



MAR 19 2008

DEPARTMENT OF THE NAVY

COMMANDER
NAVY REGION HAWAII
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PEARL HARBOR, HAWAII 96860-5101

5090
Ser N45/00057
March 14, 2008

CERTIFIED MAIL NO. 7006 0100 0007 2053 6072

Mr. Richard Takaba
Underground Storage Tank Section
Solid & Hazardous Waste Branch
Environmental Management Division
State of Hawaii Department of Health
919 Ala Moana Boulevard Room 212
Honolulu HI 96814

Dear Mr. Takaba:

SUBJECT: RED HILL TANK COMPLEX
JANUARY 2008 GROUNDWATER MONITORING RESULTS
FACILITY I. D. NO. 9-102271 / RELEASE I.D. NO. 99051, 010011
AND 020028

The Environmental Company (TEC), Inc. collected groundwater samples from four wells on January 15, 2008. The groundwater samples were analyzed for petroleum constituents. We are submitting the Quarterly Groundwater Monitoring Report in Enclosure 1.

If there are any questions regarding this matter, or if more information is needed, please contact Ms. Raelynn Della Sala at (808) 471-1171, extension 337.

Sincerely,

R. M. WAKUMOTO
Division Head, Compliance
Regional Environmental Department
By direction of the
Commander

Enclosure: 1. Quarterly Groundwater Monitoring Report, Red Hill Fuel Storage Facility, Pearl Harbor, Oahu, Hawaii of March 2008

MAR 19 2008

Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility

Pearl Harbor, Oahu, Hawaii

Latitude: 21°22'15" N

Longitude: 157°53'33" W

DOH Facility ID No. 9-102271

DOH Release ID No. 99051, 010011; 020028

March 2008

Prepared by:



Commander
Navy Region Hawaii
Environmental Department, Code N45
850 Ticonderoga Street, Suite 110
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Executive Summary

There are 18 active and 2 inactive, 12.5 million gallon, field-constructed underground storage tanks (USTs) located at the Red Hill Fuel Storage Facility. Previous environmental site investigations indicated a release had occurred and contaminated the groundwater underlying the Facility.

The Navy implemented a groundwater monitoring program, which includes collecting groundwater samples quarterly from U.S. Navy well 2254-01 (RHMW2254-01) and three wells installed in the Facility lower access tunnel (RHMW01, RHMW02, RHMW03). The U.S. Navy well 2254-01 is located approximately 3,000 feet downgradient from the Red Hill Fuel Storage Facility and provides approximately 24 percent of the potable water to the Pearl Harbor Water System. The groundwater samples are analyzed for petroleum constituents and compared against State of Hawaii Department of Health (DOH) Drinking Water Environmental Action Levels (EALs) (DOH, 2005a).

This groundwater monitoring report presents the analytical results and comparisons against DOH Drinking Water EALs for samples collected in January 2008. Concentration trends for chemicals that exceeded DOH Drinking Water EALs are also provided in this report.

Laboratory analytical results indicate total petroleum hydrocarbons (TPH) as diesel range organics (TPH-DRO) and polynuclear aromatic hydrocarbons (PAHs) are present in the groundwater beneath the Red Hill Fuel Storage Facility at concentrations that exceed DOH Drinking Water EALs. TPH-DRO was detected at 574 micrograms per liter ($\mu\text{g/L}$) in RHMW01, 3230 $\mu\text{g/L}$ in RHMW02, and 242 $\mu\text{g/L}$ in RHMW03. The DOH Drinking Water EAL for TPH-DRO is 100 $\mu\text{g/L}$. Three PAHs were detected in RHMW02 at concentrations above the DOH Drinking Water EALs: naphthalene at 195 $\mu\text{g/L}$ (DOH EAL is 6.2 $\mu\text{g/L}$), 1-methylnaphthalene at 73.2 $\mu\text{g/L}$ (DOH EAL is 10 $\mu\text{g/L}$), and 2-methylnaphthalene at 27.6 $\mu\text{g/L}$ (DOH EAL is 10 $\mu\text{g/L}$).

Concentrations of TPH-DRO at RHMW01 have been above the DOH Drinking Water EAL during groundwater sampling events since September 2005 and had shown a decreasing trend until the January 2008 sampling event. Concentrations of TPH-DRO at RHMW03 had also shown a decreasing trend until the January 2008 sampling event. The concentration of TPH-DRO has remained relatively stable at RHMW02 at concentrations ranging from 2,250 to 3,180 $\mu\text{g/L}$, which are well above the DOH Drinking Water EAL of 100 $\mu\text{g/L}$. Concentrations of PAHs at RHMW02 remain above the DOH Drinking Water EALs, but have shown a decreasing trend over the past two years.

The ongoing quarterly collection and analysis of groundwater samples will continue to monitor the quality of the groundwater located beneath the Red Hill Fuel Storage Facility. The analytical results from the groundwater monitoring program will determine whether contamination presents a risk to consumers of the water within the Red Hill sub-basin.

1.0 Introduction

This report presents the results of the tenth groundwater sampling and analysis event conducted in January 2008 at the Red Hill Fuel Storage Facility, Oahu, Hawaii (hereafter referred to as “the Facility”). The Facility consists of 18 active and 2 inactive underground storage tanks (USTs) operated by the Fleet Industrial and Supply Center (FISC) Pearl Harbor. The groundwater sampling and analysis event is part of a groundwater monitoring program for the underground storage tank site in response to past UST releases, previous environmental investigations, and recommendations from the State of Hawaii Department of Health (DOH).

1.1 Project Objective

This groundwater sampling and analysis was performed to evaluate the presence of chemicals of potential concern in groundwater underlying the Facility. The groundwater sampling and analysis was conducted to ensure the Navy remains in compliance with DOH UST release response requirements as described in Hawaii Administrative Rules (HAR) 11-281 Subchapter 7, Release Response Action. The groundwater sampling and analysis procedures generally followed the procedures described in *Red Hill Bulk Fuel Storage Facility Groundwater Protection Plan* (The Environmental Company, Inc. [TEC], 2008).

This groundwater sampling and analysis event was conducted by TEC, Inc. under Air Force Center for Engineering and the Environment (AFCEE) Contract Number F41624-03-D-8618, Task Order 021.

1.2 Previous Reports

The following groundwater monitoring reports were submitted to the DOH:

1. Groundwater Sampling Report, First Quarter 2005 (submitted April 2005)
2. Groundwater Sampling Report, Second Quarter 2005 (submitted August 2005)
3. Groundwater Sampling Report, Third Quarter 2005 (submitted November 2005)
4. Groundwater Sampling Report, Fourth Quarter 2005 (submitted February 2006)
5. Groundwater Monitoring Results, July 2006 (submitted September 2006)
6. Groundwater Monitoring Results, December 2006 (submitted January 2007)
7. Groundwater Monitoring Results, March 2007 (submitted May 2007)
8. Groundwater Monitoring Results, June 2007 (submitted August 2007)
9. Groundwater Monitoring Results, September 2007 (submitted October 2007)

1.3 Background

The following sections provide a description of the site and information on the Facility and USTs.

1.3.1 Site Description

The Facility is located in Halawa Heights on Oahu, Hawaii. Land adjacent to the north of the Facility is occupied by Halawa Correctional Facility and private businesses. Land to the south and west of the Facility includes the Coast Guard Reservation. Moanalua Valley is located east of the Facility (Dawson, 2006).

The Navy Public Works Department operates a potable water infiltration tunnel approximately 1,550 feet hydraulically downgradient from the Facility (Dawson, 2006). The U.S. Navy well 2254-01 is located approximately 3,000 feet downgradient (west) of the Facility and provides approximately 24 percent of the potable water to the Pearl Harbor Water System, which serves approximately 52,200 military consumers (TEC, 2008).

1.3.2 Facility Information

The Facility consists of 18 active and 2 inactive USTs operated by Navy FISC Pearl Harbor. Each UST has a capacity of 12.5 million gallons. The Facility is located approximately 100 feet above the basal aquifer (Dawson, 2006).

1.3.3 UST Information

The USTs were constructed in the early 1940s. The tanks were constructed of steel and currently contain Jet Propulsion fuel 5 (JP-5) and Diesel Fuel Marine. Previously, several tanks stored Navy Special Fuel Oil, Navy Distillate, aviation gasoline, and motor gasoline. Each tank measures approximately 245 feet in height and 100 feet in diameter. The upper domes of the tanks lie at depths varying between approximately 100 feet and 200 feet below the existing ground surface (TEC, 2006).

1.4 Previous Environmental Investigations

1998 to 2001: From 1998 to 2001, the Navy conducted an investigation at the Facility to assess potential releases from the fuel storage Facility. In February 2001, the Navy installed a one-inch diameter sentinel well (MW-V1D) to monitor for contamination of the basal aquifer underlying the Facility. The well was installed and completed at approximately 100 feet below grade. At the time of well completion, depth to water in MW-V1D was measured at 86 feet below grade (Dawson, 2006).

In February 2001, groundwater samples collected from sentinel well MW-V1D contained total petroleum hydrocarbons (TPH) concentrations ranging from 0.883 milligrams per liter (mg/L) to 1.05 mg/L and total lead ranging from 0.0104 mg/L to 0.015 mg/L. The maximum total lead concentration in the samples was equal to the primary drinking water standard of 0.015 mg/L for lead and exceeded the DOH Tier 1 groundwater action level of 0.0056 mg/L (Dawson, 2006).

2005 – Groundwater Sampling: The Navy began quarterly groundwater sampling at existing monitoring wells in 2005. Dawson Group, Inc. collected groundwater samples from the lower

access tunnel well that was installed in 2001 (MW-V1D) and the Red Hill Navy Pump Station (U.S. Navy well 2254-01) in February, June, September, and December 2005.

Samples collected in February and June 2005 were not filtered in the field prior to analysis for lead. Analytical results for samples collected from RHMW01 indicated concentrations of total lead were above the DOH Tier 1 action level of 0.0056 mg/L. The results were not considered appropriate for risk assessment since the sample had not been filtered. In addition, lead was not a component of fuels from the tanks near RHMW01. Lead may have been part of the UST construction material (TEC, 2007).

Samples were filtered in September and December 2005, and dissolved lead concentrations were below the DOH Tier 1 action level. Concentrations of all other contaminants of potential concern were below DOH Tier 1 action levels.

2005 – Site Investigation: As part of a site investigation, TEC, Inc. installed three groundwater monitoring wells at the Facility between June and September 2005. Well RHMW02 was installed in the lower access tunnel near Tanks 5 and 6. Well RHMW03 was installed in the lower access tunnel near Tanks 13 and 14. Well RHMW04 was installed hydraulically upgradient of the USTs to provide geochemistry for water moving through the basal aquifer beneath the Facility. Wells RHMW02 and RHMW03 were completed to depths of approximately 125 feet below the tunnel floor, and well RHMW04 was completed to a depth of approximately 300 feet below ground surface outside the tunnel. Groundwater samples were collected from the three newly installed wells and two existing wells (MW-V1D [renamed RHMW01] and U.S. Navy well 2254-01) in September 2005.

Naphthalene and trichloroethylene were detected in samples collected from RHMW02 at concentrations greater than the DOH Tier 1 action levels. Lead was detected in the sample collected from RHMW01 at a concentration greater than the DOH Tier 1 action level; however, the sample was not filtered in the field prior to analysis. Analytical results for filtered samples obtained by Dawson during the same period indicated concentrations of dissolved lead were below the DOH Tier 1 action level.

2006 – Site Investigation: Dedicated sampling pumps were installed in five wells (RHMW01, RHMW02, RHMW03, RHMW04, and U.S. Navy well 2254-01). TEC, Inc. collected groundwater samples from the wells in July 2006. The groundwater samples were analyzed for petroleum constituents. Naphthalene was detected in samples collected from RHMW02 at concentrations above the DOH Tier 1 action level.

In September 2005, with concurrence from the DOH, the Navy decided to use the newer DOH Environmental Action Levels (EALs) for the Red Hill Site Investigation and Risk Assessment project. The EALs are current and provide action levels for more chemicals, and are much more useful for conducting screening risk assessments. Since the DOH June 2005 Policy Letter stated that the two sets of action levels should not be mixed, the Tier 1 screening levels presented in HAR Section 11-281-78 would no longer be used to evaluate environmental impact at the Facility.

2006 – Groundwater Sampling: Groundwater samples were collected in December 2006. Analytical results indicated the following:

- No chemicals were detected in groundwater from U.S. Navy well 2254-01 or RHMW03;
- TPH as diesel range organics (TPH-DRO) was detected in groundwater above the DOH Drinking Water EALs in RHMW01;
- TPH as gasoline range organics (TPH-GRO), TPH-DRO, and naphthalene were detected in groundwater above the DOH Drinking Water EALs in RHMW02.

2007 – Groundwater Sampling: Groundwater samples were collected in March, June, and September 2007. Analytical results indicated the following:

- No chemicals were detected above DOH Drinking Water EALs at U.S. Navy well 2254-01;
- TPH-DRO exceeded DOH Drinking Water EALs at RHMW01 during all three sampling events;
- TPH-GRO exceeded DOH Drinking Water EALs at RHMW02 in March;
- TPH-DRO and naphthalene exceeded DOH Drinking Water EALs at RHMW02 during all three sampling events;
- 1-methylnaphthalene and 2-methylnaphthalene exceeded DOH Drinking Water EAL for taste and odor at RHMW02 during all three sampling events;
- TPH-DRO exceeded DOH Drinking Water EALs at RHMW03 in June.

2.0 Sample Collection and Analyses

Field activities relating to groundwater sample collection were conducted on January 15, 2008. Groundwater samples were collected from three monitoring wells located inside the Facility lower access tunnel and one monitoring well located at the Red Hill Navy Pump Station. Sampling and analysis were conducted according to *Red Hill Bulk Fuel Storage Facility Groundwater Protection Plan* (TEC, 2008).

2.1 Monitoring Well Purging

The groundwater monitoring wells were purged and sampled using a dedicated pump system. Well purging was considered complete when no less than three successive water quality parameter measurements had stabilized within approximately 10 percent. Field parameters were measured at regular intervals during well purging and included pH, temperature, specific conductivity, dissolved oxygen, and turbidity. Purge water was disposed in the Facility oil/water separator system.

2.2 Groundwater Sample Collection

Each monitoring well was sampled immediately following purging. All wells were sampled directly from the dedicated bladder pump system. Samples were placed into sampling containers with appropriate preservatives (i.e., hydrochloric acid [HCl] for volatile organic analysis, nitric acid [HNO₃] for dissolved lead). Dissolved lead samples were filtered in the field and placed in preserved bottles. Sample containers were labeled with the date, sample identification number,

type of analysis, and sampler's name. The containers were placed on ice in sample coolers and transported under chain-of-custody procedures to the certified laboratory for analysis.

2.3 Groundwater Sample Analyses

Groundwater samples were analyzed by SGS Environmental Service, Inc. in Anchorage, Alaska for TPH-DRO and TPH-GRO by EPA Method 8015B, volatile organic compounds (VOCs) by EPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270C SIMS, and dissolved lead by EPA Method 6020.

An estimated TPH-DRO concentration of 102 micrograms per liter ($\mu\text{g/L}$) was detected at U.S. Navy well 2254-01. Since the analytical result was above the DOH Drinking Water EAL of 100 $\mu\text{g/L}$, additional groundwater samples were collected on February 6, 2008 for reanalysis. One groundwater sample was sent to SGS Environmental Services, Inc. in Anchorage, Alaska and one groundwater sample was sent to Accutest Laboratories in Orlando, Florida for TPH-DRO analysis by EPA Method 8015B.

3.0 Groundwater Sample Analytical Results

This section provides a summary of analytical results for groundwater samples collected from three monitoring wells located in the lower access tunnel of the Facility and one monitoring well located at the Red Hill Navy Pump Station. A summary of groundwater analytical results is included in Table 1. Complete analytical laboratory reports are provided in Appendix A.

3.1 January 2008 Sample Analytical Results

All groundwater samples were analyzed for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead. The preliminary TPH-DRO result for U.S. Navy well 2254-01 (also referred to as RHMW2254-01) was considered unusable due to laboratory contamination that was observed in the associated laboratory blank. The TPH-DRO result for RHMW2254-01 was qualified with an "R", as rejected, during data review. No other chemicals of potential concern were detected at or above the method detection limits at RHMW2254-01.

TPH-DRO was detected at RHMW01 at 574 $\mu\text{g/L}$, which is above the DOH Drinking Water EAL of 100 $\mu\text{g/L}$. All other chemicals of potential concern were below DOH Drinking Water EALs at RHMW01.

TPH-DRO was detected at RHMW02 at 2,310 and 3230 $\mu\text{g/L}$, which is above the DOH Drinking Water EAL of 100 $\mu\text{g/L}$. Naphthalene was detected at 195 and 194 $\mu\text{g/L}$, which is above the toxicity-based DOH Drinking Water EAL of 6.2 $\mu\text{g/L}$. The concentrations of 1-methylnaphthalene and 2-methylnaphthalene were above the DOH Drinking Water EALs for taste and odor.

TPH-DRO was detected at RHMW03 at 242 $\mu\text{g/L}$, which is above the DOH Drinking Water EAL of 100 $\mu\text{g/L}$. All other chemicals of potential concern were below DOH Drinking Water EALs at RHMW01.

3.2 February 2008 Sample Analytical Results

Additional groundwater samples were collected from RHMW2254-01 on February 6, 2008 for TPH-DRO analysis. One groundwater sample was sent to SGS Environmental Services, Inc. in Anchorage, Alaska and one groundwater sample was sent to Accutest Laboratories in Orlando, Florida. Analytical results from both laboratories showed no TPH-DRO above the respective method detection limits of the laboratories, which were equal to or less than the DOH Drinking Water EAL of 100 µg/L.

3.3 Groundwater Contaminant Trend

Groundwater samples have been collected and analyzed by TEC, Inc. since September 2005. Figure 1 shows TPH trends in groundwater at the Facility. Figure 2 shows PAH trends in groundwater at the Facility.

TPH-GRO has not been detected at or above the method detection limit in RHMW01. The values shown in Figure 1 represent the method detection limits of TPH-GRO. Concentrations of TPH-DRO at RHMW01 have been above the DOH Drinking Water EAL of 100 µg/L during all groundwater sampling events and had shown a decreasing trend until the January 2008 sampling event.

During the seven sampling events shown in Figure 1, concentrations of TPH-GRO at RHMW02 exceeded the DOH Drinking Water EAL three times. The maximum concentration detected was 148 µg/L, which is slightly above the EAL of 100 µg/L. The concentration of TPH-DRO has remained relatively stable at RHMW02 at concentrations ranging from 2,250 to 3,180 µg/L, which are well above the DOH Drinking Water EAL of 100 µg/L. Although concentrations of PAHs at RHMW02 remain above the DOH Drinking Water EALs, they have shown a decreasing trend over the past two years.

TPH-GRO has not been detected at or above the method detection limit in RHMW03. The values shown in Figure 1 represent the method detection limits of TPH-GRO. Concentrations of TPH-DRO at RHMW03 had shown a decreasing trend until the January 2008 sampling event.

4.0 Summary and Conclusions

TPH-DRO and PAHs are present in the groundwater beneath the Facility at concentrations that exceed DOH Drinking Water EALs. The quarterly collection and analysis of groundwater samples will continue to monitor the quality of the groundwater located beneath the Facility. Groundwater monitoring reports will be submitted to the DOH upon receipt and evaluation of laboratory analytical results.

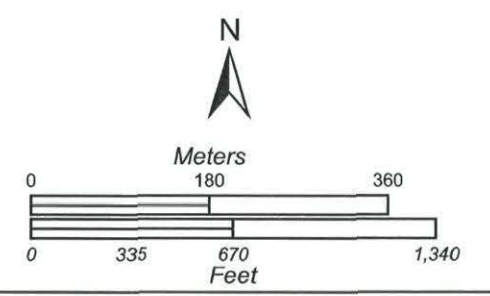
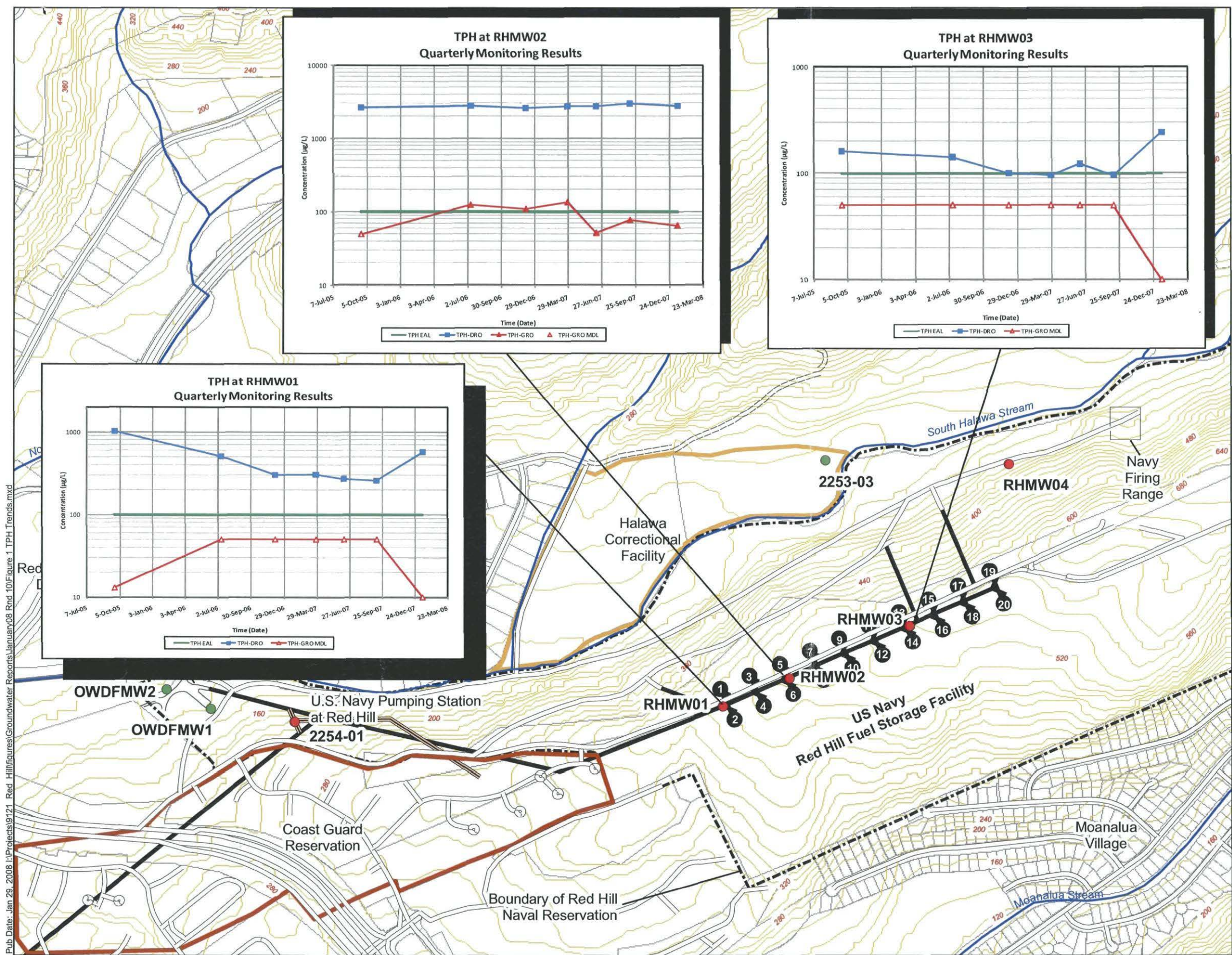


Figure 1
TPH Trends in Groundwater Round 10 (January 15, 2008) Red Hill Fuel Storage Facility Oahu, Hawaii

Pub Date: Jan 29, 2008 \Projects\9121_Red Hill\fares\Groundwater_Reports\January08_Rnd 10\Figure 1 TPH Trends.mxd

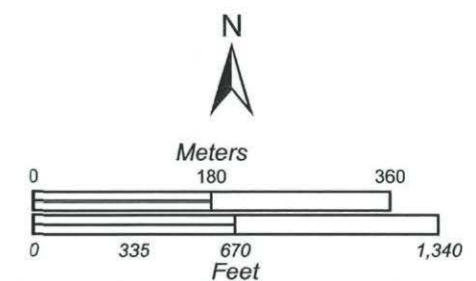
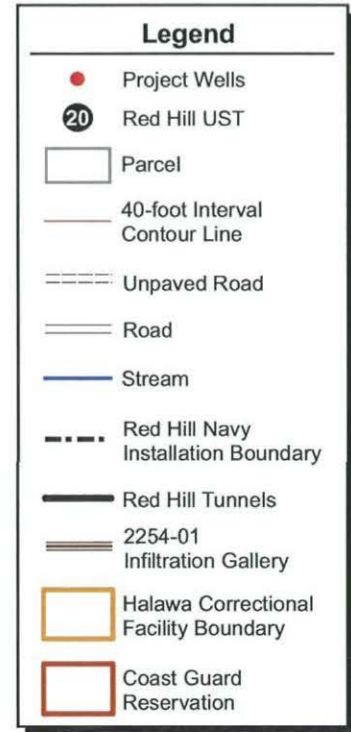
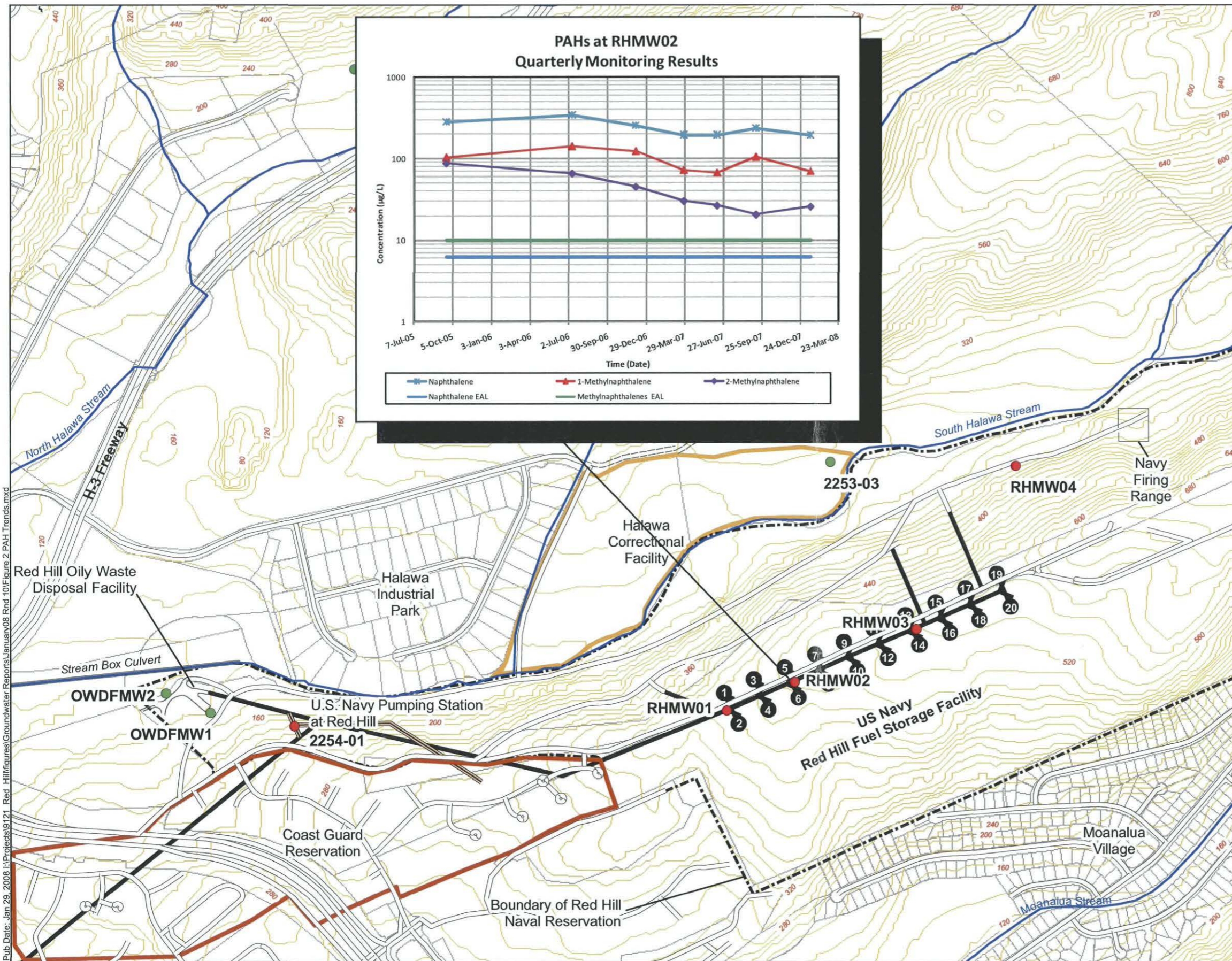


Figure 2
PAH Trends in Groundwater
Round 10 (January 15, 2008)
Red Hill Fuel Storage Facility
Oahu, Hawaii

Pub Date: Jan 29, 2008. I:\Projects\9121_Red Hill\fares\Groundwater\Reports\January08\Round 10\Figure 2 PAH Trends.mxd

5.0 References

Dawson Group, Inc. 2006. *Fourth Quarter 2005 Groundwater Sampling Report, Red Hill Fuel Storage Facility, Hawaii*. February.

Hawaii Administrative Rules, Title 11, Chapter 281, Subchapter 7.

State of Hawaii Department of Health. 2005a. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables*. Interim Final. May.

State of Hawaii Department of Health. 2005b. *Use of May 2005 Environmental Action Levels ("EALs") at Leaking Underground Storage Tank Sites*. Memo. 15 July.

The Environmental Company, Inc. and AMEC Earth & Environmental, Inc. 2005. *Red Hill Bulk Fuel Storage Facility Work Plan, Pearl Harbor, Hawaii*. June.

The Environmental Company, Inc. 2006. *Red Hill Bulk Fuel Storage Facility, Final – Addendum Planning Documents, Pearl Harbor, Hawaii*. May.

The Environmental Company, Inc. 2007. *Red Hill Bulk Fuel Storage Facility, Final Technical Report, Pearl Harbor, Hawaii*. August.

The Environmental Company, Inc. 2008. *Red Hill Bulk Fuel Storage Facility, Final Groundwater Protection Plan, Pearl Harbor, Hawaii*. January.

Appendix A
Laboratory Analytical Reports



**SGS Environmental Services
Alaska Division
Level II Laboratory Data Report**

Project: 9121-003 Red Hill BFSF
Client: The Environmental Company, Inc. (TEC)
SGS Work Order: 1080224

Released by:

Barbara A. Hager



Barbara Hager
Alaska Division Project Manager

**Barbara Hager
2008.02.05 12:12:30
-09'00'**

Contents:

Cover Page
Case Narrative
Final Report Pages
Quality Control Summary Forms
Chain of Custody/Sample Receipt Forms

Note:

Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the standards set forth by the proper regulatory authority, the SGS Quality Assurance Program Plan, and the National Environmental Accreditation Conference.



CASE NARRATIVE

Print Date: 2/5/2008

Client Name: The Environmental Company, Inc. (TEC)
Project Name: 9121-003 Red Hill BFSF
Workorder No.: 1080224

Sample Comments

Refer to the sample receipt form for information on sample condition.

<u>Lab Sample ID</u>	<u>Sample Type</u>	<u>Client Sample ID</u>
1080224001	PS	RHMW2254-WG10
DRO 8015B: The reported result is estimated because it is 4 times below the reporting limit. The associated method blank has a estimated DRO concentration of 0.096 mg/l. There is no indication of fuel hydrocarbon peaks on the instrument chromatograms.		
1080224002	BMS	RHMW2254-WG10 MS
8260B - Matrix spike (MS) recovery for 2-chlorotoluene does not meet QC goals (biased high). Refer to LCS for accuracy.		
1080224003	BMSD	RHMW2254-WG10 MSD
8260B - Matrix spike duplicate (MSD) recovery for 1,2,4-trichlorobenzene does not meet QC goals (biased low). Refer to LCS for accuracy.		
1080224005	PS	RHMW02-WG10
8015B - Unknown hydrocarbon with several peaks is present. 8260B - Continuing calibration verification (CCV) result for n-propylbenzene did not meet QC goals (biased high). The result for this analyte is estimated. 8260B - Naphthalene result is above the linear range of 70 ug/L at 195.48 ug/L. Result is estimated.		
1080224006	PS	RHMWA01-WG10
8015B - Unknown hydrocarbon with several peaks is present. 8260B - Continuing calibration verification (CCV) result for n-propylbenzene did not meet QC goals (biased high). The result for this analyte is estimated. 8260B - Naphthalene result is above the linear range of 70 ug/L at 194.23 ug/L. Result is estimated.		
1080224007	PS	RHMW01-WG10
8015B - Unknown hydrocarbon with several peaks is present. 8260B - Naphthalene result of 5.98 ug/L maybe due to carry over from previous sample (1080224-06) which was detected at 194.23 ug/L naphthalene.		
814440	LCS	LCS for HBN 196691 [VXX/17866]
AK101 - LCS recovery for GRO does not meet QC goals (biased high). The associated samples were not detected above the PQL for this analyte.		
815216	CCV	CCV for HBN 196846 [VMS/9632]
8260B - Continuing calibration verification (CCV) result for n-propylbenzene, 2-chlorotoluene and 1-chlorohexane did not meet QC goals (biased high). 2-chlorotoluene and 1-chlorohexane were not detected in the associated samples. Results for n-propylbenzene may be biased high.		



Laboratory Analytical Report

Client: The Environmental Company, Inc.
1001 Bishop Street Ste 1400
ASB Tower
Honolulu, HI 96813

Attn: Jeff Hart
T: (808)528-1445 F:(808)528-0768
jshart@tecinc.com

Project: 9121-003 Red Hill BFSF

Workorder No.: 1080224

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory

Barbara Hager
Alaska Division Project Manager



Barbara Hager
2008.02.05 12:12:44 -
09'00'

If you have any questions regarding this report, or if we can be of further assistance, please contact your SGS Project Manager.

Mark Abe
mark.abe@sgs.com
Project Manager



Enclosed are the analytical results associated with this workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Assurance Plan (QAP), which outlines this program is available at your request.

The laboratory certification numbers are AK971-05 (DW), UST-005 (CS) and AK00971 (Micro) for ADEC and 001582 for NELAP (RCRA methods: 1010/1020, 1311, 6000/7000, 9040/9045, 9056, 9060, 9065, 8015B, 8021B, 8081A/8082, 8260B, 8270C).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP, the National Environmental Laboratory Accreditation Program and, when applicable, other regulatory authorities.

If you have any questions regarding this report or if we can be of any assistance, please contact your SGS Project Manager at 907-562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

MDL	Method Detection Limit
PQL	Practical Quantitation Limit (reporting limit).
CL	Control Limit
U	Indicates the analyte was analyzed for but not detected.
F	Indicates value that is greater than or equal to the MDL.
J	The quantitation is an estimation.
ND	Indicates the analyte is not detected
B	Indicates the analyte is found in a blank associated with the sample.
*	The analyte has exceeded allowable regulatory or control limits.
GT	Greater Than
LT	Less Than
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
E	The analyte result is above the calibrated range
DF	Analytical Dilution Factor
JL	The analyte was positively identified, but the quantitation is a low estimation.
<Sur>	Surrogate QC spiked standard

Note: Soil samples are reported on a dry weight basis unless otherwise specified



SAMPLE SUMMARY

Print Date: 2/5/2008

Client Name: The Environmental Company, Inc. (TEC)

Project Name: 9121-003 Red Hill BFSF

Workorder No.: 1080224

Analytical Methods

<u>Method Description</u>	<u>Analytical Method</u>
3270 PAH SIM Semi-Vol GC/MS Liq/Liq ext.	8270C SIMS
AFCEE 3.1 8260 (W)	SW8260B
Dissolved Metals by ICP-MS	SW6020
DRO by 8015B (W)	SW8015B
DRO (W)	SW8015B

Sample ID Cross Reference

<u>Lab Sample ID</u>	<u>Client Sample ID</u>
1080224001	RHMW2254-WG10
1080224002	RHMW2254-WG10 MS
1080224003	RHMW2254-WG10 MSD
1080224004	RHMW03-WG10
1080224005	RHMW02-WG10
1080224006	RHMWA01-WG10
1080224007	RHMW01-WG10
1080224008	TB01-WG10



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW2254-WG10**
SGS Ref. #: 1080224001
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 11:30
Receipt Date/Time: 01/17/08 14:45

Dissolved Metals

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Lead	ND	1.00	0.310	ug/L	5	MMS5294	MXX19964	

Batch Information

Analytical Batch: MMS5294
Analytical Method: SW6020
Analysis Date/Time: 01/28/08 12:22
Dilution Factor: 5

Prep Batch: MXX19964
Prep Method: SW3010A
Prep Date/Time: 01/24/08 16:35

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID: 1080224001-G
Analyst: TK



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW2254-WG10**
SGS Ref. #: 1080224001
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 11:30
Receipt Date/Time: 01/17/08 14:45

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	ND	100	10.0	ug/L	1	VFC8836	VXX17866	
4-Bromofluorobenzene <sur>	102	50-150		%	1	VFC8836	VXX17866	

Batch Information

Analytical Batch: VFC8836
Analytical Method: SW8015B
Analysis Date/Time: 01/23/08 10:47
Dilution Factor: 1

Prep Batch: VXX17866
Prep Method: SW5030B
Prep Date/Time: 01/23/08 08:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1080224001-A
Analyst: HM



The Environmental Company, Inc. (TEC)

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Client Sample ID: **RHMW2254-WG10**
SGS Ref. #: 1080224001
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 11:30
Receipt Date/Time: 01/17/08 14:45

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	0.102 J	0.412	0.0825	mg/L	1	XFC7831	XXX19058	
5a Androstane <sur>	82.5	50-150		%	1	XFC7831	XXX19058	

Batch Information

Analytical Batch: XFC7831
Analytical Method: SW8015B
Analysis Date/Time: 01/30/08 12:35
Dilution Factor: 1

Prep Batch: XXX19058
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:30

Initial Prep Wt./Vol.: 970 mL
Prep Extract Vol.: 1 mL
Container ID: 1080224001-H
Analyst: BME



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW2254-WG10**
SGS Ref. #: 1080224001
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 11:30
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
Toluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
n-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
n-Propylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Styrene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS9632	VXX17871	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
Chloroform	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS9632	VXX17871	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	



The Environmental Company, Inc. (TEC)

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Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 11:30
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u>	<u>Prep</u>	<u>Qualifiers</u>
						<u>Batch</u>	<u>Batch</u>	
sec-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
Methylene chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Naphthalene	ND	1.00	0.620	ug/L	1	VMS9632	VXX17871	
o-Xylene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromoform	ND	1.00	0.500	ug/L	1	VMS9632	VXX17871	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
tert-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Hexachlorobutadiene	ND	0.600	0.180	ug/L	1	VMS9632	VXX17871	
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane-D4 <sur>	105	73-120		%	1	VMS9632	VXX17871	
Toluene-d8 <sur>	104	80-120		%	1	VMS9632	VXX17871	
4-Bromofluorobenzene <sur>	107	76-120		%	1	VMS9632	VXX17871	

Batch Information

Analytical Batch: VMS9632
Analytical Method: SW8260B
Analysis Date/Time: 01/29/08 20:37
Dilution Factor: 1

Prep Batch: VXX17871
Prep Method: SW5030B
Prep Date/Time: 01/29/08 14:08

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID: 1080224001-D
Analyst: DSH



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: RHMW2254-WG10
SGS Ref. #: 1080224001
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 11:30
Receipt Date/Time: 01/17/08 14:45

Polynuclear Aromatics GC/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Acenaphthylene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Acenaphthene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Fluorene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Phenanthrene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Anthracene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Fluoranthene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Pyrene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Benzo(a)Anthracene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Chrysene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Benzo[b]Fluoranthene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Benzo[k]fluoranthene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Benzo[a]pyrene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Indeno[1,2,3-c,d] pyrene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Dibenzo[a,h]anthracene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Benzo[g,h,i]perylene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Naphthalene	ND	0.100	0.0310	ug/L	1	XMS4385	XXX19059	
1-Methylnaphthalene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
2-Methylnaphthalene	ND	0.0500	0.0150	ug/L	1	XMS4385	XXX19059	
Terphenyl-d14 <surr>	81	50-135		%	1	XMS4385	XXX19059	

Batch Information

Analytical Batch: XMS4385
Analytical Method: 8270C SIMS
Analysis Date/Time: 01/28/08 13:31
Dilution Factor: 1

Prep Batch: XXX19059
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:50

Initial Prep Wt./Vol.: 1000 mL
Prep Extract Vol.: 1 mL
Container ID:1080224001-J
Analyst: WAA



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW03-WG10**
SGS Ref. #: 1080224004
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:15
Receipt Date/Time: 01/17/08 14:45

Dissolved Metals

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Lead	ND	1.00	0.310	ug/L	5	MMS5294	MXX19964	

Batch Information

Analytical Batch: MMS5294
Analytical Method: SW6020
Analysis Date/Time: 01/28/08 13:39
Dilution Factor: 5

Prep Batch: MXX19964
Prep Method: SW3010A
Prep Date/Time: 01/24/08 16:35

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID: 1080224004-G
Analyst: TK



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW03-WG10**
SGS Ref. #: 1080224004
Project ID: 9121-003 Red Hill BFSF
Matrx: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:15
Receipt Date/Time: 01/17/08 14:45

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	ND	100	10.0	ug/L	1	VFC8836	VXX17866	
4-Bromofluorobenzene <sur>	105	50-150		%	1	VFC8836	VXX17866	

Batch Information

Analytical Batch: VFC8836
Analytical Method: SW8015B
Analysis Date/Time: 01/23/08 11:42
Dilution Factor: 1

Prep Batch: VXX17866
Prep Method: SW5030B
Prep Date/Time: 01/23/08 08:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1080224004-A
Analyst: HM



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW03-WG10**
SGS Ref. #: 1080224004
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
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Receipt Date/Time: 01/17/08 14:45

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	0.242 J	0.435	0.0870	mg/L	1	XFC7831	XXX19058	
5a Androstane <sur>	87	50-150		%	1	XFC7831	XXX19058	

Batch Information

Analytical Batch: XFC7831
Analytical Method: SW8015B
Analysis Date/Time: 01/30/08 13:04
Dilution Factor: 1

Prep Batch: XXX19058
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:30

Initial Prep Wt./Vol.: 920 mL
Prep Extract Vol.: 1 mL
Container ID: 1080224004-H
Analyst: BME



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: RHMW03-WG10
SGS Ref. #: 1080224004
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:15
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
Toluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
n-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
n-Propylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Styrene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS9632	VXX17871	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
Chloroform	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS9632	VXX17871	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW03-WG10**
SGS Ref. #: 1080224004
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:15
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical	Prep	Qualifiers
						Batch	Batch	
sec-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
Methylene chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Naphthalene	ND	1.00	0.620	ug/L	1	VMS9632	VXX17871	
o-Xylene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromoform	ND	1.00	0.500	ug/L	1	VMS9632	VXX17871	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
tert-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Hexachlorobutadiene	ND	0.600	0.180	ug/L	1	VMS9632	VXX17871	
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane-D4 <surr>	102	73-120		%	1	VMS9632	VXX17871	
Toluene-d8 <surr>	103	80-120		%	1	VMS9632	VXX17871	
4-Bromofluorobenzene <surr>	105	76-120		%	1	VMS9632	VXX17871	

Batch Information

Analytical Batch: VMS9632
Analytical Method: SW8260B
Analysis Date/Time: 01/29/08 21:08
Dilution Factor: 1

Prep Batch: VXX17871
Prep Method: SW5030B
Prep Date/Time: 01/29/08 14:08

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID: 1080224004-D
Analyst: DSH



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW03-WG10**
SGS Ref. #: 1080224004
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:15
Receipt Date/Time: 01/17/08 14:45

Polynuclear Aromatics GC/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Acenaphthylene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Acenaphthene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Fluorene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Phenanthrene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Anthracene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Fluoranthene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Pyrene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Benzo(a)Anthracene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Chrysene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Benzo[b]Fluoranthene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Benzo[k]fluoranthene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Benzo[a]pyrene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Indeno[1,2,3-c,d] pyrene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Dibenzo[a,h]anthracene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Benzo[g,h,i]perylene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Naphthalene	ND	0.104	0.0323	ug/L	1	XMS4385	XXX19059	
1-Methylnaphthalene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
2-Methylnaphthalene	ND	0.0521	0.0156	ug/L	1	XMS4385	XXX19059	
Terphenyl-d14 <sur>	90.8	50-135		%	1	XMS4385	XXX19059	

Batch Information

Analytical Batch: XMS4385
Analytical Method: 8270C SIMS
Analysis Date/Time: 01/28/08 15:10
Dilution Factor: 1

Prep Batch: XXX19059
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:50

Initial Prep Wt./Vol.: 960 mL
Prep Extract Vol.: 1 mL
Container ID: 1080224004-J
Analyst: WAA



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW02-WG10**
SGS Ref. #: 1080224005
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 14:45
Receipt Date/Time: 01/17/08 14:45

Dissolved Metals

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Lead	ND	1.00	0.310	ug/L	5	MMS5294	MXX19964	

Batch Information

Analytical Batch: MMS5294
Analytical Method: SW6020
Analysis Date/Time: 01/28/08 13:45
Dilution Factor: 5

Prep Batch: MXX19964
Prep Method: SW3010A
Prep Date/Time: 01/24/08 16:35

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID: 1080224005-G
Analyst: TK



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW02-WG10**
SGS Ref. #: 1080224005
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 14:45
Receipt Date/Time: 01/17/08 14:45

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	64.3 J	100	10.0	ug/L	1	VFC8836	VXX17866	
4-Bromofluorobenzene <sur>	115	50-150		%	1	VFC8836	VXX17866	

Batch Information

Analytical Batch: VFC8836
Analytical Method: SW8015B
Analysis Date/Time: 01/23/08 12:00
Dilution Factor: 1

Prep Batch: VXX17866
Prep Method: SW5030B
Prep Date/Time: 01/23/08 08:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1080224005-A
Analyst: HM



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: RHMW02-WG10
SGS Ref. #: 1080224005
Project ID: 9121-003 Red Hill BFSF
Matrx: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 14:45
Receipt Date/Time: 01/17/08 14:45

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	2.31	0.426	0.0851	mg/L	1	XFC7831	XXX19058	
5a Androstane <sur>	84.6	50-150		%	1	XFC7831	XXX19058	

Batch Information

Analytical Batch: XFC7831
Analytical Method: SW8015B
Analysis Date/Time: 01/30/08 13:14
Dilution Factor: 1

Prep Batch: XXX19058
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:30

Initial Prep Wt /Vol.: 940 mL
Prep Extract Vol.: 1 mL
Container ID: 1080224005-H
Analyst: BME



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW02-WG10**
SGS Ref. #: 1080224005
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 14:45
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	0.170 J	0.400	0.120	ug/L	1	VMS9632	VXX17871	
Toluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
n-Butylbenzene	8.75	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
n-Propylbenzene	12.8	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Styrene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS9632	VXX17871	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
Chloroform	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS9632	VXX17871	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: RHMW02-WG10
SGS Ref. #: 1080224005
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 14:45
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical	Prep	Qualifiers
						Batch	Batch	
sec-Butylbenzene	7.38	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
Methylene chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Naphthalene	195	1.00	0.620	ug/L	1	VMS9632	VXX17871	
o-Xylene	1.06	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromoform	ND	1.00	0.500	ug/L	1	VMS9632	VXX17871	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
tert-Butylbenzene	1.15	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Hexachlorobutadiene	ND	0.600	0.180	ug/L	1	VMS9632	VXX17871	
Isopropylbenzene (Cumene)	5.33	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane-D4 <surr>	103	73-120		%	1	VMS9632	VXX17871	
Toluene-d8 <surr>	94.4	80-120		%	1	VMS9632	VXX17871	
4-Bromofluorobenzene <surr>	106	76-120		%	1	VMS9632	VXX17871	

Batch Information

Analytical Batch: VMS9632
Analytical Method: SW8260B
Analysis Date/Time: 01/29/08 21:39
Dilution Factor: 1

Prep Batch: VXX17871
Prep Method: SW5030B
Prep Date/Time: 01/29/08 14:08

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID: 1080224005-D
Analyst: DSH



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: RHMW02-WG10
SGS Ref. #: 1080224005
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 14:45
Receipt Date/Time: 01/17/08 14:45

Polynuclear Aromatics GC/MS

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Acenaphthylene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Acenaphthene	0.308	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Fluorene	0.161	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Phenanthrene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Anthracene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Fluoranthene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Pyrene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo(a)Anthracene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Chrysene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo[b]Fluoranthene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo[k]fluoranthene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo[a]pyrene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Indeno[1,2,3-c,d] pyrene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Dibenzo[a,h]anthracene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo[g,h,i]perylene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Naphthalene	93.6	5.26	1.63	ug/L	50	XMS4386	XXX19059	
1-Methylnaphthalene	67.0	2.63	0.789	ug/L	50	XMS4386	XXX19059	
2-Methylnaphthalene	23.8	2.63	0.789	ug/L	50	XMS4386	XXX19059	
Terphenyl-d14 <sur>	88.4	50-135		%	1	XMS4385	XXX19059	

Batch Information

Analytical Batch: XMS4385
Analytical Method: 8270C SIMS
Analysis Date/Time: 01/28/08 15:42
Dilution Factor: 1

Prep Batch: XXX19059
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:50

Initial Prep Wt./Vol.: 950 mL
Prep Extract Vol.: 1 mL
Container ID: 1080224005-J
Analyst: WAA

Analytical Batch: XMS4386
Analytical Method: 8270C SIMS
Analysis Date/Time: 01/28/08 21:20
Dilution Factor: 50

Prep Batch: XXX19059
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:50

Initial Prep Wt./Vol.: 950 mL
Prep Extract Vol.: 1 mL
Container ID:
Analyst: WAA



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: RHMWA01-WG10
SGS Ref. #: 1080224006
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:05
Receipt Date/Time: 01/17/08 14:45

Dissolved Metals

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Lead	ND	1.00	0.310	ug/L	5	MMS5294	MXX19964	

Batch Information

Analytical Batch: MMS5294
Analytical Method: SW6020
Analysis Date/Time: 01/28/08 13:54
Dilution Factor: 5

Prep Batch: MXX19964
Prep Method: SW3010A
Prep Date/Time: 01/24/08 16:35

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID: 1080224006-G
Analyst: TK



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMWA01-WG10**
SGS Ref. #: 1080224006
Project ID: 9121-003 Red Hill BFSF
Matrx: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:05
Receipt Date/Time: 01/17/08 14:45

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	66.2 J	100	10.0	ug/L	1	VFC8836	VXX17866	
4-Bromofluorobenzene <sur>	117	50-150		%	1	VFC8836	VXX17866	

Batch Information

Analytical Batch: VFC8836
Analytical Method: SW8015B
Analysis Date/Time: 01/23/08 12:18
Dilution Factor: 1

Prep Batch: VXX17866
Prep Method: SW5030B
Prep Date/Time: 01/23/08 08:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID: 1080224006-A
Analyst: HM



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMWA01-WG10**
SGS Ref. #: 1080224006
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:05
Receipt Date/Time: 01/17/08 14:45

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	3.23	0.435	0.0870	mg/L	1	XFC7831	XXX19058	
5a Androstane <sur>	102	50-150		%	1	XFC7831	XXX19058	

Batch Information

Analytical Batch: XFC7831
Analytical Method: SW8015B
Analysis Date/Time: 01/30/08 13:23
Dilution Factor: 1

Prep Batch: XXX19058
Prep Method SW3520C
Prep Date/Time: 01/22/08 08:30

Initial Prep Wt./Vol.: 920 mL
Prep Extract Vol.: 1 mL
Container ID:1080224006-H
Analyst: BME



The Environmental Company, Inc. (TEC)

Pnnt Date: 2/5/2008

Client Sample ID: **RHMWA01-WG10**
SGS Ref. #: 1080224006
Project ID: 9121-003 Red Hill BFSF
Matrx: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:05
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	0.170 J	0.400	0.120	ug/L	1	VMS9632	VXX17871	
Toluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Ethylbenzene	0.350 J	1.00	0.310	ug/L	1	VMS9632	VXX17871	
n-Butylbenzene	8.94	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
cis-1,2-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
n-Propylbenzene	12.7	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Styrene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS9632	VXX17871	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
Chloroform	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS9632	VXX17871	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMWA01-WG10**
SGS Ref. #: 1080224006
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:05
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical	Prep	Qualifiers
						Batch	Batch	
sec-Butylbenzene	7.50	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
Methylene chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Naphthalene	194	1.00	0.620	ug/L	1	VMS9632	VXX17871	
o-Xylene	1.10	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromoform	ND	1.00	0.500	ug/L	1	VMS9632	VXX17871	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
tert-Butylbenzene	1.20	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Hexachlorobutadiene	ND	0.600	0.180	ug/L	1	VMS9632	VXX17871	
Isopropylbenzene (Cumene)	5.63	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane-D4 <sur>	102	73-120		%	1	VMS9632	VXX17871	
Toluene-d8 <sur>	98.6	80-120		%	1	VMS9632	VXX17871	
4-Bromofluorobenzene <sur>	105	76-120		%	1	VMS9632	VXX17871	

Batch Information

Analytical Batch: VMS9632
Analytical Method: SW8260B
Analysis Date/Time: 01/29/08 22:10
Dilution Factor: 1

Prep Batch: VXX17871
Prep Method: SW5030B
Prep Date/Time: 01/29/08 14:08

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID: 1080224006-D
Analyst: DSH



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMWA01-WG10**
SGS Ref. #: 1080224006
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 13:05
Receipt Date/Time: 01/17/08 14:45

Polynuclear Aromatics GC/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Acenaphthylene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Acenaphthene	0.303	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Fluorene	0.161	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Phenanthrene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Anthracene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Fluoranthene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Pyrene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Benzo(a)Anthracene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Chrysene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Benzo(b)Fluoranthene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Benzo(k)fluoranthene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Benzo(a)pyrene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Indeno[1,2,3-c,d] pyrene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Dibenzo[a,h]anthracene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Benzo[g,h,i]perylene	ND	0.0515	0.0155	ug/L	1	XMS4385	XXX19059	
Naphthalene	102	5.15	1.60	ug/L	50	XMS4386	XXX19059	
1-Methylnaphthalene	73.2	2.58	0.773	ug/L	50	XMS4386	XXX19059	
2-Methylnaphthalene	27.6	2.58	0.773	ug/L	50	XMS4386	XXX19059	
Terphenyl-d14 <sur>	88.5	50-135		%	1	XMS4385	XXX19059	

Batch Information

Analytical Batch: XMS4385
Analytical Method: 8270C SIMS
Analysis Date/Time: 01/28/08 16:15
Dilution Factor: 1

Prep Batch: XXX19059
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:50

Initial Prep Wt./Vol.: 970 mL
Prep Extract Vol.: 1 mL
Container ID:1080224006-J
Analyst: WAA

Analytical Batch: XMS4386
Analytical Method: 8270C SIMS
Analysis Date/Time: 01/28/08 21:52
Dilution Factor: 50

Prep Batch: XXX19059
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:50

Initial Prep Wt./Vol.: 970 mL
Prep Extract Vol.: 1 mL
Container ID:
Analyst: WAA



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW01-WG10**
SGS Ref. #: 1080224007
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 16:15
Receipt Date/Time: 01/17/08 14:45

Dissolved Metals

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Lead	ND	1.00	0.310	ug/L	5	MMS5294	MXX19964	

Batch Information

Analytical Batch: MMS5294
Analytical Method: SW6020
Analysis Date/Time: 01/28/08 14:00
Dilution Factor: 5

Prep Batch: MXX19964
Prep Method: SW3010A
Prep Date/Time: 01/24/08 16:35

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID:1080224007-G
Analyst: TK



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW01-WG10**
SGS Ref. #: 1080224007
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 16:15
Receipt Date/Time: 01/17/08 14:45

Volatile Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Gasoline Range Organics	ND	100	10.0	ug/L	1	VFC8836	VXX17866	
4-Bromofluorobenzene <sur>	104	50-150		%	1	VFC8836	VXX17866	

Batch Information

Analytical Batch: VFC8836
Analytical Method: SW8015B
Analysis Date/Time: 01/23/08 13:13
Dilution Factor: 1

Prep Batch: VXX17866
Prep Method: SW5030B
Prep Date/Time: 01/23/08 08:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1080224007-A
Analyst: HM



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW01-WG10**
SGS Ref. #: 1080224007
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 16:15
Receipt Date/Time: 01/17/08 14:45

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	0.574	0.421	0.0842	mg/L	1	XFC7831	XXX19058	
5a Androstane <surr>	97.6	50-150		%	1	XFC7831	XXX19058	

Batch Information

Analytical Batch: XFC7831
Analytical Method: SW8015B
Analysis Date/Time: 01/30/08 13:33
Dilution Factor: 1

Prep Batch: XXX19058
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:30

Initial Prep Wt./Vol.: 950 mL
Prep Extract Vol.: 1 mL
Container ID: 1080224007-H
Analyst: BME



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW01-WG10**
SGS Ref. #: 1080224007
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 16:15
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
Toluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
n-Butylbenzene	0.450 J	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
cis-1,2-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
n-Propylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Styrene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS9632	VXX17871	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
Chloroform	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS9632	VXX17871	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW01-WG10**
SGS Ref. #: 1080224007
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 16:15
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	MDL	Units	DF	Analytical	Prep	Qualifiers
						Batch	Batch	
sec-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
Methylene chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Naphthalene	5.98	1.00	0.620	ug/L	1	VMS9632	VXX17871	
o-Xylene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromoform	ND	1.00	0.500	ug/L	1	VMS9632	VXX17871	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
tert-Butylbenzene	0.440 J	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Hexachlorobutadiene	ND	0.600	0.180	ug/L	1	VMS9632	VXX17871	
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane-D4 <surr>	99.6	73-120		%	1	VMS9632	VXX17871	
Toluene-d8 <surr>	104	80-120		%	1	VMS9632	VXX17871	
4-Bromofluorobenzene <surr>	101	76-120		%	1	VMS9632	VXX17871	

Batch Information

Analytical Batch: VMS9632
Analytical Method: SW8260B
Analysis Date/Time: 01/29/08 22:41
Dilution Factor: 1

Prep Batch: VXX17871
Prep Method: SW5030B
Prep Date/Time: 01/29/08 14:08

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID: 1080224007-D
Analyst: DSH



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **RHMW01-WG10**
SGS Ref. #: 1080224007
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 16:15
Receipt Date/Time: 01/17/08 14:45

Polynuclear Aromatics GC/MS

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical Batch</u>	<u>Prep Batch</u>	<u>Qualifiers</u>
Acenaphthylene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Acenaphthene	0.0310 J	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Fluorene	0.0371 J	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Phenanthrene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Anthracene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Fluoranthene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Pyrene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo(a)Anthracene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Chrysene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo[b]Fluoranthene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo[k]fluoranthene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo[a]pyrene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Indeno[1,2,3-c,d] pyrene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Dibenzo[a,h]anthracene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Benzo[g,h,i]perylene	ND	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Naphthalene	0.210	0.105	0.0326	ug/L	1	XMS4385	XXX19059	
1-Methylnaphthalene	0.0640	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
2-Methylnaphthalene	0.0478 J	0.0526	0.0158	ug/L	1	XMS4385	XXX19059	
Terphenyl-d14 <sur>	83.2	50-135		%	1	XMS4385	XXX19059	

Batch Information

Analytical Batch: XMS4385
Analytical Method: 8270C SIMS
Analysis Date/Time: 01/28/08 16:48
Dilution Factor: 1

Prep Batch: XXX19059
Prep Method: SW3520C
Prep Date/Time: 01/22/08 08:50

Initial Prep Wt./Vol.: 950 mL
Prep Extract Vol.: 1 mL
Container ID:1080224007-J
Analyst: WAA



The Environmental Company, Inc. (TEC)

Print Date. 2/5/2008

Client Sample ID: **TB01-WG10**
SGS Ref. #: 1080224008
Project ID. 9121-003 Red Hill BFSF
Matrx: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 09:05
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Benzene	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
Toluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Ethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
n-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chlorobenzene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
4-Isopropyltoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
n-Propylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Styrene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromomethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	1	VMS9632	VXX17871	
Tetrachloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dibromochloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,3-Dichloropropane	ND	0.400	0.120	ug/L	1	VMS9632	VXX17871	
1,2-Dibromoethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Carbon tetrachloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
Chloroform	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromomethane	ND	3.00	0.940	ug/L	1	VMS9632	VXX17871	
Bromochloromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Vinyl chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Chloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	



The Environmental Company, Inc. (TEC)

Print Date: 2/5/2008

Client Sample ID: **TB01-WG10**
SGS Ref. #: 1080224008
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 01/15/08 09:05
Receipt Date/Time: 01/17/08 14:45

Volatile Gas Chromatography/Mass Spectroscopy

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
sec-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromodichloromethane	ND	0.500	0.150	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Butanone (MEK)	ND	10.0	3.10	ug/L	1	VMS9632	VXX17871	
Methylene chloride	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichlorofluoromethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
P & M -Xylene	ND	2.00	0.620	ug/L	1	VMS9632	VXX17871	
Naphthalene	ND	1.00	0.620	ug/L	1	VMS9632	VXX17871	
o-Xylene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Bromoform	ND	1.00	0.500	ug/L	1	VMS9632	VXX17871	
1-Chlorohexane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
tert-Butylbenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2-Chlorotoluene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Trichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
2,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
Hexachlorobutadiene	0.330 J	0.600	0.180	ug/L	1	VMS9632	VXX17871	
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloropropane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1-Dichloropropene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	1	VMS9632	VXX17871	
1,2-Dichloroethane-D4 <surr>	104	73-120		%	1	VMS9632	VXX17871	
Toluene-d8 <surr>	104	80-120		%	1	VMS9632	VXX17871	
4-Bromofluorobenzene <surr>	104	76-120		%	1	VMS9632	VXX17871	

Batch Information

Analytical Batch: VMS9632
Analytical Method: SW8260B
Analysis Date/Time: 01/29/08 20:06
Dilution Factor: 1

Prep Batch: VXX17871
Prep Method: SW5030B
Prep Date/Time: 01/29/08 14:08

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1080224008-A
Analyst: DSH



SGS Ref.# 814184 Method Blank
Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 02/05/2008 12:09
Prep Batch XXX19058
Method SW3520C
Date 01/22/2008

QC results affect the following production samples:
1080224001, 1080224004, 1080224005, 1080224006, 1080224007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Semivolatile Organic Fuels Department

Diesel Range Organics	0.0962 J	0.400	0.0800	mg/L	01/30/08
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Surrogates

5a Androstane <surrogate>	88.5	60-120		%	01/30/08
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Batch XFC7831
Method SW8015B
Instrument HP 5890 Series II FID SV D R



SGS Ref.#	814188	Method Blank	Printed Date/Time	02/05/2008 12:09
Client Name	The Environmental Company, Inc. (TEC)		Prep	XXX19059
Project Name/#	9121-003 Red Hill BFSF		Batch	SW3520C
Matrix	Water (Surface, Eff., Ground)		Method	SW3520C
			Date	01/22/2008

QC results affect the following production samples:
 1080224001, 1080224004, 1080224005, 1080224006, 1080224007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Polynuclear Aromatics GC/MS

Acenaphthylene	ND	0.0500	0.0150	ug/L	01/28/08
Acenaphthene	ND	0.0500	0.0150	ug/L	01/28/08
Fluorene	ND	0.0500	0.0150	ug/L	01/28/08
Phenanthrene	ND	0.0500	0.0150	ug/L	01/28/08
Anthracene	ND	0.0500	0.0150	ug/L	01/28/08
Fluoranthene	ND	0.0500	0.0150	ug/L	01/28/08
Pyrene	ND	0.0500	0.0150	ug/L	01/28/08
Benzo(a)Anthracene	ND	0.0500	0.0150	ug/L	01/28/08
Chrysene	ND	0.0500	0.0150	ug/L	01/28/08
Benzo[b]Fluoranthene	ND	0.0500	0.0150	ug/L	01/28/08
Benzo[k]fluoranthene	ND	0.0500	0.0150	ug/L	01/28/08
Benzo[a]pyrene	ND	0.0500	0.0150	ug/L	01/28/08
Indeno[1,2,3-c,d] pyrene	ND	0.0500	0.0150	ug/L	01/28/08
Dibenzo[a,h]anthracene	ND	0.0500	0.0150	ug/L	01/28/08
Benzo[g,h,i]perylene	ND	0.0500	0.0150	ug/L	01/28/08
Naphthalene	ND	0.100	0.0310	ug/L	01/28/08
1-Methylnaphthalene	ND	0.0500	0.0150	ug/L	01/28/08
2-Methylnaphthalene	ND	0.0500	0.0150	ug/L	01/28/08

Surrogates

Terphenyl-d14 <surrogate>	96.1	50-135		%	01/28/08
Batch	XMS4385				
Method	8270C SIMS				
Instrument	HP 6890/5973 MS SVOA				



SGS Ref.# 814439 Method Blank
Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 02/05/2008 12:09
Prep Batch VXX17866
Method SW5030B
Date 01/23/2008

QC results affect the following production samples:
1080224001, 1080224004, 1080224005, 1080224006, 1080224007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Fuels Department					
Gasoline Range Organics	ND	100	10.0	ug/L	01/23/08
Surrogates					
4-Bromofluorobenzene <surr>	102	50-150		%	01/23/08
Batch	VFC8836				
Method	SW8015B				
Instrument	HP 5890 Series II PID+HECD VBA				



SGS Ref.#	814679	Method Blank	Printed Date/Time	02/05/2008 12:09	
Client Name	The Environmental Company, Inc. (TEC)		Prep	Batch	MXX19964
Project Name/#	9121-003 Red Hill BFSF			Method	SW3010A
Matrix	Water (Surface, Eff., Ground)			Date	01/24/2008

QC results affect the following production samples:
1080224001, 1080224004, 1080224005, 1080224006, 1080224007

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Metals by ICP/MS

Lead	ND	1.00	0.310	ug/L	01/28/08
Batch	MMS5294				
Method	SW6020				
Instrument	Perkin Elmer Sciex ICP-MS P3				



SGS Ref.# 815213 Method Blank
Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 02/05/2008 12:09
Prep Batch VXX17871
Method SW5030B
Date 01/29/2008

QC results affect the following production samples:

1080224001, 1080224004, 1080224005, 1080224006, 1080224007, 1080224008

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.#	815213	Method Blank	Printed Date/Time	02/05/2008 12:09
Client Name	The Environmental Company, Inc. (TEC)		Prep	VXX17871
Project Name/#	9121-003 Red Hill BFSF		Batch	SW5030B
Matrix	Water (Surface, Eff., Ground)		Method	
			Date	01/29/2008

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Benzene	ND	0.400	0.120	ug/L	01/29/08
Toluene	ND	1.00	0.310	ug/L	01/29/08
Ethylbenzene	ND	1.00	0.310	ug/L	01/29/08
n-Butylbenzene	ND	1.00	0.310	ug/L	01/29/08
1,4-Dichlorobenzene	ND	0.500	0.150	ug/L	01/29/08
1,2-Dichloroethane	ND	0.500	0.150	ug/L	01/29/08
1,3,5-Trimethylbenzene	ND	1.00	0.310	ug/L	01/29/08
4-Chlorotoluene	ND	1.00	0.310	ug/L	01/29/08
Chlorobenzene	ND	0.500	0.150	ug/L	01/29/08
4-Methyl-2-pentanone (MIBK)	ND	10.0	3.10	ug/L	01/29/08
cis-1,2-Dichloroethene	ND	1.00	0.310	ug/L	01/29/08
4-Isopropyltoluene	ND	1.00	0.310	ug/L	01/29/08
cis-1,3-Dichloropropene	ND	0.500	0.150	ug/L	01/29/08
n-Propylbenzene	ND	1.00	0.310	ug/L	01/29/08
Styrene	ND	1.00	0.310	ug/L	01/29/08
Dibromomethane	ND	1.00	0.310	ug/L	01/29/08
trans-1,3-Dichloropropene	ND	1.00	0.310	ug/L	01/29/08
1,2,4-Trichlorobenzene	ND	1.00	0.310	ug/L	01/29/08
1,1,2,2-Tetrachloroethane	ND	0.500	0.150	ug/L	01/29/08
1,2-Dibromo-3-chloropropane	ND	2.00	0.620	ug/L	01/29/08
Methyl-t-butyl ether	ND	5.00	1.50	ug/L	01/29/08
Tetrachloroethene	ND	1.00	0.310	ug/L	01/29/08
Dibromochloromethane	ND	0.500	0.150	ug/L	01/29/08
1,3-Dichloropropane	ND	0.400	0.120	ug/L	01/29/08
1,2-Dibromoethane	ND	1.00	0.310	ug/L	01/29/08
Carbon tetrachloride	ND	1.00	0.310	ug/L	01/29/08
1,1,1,2-Tetrachloroethane	ND	0.500	0.150	ug/L	01/29/08
Chloroform	ND	1.00	0.310	ug/L	01/29/08
Bromobenzene	ND	1.00	0.310	ug/L	01/29/08
Chloromethane	ND	1.00	0.310	ug/L	01/29/08
1,2,3-Trichloropropane	ND	1.00	0.310	ug/L	01/29/08
Bromomethane	ND	3.00	0.940	ug/L	01/29/08
Bromochloromethane	ND	1.00	0.310	ug/L	01/29/08
Vinyl chloride	ND	1.00	0.310	ug/L	01/29/08
Dichlorodifluoromethane	ND	1.00	0.310	ug/L	01/29/08
Chloroethane	ND	1.00	0.310	ug/L	01/29/08
sec-Butylbenzene	ND	1.00	0.310	ug/L	01/29/08
Bromodichloromethane	ND	0.500	0.150	ug/L	01/29/08
1,1-Dichloroethene	ND	1.00	0.310	ug/L	01/29/08



SGS Ref.# 815213 Method Blank
Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 02/05/2008 12:09
Prep Batch VXX17871
Method SW5030B
Date 01/29/2008

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

2-Butanone (MEK)	ND	10.0	3.10	ug/L	01/29/08
Methylene chloride	ND	1.00	0.310	ug/L	01/29/08
Trichlorofluoromethane	ND	1.00	0.310	ug/L	01/29/08
P & M -Xylene	ND	2.00	0.620	ug/L	01/29/08
Naphthalene	ND	1.00	0.620	ug/L	01/29/08
o-Xylene	ND	1.00	0.310	ug/L	01/29/08
Bromoform	ND	1.00	0.500	ug/L	01/29/08
1-Chlorohexane	ND	1.00	0.310	ug/L	01/29/08
1,2,4-Trimethylbenzene	ND	1.00	0.310	ug/L	01/29/08
tert-Butylbenzene	ND	1.00	0.310	ug/L	01/29/08
1,1,1-Trichloroethane	ND	1.00	0.310	ug/L	01/29/08
1,1-Dichloroethane	ND	1.00	0.310	ug/L	01/29/08
2-Chlorotoluene	ND	1.00	0.310	ug/L	01/29/08
Trichloroethene	ND	1.00	0.310	ug/L	01/29/08
trans-1,2-Dichloroethene	ND	1.00	0.310	ug/L	01/29/08
1,2-Dichlorobenzene	ND	1.00	0.310	ug/L	01/29/08
2,2-Dichloropropane	ND	1.00	0.310	ug/L	01/29/08
Hexachlorobutadiene	ND	0.600	0.180	ug/L	01/29/08
Isopropylbenzene (Cumene)	ND	1.00	0.310	ug/L	01/29/08
1,2-Dichloropropane	ND	1.00	0.310	ug/L	01/29/08
1,1-Dichloropropene	ND	1.00	0.310	ug/L	01/29/08
1,1,2-Trichloroethane	ND	1.00	0.310	ug/L	01/29/08
1,3-Dichlorobenzene	ND	1.00	0.310	ug/L	01/29/08
1,2,3-Trichlorobenzene	ND	1.00	0.310	ug/L	01/29/08

Surrogates

1,2-Dichloroethane-D4 <surr>	100	73-120		%	01/29/08
Toluene-d8 <surr>	102	80-120		%	01/29/08
4-Bromofluorobenzene <surr>	110	76-120		%	01/29/08

Batch VMS9632
Method SW8260B
Instrument HP 5890 Series II MS3 VNA



SGS Ref.# 814185 Lab Control Sample

Printed Date/Time 02/05/2008 12:09
Prep Batch XXX19058
Method SW3520C
Date 01/22/2008

Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples:

1080224001, 1080224004, 1080224005, 1080224006, 1080224007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Semivolatile Organic Fuels Department

Diesel Range Organics	LCS	1.02	102	(75-125)		1 mg/L	01/30/2008
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Surrogates

5a Androstane <surr>	LCS		86	(60-120)			01/30/2008
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Batch XFC7831
Method SW8015B
Instrument HP 5890 Series II FID SV D R



SGS Ref.# 814189 Lab Control Sample

Printed Date/Time 02/05/2008 12:09

Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Prep Batch XXX19059
Method SW3520C
Date 01/22/2008

QC results affect the following production samples:

1080224001, 1080224004, 1080224005, 1080224006, 1080224007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Polynuclear Aromatics GC/MS



SGS Ref.# 814189 Lab Control Sample

Printed Date/Time 02/05/2008 12:09
Prep Batch XXX19059

Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Method SW3520C
Date 01/22/2008

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Polynuclear Aromatics GC/MS</u>							
Acenaphthylene	LCS 0.300	60	(50-105)			0.5 ug/L	01/28/2008
Acenaphthene	LCS 0.303	61	(45-110)			0.5 ug/L	01/28/2008
Fluorene	LCS 0.310	62	(50-110)			0.5 ug/L	01/28/2008
Phenanthrene	LCS 0.319	64	(50-115)			0.5 ug/L	01/28/2008
Anthracene	LCS 0.311	62	(50-110)			0.5 ug/L	01/28/2008
Fluoranthene	LCS 0.373	75	(55-115)			0.5 ug/L	01/28/2008
Pyrene	LCS 0.384	77	(50-126)			0.5 ug/L	01/28/2008
Benzo(a)Anthracene	LCS 0.363	73	(55-110)			0.5 ug/L	01/28/2008
Chrysene	LCS 0.381	76	(55-110)			0.5 ug/L	01/28/2008
Benzo[b]Fluoranthene	LCS 0.369	74	(45-120)			0.5 ug/L	01/28/2008
Benzo[k]fluoranthene	LCS 0.364	73	(49-125)			0.5 ug/L	01/28/2008
Benzo[a]pyrene	LCS 0.356	71	(55-110)			0.5 ug/L	01/28/2008
Indeno[1,2,3-c,d] pyrene	LCS 0.335	67	(45-125)			0.5 ug/L	01/28/2008
Dibenzo[a,h]anthracene	LCS 0.325	65	(40-125)			0.5 ug/L	01/28/2008
Benzo[g,h,i]perylene	LCS 0.352	70	(40-125)			0.5 ug/L	01/28/2008
Naphthalene	LCS 0.264	53	(40-115)			0.5 ug/L	01/28/2008
1-Methylnaphthalene	LCS 0.293	59	(35-121)			0.5 ug/L	01/28/2008
2-Methylnaphthalene	LCS 0.266	53	(45-105)			0.5 ug/L	01/28/2008
Surrogates							
Terphenyl-d14 <surr>	LCS	79	(50-135)				01/28/2008



SGS Ref.# 814189 Lab Control Sample

Printed Date/Time 02/05/2008 12:09

Client Name The Environmental Company, Inc. (TEC)

Prep Batch XXX19059

Project Name/# 9121-003 Red Hill BFSF

Method SW3520C

Matrix Water (Surface, Eff., Ground)

Date 01/22/2008

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Polynuclear Aromatics GC/MS

Batch XMS4385
Method 8270C SIMS
Instrument HP 6890/5973 MS SVOA



SGS Ref.# 814440 Lab Control Sample

Printed Date/Time 02/05/2008 12:09
Prep Batch VXX17866
Method SW5030B
Date 01/23/2008

Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples.

1080224001, 1080224004, 1080224005, 1080224006, 1080224007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Fuels Department

Gasoline Range Organics	LCS	228	114 *	(79-108)		200 ug/L	01/23/2008
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Surrogates							
4-Bromofluorobenzene <surr>	LCS		99	(50-150)			01/23/2008

Batch VFC8836
Method SW8015B
Instrument HP 5890 Series II PID+HECD VBA



SGS Ref.# 814680 Lab Control Sample

Printed Date/Time 02/05/2008 12:09

Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Prep Batch MXX19964
Method SW3010A
Date 01/24/2008

QC results affect the following production samples:

1080224001, 1080224004, 1080224005, 1080224006, 1080224007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Metals by ICP/MS

Lead	LCS	971	97	(80-120)		1000 ug/L	01/28/2008
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Batch MMS5294
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 815214 Lab Control Sample

Printed Date/Time 02/05/2008 12:09

Prep Batch VXX17871

Client Name The Environmental Company, Inc. (TEC)

Method SW5030B

Project Name/# 9121-003 Red Hill BFSF

Date 01/29/2008

Matrix Water (Surface, Eff., Ground)

QC results affect the following production samples.

1080224001, 1080224004, 1080224005, 1080224006, 1080224007, 1080224008

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 815214 Lab Control Sample

Printed Date/Time 02/05/2008 12:09

Client Name The Environmental Company, Inc. (TEC)

Prep Batch VXX17871

Project Name/# 9121-003 Red Hill BFSF

Method SW5030B

Matrix Water (Surface, Eff., Ground)

Date 01/29/2008

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Benzene	LCS 30.7	102	(80-120)			30 ug/L	01/29/2008
Toluene	LCS 31.3	104	(77-120)			30 ug/L	01/29/2008
Ethylbenzene	LCS 32.2	107	(80-120)			30 ug/L	01/29/2008
n-Butylbenzene	LCS 33.7	112	(80-124)			30 ug/L	01/29/2008
1,4-Dichlorobenzene	LCS 33.5	112	(80-120)			30 ug/L	01/29/2008
1,2-Dichloroethane	LCS 30.5	102	(80-129)			30 ug/L	01/29/2008
1,3,5-Trimethylbenzene	LCS 33.3	111	(80-128)			30 ug/L	01/29/2008
4-Chlorotoluene	LCS 35.8	119	(79-128)			30 ug/L	01/29/2008
Chlorobenzene	LCS 32.1	107	(80-120)			30 ug/L	01/29/2008
4-Methyl-2-pentanone (MIBK)	LCS 73.6	82	(69-134)			90 ug/L	01/29/2008
cis-1,2-Dichloroethene	LCS 28.5	95	(80-125)			30 ug/L	01/29/2008
4-Isopropyltoluene	LCS 32.8	109	(80-125)			30 ug/L	01/29/2008
cis-1,3-Dichloropropene	LCS 24.8	83	(80-120)			30 ug/L	01/29/2008
n-Propylbenzene	LCS 37.7	126	(80-129)			30 ug/L	01/29/2008
Styrene	LCS 31.6	105	(80-120)			30 ug/L	01/29/2008
Dibromomethane	LCS 26.0	87	(80-120)			30 ug/L	01/29/2008
trans-1,3-Dichloropropene	LCS 31.8	106	(80-124)			30 ug/L	01/29/2008
1,2,4-Trichlorobenzene	LCS 25.9	86	(80-120)			30 ug/L	01/29/2008
1,1,2,2-Tetrachloroethane	LCS 30.5	102	(76-123)			30 ug/L	01/29/2008
1,2-Dibromo-3-chloropropane	LCS 31.8	106	(73-130)			30 ug/L	01/29/2008
Methyl-t-butyl ether	LCS 42.8	95	(80-120)			45 ug/L	01/29/2008



SGS Ref.# 815214 Lab Control Sample

Printed Date/Time 02/05/2008 12:09
Prep Batch VXX17871

Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Method SW5030B
Date 01/29/2008

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
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Volatile Gas Chromatography/Mass Spectroscopy

Tetrachloroethene	LCS	28.1	94	(79-122)		30 ug/L	01/29/2008
Dibromochloromethane	LCS	30.6	102	(80-120)		30 ug/L	01/29/2008
1,3-Dichloropropane	LCS	33.8	113	(80-121)		30 ug/L	01/29/2008
1,2-Dibromoethane	LCS	30.5	102	(80-120)		30 ug/L	01/29/2008
Carbon tetrachloride	LCS	31.4	105	(80-126)		30 ug/L	01/29/2008
1,1,1,2-Tetrachloroethane	LCS	30.7	102	(80-120)		30 ug/L	01/29/2008
Chloroform	LCS	30.8	103	(80-124)		30 ug/L	01/29/2008
Bromobenzene	LCS	28.8	96	(80-120)		30 ug/L	01/29/2008
Chloromethane	LCS	29.5	98	(67-125)		30 ug/L	01/29/2008
1,2,3-Trichloropropane	LCS	31.0	103	(80-120)		30 ug/L	01/29/2008
Bromomethane	LCS	30.0	100	(30-140)		30 ug/L	01/29/2008
Bromochloromethane	LCS	28.4	95	(77-129)		30 ug/L	01/29/2008
Vinyl chloride	LCS	30.8	103	(72-145)		30 ug/L	01/29/2008
Dichlorodifluoromethane	LCS	31.3	104	(62-153)		30 ug/L	01/29/2008
Chloroethane	LCS	29.1	97	(67-133)		30 ug/L	01/29/2008
sec-Butylbenzene	LCS	34.2	114	(80-120)		30 ug/L	01/29/2008
Bromodichloromethane	LCS	28.7	96	(80-120)		30 ug/L	01/29/2008
1,1-Dichloroethene	LCS	29.3	98	(76-130)		30 ug/L	01/29/2008
2-Butanone (MEK)	LCS	96.3	107	(66-136)		90 ug/L	01/29/2008
Methylene chloride	LCS	28.1	94	(63-131)		30 ug/L	01/29/2008



SGS Ref.# 815214 Lab Control Sample

Printed Date/Time 02/05/2008 12:09

Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Prep Batch VXX17871
Method SW5030B
Date 01/29/2008

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
Trichlorofluoromethane	LCS 32.6	109	(68-145)			30 ug/L	01/29/2008
P & M -Xylene	LCS 64.0	107	(80-120)			60 ug/L	01/29/2008
Naphthalene	LCS 26.8	89	(75-120)			30 ug/L	01/29/2008
o-Xylene	LCS 30.7	102	(80-120)			30 ug/L	01/29/2008
Bromoform	LCS 29.7	99	(80-120)			30 ug/L	01/29/2008
1-Chlorohexane	LCS 54.6	121	(70-125)			45 ug/L	01/29/2008
1,2,4-Trimethylbenzene	LCS 33.2	111	(80-125)			30 ug/L	01/29/2008
tert-Butylbenzene	LCS 32.3	108	(80-122)			30 ug/L	01/29/2008
1,1,1-Trichloroethane	LCS 31.9	106	(80-122)			30 ug/L	01/29/2008
1,1-Dichloroethane	LCS 31.4	105	(80-120)			30 ug/L	01/29/2008
2-Chlorotoluene	LCS 36.5	122	(80-125)			30 ug/L	01/29/2008
Trichloroethene	LCS 26.9	90	(80-125)			30 ug/L	01/29/2008
trans-1,2-Dichloroethene	LCS 28.9	96	(79-132)			30 ug/L	01/29/2008
1,2-Dichlorobenzene	LCS 29.8	99	(80-120)			30 ug/L	01/29/2008
2,2-Dichloropropane	LCS 32.1	107	(80-132)			30 ug/L	01/29/2008
Hexachlorobutadiene	LCS 26.9	90	(77-125)			30 ug/L	01/29/2008
Isopropylbenzene (Cumene)	LCS 32.0	107	(80-121)			30 ug/L	01/29/2008
1,2-Dichloropropane	LCS 30.6	102	(80-121)			30 ug/L	01/29/2008
1,1-Dichloropropene	LCS 31.5	105	(80-122)			30 ug/L	01/29/2008
1,1,2-Trichloroethane	LCS 31.5	105	(77-120)			30 ug/L	01/29/2008
1,3-Dichlorobenzene	LCS 33.1	110	(80-120)			30 ug/L	01/29/2008



SGS Ref.# 815214 Lab Control Sample

Printed Date/Time 02/05/2008 12:09
Prep Batch VXX17871
Method SW5030B
Date 01/29/2008

Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Volatile Gas Chromatography/Mass Spectroscopy

1,2,3-Trichlorobenzene	LCS	25.5	85	(77-120)		30 ug/L	01/29/2008
Surrogates							
1,2-Dichloroethane-D4 <surr>	LCS		102	(73-120)			01/29/2008
Toluene-d8 <surr>	LCS		100	(80-120)			01/29/2008
4-Bromofluorobenzene <surr>	LCS		104	(76-120)			01/29/2008

Batch VMS9632
Method SW8260B
Instrument HP 5890 Series II MS3 VNA



CHAIN OF CUSTODY RECORD

SGS Environmental Services ^{Inc.}

1080224



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CLIENT: TEC INC.
 CONTACT: Jeff Hart PHONE NO: 808.528.1445
 PROJECT: 9121-003 SITE/PWSID#: Red Hill BFSF
 REPORTS TO: Jeff Hart email jshart@tecinc.com
 cc snmacmillan@tecinc.com
 INVOICE TO: TEC INC QUOTE #:
 P.O. NUMBER:

SGS Reference #:
 page _____ of _____

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv.					REMARKS	
						TPH-GRO (8015B)	TPH-DRO (8018B)	VOC's (8260B)	PAH's (8270C-SIMS)	Diss Pb (8020)		HCL
① A-K	RHMW2254-WG10	1/15/2008	1030	Water	11	X	X	X	X	X		3x Volume sent to 2 carriers
② A-F	RHMW03-WG10	1/15/2008	1215	Water	6	X		X				
③	RHMW02-WG10	1/15/2008	1345	Water	6	X		X				
④	RHMWA01-WG10	1/15/2008	1205	Water	6	X		X				
⑤ ↓	RHMW01-WG10	1/15/2008	1515	Water	6	X		X				
⑥ A-C	TB01-WG10	1/15/2008	0805	Water	3			X				

SHORT HOLDING

Collected/Relinquished By: (1) <i>[Signature]</i>	Date 1/15/2008	Time 1745	Received By: <i>[Signature]</i>	Shipping Carrier:	Samples Received Cold? YES NO
Relinquished By: (2) <i>[Signature]</i>	Date 1/16/08	Time 1430	Received By: <i>[Signature]</i>	Shipping Ticket No:	Temperature °C
Relinquished By: (3) <i>[Signature]</i>	Date	Time	Received By:	Special Deliverable Requirements: See Contract	Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Relinquished By: (4) <i>[Signature]</i>	Date 1/17/08	Time 1445	Received For Laboratory By: <i>[Signature]</i>	Requested Turnaround Time and-or Special Instructions: See Contract	

- 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
- 151 James Drive West St Rose, LA 70087 Tel: (504) 469-6401 Fax: (504) 463-3304
- 3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8656 Fax: (907) 474-9685
- 1258 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761
- 255 Sand Island Access Rd., Unit 1B Honolulu, HI 96819 Tel: (808) 224-6217 Fax: (808) 845-22
- 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557



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SGS Environmental Services, Inc.

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CLIENT: TEC INC.		SGS Reference #:		page _____ of _____	
CONTACT: Jeff Hart		PHONE NO: 808.528.1445			
PROJECT: 9121-003		SITE/PWSID#: Red Hill BFSF			
REPORTS TO: Jeff Hart		email jshart@tecinc.com			
		cc snmacmillan@tecinc.com			
INVOICE TO: TEC INC		QUOTE #:			
		P.O. NUMBER:			

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used SAMPLE TYPE	HCL					HNO ₃					REMARKS	
							TPH-GRO (8015B)	TPH-DRO (8015B)	VOC's (8280B)	PAH's (8270C-SIMS)	Dist Pb (8020)							
103	RHMW2254-WG10	1/15/2008	1030	Water	10	C = COMP G = GRAB		X		X	X							3x Volumes sent to 2 coobers

Collected/Relinquished By: (1) <i>[Signature]</i>	Date 1/15/2008	Time 1745	Received By: <i>[Signature]</i>	Shipping Carrier:	Samples Received/Cold? YES/NO
Relinquished By: (2) <i>[Signature]</i>	Date 1/16/08	Time 1450	Received By: <i>[Signature]</i>	Shipping Ticket No:	Temperature °C:
Relinquished By: (3) <i>[Signature]</i>	Date	Time	Received By:	Special Deliverable Requirements: See Contract	Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Relinquished By: (4) <i>[Signature]</i>	Date 1/17/08	Time 1445	Received For Laboratory By: <i>[Signature]</i>	Requested Turnaround Time and-or Special Instructions: See Contract	

- 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 861-5301
- 3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8656 Fax: (907) 474-9685
- 255 Sand Island Access Rd., Unit 1B Honolulu, HI 96819 Tel: (808) 224-6217 Fax: (808) 845-22
- 151 James Drive West St Rose, LA 70087 Tel: (504) 469-6401 Fax: (504) 463-3304
- 1258 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761
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CLIENT: TEC INC.					SGS Reference #:					page _____ of _____				
CONTACT: Jeff Hart					PHONE NO: 808.528.1445									
PROJECT: 9121-003					SITE/PWSID#: Red Hill BFSF									
REPORTS TO: Jeff Hart					email jhart@tecinc.com									
					cc snmacmillan@tecinc.com									
INVOICE TO: TEC INC					QUOTE #:									
					P.O. NUMBER:									
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used	HCL	HCl	HNO ₃					REMARKS
						SAMPLE TYPB	TPH-DRO (8015B)	TPH-DRO (8015B)	VOC's (8260B)	PAH's (8270C-SIMS)	Diss Pb (8020)			
① 2-k	RHMW03-WG10	1/15/2008	1215	Water	5	C= COMP	X	X	X					
⑦ 6-k	RHMW01-WG10	1/15/2008	1515	Water	5	G= GRAB	X	X	X					
Collected/Relinquished By: (1)	Date	Time	Received By:		Shipping Carrier:				Samples Received Cold? YES NO					
<i>J. Hart</i>	1/15/2008	1745	<i>[Signature]</i>						Temperature, °C:					
Relinquished By: (2)	Date	Time	Received By:		Shipping Ticket No:				Chain of Custody Seal: (Circle)					
<i>[Signature]</i>	1/16/08	1430	<i>[Signature]</i>						INTACT BROKEN ABSENT					
Relinquished By: (3)	Date	Time	Received By:		Requested Turnaround Time and-or Special Instructions:									
<i>[Signature]</i>			<i>[Signature]</i>		See Contract									
Relinquished By: (4)	Date	Time	Received For Laboratory By:											
<i>[Signature]</i>	4/17/08	1445	<i>[Signature]</i>											

- 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
- 151 James Drive West St Rose, LA 70087 Tel: (504) 469-6401 Fax: (504) 463-3304
- 3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8656 Fax: (907) 474-9685
- 1258 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761
- 255 Sand Island Access Rd., Unit 1B Honolulu, HI 96819 Tel: (808) 224-6217 Fax: (808) 845-22
- 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557



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CLIENT: TEC INC.					SGS Reference #:					page _____ of _____						
CONTACT: Jeff Hart					PHONE NO: 808.528.1445											
PROJECT: 9121-003					SITE/PWSID#: Red Hill BFSF											
REPORTS TO: Jeff Hart					email jhart@tecinc.com											
					cc snmacmillan@tecinc.com											
INVOICE TO: TEC INC					QUOTE #:											
					P.O. NUMBER:											
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used SAMPLE TYPE	HCL	HCl	HNO ₃							REMARKS
5-46-K	RHMW02-WG10	1/15/2008	1345	Water	5	C = COMP	X	X	X							
6-6-K	RHMWA01-WG10	1/15/2008	1205	Water	5	G = GRAB	X	X	X							
Collected/Relinquished By: (1)		Date	Time	Received By:		Shipping Carrier:				Samples Received Cold? YES NO						
<i>[Signature]</i>		1/15/2008	1745	<i>[Signature]</i>						Temperature °C:						
Relinquished By: (2)		Date	Time	Received By:		Special Deliverable Requirements:				Chain of Custody Seal: (Circle) INTACT, BROKEN, ABSENT						
<i>[Signature]</i>		1/16/08	1430	<i>[Signature]</i>		See Contract										
Relinquished By: (3)		Date	Time	Received By:		Requested Turnaround Time and-or Special Instructions:										
<i>[Signature]</i>				<i>[Signature]</i>		See Contract										
Relinquished By: (4)		Date	Time	Received For Laboratory By:												
<i>[Signature]</i>		1/17/08	1445	<i>[Signature]</i>												

- 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
- 151 James Drive West St Rose, LA 70087 Tel: (504) 469-6401 Fax: (504) 463-3304
- 3180 Peger Road Fairbanks, AK 99701 Tel: (907) 474-8656 Fax: (907) 474-9685
- 1258 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761
- 255 Sand Island Access Rd., Unit 1B Honolulu, HI 96819 Tel: (808) 224-6217 Fax: (808) 845-22
- 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557



**SGS Environmental Services
Alaska Division
Level II Laboratory Data Report**

Project: 9121-003 Red Hill BFSF
Client: The Environmental Company, Inc. (TEC)
SGS Work Order: 1080225

Released by:

Barbara A. Hager



Barbara Hager
Alaska Division Project Manager

**Barbara Hager
2008.02.08 16:42:10 -
09'00'**

Contents:

Cover Page
Case Narrative
Final Report Pages
Quality Control Summary Forms
Chain of Custody/Sample Receipt Forms

Note:

Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the standards set forth by the proper regulatory authority, the SGS Quality Assurance Program Plan, and the National Environmental Accreditation Conference.



CASE NARRATIVE

Print Date: 2/8/2008

Client Name: The Environmental Company, Inc. (TEC)

Project Name: 9121-003 Red Hill BFSF

Workorder No.: 1080225

Sample Comments

Refer to the sample receipt form for information on sample condition.

Lab Sample ID Sample Type Client Sample ID

There were no analytical anomalies associated with the data reported herein.



Laboratory Analytical Report

Client: **The Environmental Company, Inc.**
1001 Bishop Street Ste 1400
ASB Tower
Honolulu, HI 96813

Attn: **Jeff Hart**
T: (808)528-1445 F:(808)528-0768
jshart@tecinc.com

Project: **9121-003 Red Hill BFSF**
Workorder No.: **1080225**

Certification:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

Barbara Hager
Alaska Division Project Manager



Barbara Hager
2008.02.08 16:42:27 -
09'00'

If you have any questions regarding this report, or if we can be of further assistance, please contact your SGS Project Manager.

Mark Abe
mark.abe@sgs.com
Project Manager



Enclosed are the analytical results associated with this workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Assurance Plan (QAP), which outlines this program is available at your request.

The laboratory certification numbers are AK971-05 (DW), UST-005 (CS) and AK00971 (Micro) for ADEC and 001582 for NELAP (RCRA methods: 1010/1020, 1311, 6000/7000, 9040/9045, 9056, 9060, 9065, 8015B, 8021B, 8081A/8082, 8260B, 8270C).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP, the National Environmental Laboratory Accreditation Program and, when applicable, other regulatory authorities.

If you have any questions regarding this report or if we can be of any assistance, please contact your SGS Project Manager at 907-562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

MDL	Method Detection Limit
PQL	Practical Quantitation Limit (reporting limit).
CL	Control Limit
U	Indicates the analyte was analyzed for but not detected.
F	Indicates value that is greater than or equal to the MDL.
J	The quantitation is an estimation.
ND	Indicates the analyte is not detected
B	Indicates the analyte is found in a blank associated with the sample.
*	The analyte has exceeded allowable regulatory or control limits.
GT	Greater Than
LT	Less Than
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
E	The analyte result is above the calibrated range.
DF	Analytical Dilution Factor
JL	The analyte was positively identified, but the quantitation is a low estimation.
<Surr>	Surrogate QC spiked standard

Note: Soil samples are reported on a dry weight basis unless otherwise specified



SAMPLE SUMMARY

Print Date: 2/8/2008

Client Name: The Environmental Company, Inc. (TEC)

Project Name: 9121-003 Red Hill BFSF

Workorder No.: 1080225

Analytical Methods

Method Description

JRO by 8015B Low Volume (W)

Analytical Method

SW8015B

Sample ID Cross Reference

Lab Sample ID

1080225001

Client Sample ID

RHMW2254-01-WG10.1



The Environmental Company, Inc. (TEC)

Print Date: 2/8/2008

Client Sample ID: **RHMW2254-01-WG10.1**
SGS Ref. #: 1080225001
Project ID: 9121-003 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

All Dates/Times are Alaska Local Time
Collection Date/Time: 02/06/08 09:30
Receipt Date/Time: 02/07/08 11:15

Semivolatile Organic Fuels Department

<u>Parameter</u>	<u>Result</u>	<u>PQL/CL</u>	<u>Units</u>	<u>DF</u>	<u>Analytical</u> <u>Batch</u>	<u>Prep</u> <u>Batch</u>	<u>Qualifiers</u>
Diesel Range Organics	ND	0.0515	mg/L	1	XFC7835	XXX19093	
5a Androstane <sur>	90.6	50-150	%	1	XFC7835	XXX19093	

Batch Information

Analytical Batch: XFC7835
Analytical Method: SW8015B
Analysis Date/Time: 02/08/08 10:42
Dilution Factor: 1

Prep Batch: XXX19093
Prep Method: SW3520C
Prep Date/Time: 02/07/08 11:35

Initial Prep Wt./Vol.: 970 mL
Prep Extract Vol.: 1 mL
Container ID:1080225001-A
Analyst: HKG



SGS Ref.# 815962 Method Blank
Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 02/08/2008 16:39
Prep Batch XXX19093
Method SW3520C
Date 02/07/2008

QC results affect the following production samples:

1080225001

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Diesel Range Organics	ND	0.0500	0.0100	mg/L	02/08/08
Surrogates					
5a Androstane <surr>	98	60-120		%	02/08/08
Batch	XFC7835				
Method	SW8015B				
Instrument	HP 5890 Series II FID SV D R				



SGS Ref.# 815963 Lab Control Sample
815965 Lab Control Sample Duplicate
Client Name The Environmental Company, Inc. (TEC)
Project Name/# 9121-003 Red Hill BFSF
Matrix Water (Surface, Eff., Ground)

Printed Date/Time 02/08/2008 16:39
Prep Batch XXX19093
Method SW3520C
Date 02/07/2008

QC results affect the following production samples:
1080225001

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Semivolatile Organic Fuels Department							
Diesel Range Organics	LCS	1.02	102	(75-125)		1 mg/L	02/08/2008
	LCSD	1.06	106		4	(< 20)	1 mg/L 02/08/2008
Surrogates							
5a Androstane <surr>	LCS		94	(60-120)			02/08/2008
	LCSD		101		7		02/08/2008

Batch XFC7835
Method SW8015B
Instrument HP 5890 Series II FID SV D R



CHAIN OF CUSTODY RECORD

SGS Environmental Services Inc

1080225



Locations Nationwide
 Alaska Hawaii
 Maryland Louisiana
 New Jersey West Virginia
 North Carolina
 www.us.sgs.com

CLIENT: TEC INC. SGS Reference #:
 CONTACT: Jeff Hart PHONE NO: 808.528.1445 page 1 of 1

PROJECT: 9121-003 SITE/PWSID#: Red Hill BFSF
 REPORTS TO: Jeff Hart email jshart@tecinc.com
cc snmacmillan@tecinc.com
 INVOICE TO: TEC INC QUOTE #:
P.O. NUMBER:

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used					REMARKS
						HCL	HCL	HNO ₃			
						TPH-GRO (8016B)	TPH-DRO (8016B)	VOC's (8260B)	PAH's (8270C-SIMS)	Dist Pb (8020)	
011	RHMW2254-01-WG10.1	2/6/2008	1230	Water	2		X				

Collected/Relinquished By: (1) <i>[Signature]</i>	Date 2/6/2008	Time 1035	Received By: <i>[Signature]</i>	Shipping Carrier:	Samples Received Cold? YES NO
Relinquished By: (2) <i>[Signature]</i>	Date 2/6/08	Time 1200	Received By:	Shipping Ticket No:	Temperature (C):
Relinquished By: (3)	Date	Time	Received By:	Special Deliverable Requirements: See Contract	Chain of Custody Seal: (Circle) <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT
Relinquished By: (4) <i>[Signature]</i>	Date 2/1/08	Time 1115	Received For Laboratory By: <i>[Signature]</i>	Requested Turnaround Time and-or Special Instructions: See Contract	RUSH

- 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
- 151 James Drive West St Rose, LA 70087 Tel: (504) 469-6401 Fax: (504) 463-3304
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- 1258 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761
- 255 Sand Island Access Rd., Unit 1B Honolulu, HI 96819 Tel: (808) 224-6217 Fax: (808) 845-22
- 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: The Environmental Company

Job No: F55567

Site: Red Hill Bulk Storage Facility, HI

Report Date: 2/18/2008 5:28:31 PM

1 Sample was collected on 02/06/2008 and was received at Accutest on 02/08/2008 properly preserved, at 1.8 Deg. C and intact. The Sample received an Accutest job number of F55567. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GC by Method SW846 8015 M

Matrix: AQ

Batch ID: OP24049

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F55505-32MSD, F55505-32MS, F55505-32MSD were used as the QC samples indicated.

Matrix Spike Recovery for TPH (C10-C28) is outside control limits. Outside control limits due to high level in sample relative to spike amount.

Samples OP24049-MS, OP24049-MSD have surrogates outside control limits. Probable cause: due to matrix interference.

OP24049-MS, OP24049-MSD for o-Terphenyl: Outside control limits due to dilution.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by.

Ellen Pampel, Inorganic QA (signature on file)

Date: February 18, 2008

Monday, February 18, 2008

Accutest Laboratories

Report of Analysis

Page 1 of 1

3.1
3

Client Sample ID: RHMW2254-01-WG10.1	Date Sampled: 02/06/08
Lab Sample ID: F55567-1	Date Received: 02/08/08
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8015 M SW846 3510C	
Project: Red Hill Bulk Storage Facility, HI	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YY07207.D	1	02/11/08	NY	02/09/08	OP24049	GY234
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.26	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	91%		42-114%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

F55567



CHAIN OF CUSTODY

2235 Route 130 Dayton, NJ 08810
TEL 732-329-0200 FAX 732-329-3499/3480
www.accutest.com

Client / Reporting Information Company Name: TEC Inc. Address: 1001 Bishop St Ste 1400 ABB Tower City: Honolulu State: Hawaii Zip: 96813 Project Contact: Jeff Hart E-mail: jhart@tecinc.com Phone #: 808 528 1444 Sample(s) Name(s): Shawn MacMillan		Project Information Project Name: Red Hill Rnd 10 Project #: 0121-003 Client Purchase Order #: 008.438.0768		Requested Analyte Matrix Codes: DW - Drinking Water GW - Ground Water WW - Waste/Water SW - Surface Water SO - Soil SL - Sludge LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe LAB USE ONLY	
Accutest Sample # Field ID / Point of Collection RHMW2284-01-WG10 1		Collection Date: 2/6/08 Time: 0800 Sampled by: SM Matrix: GW		Number of preserved bottles PH-0000 (8016) X	
Turnaround Time (Business days) <input type="checkbox"/> Std. 18 Business Days <input type="checkbox"/> 10 Day RUSH <input type="checkbox"/> 6 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input checked="" type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other		Approved By / Date _____ _____		Comments / Remarks Do NOT preserve sample, run unpreserved.	
Emergency & Rush TIA only available via LabFax		Sample Custody must be documented below each time samples change possession, including courier delivery			
Subrequester by 1 <i>[Signature]</i>	Date Time 2/6/08 1000	Received By 1 FEDEX	Subrequester by 2 FEDEX	Date Time _____	Received By 2 Patric M...
Subrequester by 3 _____	Date Time _____	Received By 3 _____	Subrequester by 4 _____	Date Time _____	Received By 4 _____
Subrequester by 5 _____	Date Time _____	Received By 5 _____	Currency Used <input type="checkbox"/>	Preserved (if not applicable) <input type="checkbox"/>	On Ice <input type="checkbox"/>
					Cooler Temp. 1.8

4.1
4

Method Blank Summary

Job Number: F55567
Account: TECHIHON The Environmental Company
Project: Red Hill Bulk Storage Facility, HI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24049-MB	YY07206.D	1	02/11/08	NY	02/09/08	OP24049	GY234

The QC reported here applies to the following samples:

Method: SW846 8015 M

F55567-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.25	0.10	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	77% - 114%

5.1
5

Blank Spike Summary

Job Number: F55567
Account: TECHIHON The Environmental Company
Project: Red Hill Bulk Storage Facility, HI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24049-BS	YY07205.D	1	02/11/08	NY	02/09/08	OP24049	GY234

The QC reported here applies to the following samples:

Method: SW846 8015 M

F55567-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C10-C28)	1	0.839	84	59-114

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	96%	42-114%

5.2
5