI and the RFI, the following conclusions and recommendations have been developed. Investigation results indicate that elevated levels of RCRA metals are present in soil; however, as indicated by screening the data against residential SSLs, the presence of arsenic, barium, cadmium, chromium, and selenium do not pose any unacceptable risks. The presence of arsenic is within the range for soil in the Western United States (USGS, 1984). Similarly, the concentrations of arsenic and antimony in groundwater above their current MCLs was determined to be within the background range and Basewide UTL and, thus, do not pose any risk. Manganese in groundwater was also determined to be within the range for natural elemental concentrations (Dragun, 1998). Therefore, No Further Action (NFA) is recommended for DP-62.

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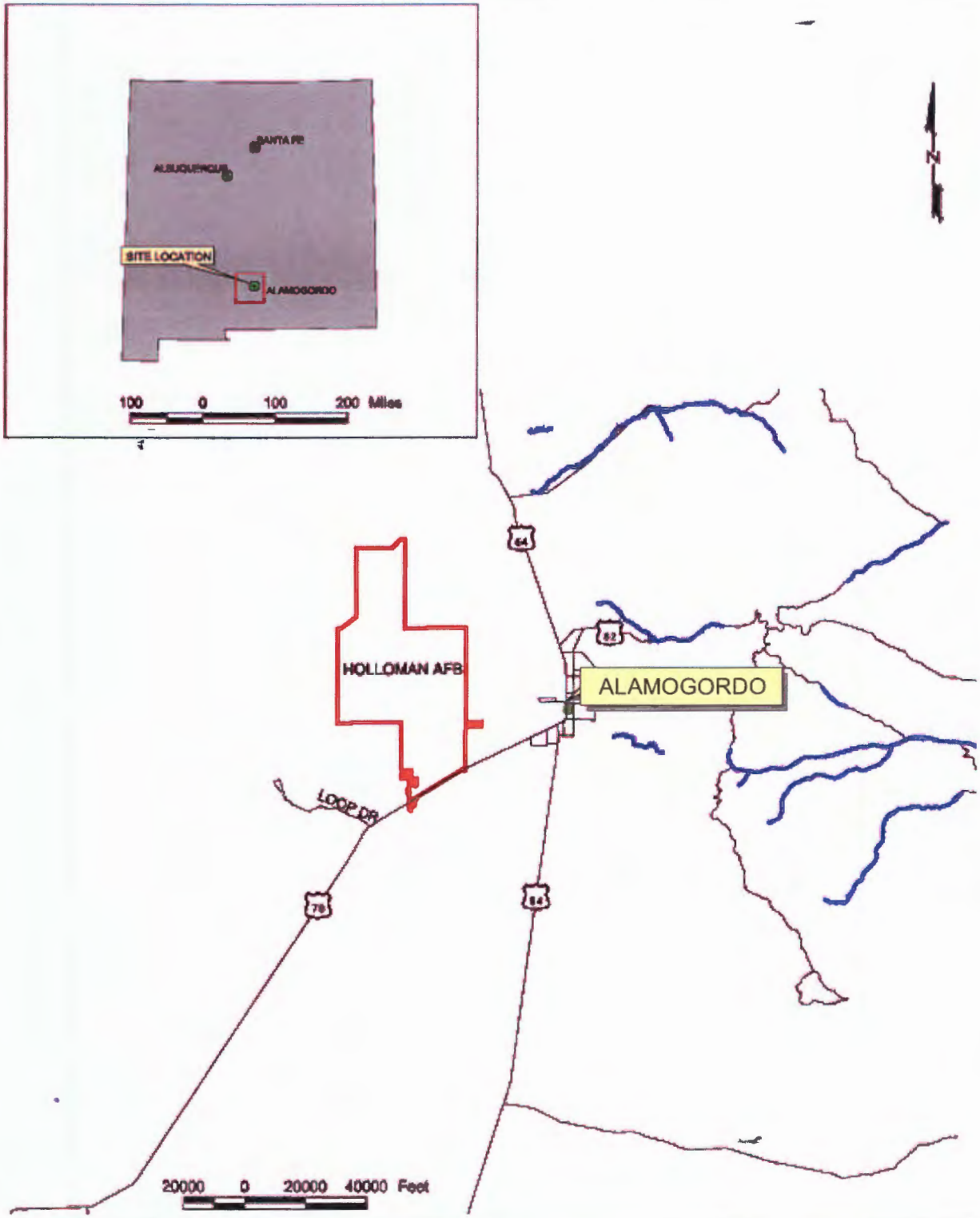
FIGURES

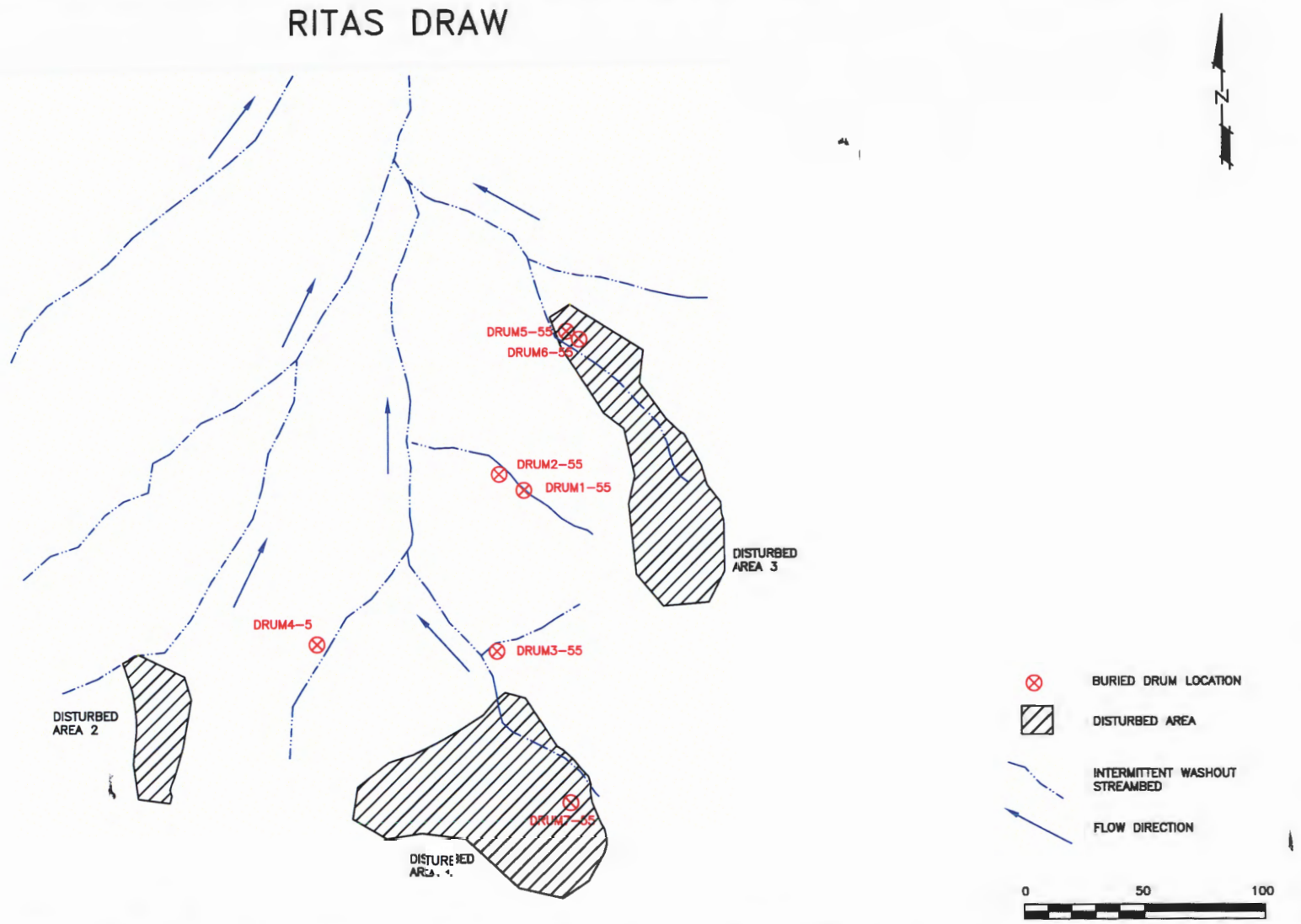


BHATE
Environmental Engineers and Scientists

SITE LOCATION MAP
DP-62 Ritas Draw

PROJECT NO.:	SCALE:	DATE:	DRAWN BY:
9030024	AS SHOWN	08/18/03	SRH
			FILE: HAFBDP62Fig1.cdr

Figure 1
Holloman AFB
New Mexico



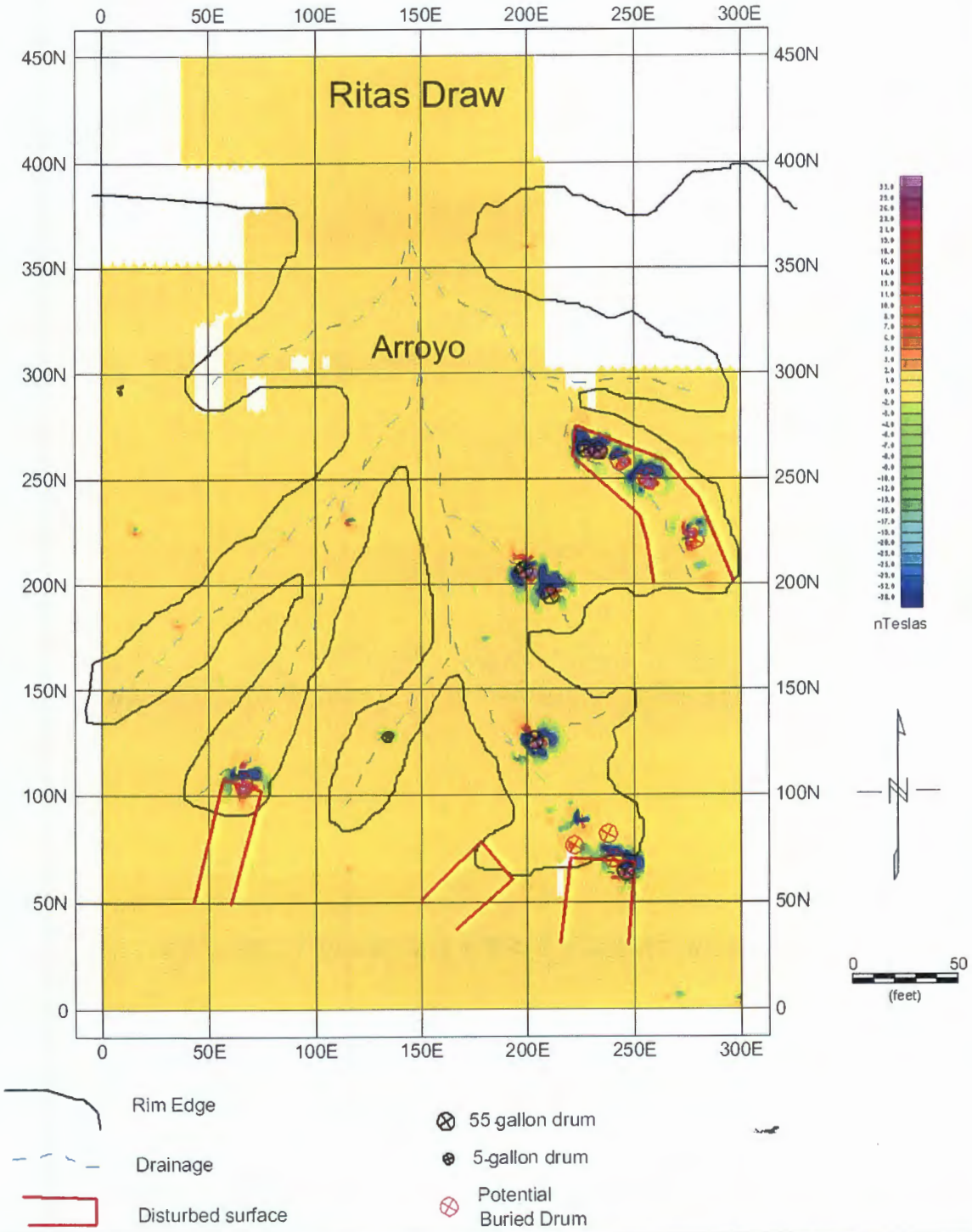
BHATE
Environmental Engineers and Scientists

SITE PLAN
DP-62 RITAS DRAW

PROJECT NO.	SCALE	DATE	DRAWN BY:	CHECKED BY:
9030024	AS SHOWN	05/11/04	SRH/MRM	–
			DRAWING NO: HAFBDP62Fig2	

Figure 2

Holloman Air Force Base
New Mexico



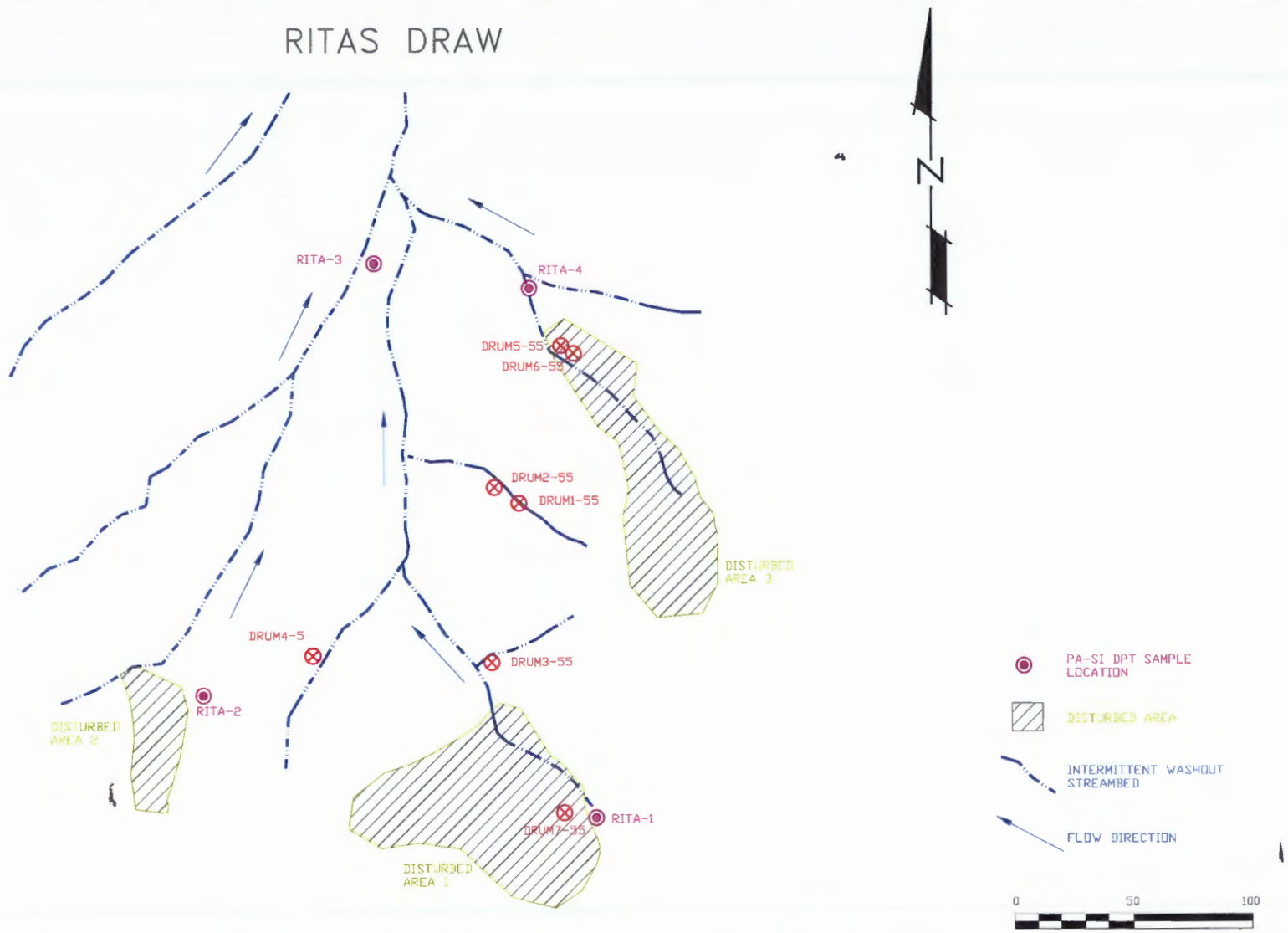
BHATE
Environmental Engineers and Scientists

PA/SI Magnetic Geophysical Survey Map of DP-62

PROJECT NO.:	SCALE:	DATE:	DRAWN BY:
9030024	NTS	08/18/03	SRH
			FILE: HAFBDP62Fig3(NEW)

Figure 3

Holloman AFB
New Mexico



BHATE
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PA/SI Soil Boring Location Map

DP-62 RITAS DRAW

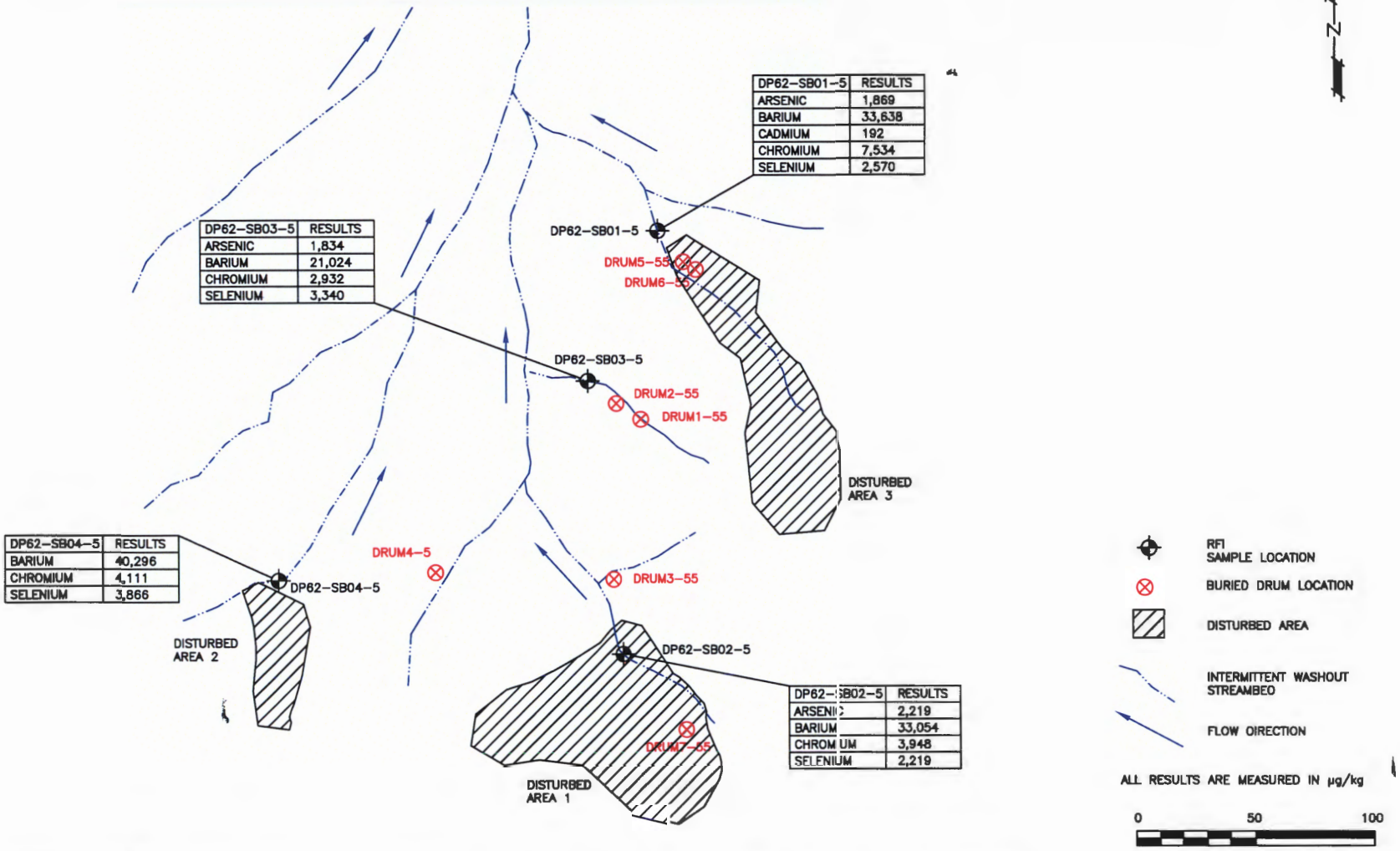
PROJECT NO.	SCALE	DATE	DRAWN BY:	CHECKED BY:
9030024	AS SHOWN	5/26/04	SRH	–

DRAWING NO: HAFBDP62Fig4.dwg

Figure 4

Holloman Air Force Base
New Mexico

RITAS DRAW



DP62–SB01–5	RESULTS
ARSENIC	1,869
BARIUM	33,638
CADMIUM	192
CHROMIUM	7,534
SELENIUM	2,570

DP62–SB03–5	RESULTS
ARSENIC	1,834
BARIUM	21,024
CHROMIUM	2,932
SELENIUM	3,340

DP62–SB04–5	RESULTS
BARIUM	40,296
CHROMIUM	4,111
SELENIUM	3,866

DP62–SB02–5	RESULTS
ARSENIC	2,219
BARIUM	33,054
CHROMIUM	3,948
SELENIUM	2,219

BHATE
Environmental Engineers and Scientists

ANALYTICAL RESULTS FOR METALS IN SOIL SAMPLES
DP–62 RITAS DRAW

PROJECT NO.	SCALE	DATE	DRAWN BY:	CHECKED BY:
9030024	AS SHOWN	05/26/04	SRH/MRM	–

DRAWING NO: HAFBDP62Fig5(NEW)

Figure 5

Holloman Air Force Base
New Mexico

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS
AOC-RITAS DRAW
HOLLOMAN AFB, NEW MEXICO
MAY 21, 1998

Sample ID	RITA-1-2	RITA-1-9	RITA-1-15	RITA-1-20	RITA-2-2	RITA-2-5	RITA-2-12	RITA-2-12-DUP	RITA-2-18	RITA-3-2	RITA-4-2	RITA-4-8
Depth (ft)	2	9	15	20	2	5	12	12	18	2	2	8
VOCs-EPA SW-846 Method 8260A (µg/kg)												
Acetone	153,BL	16J	13J	10J	17J	11J	20	23	25	12J	16J	18J
Methylene Chloride	4.7J,BL	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
2-Butanone (MEK)	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	8.4J
All others	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SVOCS-EPA SW-846 Method 8270B (µg/kg)												
All analytes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitroaromatics and Nitramines-EPA SW-846 Method 8330 (µg/g)												
All analytes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TAL Metals-EPA SW-846 Methods 6010B/7471A (mg/kg)												
Arsenic	1.8B	2.0	1.5B	1.2B	ND<5.0	ND<1.0	17.4	9.1	1.1B	0.98B	0.80B	1.4B
Cadmium	ND<1.0	0.37B	0.39B	ND<1.0	ND<2.5	0.084B	0.17B	0.16B	0.13B	ND<1.0	0.17B	0.15B
Lead	1.9	5.1	5.3	0.39B	ND<1.5	0.71	0.79	ND<0.60	0.89	0.48B	2.0	1.2
Antimony	1.8B	1.5B	1.7B	1.9B	3.6B	ND<1.0	1.7B	1.6B	1.6B	1.5B	0.90B	1.7B
Selenium	ND<1.0	1.3	ND<1.0	ND<1.0	ND<2.5	ND<0.50	0.56B	0.53B	ND<1.0	ND<1.0	0.61	ND<1.0
Thallium	ND<2.0	1.1B	ND<2.0	ND<2.0	1.9B	ND<1.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<2.0
Silver	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<2.0	0.75B	ND<2.0	ND<2.0	ND<1.0	ND<2.0
Aluminum	2,270	11,800	12,600	1,350	478	1,680	944	979	2,350	994	3,540	2,220
Barium	26.6	79.3	29.0	27.3	10.7	15.4	9.3	9.2	22.0	10.9	10.2	4.8
Beryllium	ND<0.40	0.61	0.67	ND<0.40	ND<0.40	0.11B	ND<0.40	ND<0.40	ND<0.40	ND<0.40	0.25	ND<0.40
Calcium	164,000	154,000	179,000	146,000	199,000	15,400	168,000	164,000	136,000	146,000	67,600	136,000

TABLE 1 (Concluded)
SOIL ANALYTICAL RESULTS
AOC-RITAS DRAW
HOLLOMAN AFB, NEW MEXICO
MAY 21, 1998

Sample ID	RITA-1-2	RITA-1-9	RITA-1-15	RITA-1-20	RITA-2-2	RITA-2-5	RITA-2-12	RITA-2-12-DUP	RITA-2-18	RITA-3-2	RITA-4-2	RITA-4-8
Depth (ft)	2	9	15	20	2	5	12	12	18	2	2	8
TAL Metals-EPA SW-846 Methods 6010B/7471A (mg/kg) (continued)												
Cobalt	0.91B	3.5	4.1	ND<2.0	ND<2.0	0.46B	0.64B	1.3B	ND<2.0	ND<2.0	1.4	1.3B
Chromium	3.1	14.8	14.5	4.2	ND<2.0	3.9	1.8B	2.4	1.8B	1.5B	4.5	1.9B
Copper	1.4B	5.0	4.7	ND<4.0	ND<4.0	0.49B	0.78B	1.2B	ND<4.0	ND<4.0	1.9B	1.8B
Iron	326	2,240	6,680	1,190	888	1,160	3,940	5,200	1,480	569	3,960	2,500
Potassium	484B	3,150	3,280	325B	ND<1,000	388B	259B	355B	479B	208B	955	540B
Magnesium	2,830	7,290	5,600	735	611	764	468	471	1,090	718	2,530	2,600
Manganese	47.7	99.3	232	12.9	5.3	17.1	9.6	11.1	16.7	15.7	80.8	23.8
Sodium	ND<1,000	798B	1,560	ND<1,000	ND<1,000	ND<500	ND<1,000	ND<1,000	ND<1,000	480B	920	1,310
Nickel	2.4B	11.0	11.5	2.9B	ND<8.0	1.8B	ND<8.0	1.6B	1.5B	1.2B	3.9B	2.5B
Vanadium	8.5	21.0	17.5	2.4	1.1B	3.0	22.8	16.9	3.6	2.1	7.0	5.2
Zinc	6.2	25.8	28.4	3.8B	1.3B	3.1	2.6B	3.3B	4.9	3.3B	9.0	7.5
Mercury	ND<0.033	ND<0.033	ND<0.033	ND<0.033	ND<0.033	ND<0.033	ND<0.033	ND<0.033	ND<0.033	ND<0.033	ND<0.033	ND<0.033

<	Indicates compound not detected at or above the RL.
B	Estimated result; result is less than RL.
BL	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
ft	Feet
J	Estimated result; result is less than RL.
mg/kg	Milligrams per kilogram
ND	Not detected
RL	Reporting limit
SVOCs	Semivolatile organic compounds
TAL	Target Analyte List
µg/kg	Micrograms per kilogram
VOCs	Volatile organic compounds

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
AOC-RITAS DRAW
HOLLOMAN AFB, NEW MEXICO
MAY 21, 1998

Sample ID	RITA-3-GW-7	RITA-3-GWDP-7	RITA-4-GW-8
VOCs-EPA SW-846 Method 8260A (µg/L)			
Benzene	ND<1.0	ND<1.0	0.27J
Ethylbenzene	ND<1.0	ND<1.0	0.22J
2-Butanone (MEK)	ND<5.0	ND<5.0	1.2J
4-Methyl-2-pentanone	ND<5.0	ND<5.0	0.72J
Toluene	ND<1.0	ND<1.0	0.39J
Xylenes (total)	ND<1.0	ND<1.0	0.88J
All others	ND	ND	ND
SVOCS-EPA SW-846 Method 8270B (g/L)			
All analytes	ND	ND	ND
Nitroaromatics and Nitramines-EPA SW-846 Method 8330 (µg/L)			
All analytes	ND	ND	ND
TAL Metals-EPA SW-846 Methods 6010B/7470A (mg/L)			
Arsenic	0.032	0.029	0.017B
Cadmium	ND<0.010	0.0012B	ND<0.010
Lead	ND<0.014G	ND<0.015G	ND<0.014G
Antimony	0.034	0.036	0.032
Selenium	ND<0.026G	ND<0.023G	ND<0.017G
Thallium	ND<0.020	ND<0.020	ND<0.020
Silver	ND<0.10	ND<0.10	ND<0.050
Aluminum	ND<1.0	ND<1.0	ND<0.50
Barium	ND<0.10	ND<0.10	ND<0.050
Beryllium	ND<0.020	ND<0.020	ND<0.010
Calcium	828	923	799
Cobalt	ND<0.10	ND<0.10	ND<0.050
Chromium	ND<0.10	ND<0.10	ND<0.050
Copper	ND<0.20	ND<0.20	0.014B
Iron	ND<1.0	ND<1.0	0.63
Potassium	63.2	63.8	54.6
Magnesium	1,840	1,830	1,660
Manganese	0.13	0.11	0.36
Sodium	11,600	11,600	9,490

TABLE 2 (Concluded)
GROUNDWATER ANALYTICAL RESULTS
AOC-RITAS DRAW
HOLLOMAN AFB, NEW MEXICO
MAY 21, 1998

Sample ID	RITA-3-GW-7	RITA-3-GWDP-7	RITA-4-GW-8
TAL Metals-EPA SW-846 Methods 6010B/7470A (mg/L) (continued)			
Nickel	ND<0.40	ND<0.40	ND<0.20
Vanadium	ND<0.10	0.042B	ND<0.050
Zinc	ND<0.20	ND<0.20	ND<0.10
Mercury	ND<0.00020	ND<0.00020	ND<0.00020

<	Indicates compound not detected at or above the RL.
B	Estimated result; result is less than RL.
G	Elevated reporting limit. The reporting limit is elevated due to matrix interference.
J	Estimated result; result is less than RL.
mg/L	Milligrams per liter
ND	Not detected
RL	Reporting limit
SVOCs	Semivolatile organic compounds
TAL	Target Analyte List
µg/L	Micrograms per liter
VOCs	Volatile organic compounds

TABLE 3
SCREENING FOR CHEMICALS OF POTENTIAL CONCERN
AOC-RITAS DRAW PA/SI
HOLLOMAN AFB, NEW MEXICO

SOIL							
				Media-Specific Screening Levels [a]			
Sample ID	Rita-1-9	Rita-2-12	Rita-2-12-Dup	Industrial Soil	Transfer from soil	UTL [b]	Other
Depth (ft)	9	12	12	(mg/kg)	to GW (mg/kg)	(mg/kg)	(mg/kg)
Arsenic	2.0 mg/kg	17.4 mg/kg	9.1 mg/kg	(noncancer) 610 NI (carcinogen) 2.0 C	20 20	6.883	<0.10-97[e]

GROUNDWATER								
				Media-Specific Screening Levels [a]				
Sample ID	Rita-3-GW-7	Rita-3-GWDP-7	Rita-4-GW-8	Drinking Water	Tap Water	NMWQCC [d]	UTL [b]	Other
				(MCL) [c] (µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Arsenic	32 µg/L	29 µg/L	-	(noncancer) 50 (carcinogen) -	2.3 NI 0.04C	100	35.4	-
Antimony	34 µg/L	36 µg/L	32 µg/L	6	15	--	87.1	-
Manganese	-	-	360 µg/L	--	180	200	NE	<1-1,000 [f]

a Human Health Media-Specific Screening Levels. United States Environmental Protection Agency, Region 6, 1445 Ross Avenue, Dallas, Texas 75202, October 30, 1996.
b "Phase I – Groundwater Assessment Monitoring Report for Holloman Air Force Base" (Radian, 1993).
c Federal Drinking Water Standards Maximum Contaminant Level (MCL), Office of Drinking Water, USEPA.
d NMWQCC Standards for Ground Water of 10,000 mg/L TDS concentration or less, Section 3103, 1995.
e Observed range for Western United States (USGS, 1984).
f Typical range for manganese in groundwater for natural elemental concentrations (Dragun, 1988).

C	Carcinogen	mg/kg	Milligrams per kilogram
ft	Feet	N	Non-carcinogenic effects
GW	Groundwater	NE	Not established
I	Ingestion route only	NMWQCC	New Mexico Water Quality Control Commission
MCL	Maximum Contaminant Level	µg/L	Micrograms per liter
		UTL	Upper Tolerance Limit

TABLE 4
VOC and SVOC CONCENTRATIONS IN SOIL SAMPLES
DP-62 RITAS DRAW
HOLLOMAN AFB, NEW MEXICO

Constituent of Concern	Sample ID				
	DP62-SB01-5	DP62-SB01-5A	DP62-SB02-5	DP62-SB03-5	DP62-SB04-5
Date Sampled	3/31/2004	3/31/2004	3/31/2004	3/31/2004	3/31/2004
Volatile Organic Compounds (VOCs)	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (SVOCs)	ND	ND	ND	ND	ND

Notes:

1. All results measured in mg/kg
2. ND - Not detected below detection limit
3. VOCs were analyzed by EPA Method 8260B
4. SVOCs were analyzed by EPA Method 8270C
5. DP62-SB01-5A is the field duplicate sample

TABLE 5
RCRA METALS and TOTAL PETROLEUM HYDROCARBON CONCENTRATIONS IN SOIL SAMPLES
DP-62 RITAS DRAW
HOLLOMAN AFB, NEW MEXICO

Constituent of Concern	Sample ID					SSL (µg/kg)
	DP62-SB01-5	DP62-SB01-5A	DP62-SB02-5	DP62-SB03-5	DP62-SB04-5	Residential
Date Sampled	3/31/2004	3/31/2004	3/31/2004	3/31/2004	3/31/2004	
Metals (µg/kg)						
Arsenic	1,869	1,530	2,219	1,834	<1,000	3.90E+03
Barium	33,638	48,356	33,054	21,024	40,296	5.45E+06
Cadmium	192	<500	<500	<500	<500	7.41E+04
Chromium*	7,534	8,503	3,948	2,932	4,111	2.34E+05
Lead	<500	<500	<500	<500	<500	4.00E+05
Mercury	<140	<140	<140	<140	<140	1.00E+08
Selenium	2,570	1,764	2,219	3,340	3,866	3.91E+05
Silver	<500	<500	<500	<500	<500	3.91E+05
Carbon Chains (µg/kg) (Total Petroleum Hydrocarbons)						
C06 - C10	<3,000	<3,000	<3,000	<3,000	<3,000	NA
C10 - C22	<3,000	<3,000	<3,000	<3,000	<3,000	NA
C22 - C36	<5,000	<5,000	<5,000	<5,000	<5,000	NA
Total (C6 - C36)	<4,000	<4,000	<4,000	<4,000	<4,000	893,333

Notes:

1. µg/kg - Micrograms per kilogram
2. Concentrations are on dry-weight basis
3. Soil screening levels (SSL) for C10 - C36 are averaged TPH values of Diesel#2/crankcase oil, #3 and #6 fuel oil, and Kerosene and jet fuel in the NMED TPH Screening Guidelines.
4. SSLs are based on ingestion, outdoor inhalation, and dermal contact.
5. * SSLs for chromium were calculated conservatively based on chromium (VI) toxicity values.
6. The lab concentrations were reported on a wet-weight basis. The detected concentrations were converted to dry-weight basis using the following relationship.

$$C_d = C_w\left(1+\frac{\theta_w}{\rho_b}\right)$$

where,

C_d = concentration on dry-weight basis
C_w = concentration on wet-weight basis
θ_w = water content (0.26 g/cm^3-soil)
ρ_b = bulk density of soil (1.55 g/cm^3)

7. DP62-SB01-5A is the field duplicate sample
8. Metals were analyzed by EPA Method 6010B/7410A
9. TPH was analyzed by EPA Method 8015

APPENDIX A

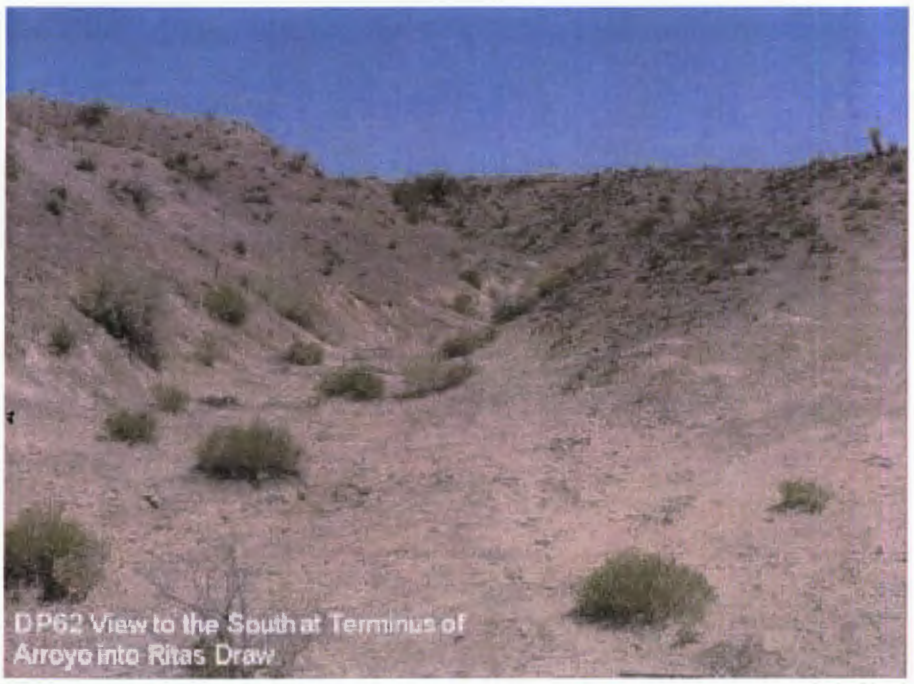
SITE PHOTOGRAPHS

DP62 View to the Northwest into a Drainage Ditch Containing 2 Drums

DP62 View to the West into a Drainage Ditch Containing a Drum

DP62 View to the West Northwest from the Southeast Arroyo Rim into Ritas Draw

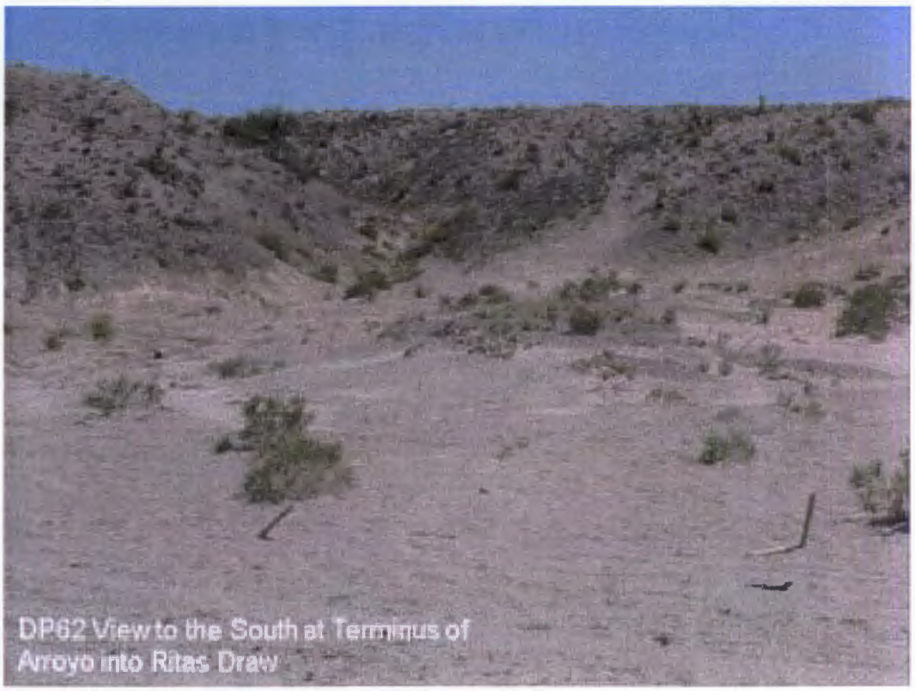
DP62 View to the Northwest from the Southeast Arroyo Rim into Ritas Draw



DP62 View to the South at Terminus of Arroyo into Ritas Draw

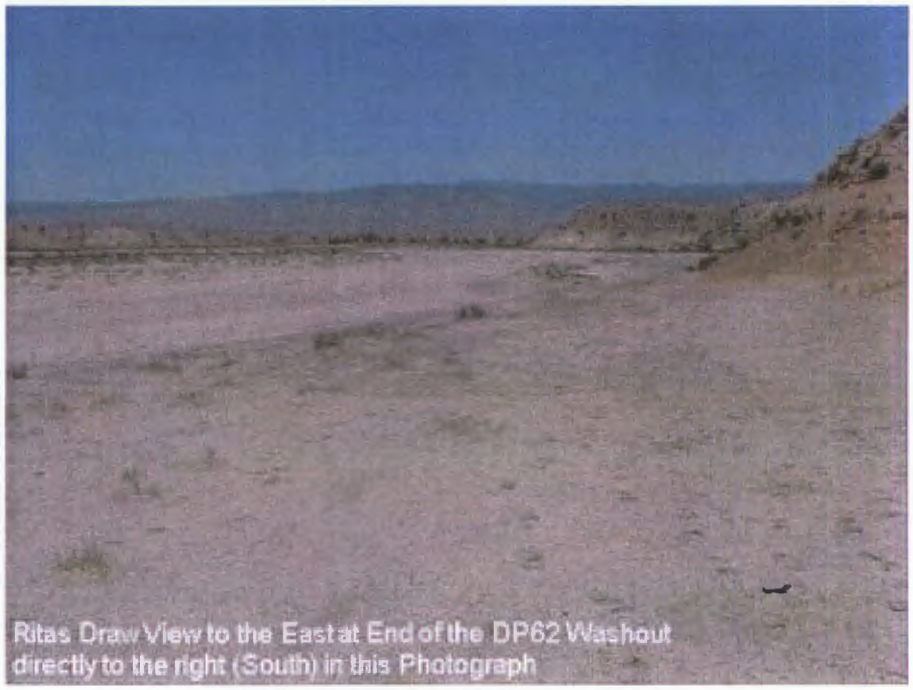
Arroyo at DP62 View to the Southwest

DP62 View to the Southeast at Terminus of Arroyo into Ritas Draw



DP62 View to the South at Terminus of Arroyo into Ritas Draw

DP62 View to the Southeast at Terminus of Arroyo into Ritas Draw



Ritas Draw View to the East at End of the DP62 Washout directly to the right (South) in this Photograph

DP62 View to the Southeast into a Drainage Ditch Containing 2 Drums

Arroyo at DP62 View to the Southeast

Arroyo at DP62 View to the Northwest

APPENDIX B

HTW SOIL BORING LOGS

SOIL BORING LOGS FROM PA/SI

HTRW DRILLING LOG

1. COMPANY NAME: FLUOR DANIEL GTI	DISTRICT	HOLE NUMBER: RITA-01
	2. DRILL SUBCONTRACTOR: TEG	SHEET 1 OF SHEETS 2
3. PROJECT: AOC-RITA'S DRAW	4. LOCATION: HOLLOMAN AFB NM	
5. NAME OF DRILLER: Karis Vandehey	6. MANUFACTURER'S DESIGNATION OF DRILL: STRATA PROBE	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2"x3' SS Split Spoons; 6" SS sleeves	8. HOLE LOCATION: See Map.	
PID 10.6 eV	9. SURFACE ELEVATION	
	10. DATE STARTED: 21 MAY 1998	11. DATE COMPLETED: 21 MAY 1998
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: NONE @ TD	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: —	
14. TOTAL DEPTH OF HOLE: 20'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
	✓	✓	SemiVols	Expl.		22/4.

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
ABANDONED	bentonite	—	—	Lee Scott Stevenson

LOCATION SKETCH/COMMENTS

SCALE:

PROJECT	HOLE NO.
AOC-RITA'S DRAW	RITA-01

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: RITA-01

PROJECT: AOC- RITA'S DRAW

INSPECTOR: L. S. STEVENSON

SHEET 2 OF 2 SHEETS

ELEV. (h)	DEPTH (h)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (g) ppm	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	1	SILT, tan (5YR 8/2), dry, mod. firm ML	0				
	2		0		RITA-1-2		
	3		0				
	4		0				
	5	SILT, pink (5YR 7/3), dry, hard, cemented w/ gyp. ML	0				
	6		0				
	7	SILT, white (10YR 8/1), dry, loose ML	0				
	8	SILT, red (5YR 6/6), dry, hard, gyp. cemented, sl. plastic ML	0				
	9	SILT, gray (2.5Y 7/2), dry, firm ML	0		RITA-1-9		
	10	SILT, brown/pink mottled (5YR 6/6, 5YR 8/4), dry, firm to hard ML	0				
	11	SILT, brown (5YR 6/4), dry, firm ML	0				
	12	SILT w/ tr. clay, brown (5YR 6/4), tr. moisture, firm, sl. plastic. ML	0				
	13		0				
	14	V. fine SAND, brown (5YR 6/4), dry, firm SP	0				
	15	CLAY, brown (5YR 4/6) moist, firm, mod. plastic CL	0		RITA-1-15		
	16		0				
	17		0				1" clayey SAND lens @ ~17', gray/green
	18	SILT, white (10YR 8/1), dry, soft ML	0				
	19	V. fine SAND, pink (5YR 8/4), dry, hard SP	0				
	20		0		RITA-1-20		

PROJECT: AOC- RITA'S DRAW

HOLE NO. RITA-01

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

1. COMPANY NAME: FLUOR DANIEL GTI	DISTRICT	HOLE NUMBER: RITA-02
	2. DRILL SUBCONTRACTOR: TEG	SHEET 1 OF 2 SHEETS
3. PROJECT: AOC-RITA'S DRAW	4. LOCATION: HOLLOMAN AFB, NM	
5. NAME OF DRILLER: Karis Vandehey	6. MANUFACTURER'S DESIGNATION OF DRILL: STRATA PROBE	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2"x3' SS split spoons; 6" SS sleeves	8. HOLE LOCATION: SEE MAP	
PID - 10.6 eV	9. SURFACE ELEVATION	
	10. DATE STARTED: 21 MAY 1998	11. DATE COMPLETED: 21 MAY 1998
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: NONE @ TD	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: —	
14. TOTAL DEPTH OF HOLE: 18'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
SOIL	✓	✓	Semi VOCs	Expl.	—	28/36

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
ABANDONED	bentonite	—	—	Lee Scott Emerson

LOCATION SKETCH/COMMENTS

SCALE:

PROJECT: AOC-RITA'S DRAW	HOLE NO.: RITA-02

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: RITA-02

PROJECT: AOC- RITA'S DRAW

INSPECTOR: L. S. STEVENSON

SHEET ___ OF ___ SHEETS

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	1	SILT, white-pink (5YR8/2), dry, firm ML	0				
	2		0		RITA22		
	3		0				
	4	SAND, tan (5Y 8/6), dry, firm SM	0				
	5	SILT, white (2.5Y 8/1), dry, firm ML	0		RITA-2-5		
	6		0				
	7		0				
	8		0				
	9		0				
	10	silty v fine SAND, orange (10 YR 7/8), dry, hard SM	0				
	11		0				
	12	SAND, gray (10 YR 7/2), dry, hard SP	0		RITA-2-12		
	13		0				
	14		0				
	15	SILT, pink (5YR 8/3), dry, hard ML	0				
	16		0				
	17		0				
	18		0		RITA-2-18		Refusal @ 18'. tr. sand in shoe at last sample (~17.9')

PROJECT: AOC- RITA'S DRAW

HOLE NO. RITA-02

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

1. DISTRICT		HOLE NUMBER: RITA-03
1. COMPANY NAME: FLUOR DANIEL GTI	2. DRILL SUBCONTRACTOR: TEG	SHEET 1 OF 2 SHEETS
3. PROJECT: AOC-RITA'S DRAW	4. LOCATION: HOLLOMAN AFB, NM	
5. NAME OF DRILLER: Karis Vandehey	6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2"x3' SS split spoons w/ 6" SS sleeves	8. HOLE LOCATION: SEG MAP	
PID - 10.6 eV	9. SURFACE ELEVATION	
peristaltic pump w/ 3'x1"x0.006 SS sample screen	10. DATE STARTED: 21 MAY 1998	11. DATE COMPLETED: 21 MAY 1998
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 6.5'	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: —	
14. TOTAL DEPTH OF HOLE: 9'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NONE	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
soil / water	✓	✓	Semi Vols	Expl.		100 %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
ABANDONED	bentonite	—	—	Lee Scott Stanerson

LOCATION SKETCH/COMMENTS SCALE:

PROJECT	HOLE NO.
AOC-RITA'S DRAW	RITA-03

ENG FORM 5056-R, AUG 94 (Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: RITA-03

PROJECT: AOC-RITA'S DRAW

INSPECTOR: L. S. STEVENSON

SHEET 2 OF 2 SHEETS

ELEV. (h)	DEPTH (h)	DESCRIPTION OF MATERIALS (k)	FIELD SCREENING RESULTS (g)	GEOTECH SAMPLE OR CORE BOX NO. (n)	ANALYTICAL SAMPLE NO. (l)	BLOW COUNT (g)	REMARKS (n)
	1	clayey SAND, brown (5YR 5/6), moist, hard, sl. plastic SC					
	2		0		RITA-3-2		
	3	fine SAND, white (10YR 8/1) tr. moisture, hard SP					
	4						
	5	silty CLAY brown (5YR 5/6) tr. moisture, v. hard, gyp. cemented CL	0				
	6	SILT, gray/white (5YR 8/1), moist, very hard ML					▽ water @ ≈ 6.5'
	7				RITA-3-GW7		Sample screen 6' to 9'
	8	clayey SILT, gray (5YR 7/1), wet, very soft ML					
	9	SAND w/ silt, orange (5YR 7/6), wet hard (brittle), cemented SM					

PROJECT: AOC-RITA'S DRAW

HOLE NO. RITA-03

ENG FORM 5056A-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG

1. COMPANY NAME: FLUOR DANIEL GTI	DISTRICT	HOLE NUMBER: RITA-04
	2. DRILL SUBCONTRACTOR: TEG	SHEET 1 OF 2 SHEETS
3. PROJECT: AOC- RITA'S DRAW	4. LOCATION: HOLLOMAN AFB,	
5. NAME OF DRILLER: Karis Vandehey	6. MANUFACTURER'S DESIGNATION OF DRILL: STRATAPROBE	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2"x3' SS split Spoons, 6" SS sleeves	8. HOLE LOCATION: SEE MAP	
~~2"x1"x 2'~~ 1"x0.010 PVC Screen	9. SURFACE ELEVATION	
	10. DATE STARTED: 21 MAY 1998	11. DATE COMPLETED: 21 MAY 1998
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 7.5'	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: —	
14. TOTAL DEPTH OF HOLE: 10'	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): —	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
None	—	—	—

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY %
water, soil	✓	✓	Semi Vols	Expl.		7/12

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
ABANDONED	bentonite	—	—	Lee Seel [illegible]

LOCATION SKETCH/COMMENTS

SCALE:

PROJECT	HOLE NO.
AOC-RITA'S DRAW	RITA-04

ENG FORM 5056-R, AUG 94

(Proponent: CECW-EG)

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NUMBER: RITA-04

PROJECT: AOC-RITA'S DRAW

INSPECTOR: L. S. STEVENSON

SHEET ___ OF ___

ELEV. (ft)	DEPTH (ft)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		Loose windblown & alluvial materials					2/6 recovery
	1						
	2	SILT, brown (5YR5/6) moist, hard, w/ gyp crystals, mod plastic ML			RITA-4-2		
	3		0				
	4	CLAY w/ silt, brown (5YR6/6) moist, hard, mod plastic. CL					
	5	Fine SAND, white-pink (5YR8/2), dry, very hard, v. uniform grain. SP	0				
	6		0				
	7	SILT, brown (5YR6/6), moist, firm ML					▽ water @ 7.5'
	8		0		RITA-4-8 & RITA-4-8-B		screen 5'-10'
	9	SAND, SILT, CLAY mix, gray/brown (5YR6/2) wet, firm, sl. plastic ML					
	10	fine SAND, brown (5YR6/4) wet, hard SP					

PROJECT: AOC-RITA'S DRAW

HOLE NO. RITA-04

SOIL BORING LOGS FROM RFI

HTW DRILLING LOG

HOLE NO.	DP62-SB01
1. COMPANY NAME	BHATE
2. DRILLING CONTRACTOR	BHATE
SHEET	OF 1 SHEETS
3. PROJECT	DP-62 Rita's Draw
4. LOCATION	Holloman AFB, NM Rita's Draw
5. NAME OF DRILLER	Kevin Germann
6. MANUFACTURER'S DESIGNATION OF DRILL	Hand Auger
7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT	3.25 x 12.0 inch Bucket Auger
8. HOLE LOCATION	North East
9. SURFACE ELEVATION (ft. NGVD)	
10. DATE STARTED	31-Mar-2004
11. DATE COMPLETED	31-Mar-2004
12. OVERBURDEN THICKNESS	5.0 ft
15. DEPTH GROUNDWATER ENCOUNTERED	N/A
13. DEPTH DRILLED INTO ROCK	N/A
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	N/A
14. TOTAL DEPTH OF HOLE	5.0 ft
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	N/A

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
None			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE REC %
1	X	X	TPH	SVOCS	MERCURY	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X			JERRY PELFREY

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	REMARKS h
	0	0.0-2.0, ML, silty, fine grained sand, dry, friable, 5 YR8/2, pinkish-white	No equipment detection				
	1		No equipment detection				
	2	2.0-3.0, ML, clayey silt w gypsum crystals, moist, mod plasticity, 5 YR6/2, pinkish gray	No equipment detection				
	3	3.0-4.5 OL, silty clay, moist, mod plasticity, hard, 5 YR6/8, reddish yellow	No equipment detection				
	4						
	5	4.5-5.0, SM, silty sand w gypsum, well graded, dry, indurated, 5 YR8/2, pinkish-white	No equipment detection		DP62-SB-01-5, 5-a, 5ms, 5msd		End of boring

HTW DRILLING LOG

HOLE NO.	DP62-SB02
1. COMPANY NAME	BHATE
2. DRILLING CONTRACTOR	BHATE
SHEET	OF 1 SHEETS
3. PROJECT	DP-62 Rita's Draw
4. LOCATION	Holloman AFB, NM Rita's Draw
5. NAME OF DRILLER	Kevin Germann
6. MANUFACTURER'S DESIGNATION OF DRILL	Hand Auger
7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT	3.25 x 12.0 inch Bucket Auger
8. HOLE LOCATION	North East
9. SURFACE ELEVATION (ft. NGVD)	
10. DATE STARTED	31-Mar-2004
11. DATE COMPLETED	31-Mar-2004
12. OVERBURDEN THICKNESS	5.0 ft
15. DEPTH GROUNDWATER ENCOUNTERED	N/A
13. DEPTH DRILLED INTO ROCK	N/A
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	N/A
14. TOTAL DEPTH OF HOLE	5.0 ft
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	N/A

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
None			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE REC %
1	X	X	TPH	SVOCS	MERCURY	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X			JERRY PELFREY

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	REMARKS h
	0	0.0-1.0, ML, silty, fine grained sand, dry, friable, 5 YR8/2, pinkish-white	No equipment detection				
	1	1.0-2.0, ML, silty, fine grained sand, dry, friable, 5 YR8/2, pinkish-white	No equipment detection				
	2	2.0-3.0, ML, silty, fine grained sand, dry, friable, 5 YR8/2, pinkish-white	No equipment detection				
	3	3.0-4.0, ML, silty, fine grained sand, dry, friable, 5 YR8/2, pinkish-white	No equipment detection				
	4	4.0-5.0, ML, silty, fine grained sand, dry, friable, 5 YR8/2, pinkish-white	No equipment detection		DP62-SB-02-5, 5ms, 5msd		End of boring
	5						

HTW DRILLING LOG

HOLE NO.	DP62-SB03
1. COMPANY NAME	BHATE
2. DRILLING CONTRACTOR	BHATE
SHEET	OF 1 SHEETS
3. PROJECT	DP-62 Rita's Draw
4. LOCATION	Holloman AFB, NM Rita's Draw
5. NAME OF DRILLER	Kevin Germann
6. MANUFACTURER'S DESIGNATION OF DRILL	Hand Auger
7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT	3.25 x 12.0 inch Bucket Auger
8. HOLE LOCATION	North East
9. SURFACE ELEVATION (ft. NGVD)	
10. DATE STARTED	31-Mar-2004
11. DATE COMPLETED	31-Mar-2004
12. OVERBURDEN THICKNESS	5.0 ft
15. DEPTH GROUNDWATER ENCOUNTERED	N/A
13. DEPTH DRILLED INTO ROCK	N/A
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	N/A
14. TOTAL DEPTH OF HOLE	5.0 ft
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	N/A

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
None			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE REC %
1	X	X	TPH	SVOCS	MERCURY	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X			JERRY PELFREY

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	REMARKS h
	0	0.0-3.0, ML, silty, fine grained sand, dry, friable, 5 YR8/2, pinkish-white	No equipment detection				
	1						
	2						
	3	3.0-5.0, SM, silty sand w gypsum, well graded, dry, indurated, 7.YR 6/3, light brown	No equipment detection		DP62-SB-03-5, 5ms, 5msd		
	4						
	5						End of boring

HTW DRILLING LOG

HOLE NO.	DP62-SB04
1. COMPANY NAME	BHATE
2. DRILLING CONTRACTOR	BHATE
SHEET	OF 1 SHEETS
3. PROJECT	DP-62 Rita's Draw
4. LOCATION	Holloman AFB, NM Rita's Draw
5. NAME OF DRILLER	Kevin Germann
6. MANUFACTURER'S DESIGNATION OF DRILL	Hand Auger
7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT	3.25 x 12.0 inch Bucket Auger
8. HOLE LOCATION	North East
9. SURFACE ELEVATION (ft. NGVD)	
10. DATE STARTED	31-Mar-2004
11. DATE COMPLETED	31-Mar-2004
12. OVERBURDEN THICKNESS	5.0 ft
15. DEPTH GROUNDWATER ENCOUNTERED	N/A
13. DEPTH DRILLED INTO ROCK	N/A
16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED	N/A
14. TOTAL DEPTH OF HOLE	5.0 ft
17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)	N/A

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
None			

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE REC %
1	X	X	TPH	SVOCS	MERCURY	

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X			JERRY PELFREY

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	REMARKS h
	0	0.0-4.0, ML, silty, fine grained sand, dry, friable, 5 YR8/2, pinkish-white	No equipment detection				
	1						
	2						
	3						
	4	4.0-5.0, SM, silty sand w gypsum, well graded, dry, indurated, 7.YR 6/3, light brown	No equipment detection		DP62-SB-04-5, 5ms, 5msd		
	5						End of boring

APPENDIX C

LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT BHATE (10177)
ATTN: Jerry Pelfry
1111 10th. Street
480
Alamorgordo, NM 88310

LAB REQUEST 127042

REPORTED 04/07/2004

RECEIVED 04/01/2004

PROJECT Holmn
DP 62/Ritas Draw

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
509721	DP62-SB01-5
509722	DP62-SB01-5A
509725	DP62-SB02-5
509728	DP62-SB03-5
509731	DP62-SB04-5
509734	Trip Blank
509735	Equip Blank
509736	Laboratory Method Blank-S
509737	Laboratory Method Blank-W

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 509721 **Client:** BHATE

atrix: SOLID **Client Sample ID:** DP62-SB01-5

Date Sampled: 03/31/2004

Time Sampled: 11:53

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
6010B ICP Metals - Solid/Liquid						
Arsenic	1.60	1	1.0	mg/Kg	04/05/04	KN
Barium	28.8	1	1.0	mg/Kg	04/05/04	KN
Cadmium	0.164	1	0.5	mg/Kg	04/05/04	KN
Chromium	6.45	1	1.0	mg/Kg	04/05/04	KN
Lead	ND	1	0.5	mg/Kg	04/05/04	KN
Selenium	2.20	1	1.0	mg/Kg	04/05/04	KN
Silver	ND	1	0.5	mg/Kg	04/05/04	KN
7471A Mercury in Solid						
Mercury	ND	1	0.14	mg/Kg	04/02/04	MDJ
8015 Carbon Chain I						
C06 - C10	ND	1	3	mg/Kg	04/02/04	AF
C10 - C22	ND	1	3	mg/Kg	04/02/04	AF
C22 - C36	ND	1	5	mg/Kg	04/02/04	AF
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dibromoethane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509721 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB01-5
Date Sampled: 03/31/2004
Time Sampled: 11:53
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
1,3,5-Trimethylbenzene	ND	1	5	ug/Kg	04/02/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,3-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1-Chlorohexane	ND	1	5	ug/Kg	04/02/04	AM
2,2-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM
2-Butanone (MEK)	ND	1	100	ug/Kg	04/02/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/Kg	04/02/04	AM
2-Chlorotoluene	ND	1	5	ug/Kg	04/02/04	AM
2-Hexanone	ND	1	5	ug/Kg	04/02/04	AM
4-Chlorotoluene	ND	1	5	ug/Kg	04/02/04	AM
4-Methyl -2- Pentanone	ND	1	5	ug/Kg	04/02/04	AM
Acetone	ND	1	50	ug/Kg	04/02/04	AM
Acetonitrile	ND	1	5	ug/Kg	04/02/04	AM
Acrolein	ND	1	200	ug/Kg	04/02/04	AM
Acrylonitrile	ND	1	5	ug/Kg	04/02/04	AM
Allyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Benzene	ND	1	5	ug/Kg	04/02/04	AM
Benzyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Bromobenzene	ND	1	5	ug/Kg	04/02/04	AM
Bromochloromethane	ND	1	5	ug/Kg	04/02/04	AM
Bromodichloromethane	ND	1	5	ug/Kg	04/02/04	AM
Bromoform	ND	1	5	ug/Kg	04/02/04	AM
Bromomethane	ND	1	5	ug/Kg	04/02/04	AM
Carbon Disulfide	ND	1	5	ug/Kg	04/02/04	AM
Carbon tetrachloride	ND	1	5	ug/Kg	04/02/04	AM
Chlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
Chloroethane	ND	1	5	ug/Kg	04/02/04	AM
Chloroform	ND	1	5	ug/Kg	04/02/04	AM
Chloromethane	ND	1	5	ug/Kg	04/02/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
cis-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/02/04	AM
Dibromochloromethane	ND	1	5	ug/Kg	04/02/04	AM
Dibromomethane	ND	1	5	ug/Kg	04/02/04	AM
Dichlorodifluoromethane	ND	1	5	ug/Kg	04/02/04	AM
Ethyl benzene	ND	1	5	ug/Kg	04/02/04	AM
Ethyl methacrylate	ND	1	5	ug/Kg	04/02/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509721 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB01-5
Date Sampled: 03/31/2004
Time Sampled: 11:53
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Hexachlorobutadiene	ND	1	5	ug/Kg	04/02/04	AM
Iodomethane	ND	1	5	ug/Kg	04/02/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/Kg	04/02/04	AM
m and p-Xylene	ND	1	5	ug/Kg	04/02/04	AM
Methacrylonitrile	ND	1	5	ug/Kg	04/02/04	AM
Methyl methacrylate	ND	1	5	ug/Kg	04/02/04	AM
Methyl-tert-butylether (MTBE)	ND	1	5	ug/Kg	04/02/04	AM
Methylene chloride	ND	1	5	ug/Kg	04/02/04	AM
n-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
n-Propylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Naphthalene	ND	1	5	ug/Kg	04/02/04	AM
o-Xylene	ND	1	5	ug/Kg	04/02/04	AM
p-Isopropyltoluene	ND	1	5	ug/Kg	04/02/04	AM
Pentachloroethane	ND	1	5	ug/Kg	04/02/04	AM
Propionitrile	ND	1	5	ug/Kg	04/02/04	AM
sec-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Styrene	ND	1	5	ug/Kg	04/02/04	AM
tert-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Tetrachloroethene	ND	1	5	ug/Kg	04/02/04	AM
Toluene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,2-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/02/04	AM
Trichloroethene	ND	1	5	ug/Kg	04/02/04	AM
Trichlorofluoromethane	ND	1	5	ug/Kg	04/02/04	AM
Vinyl acetate	ND	1	50	ug/Kg	04/02/04	AM
Vinyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Xylenes, total	ND	1	5	ug/Kg	04/02/04	AM

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	93	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	121	%	70 - 135
Surr3 - Toluene-d8	104	%	70 - 135
Surr4 - p-Bromofluorobenzene	103	%	70 - 135

8270C Acid/Base/Neutral Extractables

1,2,4-Trichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,2-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509721 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB01-5
Date Sampled: 03/31/2004
Time Sampled: 11:53
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
1,3-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,4-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
2,4,5-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4,6-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dichlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dimethylphenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dinitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2,6-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2-Chloronaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Chlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2-Methylnaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
2-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
2-Nitrophenol	ND	1	333	ug/Kg	04/02/04	DP
3,3-Dichlorobenzidine	ND	1	333	ug/Kg	04/02/04	DP
3-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
3-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4,6-Dinitro-2-methylphenol	ND	1	1665	ug/Kg	04/02/04	DP
4-Bromophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Chloro-3-methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Chloroaniline	ND	1	333	ug/Kg	04/02/04	DP
4-Chlorophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4-Nitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
Acenaphthene	ND	1	333	ug/Kg	04/02/04	DP
Acenaphthylene	ND	1	333	ug/Kg	04/02/04	DP
Anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzidine	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(b)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(g,h,i)perylene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(k)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzoic Acid	ND	1	333	ug/Kg	04/02/04	DP
Benzyl alcohol	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroethoxy)methane	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509721 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB01-5
Date Sampled: 03/31/2004
Time Sampled: 11:53
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
bis(2-Chloroethyl)ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroisopropyl) ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Ethylhexyl)phthalate	ND	1	333	ug/Kg	04/02/04	DP
Butylbenzylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Chrysene	ND	1	333	ug/Kg	04/02/04	DP
Di-n-butylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Di-n-octylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dibenz(a,h)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Dibenzofuran	ND	1	333	ug/Kg	04/02/04	DP
Diethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dimethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Fluorene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobutadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorocyclopentadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachloroethane	ND	1	333	ug/Kg	04/02/04	DP
Indeno(1,2,3-c,d)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Isophorone	ND	1	333	ug/Kg	04/02/04	DP
N-Nitroso-di-n-propylamine	ND	1	333	ug/Kg	04/02/04	DP
N-Nitrosodiphenylamine	ND	1	333	ug/Kg	04/02/04	DP
Naphthalene	ND	1	333	ug/Kg	04/02/04	DP
Nitrobenzene	ND	1	333	ug/Kg	04/02/04	DP
Pentachlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
Phenanthrene	ND	1	333	ug/Kg	04/02/04	DP
Phenol	ND	1	333	ug/Kg	04/02/04	DP
Pyrene	ND	1	333	ug/Kg	04/02/04	DP

Surrogates		Units	Control Limits
2,4,6-Tribromophenol (sur)	58	%	17 - 122
2-Fluorobiphenyl (sur)	42	%	30 - 115
2-Fluorophenol (sur)	62	%	25 - 121
Nitrobenzene-d5 (sur)	44	%	23 - 120
Phenol-d5 (sur)	61	%	24 - 113
Terphenyl-d14 (sur)	76	%	18 - 137

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509722 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB01-5A
Date Sampled: 03/31/2004
Time Sampled: 11:53
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
6010B ICP Metals - Solid/Liquid						
Arsenic	1.31	1	1.0	mg/Kg	04/05/04	KN
Barium	41.4	1	1.0	mg/Kg	04/05/04	KN
Cadmium	ND	1	0.5	mg/Kg	04/05/04	KN
Chromium	7.28	1	1.0	mg/Kg	04/05/04	KN
Lead	ND	1	0.5	mg/Kg	04/05/04	KN
Selenium	1.51	1	1.0	mg/Kg	04/05/04	KN
Silver	ND	1	0.5	mg/Kg	04/05/04	KN
7471A Mercury in Solid						
Mercury	ND	1	0.14	mg/Kg	04/02/04	MDJ
8015 Carbon Chain I						
C06 - C10	ND	1	3	mg/Kg	04/02/04	AF
C10 - C22	ND	1	3	mg/Kg	04/02/04	AF
C22 - C36	ND	1	5	mg/Kg	04/02/04	AF
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dibromoethane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509722 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB01-5A
Date Sampled: 03/31/2004
Time Sampled: 11:53
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
1,3,5-Trimethylbenzene	ND	1	5	ug/Kg	04/02/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,3-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1-Chlorohexane	ND	1	5	ug/Kg	04/02/04	AM
2,2-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM
2-Butanone (MEK)	ND	1	100	ug/Kg	04/02/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/Kg	04/02/04	AM
2-Chlorotoluene	ND	1	5	ug/Kg	04/02/04	AM
2-Hexanone	ND	1	5	ug/Kg	04/02/04	AM
4-Chlorotoluene	ND	1	5	ug/Kg	04/02/04	AM
4-Methyl -2- Pentanone	ND	1	5	ug/Kg	04/02/04	AM
Acetone	ND	1	50	ug/Kg	04/02/04	AM
Acetonitrile	ND	1	5	ug/Kg	04/02/04	AM
Acrolein	ND	1	200	ug/Kg	04/02/04	AM
Acrylonitrile	ND	1	5	ug/Kg	04/02/04	AM
Allyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Benzene	ND	1	5	ug/Kg	04/02/04	AM
Benzyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Bromobenzene	ND	1	5	ug/Kg	04/02/04	AM
Bromochloromethane	ND	1	5	ug/Kg	04/02/04	AM
Bromodichloromethane	ND	1	5	ug/Kg	04/02/04	AM
Bromoform	ND	1	5	ug/Kg	04/02/04	AM
Bromomethane	ND	1	5	ug/Kg	04/02/04	AM
Carbon Disulfide	ND	1	5	ug/Kg	04/02/04	AM
Carbon tetrachloride	ND	1	5	ug/Kg	04/02/04	AM
Chlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
Chloroethane	ND	1	5	ug/Kg	04/02/04	AM
Chloroform	ND	1	5	ug/Kg	04/02/04	AM
Chloromethane	ND	1	5	ug/Kg	04/02/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
cis-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/02/04	AM
Dibromochloromethane	ND	1	5	ug/Kg	04/02/04	AM
Dibromomethane	ND	1	5	ug/Kg	04/02/04	AM
Dichlorodifluoromethane	ND	1	5	ug/Kg	04/02/04	AM
Ethyl benzene	ND	1	5	ug/Kg	04/02/04	AM
Ethyl methacrylate	ND	1	5	ug/Kg	04/02/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509722 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** DP62-SB01-5A

Date Sampled: 03/31/2004

Time Sampled: 11:53

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Hexachlorobutadiene	ND	1	5	ug/Kg	04/02/04	AM
Iodomethane	ND	1	5	ug/Kg	04/02/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/Kg	04/02/04	AM
m and p-Xylene	ND	1	5	ug/Kg	04/02/04	AM
Methacrylonitrile	ND	1	5	ug/Kg	04/02/04	AM
Methyl methacrylate	ND	1	5	ug/Kg	04/02/04	AM
Methyl-tert-butylether (MTBE)	ND	1	5	ug/Kg	04/02/04	AM
Methylene chloride	ND	1	5	ug/Kg	04/02/04	AM
n-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
n-Propylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Naphthalene	ND	1	5	ug/Kg	04/02/04	AM
o-Xylene	ND	1	5	ug/Kg	04/02/04	AM
p-Isopropyltoluene	ND	1	5	ug/Kg	04/02/04	AM
Pentachloroethane	ND	1	5	ug/Kg	04/02/04	AM
Propionitrile	ND	1	5	ug/Kg	04/02/04	AM
sec-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Styrene	ND	1	5	ug/Kg	04/02/04	AM
tert-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Tetrachloroethene	ND	1	5	ug/Kg	04/02/04	AM
Toluene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,2-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/02/04	AM
Trichloroethene	ND	1	5	ug/Kg	04/02/04	AM
Trichlorofluoromethane	ND	1	5	ug/Kg	04/02/04	AM
Vinyl acetate	ND	1	50	ug/Kg	04/02/04	AM
Vinyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Xylenes, total	ND	1	5	ug/Kg	04/02/04	AM

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	94	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	121	%	70 - 135
Surr3 - Toluene-d8	98	%	70 - 135
Surr4 - p-Bromofluorobenzene	95	%	70 - 135

8270C Acid/Base/Neutral Extractables

1,2,4-Trichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,2-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509722 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB01-5A
Date Sampled: 03/31/2004
Time Sampled: 11:53
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
1,3-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,4-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
2,4,5-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4,6-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dichlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dimethylphenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dinitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2,6-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2-Chloronaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Chlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2-Methylnaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
2-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
2-Nitrophenol	ND	1	333	ug/Kg	04/02/04	DP
3,3-Dichlorobenzidine	ND	1	333	ug/Kg	04/02/04	DP
3-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
3-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4,6-Dinitro-2-methylphenol	ND	1	1665	ug/Kg	04/02/04	DP
4-Bromophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Chloro-3-methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Chloroaniline	ND	1	333	ug/Kg	04/02/04	DP
4-Chlorophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4-Nitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
Acenaphthene	ND	1	333	ug/Kg	04/02/04	DP
Acenaphthylene	ND	1	333	ug/Kg	04/02/04	DP
Anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzidine	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(b)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(g,h,i)perylene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(k)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzoic Acid	ND	1	333	ug/Kg	04/02/04	DP
Benzyl alcohol	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroethoxy)methane	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509722 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB01-5A
Date Sampled: 03/31/2004
Time Sampled: 11:53
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
bis(2-Chloroethyl)ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroisopropyl) ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Ethylhexyl)phthalate	ND	1	333	ug/Kg	04/02/04	DP
Butylbenzylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Chrysene	ND	1	333	ug/Kg	04/02/04	DP
Di-n-butylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Di-n-octylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dibenz(a,h)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Dibenzofuran	ND	1	333	ug/Kg	04/02/04	DP
Diethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dimethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Fluorene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobutadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorocyclopentadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachloroethane	ND	1	333	ug/Kg	04/02/04	DP
Indeno(1,2,3-c,d)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Isophorone	ND	1	333	ug/Kg	04/02/04	DP
N-Nitroso-di-n-propylamine	ND	1	333	ug/Kg	04/02/04	DP
N-Nitrosodiphenylamine	ND	1	333	ug/Kg	04/02/04	DP
Naphthalene	ND	1	333	ug/Kg	04/02/04	DP
Nitrobenzene	ND	1	333	ug/Kg	04/02/04	DP
Pentachlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
Phenanthrene	ND	1	333	ug/Kg	04/02/04	DP
Phenol	ND	1	333	ug/Kg	04/02/04	DP
Pyrene	ND	1	333	ug/Kg	04/02/04	DP

Surrogates		Units	Control Limits
2,4,6-Tribromophenol (sur)	68	%	17 - 122
2-Fluorobiphenyl (sur)	47	%	30 - 115
2-Fluorophenol (sur)	70	%	25 - 121
Nitrobenzene-d5 (sur)	49	%	23 - 120
Phenol-d5 (sur)	68	%	24 - 113
Terphenyl-d14 (sur)	74	%	18 - 137

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509725 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** DP62-SB02-5

Date Sampled: 03/31/2004

Time Sampled: 10:55

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
6010B ICP Metals - Solid/Liquid						
Arsenic	1.90	1	1.0	mg/Kg	04/05/04	KN
Barium	28.3	1	1.0	mg/Kg	04/05/04	KN
Cadmium	ND	1	0.5	mg/Kg	04/05/04	KN
Chromium	3.38	1	1.0	mg/Kg	04/05/04	KN
Lead	ND	1	0.5	mg/Kg	04/05/04	KN
Selenium	1.90	1	1.0	mg/Kg	04/05/04	KN
Silver	ND	1	0.5	mg/Kg	04/05/04	KN
7471A Mercury in Solid						
Mercury	ND	1	0.14	mg/Kg	04/02/04	MDJ
8015 Carbon Chain I						
C06 - C10	ND	1	3	mg/Kg	04/05/04	AF
C10 - C22	ND	1	3	mg/Kg	04/05/04	AF
C22 - C36	ND	1	5	mg/Kg	04/05/04	AF
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dibromoethane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509725 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** DP62-SB02-5

Date Sampled: 03/31/2004

Time Sampled: 10:55

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
1,3,5-Trimethylbenzene	ND	1	5	ug/Kg	04/02/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,3-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1-Chlorohexane	ND	1	5	ug/Kg	04/02/04	AM
2,2-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM
2-Butanone (MEK)	ND	1	100	ug/Kg	04/02/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/Kg	04/02/04	AM
2-Chlorotoluene	ND	1	5	ug/Kg	04/02/04	AM
2-Hexanone	ND	1	5	ug/Kg	04/02/04	AM
4-Chlorotoluene	ND	1	5	ug/Kg	04/02/04	AM
4-Methyl -2- Pentanone	ND	1	5	ug/Kg	04/02/04	AM
Acetone	ND	1	50	ug/Kg	04/02/04	AM
Acetonitrile	ND	1	5	ug/Kg	04/02/04	AM
Acrolein	ND	1	200	ug/Kg	04/02/04	AM
Acrylonitrile	ND	1	5	ug/Kg	04/02/04	AM
Allyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Benzene	ND	1	5	ug/Kg	04/02/04	AM
Benzyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Bromobenzene	ND	1	5	ug/Kg	04/02/04	AM
Bromochloromethane	ND	1	5	ug/Kg	04/02/04	AM
Bromodichloromethane	ND	1	5	ug/Kg	04/02/04	AM
Bromoform	ND	1	5	ug/Kg	04/02/04	AM
Bromomethane	ND	1	5	ug/Kg	04/02/04	AM
Carbon Disulfide	ND	1	5	ug/Kg	04/02/04	AM
Carbon tetrachloride	ND	1	5	ug/Kg	04/02/04	AM
Chlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
Chloroethane	ND	1	5	ug/Kg	04/02/04	AM
Chloroform	ND	1	5	ug/Kg	04/02/04	AM
Chloromethane	ND	1	5	ug/Kg	04/02/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
cis-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/02/04	AM
Dibromochloromethane	ND	1	5	ug/Kg	04/02/04	AM
Dibromomethane	ND	1	5	ug/Kg	04/02/04	AM
Dichlorodifluoromethane	ND	1	5	ug/Kg	04/02/04	AM
Ethyl benzene	ND	1	5	ug/Kg	04/02/04	AM
Ethyl methacrylate	ND	1	5	ug/Kg	04/02/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509725 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB02-5
Date Sampled: 03/31/2004
Time Sampled: 10:55
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Hexachlorobutadiene	ND	1	5	ug/Kg	04/02/04	AM
Iodomethane	ND	1	5	ug/Kg	04/02/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/Kg	04/02/04	AM
m and p-Xylene	ND	1	5	ug/Kg	04/02/04	AM
Methacrylonitrile	ND	1	5	ug/Kg	04/02/04	AM
Methyl methacrylate	ND	1	5	ug/Kg	04/02/04	AM
Methyl-tert-butylether (MTBE)	ND	1	5	ug/Kg	04/02/04	AM
Methylene chloride	ND	1	5	ug/Kg	04/02/04	AM
n-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
n-Propylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Naphthalene	ND	1	5	ug/Kg	04/02/04	AM
o-Xylene	ND	1	5	ug/Kg	04/02/04	AM
p-Isopropyltoluene	ND	1	5	ug/Kg	04/02/04	AM
Pentachloroethane	ND	1	5	ug/Kg	04/02/04	AM
Propionitrile	ND	1	5	ug/Kg	04/02/04	AM
sec-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Styrene	ND	1	5	ug/Kg	04/02/04	AM
tert-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Tetrachloroethene	ND	1	5	ug/Kg	04/02/04	AM
Toluene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,2-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/02/04	AM
Trichloroethene	ND	1	5	ug/Kg	04/02/04	AM
Trichlorofluoromethane	ND	1	5	ug/Kg	04/02/04	AM
Vinyl acetate	ND	1	50	ug/Kg	04/02/04	AM
Vinyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Xylenes, total	ND	1	5	ug/Kg	04/02/04	AM

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	96	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	126	%	70 - 135
Surr3 - Toluene-d8	101	%	70 - 135
Surr4 - p-Bromofluorobenzene	108	%	70 - 135

8270C Acid/Base/Neutral Extractables						
1,2,4-Trichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,2-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509725 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB02-5
Date Sampled: 03/31/2004
Time Sampled: 10:55
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
1,3-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,4-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
2,4,5-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4,6-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dichlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dimethylphenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dinitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2,6-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2-Chloronaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Chlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2-Methylnaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
2-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
2-Nitrophenol	ND	1	333	ug/Kg	04/02/04	DP
3,3-Dichlorobenzidine	ND	1	333	ug/Kg	04/02/04	DP
3-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
3-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4,6-Dinitro-2-methylphenol	ND	1	1665	ug/Kg	04/02/04	DP
4-Bromophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Chloro-3-methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Chloroaniline	ND	1	333	ug/Kg	04/02/04	DP
4-Chlorophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4-Nitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
Acenaphthene	ND	1	333	ug/Kg	04/02/04	DP
Acenaphthylene	ND	1	333	ug/Kg	04/02/04	DP
Anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzidine	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(b)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(g,h,i)perylene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(k)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzoic Acid	ND	1	333	ug/Kg	04/02/04	DP
Benzyl alcohol	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroethoxy)methane	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509725 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** DP62-SB02-5

Date Sampled: 03/31/2004

Time Sampled: 10:55

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
bis(2-Chloroethyl)ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroisopropyl) ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Ethylhexyl)phthalate	ND	1	333	ug/Kg	04/02/04	DP
Butylbenzylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Chrysene	ND	1	333	ug/Kg	04/02/04	DP
Di-n-butylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Di-n-octylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dibenz(a,h)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Dibenzofuran	ND	1	333	ug/Kg	04/02/04	DP
Diethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dimethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Fluorene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobutadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorocyclopentadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachloroethane	ND	1	333	ug/Kg	04/02/04	DP
Indeno(1,2,3-c,d)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Isophorone	ND	1	333	ug/Kg	04/02/04	DP
N-Nitroso-di-n-propylamine	ND	1	333	ug/Kg	04/02/04	DP
N-Nitrosodiphenylamine	ND	1	333	ug/Kg	04/02/04	DP
Naphthalene	ND	1	333	ug/Kg	04/02/04	DP
Nitrobenzene	ND	1	333	ug/Kg	04/02/04	DP
Pentachlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
Phenanthrene	ND	1	333	ug/Kg	04/02/04	DP
Phenol	ND	1	333	ug/Kg	04/02/04	DP
Pyrene	ND	1	333	ug/Kg	04/02/04	DP

Surrogates		Units	Control Limits
2,4,6-Tribromophenol (sur)	80	%	17 - 122
2-Fluorobiphenyl (sur)	41	%	30 - 115
2-Fluorophenol (sur)	45	%	25 - 121
Nitrobenzene-d5 (sur)	40	%	23 - 120
Phenol-d5 (sur)	56	%	24 - 113
Terphenyl-d14 (sur)	78	%	18 - 137

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509728 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB03-5
Date Sampled: 03/31/2004
Time Sampled: 11:18
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
6010B ICP Metals - Solid/Liquid						
Arsenic	1.57	1	1.0	mg/Kg	04/05/04	KN
Barium	18.0	1	1.0	mg/Kg	04/05/04	KN
Cadmium	ND	1	0.5	mg/Kg	04/05/04	KN
Chromium	2.51	1	1.0	mg/Kg	04/05/04	KN
Lead	ND	1	0.5	mg/Kg	04/05/04	KN
Selenium	2.86	1	1.0	mg/Kg	04/05/04	KN
Silver	ND	1	0.5	mg/Kg	04/05/04	KN
7471A Mercury in Solid						
Mercury	ND	1	0.14	mg/Kg	04/02/04	MDJ
8015 Carbon Chain I						
C06 - C10	ND	1	3	mg/Kg	04/02/04	AF
C10 - C22	ND	1	3	mg/Kg	04/02/04	AF
C22 - C36	ND	1	5	mg/Kg	04/02/04	AF
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
1,1-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dibromoethane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichloroethane	ND	1	5	ug/Kg	04/02/04	AM
1,2-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509728 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB03-5
Date Sampled: 03/31/2004
Time Sampled: 11:18
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
1,3,5-Trimethylbenzene	ND	1	5	ug/Kg	04/02/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1,3-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
1-Chlorohexane	ND	1	5	ug/Kg	04/02/04	AM
2,2-Dichloropropane	ND	1	5	ug/Kg	04/02/04	AM
2-Butanone (MEK)	ND	1	100	ug/Kg	04/02/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/Kg	04/02/04	AM
2-Chlorotoluene	ND	1	5	ug/Kg	04/02/04	AM
2-Hexanone	ND	1	5	ug/Kg	04/02/04	AM
4-Chlorotoluene	ND	1	5	ug/Kg	04/02/04	AM
4-Methyl -2- Pentanone	ND	1	5	ug/Kg	04/02/04	AM
Acetone	ND	1	50	ug/Kg	04/02/04	AM
Acetonitrile	ND	1	5	ug/Kg	04/02/04	AM
Acrolein	ND	1	200	ug/Kg	04/02/04	AM
Acrylonitrile	ND	1	5	ug/Kg	04/02/04	AM
Allyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Benzene	ND	1	5	ug/Kg	04/02/04	AM
Benzyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Bromobenzene	ND	1	5	ug/Kg	04/02/04	AM
Bromochloromethane	ND	1	5	ug/Kg	04/02/04	AM
Bromodichloromethane	ND	1	5	ug/Kg	04/02/04	AM
Bromoform	ND	1	5	ug/Kg	04/02/04	AM
Bromomethane	ND	1	5	ug/Kg	04/02/04	AM
Carbon Disulfide	ND	1	5	ug/Kg	04/02/04	AM
Carbon tetrachloride	ND	1	5	ug/Kg	04/02/04	AM
Chlorobenzene	ND	1	5	ug/Kg	04/02/04	AM
Chloroethane	ND	1	5	ug/Kg	04/02/04	AM
Chloroform	ND	1	5	ug/Kg	04/02/04	AM
Chloromethane	ND	1	5	ug/Kg	04/02/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
cis-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/02/04	AM
Dibromochloromethane	ND	1	5	ug/Kg	04/02/04	AM
Dibromomethane	ND	1	5	ug/Kg	04/02/04	AM
Dichlorodifluoromethane	ND	1	5	ug/Kg	04/02/04	AM
Ethyl benzene	ND	1	5	ug/Kg	04/02/04	AM
Ethyl methacrylate	ND	1	5	ug/Kg	04/02/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509728 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB03-5
Date Sampled: 03/31/2004
Time Sampled: 11:18
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Hexachlorobutadiene	ND	1	5	ug/Kg	04/02/04	AM
Iodomethane	ND	1	5	ug/Kg	04/02/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/Kg	04/02/04	AM
m and p-Xylene	ND	1	5	ug/Kg	04/02/04	AM
Methacrylonitrile	ND	1	5	ug/Kg	04/02/04	AM
Methyl methacrylate	ND	1	5	ug/Kg	04/02/04	AM
Methyl-tert-butylether (MTBE)	ND	1	5	ug/Kg	04/02/04	AM
Methylene chloride	ND	1	5	ug/Kg	04/02/04	AM
n-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
n-Propylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Naphthalene	ND	1	5	ug/Kg	04/02/04	AM
o-Xylene	ND	1	5	ug/Kg	04/02/04	AM
p-Isopropyltoluene	ND	1	5	ug/Kg	04/02/04	AM
Pentachloroethane	ND	1	5	ug/Kg	04/02/04	AM
Propionitrile	ND	1	5	ug/Kg	04/02/04	AM
sec-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Styrene	ND	1	5	ug/Kg	04/02/04	AM
tert-Butylbenzene	ND	1	5	ug/Kg	04/02/04	AM
Tetrachloroethene	ND	1	5	ug/Kg	04/02/04	AM
Toluene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,2-Dichloroethene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/Kg	04/02/04	AM
trans-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/02/04	AM
Trichloroethene	ND	1	5	ug/Kg	04/02/04	AM
Trichlorofluoromethane	ND	1	5	ug/Kg	04/02/04	AM
Vinyl acetate	ND	1	50	ug/Kg	04/02/04	AM
Vinyl chloride	ND	1	5	ug/Kg	04/02/04	AM
Xylenes, total	ND	1	5	ug/Kg	04/02/04	AM

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	95	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	123	%	70 - 135
Surr3 - Toluene-d8	100	%	70 - 135
Surr4 - p-Bromofluorobenzene	105	%	70 - 135

8270C Acid/Base/Neutral Extractables						
1,2,4-Trichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,2-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509728 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB03-5
Date Sampled: 03/31/2004
Time Sampled: 11:18
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
1,3-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,4-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
2,4,5-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4,6-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dichlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dimethylphenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dinitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2,6-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2-Chloronaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Chlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2-Methylnaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
2-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
2-Nitrophenol	ND	1	333	ug/Kg	04/02/04	DP
3,3-Dichlorobenzidine	ND	1	333	ug/Kg	04/02/04	DP
3-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
3-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4,6-Dinitro-2-methylphenol	ND	1	1665	ug/Kg	04/02/04	DP
4-Bromophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Chloro-3-methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Chloroaniline	ND	1	333	ug/Kg	04/02/04	DP
4-Chlorophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4-Nitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
Acenaphthene	ND	1	333	ug/Kg	04/02/04	DP
Acenaphthylene	ND	1	333	ug/Kg	04/02/04	DP
Anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzidine	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(b)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(g,h,i)perylene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(k)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzoic Acid	ND	1	333	ug/Kg	04/02/04	DP
Benzyl alcohol	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroethoxy)methane	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509728 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB03-5
Date Sampled: 03/31/2004
Time Sampled: 11:18
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
bis(2-Chloroethyl)ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroisopropyl) ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Ethylhexyl)phthalate	ND	1	333	ug/Kg	04/02/04	DP
Butylbenzylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Chrysene	ND	1	333	ug/Kg	04/02/04	DP
Di-n-butylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Di-n-octylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dibenz(a,h)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Dibenzofuran	ND	1	333	ug/Kg	04/02/04	DP
Diethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dimethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Fluorene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobutadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorocyclopentadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachloroethane	ND	1	333	ug/Kg	04/02/04	DP
Indeno(1,2,3-c,d)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Isophorone	ND	1	333	ug/Kg	04/02/04	DP
N-Nitroso-di-n-propylamine	ND	1	333	ug/Kg	04/02/04	DP
N-Nitrosodiphenylamine	ND	1	333	ug/Kg	04/02/04	DP
Naphthalene	ND	1	333	ug/Kg	04/02/04	DP
Nitrobenzene	ND	1	333	ug/Kg	04/02/04	DP
Pentachlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
Phenanthrene	ND	1	333	ug/Kg	04/02/04	DP
Phenol	ND	1	333	ug/Kg	04/02/04	DP
Pyrene	ND	1	333	ug/Kg	04/02/04	DP

Surrogates		Units	Control Limits
2,4,6-Tribromophenol (sur)	69	%	17 - 122
2-Fluorobiphenyl (sur)	42	%	30 - 115
2-Fluorophenol (sur)	61	%	25 - 121
Nitrobenzene-d5 (sur)	42	%	23 - 120
Phenol-d5 (sur)	59	%	24 - 113
Terphenyl-d14 (sur)	77	%	18 - 137

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509731 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB04-5
Date Sampled: 03/31/2004
Time Sampled: 12:10
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
6010B ICP Metals - Solid/Liquid						
Arsenic	ND	1	1.0	mg/Kg	04/05/04	KN
Barium	34.5	1	1.0	mg/Kg	04/05/04	KN
Cadmium	ND	1	0.5	mg/Kg	04/05/04	KN
Chromium	3.52	1	1.0	mg/Kg	04/05/04	KN
Lead	ND	1	0.5	mg/Kg	04/05/04	KN
Selenium	3.31	1	1.0	mg/Kg	04/05/04	KN
Silver	ND	1	0.5	mg/Kg	04/05/04	KN
7471A Mercury in Solid						
Mercury	ND	1	0.14	mg/Kg	04/02/04	MDJ
8015 Carbon Chain I						
C06 - C10	ND	1	3	mg/Kg	04/02/04	AF
C10 - C22	ND	1	3	mg/Kg	04/02/04	AF
C22 - C36	ND	1	5	mg/Kg	04/02/04	AF
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1-Dichloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1-Dichloroethene	ND	1	5	ug/Kg	04/03/04	AM
1,1-Dichloropropene	ND	1	5	ug/Kg	04/03/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/Kg	04/03/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dibromoethane	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dichloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dichloropropane	ND	1	5	ug/Kg	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509731 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB04-5
Date Sampled: 03/31/2004
Time Sampled: 12:10
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
1,3,5-Trimethylbenzene	ND	1	5	ug/Kg	04/03/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1,3-Dichloropropane	ND	1	5	ug/Kg	04/03/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1-Chlorohexane	ND	1	5	ug/Kg	04/03/04	AM
2,2-Dichloropropane	ND	1	5	ug/Kg	04/03/04	AM
2-Butanone (MEK)	ND	1	100	ug/Kg	04/03/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/Kg	04/03/04	AM
2-Chlorotoluene	ND	1	5	ug/Kg	04/03/04	AM
2-Hexanone	ND	1	5	ug/Kg	04/03/04	AM
4-Chlorotoluene	ND	1	5	ug/Kg	04/03/04	AM
4-Methyl -2- Pentanone	ND	1	5	ug/Kg	04/03/04	AM
Acetone	ND	1	50	ug/Kg	04/03/04	AM
Acetonitrile	ND	1	5	ug/Kg	04/03/04	AM
Acrolein	ND	1	200	ug/Kg	04/03/04	AM
Acrylonitrile	ND	1	5	ug/Kg	04/03/04	AM
Allyl chloride	ND	1	5	ug/Kg	04/03/04	AM
Benzene	ND	1	5	ug/Kg	04/03/04	AM
Benzyl chloride	ND	1	5	ug/Kg	04/03/04	AM
Bromobenzene	ND	1	5	ug/Kg	04/03/04	AM
Bromochloromethane	ND	1	5	ug/Kg	04/03/04	AM
Bromodichloromethane	ND	1	5	ug/Kg	04/03/04	AM
Bromoform	ND	1	5	ug/Kg	04/03/04	AM
Bromomethane	ND	1	5	ug/Kg	04/03/04	AM
Carbon Disulfide	ND	1	5	ug/Kg	04/03/04	AM
Carbon tetrachloride	ND	1	5	ug/Kg	04/03/04	AM
Chlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
Chloroethane	ND	1	5	ug/Kg	04/03/04	AM
Chloroform	ND	1	5	ug/Kg	04/03/04	AM
Chloromethane	ND	1	5	ug/Kg	04/03/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/Kg	04/03/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/Kg	04/03/04	AM
cis-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/03/04	AM
Dibromochloromethane	ND	1	5	ug/Kg	04/03/04	AM
Dibromomethane	ND	1	5	ug/Kg	04/03/04	AM
Dichlorodifluoromethane	ND	1	5	ug/Kg	04/03/04	AM
Ethyl benzene	ND	1	5	ug/Kg	04/03/04	AM
Ethyl methacrylate	ND	1	5	ug/Kg	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509731 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** DP62-SB04-5
Date Sampled: 03/31/2004
Time Sampled: 12:10
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Hexachlorobutadiene	ND	1	5	ug/Kg	04/03/04	AM
Iodomethane	ND	1	5	ug/Kg	04/03/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/Kg	04/03/04	AM
m and p-Xylene	ND	1	5	ug/Kg	04/03/04	AM
Methacrylonitrile	ND	1	5	ug/Kg	04/03/04	AM
Methyl methacrylate	ND	1	5	ug/Kg	04/03/04	AM
Methyl-tert-butylether (MTBE)	ND	1	5	ug/Kg	04/03/04	AM
Methylene chloride	ND	1	5	ug/Kg	04/03/04	AM
n-Butylbenzene	ND	1	5	ug/Kg	04/03/04	AM
n-Propylbenzene	ND	1	5	ug/Kg	04/03/04	AM
Naphthalene	ND	1	5	ug/Kg	04/03/04	AM
o-Xylene	ND	1	5	ug/Kg	04/03/04	AM
p-Isopropyltoluene	ND	1	5	ug/Kg	04/03/04	AM
Pentachloroethane	ND	1	5	ug/Kg	04/03/04	AM
Propionitrile	ND	1	5	ug/Kg	04/03/04	AM
sec-Butylbenzene	ND	1	5	ug/Kg	04/03/04	AM
Styrene	ND	1	5	ug/Kg	04/03/04	AM
tert-Butylbenzene	ND	1	5	ug/Kg	04/03/04	AM
Tetrachloroethene	ND	1	5	ug/Kg	04/03/04	AM
Toluene	ND	1	5	ug/Kg	04/03/04	AM
trans-1,2-Dichloroethene	ND	1	5	ug/Kg	04/03/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/Kg	04/03/04	AM
trans-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/03/04	AM
Trichloroethene	ND	1	5	ug/Kg	04/03/04	AM
Trichlorofluoromethane	ND	1	5	ug/Kg	04/03/04	AM
Vinyl acetate	ND	1	50	ug/Kg	04/03/04	AM
Vinyl chloride	ND	1	5	ug/Kg	04/03/04	AM
Xylenes, total	ND	1	5	ug/Kg	04/03/04	AM
Surrogates				**Units**	**Control Limits**	
Surr1 - Dibromofluoromethane	96			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	123			%	70 - 135	
Surr3 - Toluene-d8	104			%	70 - 135	
Surr4 - p-Bromofluorobenzene	107			%	70 - 135	

8270C Acid/Base/Neutral Extractables

1,2,4-Trichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,2-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509731 **Client:** BHATE
atrix: SOLID **Client Sample ID:** DP62-SB04-5
Date Sampled: 03/31/2004
Time Sampled: 12:10
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
1,3-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,4-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
2,4,5-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4,6-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dichlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dimethylphenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dinitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2,6-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2-Chloronaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Chlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2-Methylnaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
2-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
2-Nitrophenol	ND	1	333	ug/Kg	04/02/04	DP
3,3-Dichlorobenzidine	ND	1	333	ug/Kg	04/02/04	DP
3-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
3-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4,6-Dinitro-2-methylphenol	ND	1	1665	ug/Kg	04/02/04	DP
4-Bromophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Chloro-3-methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Chloroaniline	ND	1	333	ug/Kg	04/02/04	DP
4-Chlorophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4-Nitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
Acenaphthene	ND	1	333	ug/Kg	04/02/04	DP
Acenaphthylene	ND	1	333	ug/Kg	04/02/04	DP
Anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzidine	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(b)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(g,h,i)perylene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(k)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzoic Acid	ND	1	333	ug/Kg	04/02/04	DP
Benzyl alcohol	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroethoxy)methane	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509731 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** DP62-SB04-5

Date Sampled: 03/31/2004

Time Sampled: 12:10

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
bis(2-Chloroethyl)ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroisopropyl) ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Ethylhexyl)phthalate	ND	1	333	ug/Kg	04/02/04	DP
Butylbenzylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Chrysene	ND	1	333	ug/Kg	04/02/04	DP
Di-n-butylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Di-n-octylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dibenz(a,h)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Dibenzofuran	ND	1	333	ug/Kg	04/02/04	DP
Diethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dimethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Fluorene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobutadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorocyclopentadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachloroethane	ND	1	333	ug/Kg	04/02/04	DP
Indeno(1,2,3-c,d)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Isophorone	ND	1	333	ug/Kg	04/02/04	DP
N-Nitroso-di-n-propylamine	ND	1	333	ug/Kg	04/02/04	DP
N-Nitrosodiphenylamine	ND	1	333	ug/Kg	04/02/04	DP
Naphthalene	ND	1	333	ug/Kg	04/02/04	DP
Nitrobenzene	ND	1	333	ug/Kg	04/02/04	DP
Pentachlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
Phenanthrene	ND	1	333	ug/Kg	04/02/04	DP
Phenol	ND	1	333	ug/Kg	04/02/04	DP
Pyrene	ND	1	333	ug/Kg	04/02/04	DP

Surrogates		Units	Control Limits
2,4,6-Tribromophenol (sur)	90	%	17 - 122
2-Fluorobiphenyl (sur)	54	%	30 - 115
2-Fluorophenol (sur)	80	%	25 - 121
Nitrobenzene-d5 (sur)	57	%	23 - 120
Phenol-d5 (sur)	80	%	24 - 113
Terphenyl-d14 (sur)	78	%	18 - 137

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509734 **Client:** BHATE
Matrix: WATER **Client Sample ID:** Trip Blank
Date Sampled: 03/31/2004
Time Sampled:
Sampled By:

8260B Volatile Organic Compounds

Analyte	Result	DF	DLR	Units	Date/Analyst	
1,1,1,2-Tetrachloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/L	04/03/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/L	04/03/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/L	04/03/04	AM
1,2-Dibromoethane	ND	1	5	ug/L	04/03/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2-Dichloroethane	ND	1	5	ug/L	04/03/04	AM
1,2-Dichloropropane	ND	1	5	ug/L	04/03/04	AM
1,3,5-Trimethylbenzene	ND	1	5	ug/L	04/03/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,3-Dichloropropane	ND	1	5	ug/L	04/03/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1-Chlorohexane	ND	1	5	ug/L	04/03/04	AM
2,2-Dichloropropane	ND	1	5	ug/L	04/03/04	AM
2-Butanone (MEK)	ND	1	100	ug/L	04/03/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/L	04/03/04	AM
2-Chlorotoluene	ND	1	5	ug/L	04/03/04	AM
2-Hexanone	ND	1	20	ug/L	04/03/04	AM
4-Chlorotoluene	ND	1	5	ug/L	04/03/04	AM
4-Methyl -2- Pentanone	ND	1	10	ug/L	04/03/04	AM
Acetone	ND	1	100	ug/L	04/03/04	AM
Acetonitrile	ND	1	50	ug/L	04/03/04	AM
Acrolein	ND	1	200	ug/L	04/03/04	AM
Acrylonitrile	ND	1	10	ug/L	04/03/04	AM
Allyl chloride	ND	1	5	ug/L	04/03/04	AM
Benzene	ND	1	1	ug/L	04/03/04	AM
Benzyl chloride	ND	1	5	ug/L	04/03/04	AM
Bromobenzene	ND	1	5	ug/L	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509734 **Client:** BHATE

Matrix: WATER **Client Sample ID:** Trip Blank

Date Sampled: 03/31/2004

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Bromochloromethane	ND	1	5	ug/L	04/03/04	AM
Bromodichloromethane	ND	1	5	ug/L	04/03/04	AM
Bromoform	ND	1	5	ug/L	04/03/04	AM
Bromomethane	ND	1	5	ug/L	04/03/04	AM
Carbon Disulfide	ND	1	5	ug/L	04/03/04	AM
Carbon tetrachloride	ND	1	5	ug/L	04/03/04	AM
Chlorobenzene	ND	1	5	ug/L	04/03/04	AM
Chloroethane	ND	1	5	ug/L	04/03/04	AM
Chloroform	ND	1	5	ug/L	04/03/04	AM
Chloromethane	ND	1	5	ug/L	04/03/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
cis-1,4-Dichloro-2-butene	ND	1	20	ug/L	04/03/04	AM
Dibromochloromethane	ND	1	5	ug/L	04/03/04	AM
Dibromomethane	ND	1	5	ug/L	04/03/04	AM
Dichlorodifluoromethane	ND	1	5	ug/L	04/03/04	AM
Ethyl benzene	ND	1	5	ug/L	04/03/04	AM
Ethyl methacrylate	ND	1	50	ug/L	04/03/04	AM
Hexachlorobutadiene	ND	1	5	ug/L	04/03/04	AM
Iodomethane	ND	1	5	ug/L	04/03/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/L	04/03/04	AM
m and p-Xylene	ND	1	5	ug/L	04/03/04	AM
Methacrylonitrile	ND	1	35	ug/L	04/03/04	AM
Methyl methacrylate	ND	1	5	ug/L	04/03/04	AM
Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	04/03/04	AM
Methylene chloride	ND	1	5	ug/L	04/03/04	AM
n-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
n-Propylbenzene	ND	1	5	ug/L	04/03/04	AM
Naphthalene	ND	1	5	ug/L	04/03/04	AM
o-Xylene	ND	1	5	ug/L	04/03/04	AM
p-Isopropyltoluene	ND	1	5	ug/L	04/03/04	AM
Pentachloroethane	ND	1	5	ug/L	04/03/04	AM
Propionitrile	ND	1	100	ug/L	04/03/04	AM
sec-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
Styrene	ND	1	5	ug/L	04/03/04	AM
tert-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
Tetrachloroethene	ND	1	5	ug/L	04/03/04	AM
Toluene	ND	1	5	ug/L	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509734 **Client:** BHATE
Matrix: WATER **Client Sample ID:** Trip Blank
Date Sampled: 03/31/2004
Time Sampled:
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
trans-1,2-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
trans-1,4-Dichloro-2-butene	ND	1	20	ug/L	04/03/04	AM
Trichloroethene	ND	1	5	ug/L	04/03/04	AM
Trichlorofluoromethane	ND	1	5	ug/L	04/03/04	AM
Vinyl acetate	ND	1	50	ug/L	04/03/04	AM
Vinyl chloride	ND	1	5	ug/L	04/03/04	AM
Xylenes, total	ND	1	5	ug/L	04/03/04	AM
Surrogates				**Units**	**Control Limits**	
Surr1 - Dibromofluoromethane	93			%	70 - 135	
Surr2 - 1,2-Dichloroethane-d4	122			%	70 - 135	
Surr3 - Toluene-d8	99			%	70 - 135	
Surr4 - p-Bromofluorobenzene	119			%	70 - 135	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509735 **Client:** BHATB
Matrix: WATER **Client Sample ID:** Equip Blank
Date Sampled: 03/31/2004
Time Sampled:
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
200.7 ICP Total Metals - Water Only						
Arsenic	ND	1	0.005	mg/L	04/05/04	KN
Barium	ND	1	0.010	mg/L	04/05/04	KN
Cadmium	ND	1	0.005	mg/L	04/05/04	KN
Chromium	ND	1	0.010	mg/L	04/05/04	KN
Lead	ND	1	0.005	mg/L	04/05/04	KN
Selenium	ND	1	0.006	mg/L	04/05/04	KN
Silver	ND	1	0.005	mg/L	04/05/04	KN
7470A Mercury in Water						
Mercury	ND	1	0.0004	mg/L	04/05/04	MDJ
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/L	04/03/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/L	04/03/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/L	04/03/04	AM
1,2-Dibromoethane	ND	1	5	ug/L	04/03/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2-Dichloroethane	ND	1	5	ug/L	04/03/04	AM
1,2-Dichloropropane	ND	1	5	ug/L	04/03/04	AM
1,3,5-Trimethylbenzene	ND	1	5	ug/L	04/03/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,3-Dichloropropane	ND	1	5	ug/L	04/03/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1-Chlorohexane	ND	1	5	ug/L	04/03/04	AM
2,2-Dichloropropane	ND	1	5	ug/L	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509735 **Client:** BHATE
Matrix: WATER **Client Sample ID:** Equip Blank
Date Sampled: 03/31/2004
Time Sampled:
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
2-Butanone (MEK)	ND	1	100	ug/L	04/03/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/L	04/03/04	AM
2-Chlorotoluene	ND	1	5	ug/L	04/03/04	AM
2-Hexanone	ND	1	20	ug/L	04/03/04	AM
4-Chlorotoluene	ND	1	5	ug/L	04/03/04	AM
4-Methyl -2- Pentanone	ND	1	10	ug/L	04/03/04	AM
Acetone	ND	1	100	ug/L	04/03/04	AM
Acetonitrile	ND	1	50	ug/L	04/03/04	AM
Acrolein	ND	1	200	ug/L	04/03/04	AM
Acrylonitrile	ND	1	10	ug/L	04/03/04	AM
Allyl chloride	ND	1	5	ug/L	04/03/04	AM
Benzene	ND	1	1	ug/L	04/03/04	AM
Benzyl chloride	ND	1	5	ug/L	04/03/04	AM
Bromobenzene	ND	1	5	ug/L	04/03/04	AM
Bromochloromethane	ND	1	5	ug/L	04/03/04	AM
Bromodichloromethane	ND	1	5	ug/L	04/03/04	AM
Bromoform	ND	1	5	ug/L	04/03/04	AM
Bromomethane	ND	1	5	ug/L	04/03/04	AM
Carbon Disulfide	ND	1	5	ug/L	04/03/04	AM
Carbon tetrachloride	ND	1	5	ug/L	04/03/04	AM
Chlorobenzene	ND	1	5	ug/L	04/03/04	AM
Chloroethane	ND	1	5	ug/L	04/03/04	AM
Chloroform	ND	1	5	ug/L	04/03/04	AM
Chloromethane	ND	1	5	ug/L	04/03/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
cis-1,4-Dichloro-2-butene	ND	1	20	ug/L	04/03/04	AM
Dibromochloromethane	ND	1	5	ug/L	04/03/04	AM
Dibromomethane	ND	1	5	ug/L	04/03/04	AM
Dichlorodifluoromethane	ND	1	5	ug/L	04/03/04	AM
Ethyl benzene	ND	1	5	ug/L	04/03/04	AM
Ethyl methacrylate	ND	1	50	ug/L	04/03/04	AM
Hexachlorobutadiene	ND	1	5	ug/L	04/03/04	AM
Iodomethane	ND	1	5	ug/L	04/03/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/L	04/03/04	AM
m and p-Xylene	ND	1	5	ug/L	04/03/04	AM
Methacrylonitrile	ND	1	35	ug/L	04/03/04	AM
Methyl methacrylate	ND	1	5	ug/L	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509735 **Client:** BHATE
Matrix: WATER **Client Sample ID:** Equip Blank
Date Sampled: 03/31/2004
Time Sampled:
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	04/03/04	AM
Methylene chloride	ND	1	5	ug/L	04/03/04	AM
n-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
n-Propylbenzene	ND	1	5	ug/L	04/03/04	AM
Naphthalene	ND	1	5	ug/L	04/03/04	AM
o-Xylene	ND	1	5	ug/L	04/03/04	AM
p-Isopropyltoluene	ND	1	5	ug/L	04/03/04	AM
Pentachloroethane	ND	1	5	ug/L	04/03/04	AM
Propionitrile	ND	1	100	ug/L	04/03/04	AM
sec-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
Styrene	ND	1	5	ug/L	04/03/04	AM
tert-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
Tetrachloroethene	ND	1	5	ug/L	04/03/04	AM
Toluene	ND	1	5	ug/L	04/03/04	AM
trans-1,2-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
trans-1,4-Dichloro-2-butene	ND	1	20	ug/L	04/03/04	AM
Trichloroethene	ND	1	5	ug/L	04/03/04	AM
Trichlorofluoromethane	ND	1	5	ug/L	04/03/04	AM
Vinyl acetate	ND	1	50	ug/L	04/03/04	AM
Vinyl chloride	ND	1	5	ug/L	04/03/04	AM
Xylenes, total	ND	1	5	ug/L	04/03/04	AM

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	96	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	120	%	70 - 135
Surr3 - Toluene-d8	98	%	70 - 135
Surr4 - p-Bromofluorobenzene	111	%	70 - 135

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509736 **Client:** BHATE
Matrix: SOLID **Client Sample ID:** Laboratory Method Blank-S
Date Sampled:
Time Sampled:
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
6010B ICP Metals - Solid/Liquid						
Arsenic	ND	1	1.00	mg/Kg	04/05/04	KN
Barium	ND	1	1.00	mg/Kg	04/05/04	KN
Cadmium	ND	1	0.50	mg/Kg	04/05/04	KN
Chromium	ND	1	1.00	mg/Kg	04/05/04	KN
Lead	ND	1	0.50	mg/Kg	04/05/04	KN
Selenium	ND	1	1.00	mg/Kg	04/05/04	KN
Silver	ND	1	0.50	mg/Kg	04/05/04	KN
7471A Mercury in Solid						
Mercury	ND	1	0.14	mg/Kg	04/02/04	MDJ
8015 Carbon Chain I						
C06 - C10	ND	1	3	mg/Kg	04/02/04	AF
C10 - C22	ND	1	3	mg/Kg	04/02/04	AF
C22 - C36	ND	1	5	mg/Kg	04/02/04	AF
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1-Dichloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,1-Dichloroethene	ND	1	5	ug/Kg	04/03/04	AM
1,1-Dichloropropene	ND	1	5	ug/Kg	04/03/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/Kg	04/03/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dibromoethane	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dichloroethane	ND	1	5	ug/Kg	04/03/04	AM
1,2-Dichloropropane	ND	1	5	ug/Kg	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509736 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** Laboratory Method Blank-S

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
1,3,5-Trimethylbenzene	ND	1	5	ug/Kg	04/03/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1,3-Dichloropropane	ND	1	5	ug/Kg	04/03/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
1-Chlorohexane	ND	1	5	ug/Kg	04/03/04	AM
2,2-Dichloropropane	ND	1	5	ug/Kg	04/03/04	AM
2-Butanone (MEK)	ND	1	100	ug/Kg	04/03/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/Kg	04/03/04	AM
2-Chlorotoluene	ND	1	5	ug/Kg	04/03/04	AM
2-Hexanone	ND	1	5	ug/Kg	04/03/04	AM
4-Chlorotoluene	ND	1	5	ug/Kg	04/03/04	AM
4-Methyl -2- Pentanone	ND	1	5	ug/Kg	04/03/04	AM
Acetone	ND	1	50	ug/Kg	04/03/04	AM
Acetonitrile	ND	1	5	ug/Kg	04/03/04	AM
Acrolein	ND	1	200	ug/Kg	04/03/04	AM
Acrylonitrile	ND	1	5	ug/Kg	04/03/04	AM
Allyl chloride	ND	1	5	ug/Kg	04/03/04	AM
Benzene	ND	1	5	ug/Kg	04/03/04	AM
Benzyl chloride	ND	1	5	ug/Kg	04/03/04	AM
Bromobenzene	ND	1	5	ug/Kg	04/03/04	AM
Bromochloromethane	ND	1	5	ug/Kg	04/03/04	AM
Bromodichloromethane	ND	1	5	ug/Kg	04/03/04	AM
Bromoform	ND	1	5	ug/Kg	04/03/04	AM
Bromomethane	ND	1	5	ug/Kg	04/03/04	AM
Carbon Disulfide	ND	1	5	ug/Kg	04/03/04	AM
Carbon tetrachloride	ND	1	5	ug/Kg	04/03/04	AM
Chlorobenzene	ND	1	5	ug/Kg	04/03/04	AM
Chloroethane	ND	1	5	ug/Kg	04/03/04	AM
Chloroform	ND	1	5	ug/Kg	04/03/04	AM
Chloromethane	ND	1	5	ug/Kg	04/03/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/Kg	04/03/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/Kg	04/03/04	AM
cis-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/03/04	AM
Dibromochloromethane	ND	1	5	ug/Kg	04/03/04	AM
Dibromomethane	ND	1	5	ug/Kg	04/03/04	AM
Dichlorodifluoromethane	ND	1	5	ug/Kg	04/03/04	AM
Ethyl benzene	ND	1	5	ug/Kg	04/03/04	AM
Ethyl methacrylate	ND	1	5	ug/Kg	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509736 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** Laboratory Method Blank-S

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Hexachlorobutadiene	ND	1	5	ug/Kg	04/03/04	AM
Iodomethane	ND	1	5	ug/Kg	04/03/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/Kg	04/03/04	AM
m and p-Xylene	ND	1	5	ug/Kg	04/03/04	AM
Methacrylonitrile	ND	1	5	ug/Kg	04/03/04	AM
Methyl methacrylate	ND	1	5	ug/Kg	04/03/04	AM
Methyl-tert-butylether (MTBE)	ND	1	5	ug/Kg	04/03/04	AM
Methylene chloride	ND	1	5	ug/Kg	04/03/04	AM
n-Butylbenzene	ND	1	5	ug/Kg	04/03/04	AM
n-Propylbenzene	ND	1	5	ug/Kg	04/03/04	AM
Naphthalene	ND	1	5	ug/Kg	04/03/04	AM
o-Xylene	ND	1	5	ug/Kg	04/03/04	AM
p-Isopropyltoluene	ND	1	5	ug/Kg	04/03/04	AM
Pentachloroethane	ND	1	5	ug/Kg	04/03/04	AM
Propionitrile	ND	1	5	ug/Kg	04/03/04	AM
sec-Butylbenzene	ND	1	5	ug/Kg	04/03/04	AM
Styrene	ND	1	5	ug/Kg	04/03/04	AM
tert-Butylbenzene	ND	1	5	ug/Kg	04/03/04	AM
Tetrachloroethene	ND	1	5	ug/Kg	04/03/04	AM
Toluene	ND	1	5	ug/Kg	04/03/04	AM
trans-1,2-Dichloroethene	ND	1	5	ug/Kg	04/03/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/Kg	04/03/04	AM
trans-1,4-Dichloro-2-butene	ND	1	5	ug/Kg	04/03/04	AM
Trichloroethene	ND	1	5	ug/Kg	04/03/04	AM
Trichlorofluoromethane	ND	1	5	ug/Kg	04/03/04	AM
Vinyl acetate	ND	1	50	ug/Kg	04/03/04	AM
Vinyl chloride	ND	1	5	ug/Kg	04/03/04	AM
Xylenes, total	ND	1	5	ug/Kg	04/03/04	AM

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	94	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	116	%	70 - 135
Surr3 - Toluene-d8	102	%	70 - 135
Surr4 - p-Bromofluorobenzene	103	%	70 - 135

8270C Acid/Base/Neutral Extractables						
1,2,4-Trichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,2-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509736 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** Laboratory Method Blank-S

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
1,3-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
1,4-Dichlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
2,4,5-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4,6-Trichlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dichlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dimethylphenol	ND	1	333	ug/Kg	04/02/04	DP
2,4-Dinitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
2,4-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2,6-Dinitrotoluene	ND	1	333	ug/Kg	04/02/04	DP
2-Chloronaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Chlorophenol	ND	1	333	ug/Kg	04/02/04	DP
2-Methylnaphthalene	ND	1	333	ug/Kg	04/02/04	DP
2-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
2-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
2-Nitrophenol	ND	1	333	ug/Kg	04/02/04	DP
3,3-Dichlorobenzidine	ND	1	333	ug/Kg	04/02/04	DP
3-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
3-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4,6-Dinitro-2-methylphenol	ND	1	1665	ug/Kg	04/02/04	DP
4-Bromophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Chloro-3-methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Chloroaniline	ND	1	333	ug/Kg	04/02/04	DP
4-Chlorophenyl-phenylether	ND	1	333	ug/Kg	04/02/04	DP
4-Methylphenol	ND	1	333	ug/Kg	04/02/04	DP
4-Nitroaniline	ND	1	1665	ug/Kg	04/02/04	DP
4-Nitrophenol	ND	1	1665	ug/Kg	04/02/04	DP
Acenaphthene	ND	1	333	ug/Kg	04/02/04	DP
Acenaphthylene	ND	1	333	ug/Kg	04/02/04	DP
Anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzidine	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(a)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(b)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(g,h,i)perylene	ND	1	333	ug/Kg	04/02/04	DP
Benzo(k)fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Benzoic Acid	ND	1	333	ug/Kg	04/02/04	DP
Benzyl alcohol	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroethoxy)methane	ND	1	333	ug/Kg	04/02/04	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509736 **Client:** BHATE

Matrix: SOLID **Client Sample ID:** Laboratory Method Blank-S

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8270C Acid/Base/Neutral Extractables						
bis(2-Chloroethyl)ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Chloroisopropyl) ether	ND	1	333	ug/Kg	04/02/04	DP
bis(2-Ethylhexyl)phthalate	ND	1	333	ug/Kg	04/02/04	DP
Butylbenzylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Chrysene	ND	1	333	ug/Kg	04/02/04	DP
Di-n-butylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Di-n-octylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dibenz(a,h)anthracene	ND	1	333	ug/Kg	04/02/04	DP
Dibenzofuran	ND	1	333	ug/Kg	04/02/04	DP
Diethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Dimethylphthalate	ND	1	333	ug/Kg	04/02/04	DP
Fluoranthene	ND	1	333	ug/Kg	04/02/04	DP
Fluorene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobenzene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorobutadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachlorocyclopentadiene	ND	1	333	ug/Kg	04/02/04	DP
Hexachloroethane	ND	1	333	ug/Kg	04/02/04	DP
Indeno(1,2,3-c,d)pyrene	ND	1	333	ug/Kg	04/02/04	DP
Isophorone	ND	1	333	ug/Kg	04/02/04	DP
N-Nitroso-di-n-propylamine	ND	1	333	ug/Kg	04/02/04	DP
N-Nitrosodiphenylamine	ND	1	333	ug/Kg	04/02/04	DP
Naphthalene	ND	1	333	ug/Kg	04/02/04	DP
Nitrobenzene	ND	1	333	ug/Kg	04/02/04	DP
Pentachlorophenol	ND	1	1665	ug/Kg	04/02/04	DP
Phenanthrene	ND	1	333	ug/Kg	04/02/04	DP
Phenol	ND	1	333	ug/Kg	04/02/04	DP
Pyrene	ND	1	333	ug/Kg	04/02/04	DP

Surrogates		Units	Control Limits
2,4,6-Tribromophenol (sur)	52	%	17 - 122
2-Fluorobiphenyl (sur)	42	%	30 - 115
2-Fluorophenol (sur)	58	%	25 - 121
Nitrobenzene-d5 (sur)	48	%	23 - 120
Phenol-d5 (sur)	64	%	24 - 113
Terphenyl-d14 (sur)	72	%	18 - 137

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509737 **Client:** BHATE

Matrix: WATER **Client Sample ID:** Laboratory Method Blank-W

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
200.7 ICP Total Metals - Water Only						
Arsenic	ND	1	0.005	mg/L	04/05/04	KN
Barium	ND	1	0.010	mg/L	04/05/04	KN
Cadmium	ND	1	0.005	mg/L	04/05/04	KN
Chromium	ND	1	0.010	mg/L	04/05/04	KN
Lead	ND	1	0.005	mg/L	04/05/04	KN
Selenium	ND	1	0.006	mg/L	04/05/04	KN
Silver	ND	1	0.005	mg/L	04/05/04	KN
7470A Mercury in Water						
Mercury	ND	1	0.0004	mg/L	04/05/04	MDJ
8260B Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,1-Trichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2,2-Tetrachloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2-Trichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1,2-Trichlorotrifluoroethane	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloroethane	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
1,1-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
1,2,3-Trichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2,3-Trichloropropane	ND	1	5	ug/L	04/03/04	AM
1,2,4-Trichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2,4-Trimethylbenzene	ND	1	5	ug/L	04/03/04	AM
1,2-Dibromo-3-chloropropane	ND	1	5	ug/L	04/03/04	AM
1,2-Dibromoethane	ND	1	5	ug/L	04/03/04	AM
1,2-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,2-Dichloroethane	ND	1	5	ug/L	04/03/04	AM
1,2-Dichloropropane	ND	1	5	ug/L	04/03/04	AM
1,3,5-Trimethylbenzene	ND	1	5	ug/L	04/03/04	AM
1,3-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1,3-Dichloropropane	ND	1	5	ug/L	04/03/04	AM
1,4-Dichlorobenzene	ND	1	5	ug/L	04/03/04	AM
1-Chlorohexane	ND	1	5	ug/L	04/03/04	AM
2,2-Dichloropropane	ND	1	5	ug/L	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509737 **Client:** BHATE

Matrix: WATER **Client Sample ID:** Laboratory Method Blank-W

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
2-Butanone (MEK)	ND	1	100	ug/L	04/03/04	AM
2-Chloroethyl vinyl ether	ND	1	5	ug/L	04/03/04	AM
2-Chlorotoluene	ND	1	5	ug/L	04/03/04	AM
2-Hexanone	ND	1	20	ug/L	04/03/04	AM
4-Chlorotoluene	ND	1	5	ug/L	04/03/04	AM
4-Methyl -2- Pentanone	ND	1	10	ug/L	04/03/04	AM
Acetone	ND	1	100	ug/L	04/03/04	AM
Acetonitrile	ND	1	50	ug/L	04/03/04	AM
Acrolein	ND	1	200	ug/L	04/03/04	AM
Acrylonitrile	ND	1	10	ug/L	04/03/04	AM
Allyl chloride	ND	1	5	ug/L	04/03/04	AM
Benzene	ND	1	1	ug/L	04/03/04	AM
Benzyl chloride	ND	1	5	ug/L	04/03/04	AM
Bromobenzene	ND	1	5	ug/L	04/03/04	AM
Bromochloromethane	ND	1	5	ug/L	04/03/04	AM
Bromodichloromethane	ND	1	5	ug/L	04/03/04	AM
Bromoform	ND	1	5	ug/L	04/03/04	AM
Bromomethane	ND	1	5	ug/L	04/03/04	AM
Carbon Disulfide	ND	1	5	ug/L	04/03/04	AM
Carbon tetrachloride	ND	1	5	ug/L	04/03/04	AM
Chlorobenzene	ND	1	5	ug/L	04/03/04	AM
Chloroethane	ND	1	5	ug/L	04/03/04	AM
Chloroform	ND	1	5	ug/L	04/03/04	AM
Chloromethane	ND	1	5	ug/L	04/03/04	AM
cis-1,2-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
cis-1,3-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
cis-1,4-Dichloro-2-butene	ND	1	20	ug/L	04/03/04	AM
Dibromochloromethane	ND	1	5	ug/L	04/03/04	AM
Dibromomethane	ND	1	5	ug/L	04/03/04	AM
Dichlorodifluoromethane	ND	1	5	ug/L	04/03/04	AM
Ethyl benzene	ND	1	5	ug/L	04/03/04	AM
Ethyl methacrylate	ND	1	50	ug/L	04/03/04	AM
Hexachlorobutadiene	ND	1	5	ug/L	04/03/04	AM
Iodomethane	ND	1	5	ug/L	04/03/04	AM
Isopropylbenzene (Cumene)	ND	1	5	ug/L	04/03/04	AM
m and p-Xylene	ND	1	5	ug/L	04/03/04	AM
Methacrylonitrile	ND	1	35	ug/L	04/03/04	AM
Methyl methacrylate	ND	1	5	ug/L	04/03/04	AM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 509737 **Client:** BHATE

Matrix: WATER **Client Sample ID:** Laboratory Method Blank-W

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8260B Volatile Organic Compounds						
Methyl-tert-butylether (MTBE)	ND	1	1	ug/L	04/03/04	AM
Methylene chloride	ND	1	5	ug/L	04/03/04	AM
n-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
n-Propylbenzene	ND	1	5	ug/L	04/03/04	AM
Naphthalene	ND	1	5	ug/L	04/03/04	AM
o-Xylene	ND	1	5	ug/L	04/03/04	AM
p-Isopropyltoluene	ND	1	5	ug/L	04/03/04	AM
Pentachloroethane	ND	1	5	ug/L	04/03/04	AM
Propionitrile	ND	1	100	ug/L	04/03/04	AM
sec-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
Styrene	ND	1	5	ug/L	04/03/04	AM
tert-Butylbenzene	ND	1	5	ug/L	04/03/04	AM
Tetrachloroethene	ND	1	5	ug/L	04/03/04	AM
Toluene	ND	1	5	ug/L	04/03/04	AM
trans-1,2-Dichloroethene	ND	1	5	ug/L	04/03/04	AM
trans-1,3-Dichloropropene	ND	1	5	ug/L	04/03/04	AM
trans-1,4-Dichloro-2-butene	ND	1	20	ug/L	04/03/04	AM
Trichloroethene	ND	1	5	ug/L	04/03/04	AM
Trichlorofluoromethane	ND	1	5	ug/L	04/03/04	AM
Vinyl acetate	ND	1	50	ug/L	04/03/04	AM
Vinyl chloride	ND	1	5	ug/L	04/03/04	AM
Xylenes, total	ND	1	5	ug/L	04/03/04	AM

Surrogates		Units	Control Limits
Surr1 - Dibromofluoromethane	95	%	70 - 135
Surr2 - 1,2-Dichloroethane-d4	117	%	70 - 135
Surr3 - Toluene-d8	99	%	70 - 135
Surr4 - p-Bromofluorobenzene	112	%	70 - 135

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: LR 127067-509803

Matrix: WATER

Prep. Date: 04/05/04

Analysis Date: 04/05/04

ID#'s in Batch: LR 127067, 127053, 127042, 127177, 127049

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MERCURY	245.1 / 7470A	0.0004	0.002	0.0024	0.0025	100	105	4

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.005	0.005	100	80%	120%

Value = Preparation Blank Value; ND = Not-Detected
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES

QA REPORT FORM - METHOD 8260 / 624 / 524.2

QC Sample: MS / MSD - Solid Samples 127042-721

Analysis Date: 04/03/04 9:46 AM

Applies to: LR 127042, 127047, 127067

Reporting Units = ug/Kg

Matrix Spike / Matrix Spike Duplicate

Test	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD	QC Limits RPD	QC Limits %REC
1,1-Dichloroethene	ND	50	38.02	45.87	76	92	19	22	59-172
MTBE	ND	50	35.31	38.87	71	78	10	24	62-137
Benzene	ND	50	39.41	43.08	79	86	9	24	62-137
Trichloroethene	ND	50	41.08	47.56	82	95	15	21	66-142
Toluene	ND	50	37.19	42.86	74	86	14	21	59-139
Chlorobenzene	ND	50	35.97	40.59	72	81	12	21	60-133

QC Sample: LCS
Analysis Date: 04/02/04 3:51 PM

LCS RECOVERY / METHOD BLANK

Test	Sample Result	Spike Added	LCS Spike	%Rec LCS	QC Limits %REC
1,1-Dichloroethene	ND	50	60.12	120	59-172
MTBE	ND	50	51.01	102	62-137
Benzene	ND	50	51.28	103	62-137
Trichloroethene	ND	50	53.84	108	66-142
Toluene	ND	50	52.50	105	59-139
Chlorobenzene	ND	50	54.12	108	60-133

Method Blank = All ND

SURROGATE (QC Limits : 70-135)

Compound	MB 1	MB 2	LCS	MS	MSD
DBFM	96	94	99	100	100
1,2-DCA	115	116	101	113	107
Tol-d8	103	102	97	96	96
p-BFB	101	103	96	99	99

ASSOCIATED LABORATORIES

QA REPORT FORM - METHOD 8260 / 624 / 524.2

QC Sample: MS / MSD - Water Samples 126901-078

Analysis Date: 04/04/04 3:58 AM

Applies to: LR 126978, 127042, 126901, 126895, 126896, 126897, 126898, 126899

Reporting Units = ug/L

Matrix Spike / Matrix Spike Duplicate

Test	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD	QC Limits RPD	QC Limits %REC
1,1-Dichloroethene	ND	25.0	28.61	26.69	114	107	7	22	59-172
MTBE	ND	25.0	23.81	22.95	95	92	4	24	62-137
Benzene	ND	25.0	25.89	24.97	104	100	4	24	62-137
Trichloroethene	8.90	25.0	32.18	32.45	93	94	1	21	66-142
Toluene	ND	25.0	24.88	24.07	100	96	3	21	59-139
Chlorobenzene	ND	25.0	24.33	24.45	97	98	0	21	60-133

QC Sample: LCS # 3
Analysis Date: 04/03/04 11:21 AM

LCS RECOVERY / METHOD BLANK

Test	Sample Result	Spike Added	LCS Spike	%Rec LCS	QC Limits %REC
1,1-Dichloroethene	ND	50	51.53	103	59-172
MTBE	ND	50	51.13	102	62-137
Benzene	ND	50	50.75	102	62-137
Trichloroethene	ND	50	54.97	110	66-142
Toluene	ND	50	49.81	100	59-139
Chlorobenzene	ND	50	51.85	104	60-133

Method Blank = All ND

SURROGATE (QC Limits : 70-135)

Compound	MB 3	MB 4	MS	MSD	LCS 3
DBFM	95	96	98	96	102
1,2-DCA	117	121	97	92	104
Tol-d8	99	99	101	96	98
p-BFB	112	107	97	102	100

ASSOCIATED LABORATORIES
QA REPORT FORM

Method : EPA 8270/625

Prep. Method : 3545

QC Sample: MS/MSD 127042-725

Matrix: SOLID

Date Extracted : 04/01/04

Date Analyzed : 04/02/04

Applies to: LR 127042, 127033

REPORTING UNITS = ug/Kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Test	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup.	%Rec MS	%Rec MSD	RPD	QC Limits RPD	QC Limits %REC
Phenol	ND	50	33	24	66	48	32	42	6-117
2-Chorophenol	ND	50	31	23	62	46	30	35	28-100
1,4-Dichlorobenzene	ND	50	30	21	60	42	35	36	39-92
n-Nitroso-di-n-propylamine *	ND	50	44	24	88	48	59	42	5-149
1,2,4-Trichlorobenzene *	ND	50	28	20	56	40	33	41	41-97
4-Chloro-3-methylphenol	ND	50	34	33	68	66	3	37	26-117
Acenaphthene	ND	50	33	31	66	62	6	41	46-113
4-Nitrophenol	ND	50	46	50	92	100	8	73	53-143
2,4-Dinitrotoluene	ND	50	47	47	94	94	0	43	82-125
Pentachlorophenol	ND	50	51	49	102	98	4	52	25-187
Pyrene	ND	50	46	45	92	90	2	36	47-136

*Outside QC limits, due to matrix interference.

Lab Controlled Spike / Lab Controlled Spike Duplicate

Test	Sample Result	Spike Added	LCS Spike	%Rec LCS	QC LIMIT %REC
Phenol	ND	50	34	68	17-99
2-Clorophenol	ND	50	30	60	28-88
1,4-Dichlorobenzene	ND	50	30	60	33-89
n-Nitroso-di-n-propylamine	ND	50	39	78	9-130
1,2,4-Trichlorobenzene	ND	50	26	52	25-92
4-Cloro-3-methylphenol	ND	50	32	64	27-96
Acenaphthene	ND	50	28	56	31-101
4-Nitrophenol	ND	50	37	74	8-123
2,4-Dinitrotoluene	ND	50	39	78	27-139
Pentachlorophenol	ND	50	32	64	0-151
Pyrene	ND	50	41	82	34-127

Method Blank = All ND

ASSOCIATED LABORATORIES

NARRATIVE

Date: April 8, 2004

Narrative for Lab Request LR: 127042

Client Project Identification:
Project: Holmn DP 62/Ritas Draw
This narrative includes all samples as shown on the attached Lab Request final report.

Analyses Requested:

- EPA 7471 – Mercury in Solid.
- EPA 6010B – ICP Metals.
- EPA 8015 – Carbon Chain I.
- EPA 8260B – Volatile Organic Compounds.
- EPA 8270C – Acid & Base/Neutral Extractables.

Data Validation:

Holding Times
All EPA designated holding times were met.

Calibration
Initial calibration criteria were met for all analytes. Initial and Continuing Calibration Check samples were run at the required frequency. All results were within required limits.

Quality Control Samples
Following is a summary of the QC data, along with an explanation of any samples that were outside QC limits and corrective actions that were taken:

- **EPA 8270:** MSD recovery for 1,2,4-Trichlorobenzene was out of control, and RPD was outside limits for n-Nitroso-di-n-propylamine, due to matrix interference. Corrective action: The remaining MS/MSD spike recoveries and all LCS recoveries were within control. Furthermore, Method Blank and all analytical samples were ND, and all surrogate recoveries conformed. The QC batch was acceptable, and no corrective action was necessary.

- **All Other Methods:** All QC results were within control.

Other Anomalies or Comments
The reporting limit (DLR) is adjusted if dilution of the sample is necessary. For 8270, the MS/MSD and LCS limits shown in the raw data are incorrect. The correct limits are on the QC summary sheet.

BHATE
Environmental Associates, Inc.
1608 13th Avenue South, Suite 300
Birmingham, Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Project Number: 2080024.0203

127042

Chain of Custody Number [1]: 03312004.1

LIMS Number:

Facility/Base I.D.: Holmp

Project Name / Site Name: DP62/Pitas Draw

Client Name: USACE

Collected by: Germann, Kevin D.

Field Sample ID (20 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 8260B	SVOC 8270C	RCRA 6010B/7471A	TPH 8015					Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
DP62-SB-01-5	DP62-SB-01-5	31032004	1153	4'-5'	N	01	SO	2	T	T	T	T								
DP62-SB-01-5A	DP62-SB-01-5		1153	4'-5'	FD															
DP62-SB-01-5MS	DP62-SB-01-5		1153	4'-5'	MS															
DP62-SB-01-5MSD	DP62-SB-01-5		1153	4'-5'	MSD															
DP62-SB-02-5	DP62-SB-02-5		1055	4'-5'	N															
DP62-SB-02-5MS	DP62-SB-02-5		1055	4'-5'	MS															
DP62-SB-02-5MSD	DP62-SB-02-5		1055	4'-5'	MSD															
DP62-SB-03-5	DP62-SB-03-5		1118	4'-5'	N															
DP62-SB-03-5MS	DP62-SB-03-5		1118	4'-5'	MS															
DP62-SB-03-5MSD	DP62-SB-03-5	31032004	1118	4'-5'	MSD	01	SO	2	↓	↓	↓	↓								

COMMENTS: PLEASE FAX RESULTS TO (505) 679-2148
FED EX # 8457 0583 6480

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. KSC	3-31-04	1600	1. [signature]	4/1	11
2.			2.		
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: Shipped No.:
Method of Shipment: FED EX Airbill Number: 8457 0583 6480
Analytical Lab: ASSOCIATED Delivery Location: ORANGE CA.
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)

DISTRIBUTION: WHITE COPY - Project File YELLOW COPY - Lab Copy PINK COPY - Working File

APPENDIX D

QUALITY CONTROL SUMMARY REPORT

Quality Control Summary Report

Project Name -	Holloman DP-62 / Rita's Draw
Analytical Lab -	Associated Laboratories, Orange, CA
Sample Delivery Group -	127042
Analyses -	Seven samples for VOCs, SVOCs, RCRA Metals and TPH
Prepared by -	Michael J. D'Auben, Bhate Environmental Associates, Inc., Birmingham, AL

I. SAMPLE CUSTODY AND PRESERVATION

All samples were properly packaged and preserved, and received by the laboratory.

II. HOLDING TIMES

All holding times were within project specific sample holding time.

III. BLANKS

All blank sample results were within project specific QC limits

IV. LABORATORY CONTROL SAMPLES (LCS)

All Laboratory Control Sample results were found to be within historical QC limits.

V. SURROGATES

All Laboratory Surrogate results were within project specific QC limits.

VI. MATRIX SPIKE SAMPLE (MS) MATRIX DUPLICATE SAMPLE (MSD)

All Matrix Spike and Matrix Spike Duplicate (MS/MSD) results were within project specific QC limits with the following exceptions. The recovery for 1,2,4-trichlorobenzene was below the associated control limit. This may indicate a matrix effect and a low bias to the data. All results for 1,2,4-trichlorobenzene should be considered estimated "J" or "UJ". The %RPD for n-nitroso-di-n-propylamine exceeded the associated control limit. This may indicate a matrix effect in the sample. Since there were no positive results for n-nitroso-di-n-propylamine in the associated samples, no qualification of the data is required.

VII. FIELD DUPLICATE SAMPLE

There were no field duplicates collected as part of this sample group.

VIII. LABORATORY FLAGS

All other laboratory QC criteria were met.

IX. 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.

X. COMPLETENESS OF DATA

All analyses were completed, and no data was rejected due to QC failure. The data is 100% complete.