Quarterly Groundwater Monitoring Report – Outside (Non-Tunnel) Wells

Red Hill Fuel Storage Facility

Pearl Harbor, Oahu, Hawaii
Latitude: 21°22'15" N
Longitude: 157°53'33" W

HDOH Facility ID No. 9-102271
HDOH Release ID No. 99051, 010011, 020028

April 2010

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Executive Summary

This quarterly groundwater monitoring report presents the results of groundwater sampling conducted on January 26, 2010 at locations surrounding the United States (US) Navy Bulk Fuel Storage Facility at Red Hill, Oahu, Hawaii (the Facility). The sampling and reporting was conducted by TEC Inc. (TEC) for the Fleet and Industrial Supply Center (FISC) at Pearl Harbor, Hawaii. This report is part of a series of quarterly groundwater monitoring reports, supplemental to the groundwater reports for the groundwater monitoring wells within the Facility, provided by the US Navy to the State of Hawaii Department of Health (HDOH) in accordance with HDOH's release response requirements. Currently, there are 18 active and two inactive, 12.5 million gallon, field-constructed underground storage tanks (USTs) located at the Facility.

Background

In 2002, the US Navy installed a groundwater monitoring well (currently named RHMW01) into the basal aquifer, directly down-gradient from the Facility, within the lower access tunnel. Groundwater samples from this well indicated that petroleum from the Facility has migrated to the basal aquifer (AMEC, 2002). In 2005, the US Navy began quarterly monitoring of the aquifer to protect their down-gradient drinking water resource associated with the US Navy Well 2254-01. US Navy Well 2254-01 is located approximately 3,000 feet down-gradient from the Facility USTs and provides approximately 24% of the potable water to the Pearl Harbor Water System (PHWS).

By September 2005, the US Navy had installed two more groundwater monitoring wells (RHMW02 and RHMW03) within the Facility UST system and a groundwater monitoring well within the US Navy Well 2254-01 infiltration gallery (RHMW2254-01). Since 2005, these wells have been sampled quarterly for Total Petroleum Hydrocarbons (TPH) quantified as Diesel-Range Organics (DRO) and Gasoline Range Organics (GRO), Volatile Organic Compounds (VOCs), Polynuclear Aromatic Hydrocarbons (PAHs), and dissolved lead.

In response to increasing concentrations of contaminants of potential concern at the groundwater monitoring wells within the facility (specifically RHMW02) during 2008, plans were made to conduct quarterly sampling at the following monitoring well locations:

- RHMW04, north of the Facility's tank 20;
- Oily Waste Disposal Facility monitoring well 01 (OWDFMW01); and
- Halawa Deep Well 2253-03 (referred to as HDMW2253-03 in this report).

During the summer and fall of 2008, HDOH updated their Environmental Action Levels (EALs), which resulted in significant changes to the action levels associated with methylnaphthalenes. The HDOH Drinking Water toxicity EAL for these compounds was 240 μg/L. This concentration assumed that methylnaphthalenes were not human carcinogens. Once evidence emerged and was accepted by the US Environmental Protection Agency (USEPA) that methylnaphthalenes are carcinogenic to humans, HDOH adopted more rigorous EALs of 4.7 μg/L for 1-methylnaphthalene and 24 μg/L for 2-methylnaphthalene (HDOH, 2008).

The HDOH Drinking Water EAL for naphthalene was also updated during this process. Previously, HDOH based their naphthalene EAL on US Environmental Protection Agency (USEPA) Region 9 Preliminary Remediation Goal (PRG) of 6.2 µg/L, which is associated with a non-cancer Hazard Index (HI) of 1. The USEPA generally considers a Hazard quotient (HQ) of 1.0 or less to be acceptable. For multiple chemicals or fractions at an exposure point (e.g. for a monitoring well) a HI is calculated by summing the HQs. In deference to the California Department of Public Health's Drinking Water Notification Levels, (HDOH, 2008) HDOH updated their naphthalene drinking water EAL to 17 µg/L.

Finally, the HDOH Drinking Water EAL for TPH-DRO was increased from 100 µg/L to 210 µg/L, although the Groundwater Gross Contamination EAL for TPH-DRO remains 100 µg/L.

Current Results

On January 26, 2010, three groundwater samples (i.e., RHMW04, OWDFMW01, and HDMW2253-03), along with the required quality control samples (duplicate, matrix spike, and matrix spike duplicate) were collected for analysis. Samples were analyzed for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead.

TPH-DRO was detected at 322F µg/L [F indicates that the compound was identified at a concentration above the method detection limit (MDL), but below the reporting limit (RL), therefore is considered an estimate] in HDMW2253-03, and 1,490 µg/L in OWDFMW01. These values are above the HDOH Drinking Water EAL (i.e., 210 µg/L) and the HDOH EAL for Gross Contamination (i.e., 100 µg/L). No other HDOH Drinking Water EALs were exceeded and no other contaminants of concern were detected above the laboratory MDL.

Conclusions and Recommendations

Excluding the January 2010 sampling event, TPH-DRO results from the two most recent sampling events at OWDFMW01, conducted in October 2009 and August 2009, were non-detect (i.e., TPH-DRO was not detected above the MDL). Likewise, excluding the January 2010 sampling event, TPH-DRO results from the most recent sampling event at HDMW2253-03, conducted in October 2009 were non-detect. HDMW2253-03 was not sampled in August 2009 due to access issues. Although a trend (i.e., two or more consecutive events of detectable concentrations) of TPH-DRO for OWDFMW01 and HDMW2253-03 has not yet been established, careful attention should be given to subsequent sampling events regarding the presence of TPH-DRO.

Quarterly groundwater sampling for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead should continue at the Facility until such time that data indicates that a different monitoring plan is warranted. The next quarterly groundwater sampling event will be performed in April 2010.

1.0 Introduction

This report presents the results of the third groundwater sampling event, conducted in January 2010 at two groundwater monitoring wells (i.e., RHMW04 and OWDFMW01). The first and second sampling events for OWDFMW01 were conducted in August and October 2009 respectively. In addition, this report presents data from the second sampling event conducted in January 2010 at HDMW2253-03. The first sampling event at HDMW2253-03 was conducted in October 2009. An August 2009 sampling event for HDMW2253-03 was not conducted due to access issues.

These three wells surround the Red Hill Fuel Storage Facility, Oahu, Hawaii (hereafter referred to as "the Facility"). The Facility consists of 18 active and two inactive USTs operated by FISC, Pearl Harbor. This groundwater sampling and analysis event is supplemental to the quarterly groundwater sampling and analysis at groundwater monitoring wells within the Facility (i.e., part of the groundwater monitoring program for the UST site in response to past UST releases, previous environmental investigations, and recommendations from the HDOH).

1.1 Project Objective

This groundwater sampling project was performed to evaluate the presence of chemicals of potential concern in groundwater surrounding the Facility. The project was conducted to ensure the Navy remains in compliance with HDOH UST release response requirements. The groundwater sampling program followed the procedures described in *Red Hill Bulk Fuel Storage Facility Groundwater Protection Plan* [TEC Inc. (TEC), 2008 updated in 2009], also referred to as "the Plan".

This groundwater sampling event was conducted by TEC under US Navy Contract Number N47408-04-D-8514, Task Order No. 54, Amendment/Modification No. 01.

1.2 Previous Reports

This is a quarterly sampling event that is being conducted to supplement the quarterly groundwater sampling and analysis at groundwater monitoring wells within the Facility, which began in 2005. The following groundwater monitoring reports were previously submitted to the HDOH, for groundwater monitoring wells within the Facility:

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);
10. Groundwater Monitoring Results, January 2008 (submitted March 2008);
11. Groundwater Monitoring Results, April 2008 (submitted May 2008);
12. Groundwater Monitoring Results, July 2008 (submitted October 2008);
13. Groundwater Monitoring Results, October and December 2008 (submitted February 2009);
14. Groundwater Monitoring Results, February 2009 (submitted May 2009);
15. Groundwater Monitoring Results, May 2009 (submitted July 2009);
16. Groundwater Monitoring Results, July 2009 (submitted September 2009); and
17. Groundwater Monitoring Results, October 2009 (submitted December 2009).

The following groundwater monitoring reports were previously submitted to the HDOH for groundwater monitoring wells outside the Facility:

1. Groundwater Sampling Results, August 2009 (submitted September 2009); and
2. Groundwater Monitoring Results, October 2009 (submitted December 2009).

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 Red Hill, 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 from the Facility (Dawson, 2006). The US Navy Well 2254-01 is located approximately 3,000 feet west of the Facility and provides approximately 24% 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 two 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).

In 2002, the US Navy installed a groundwater monitoring well (currently named RHMW01) into the basal aquifer, directly down-gradient from the Facility, within the lower access tunnel. Groundwater samples from this well indicated that petroleum from the Facility has migrated to the basal aquifer (AMEC, 2002). In 2005, the US Navy began quarterly monitoring of the

aquifer to protect their down-gradient drinking water resource associated with the US Navy Well 2254-01.
By September 2005, the US Navy had installed two more groundwater monitoring wells (RHMW02 and RHMW03) within the Facility UST system, a background groundwater monitoring well (RHMW04) north of the Facility adjacent to the US Navy Firing Range, and a groundwater monitoring well within the US Navy Well 2254-01 infiltration gallery (RHMW2254-01). Since 2005, RHMW01, RHMW02, RHMW03, and RHMW2254-01 have been sampled quarterly for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead.

Due to increasing concentrations of contaminants of potential concern at the groundwater monitoring wells within the Facility (specifically RHMW02) during 2008, response measures were warranted. In April 2009, another groundwater monitoring well (RHMW05) was installed within the lower access tunnel between RHMW01 and RHMW2254-01. It was installed to identify the extent of contaminant migration before it reaches the infiltration gallery at RHMW2254-01.

Additionally, plans were made to sample three monitoring wells surrounding the Facility, RHMW04, OWDFMW01, and HDMW2253-03. RHMW04 was installed to provide geochemistry for water moving through the basal aquifer beneath the Facility. OWDFMW01 (originally known as MW08) was installed into the basal aquifer in 1998 for a Phase II Remedial Investigation/ Feasibility Study for the Red Hill Oily Waste Disposal Facility (Earth Tech Inc., 2000). It is located geographically down-gradient of the USTs and US Navy Well 2254-01. HDMW2253-03 is controlled by the State of Hawaii Commission on Water Resource Management. It is located between the Facility and the municipal drinking water supply well run by the City and County of Honolulu Board of Water Supply (Halawa Shaft pumping station 2354-01).

Table 1 summarizes basic groundwater monitoring well information, Figure 1 shows groundwater monitoring well locations, and Appendix B includes the well construction logs for RHMW04 and OWDFMW01.

Table 1. Monitoring Well Information

Groundwater Well	TOC Elevation (ft msl)	DTW (ft)	TD (ft)
RHMW04	313.03	293	320
OWDFMW01	138.94	120	142.8
HDMW2253-03	225	210	1,575

Notes:
DTW - Distance to water
TD - Total depth of well
TOC - Top of casing
ft – Feet
ft msl - Feet from mean sea level

1.3.3 UST Information

The USTs were constructed in the early 1940s. The tanks were constructed of steel and currently contain Jet Propulsion (JP)–5 fuel, JP-8, and F-76 (diesel marine fuel). 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 Regulatory Updates

During the summer and fall of 2008, HDOH updated their EALs, which resulted in significant changes to the action levels associated with methylnaphthalenes. The drinking water toxicity EAL for these compounds was 240 μg/L. This concentration presumed that methylnaphthalenes were non-carcinogenic. Evidence that they are human carcinogens has now been accepted by the US Environmental Protection Agency (USEPA). As a result, HDOH adopted more rigorous EALs of 4.7 μg/L for 1-methylnaphthalene and 24 μg/L for 2-methylnaphthalene, corresponding to a residential tap water scenario, and a 1 in a million cancer risk (HDOH, 2008).

The drinking water EAL for naphthalene has also been updated during this process. Previously, HDOH based their naphthalene EAL on United States Environmental Protection Agency (USEPA) Region 9 Preliminary Remediation Goal (PRG) of 6.2 μg/L, which is associated with a non-cancer Hazard Index (HI) of 1. The USEPA generally considers a Hazard Quotient (HQ) of 1.0 or less to be acceptable. For multiple chemicals or fractions at an exposure point (e.g. for a monitoring well) a HI is calculated by summing the HQs. HDOH has updated their naphthalene drinking water EAL to 17 μg/L, in deference to the California Department of Public Health's Drinking Water Notification Levels, a HI of 2.7 (HDOH, 2008).

Finally, the HDOH Drinking Water EAL for TPH-DRO was increased from 100 μg/L to 210 μg/L, although the HDOH Groundwater Gross Contamination EAL for TPH-DRO remains 100 μg/L.

2.0 Sample Collection and Analyses

Field activities relating to groundwater sample collection were conducted on January 26, 2010. Groundwater samples were collected from three monitoring wells, RHMW04, OWDFMW01, and HDMW2253-03. Sampling and analysis were conducted according to *Red Hill Bulk Fuel Storage Facility Groundwater Protection Plan* (TEC, 2008). A total of six samples were collected as follows:

- one environmental sample from RHMW04, OWDFMW01, and HDMW2253-03;
- one duplicate sample from RHMW04 (sampled as RHMWA01 and reported as RHMW04D); and
- one matrix spike and matrix spike duplicate from OWDFMW01.

2.1 Monitoring Well Purging

RHMW04 and OWDFMW01 were purged prior to sampling. 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. Due to the well construction characteristics of HDMW2253-03, the well was not purged prior to sampling, but field parameters were recorded. Rather than purging, a grab

sample was collected at a depth below the solid casing (which extends about 50 feet below the water table) and within the open-holed portion of the well.

2.2 Groundwater Sample Collection

Immediately following purging, RHMW04 was sampled directly from a dedicated bladder pump system, and OWDFMW01 was sampled using a disposable bailer. HDMW2253-03 was sampled using a disposable bailer designed to collect samples at desired depths. Samples were placed into sampling containers with appropriate preservatives [i.e., hydrochloric acid (HCl) for volatile organic analysis, nitric acid (HNO_3) 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, VOCs by EPA Method 8260B, PAHs by EPA Method 8270C SIM, and dissolved lead by EPA Method 6020.

3.0 Groundwater Sample Analytical Results

This section provides a summary of analytical results for groundwater samples collected from three monitoring wells, RHMW04, OWDFMW01, and HDMW2253-03. Duplicate sample results from monitoring well RHMW04 are reported in this document as RHMW04D. A summary of groundwater analytical results for TPH-DRO and TPH-GRO, VOCs, PAHs, and dissolved lead is included in Table 2. Complete analytical laboratory reports are provided in Appendix A.

3.1 January 2010 Sample Analytical Results

All groundwater samples were analyzed for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead. The results for each groundwater monitoring well are discussed below.

RHMW04

No potential chemical of concern was detected above the laboratory MDLs in RHMW04 (Table 2).

OWDFMW01

TPH-DRO was detected at 1,490 µg/L, exceeding the HDOH Groundwater Gross Contamination EAL and Drinking Water EAL (i.e., 100 µg/L and 210 µg/L, respectively). No other potential chemical of concern was detected above the laboratory MDLs in OWDFMW01 (Table 2).

HDMW2253-03

TPH-DRO was detected at 322F µg/L [F indicates that the compound was identified at a concentration above the MDL, but below the reporting limit (RL), therefore is considered an estimate], exceeding the HDOH Groundwater Gross Contamination EAL and Drinking Water

Table 2. Analytical Results for Quarterly Groundwater Monitoring Release Response Report (January 26, 2010)
Red Hill Fuel Storage Facility, Pearl Harbor, Hawaii

Method	Chemical	HDOH Drinking Water EALs[1] for Human Toxicity UG/L	HDOH Groundwater Gross Contamination EALs[2] UG/L	HDMW2253-03 UG/L January 26, 2010				OWDFMW01 UG/L January 26, 2010				RHMW04 UG/L January 26, 2010				RHMW04D- UG/L January 26, 2010			
				Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL
8015B (Petroleum)	TPH as DIESEL RANGE ORGANICS	210	100	***322***	F	172	460	***1490***		165	440	ND	U	167	444	ND	U	165	440
	TPH as GASOLINE RANGE ORGANICS	100	100	ND	U	30	100	ND	U	30	100	ND	U	30	100	ND	U	30	100
8270C SIM (PAHs)	1-METHYLNAPHTHALENE	4.7	10	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	2-METHYLNAPHTHALENE	24	10	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	ACENAPHTHENE	370	20	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	ACENAPHTHYLENE	240	2000	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	ANTHRACENE	1800	22	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	BENZO(a)ANTHRACENE	0.092	4.7	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	BENZO(a)PYRENE	0.2	0.81	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	BENZO(b)FLUORANTHENE	0.092	0.75	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	BENZO(g,h,i)PERYLENE	1500	0.13	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	BENZO(k)FLUORANTHENE	0.92	0.4	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	CHRYSENE	9.2	1	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	DIBENZ(a,h)ANTHRACENE	0.0092	0.52	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	FLUORANTHENE	1500	130	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	FLUORENE	240	950	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	INDENO(1,2,3-c,d)PYRENE	0.092	0.095	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	NAPHTHALENE	17	21	ND	U	0.0517	0.167	ND	U	0.0332	0.107	ND	U	0.0337	0.109	ND	U	0.0348	0.112
	PHENANTHRENE	240	410	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
	PYRENE	180	68	ND	U	0.025	0.0833	ND	U	0.016	0.0535	ND	U	0.0163	0.0543	ND	U	0.0169	0.0562
8260B (VOCs)	1,1,1,2-TETRACHLOROETHANE	0.52	50000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	1,1,1-TRICHLOROETHANE	200	970	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,1,2,2-TETRACHLOROETHANE	0.067	500	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	1,1,2-TRICHLOROETHANE	5	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,1-DICHLOROETHANE	2.4	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2,3-TRICHLOROPROPANE (TCP)	0.6	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2,4-TRICHLOROBENZENE	70	3000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.04	10	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2
	1,2-DIBROMOETHANE (EDB)	0.0065	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2-DICHLOROBENZENE	600	10	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,2-DICHLOROETHANE	0.15	7000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	1,2-DICHLOROPROPANE	5	10	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,3-DICHLOROBENZENE	180	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	1,4-DICHLOROBENZENE	75	5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	ACETONE	22000	20000	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10
	BENZENE	5	170	ND	U	0.12	0.4	ND	U	0.12	0.4	ND	U	0.12	0.4	ND	U	0.12	0.4
	BROMODICHLOROMETHANE	0.22	50000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	BROMOFORM	100	510	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	BROMOMETHANE	8.7	50000	ND	U	0.94	3	ND	U	0.94	3	ND	U	0.94	3	ND	U	0.94	3
	CARBON TETRACHLORIDE	5	520	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	CHLOROBENZENE	100	50	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	CHLOROETHANE	8600	16	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	CHLOROFORM	70	2400	ND	U	0.3	1	ND	U	0.3	1	ND	U	0.3	1	ND	U	0.3	1
	CHLOROMETHANE	1.8	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	cis-1,2-DICHLOROETHYLENE	70	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	cis-1,3-DICHLOROPROPENE	0.43	50000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	DIBROMOCHLOROMETHANE	0.16	50000	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5	ND	U	0.15	0.5
	ETHYLBENZENE	700	30	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	HEXACHLOROBUTADIENE	0.86	6	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	M,P-XYLENE (SUM OF ISOMERS)	10000	20	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2
	METHYL ETHYL KETONE (2-BUTANONE)	7100	8400	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	2000	1300	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10	ND	U	3.1	10
	METHYLENE CHLORIDE	4.8	9100	ND	U	1	5	ND	U	1	5	ND	U	1	5	ND	U	1	5
	NAPHTHALENE	17	21	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2	ND	U	0.62	2
	STYRENE	100	10	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	TETRACHLOROETHYLENE(PCE)	5	170	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	TOLUENE	1000	40	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	trans-1,2-DICHLOROETHENE	100	260	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	TRICHLOROETHYLENE (TCE)	5	310	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	VINYL CHLORIDE	2	3400	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1
	XYLENES, TOTAL	10000	20	ND	U	1	2	ND	U	1	2	ND	U	1	2	ND	U	1	2
6020	LEAD	15	50000	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1	ND	U	0.31	1

PAHs - Polynuclear aromatic hydrocarbons
VOCs - Volatile organic compounds
UG/L - Micrograms per Liter
Q - Data qualifier
U - Indicates that the compound was analyzed for but not detected at or above the stated limit
F - Indicates that the compound was identified but the concentration was above the MDL and below the RL
- Result exceeds one or both HDOH EALs
MDL - Method detection limit
RL - Reporting limit
TPH - Total petroleum hydrocarbons
ND - Indicates that the compound was not detected above the stated method detection limit
NA - not analyzed

[1] Final Drinking Water Action Levels for Human Toxicity, Table D-3a, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* , HDOH, 2009
[2] Groundwater Gross Contamination Action Levels, Table G-1, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* , HDOH, 2009

EAL (i.e., 100 µg/L and 210 µg/L, respectively). No other potential chemical of concern was detected above the laboratory MDLs in HDMW2253-03 (Table 2).

4.0 Summary and Conclusions

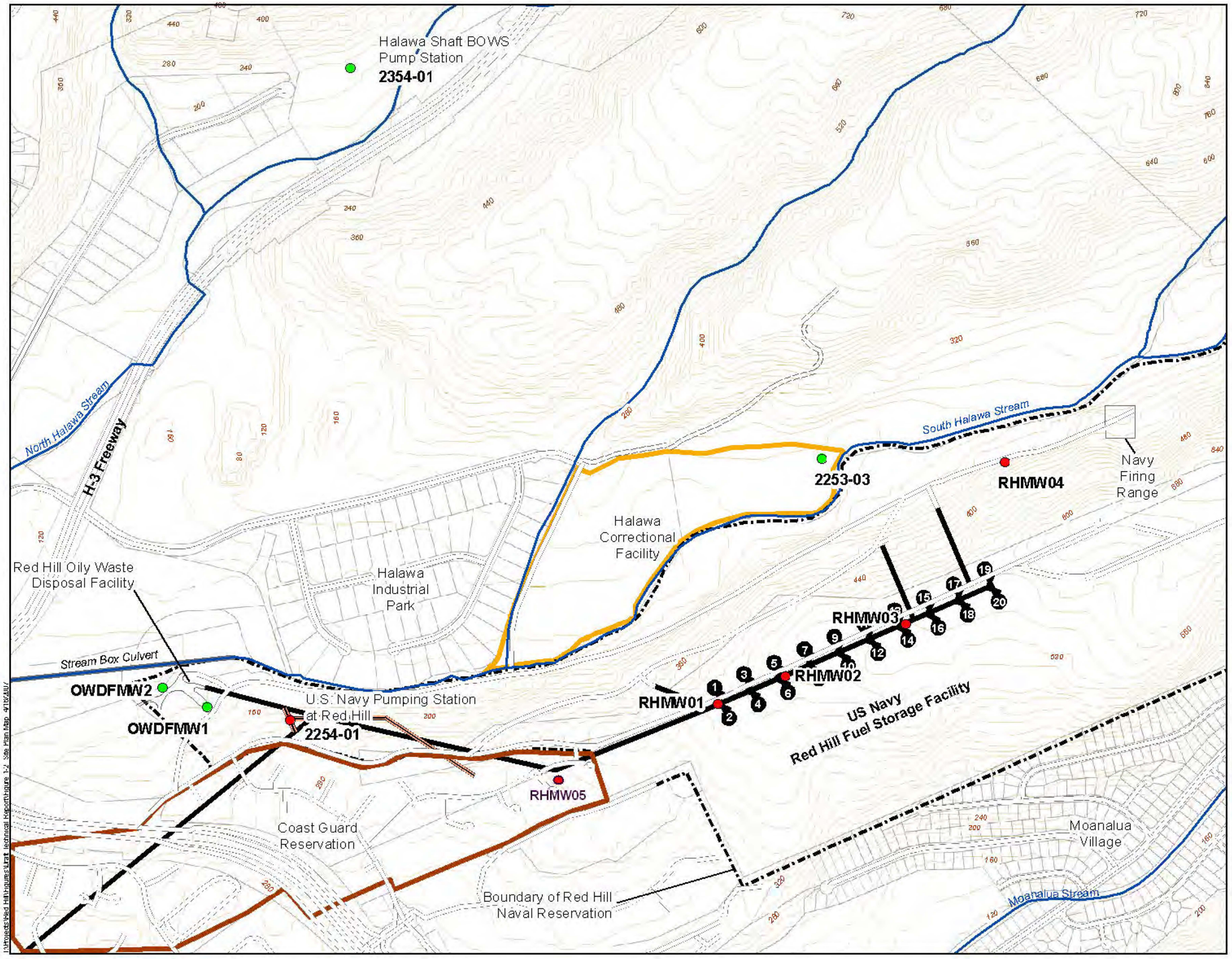
Summary

TPH-DRO was detected above the laboratory MDLs, HDOH Drinking Water EALs, and Gross Contamination EALs in OWDFMW01 and HDMW2253-03. No other potential chemical of concern was detected above the laboratory MDLs in OWDFMW01, HDMW2253-03, or RHMW04.

Conclusions/Recommendations

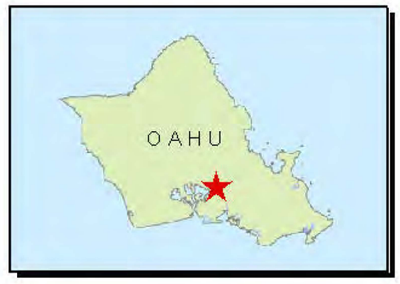
Excluding the January 2010 sampling event, TPH-DRO results from the two most recent sampling events at OWDFMW01, conducted in October 2009 and August 2009, were non-detect (i.e., TPH-DRO was not detected above the MDL). Likewise, excluding the January 2010 sampling event, TPH-DRO results from the most recent sampling event at HDMW2253-03, conducted in October 2009, were non-detect. HDMW2253-03 was not sampled in August 2009 due to access issues. Although a trend (i.e., two or more consecutive events of detectable concentrations) of TPH-DRO for OWDFMW01 and HDMW2253-03 has not yet been established, careful attention should be given to subsequent sampling events regarding the presence of TPH-DRO. Consideration should be given to installing additional groundwater monitoring wells at strategic locations to better assess whether or not increases of TPH-DRO at OWDFMW01 and HDMW2253-03 may be attributed to the Facility.

Quarterly groundwater sampling for TPH-DRO, TPH-GRO, VOCs, PAHs, and dissolved lead should continue at the Facility until such time that data indicates that a different monitoring plan is warranted. The next quarterly groundwater sampling event will be performed in April 2010.



Legend

- Red Hill UST ID Number (20)
- Parcel
- 40-foot Interval Contour Line
- Unpaved Road
- Road
- Stream
- Red Hill Navy Installation Boundary
- Red Hill Tunnels
- 2254-01 Infiltration Gallery
- Halawa Correctional Facility Boundary
- Coast Guard Reservation



N

Meters
0 175 350

0 312.5 625 1,250
Feet

Figure 1

Site Plan Map

Red Hill Fuel Storage Facility
Oahu, Hawaii

5.0 References

AMEC. *Red Hill Bulk Fuel Storage Facility Investigation Report*, Prepared for NAVFAC Pacific, August 2002.

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

Earth Tech, Inc. *Remedial Investigation Phase II, Volume I, Technical Report, Red Hill Oily Waste Disposal Facility, Halawa, Oahu, Hawaii*. September 2000.

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

HDOH. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Summary Lookup Tables.* March 2009.

HDOH. *Use of May 2005 Environmental Action Levels ("EALs") at Leaking Underground Storage Tank Sites*. Memo. July 2005.

HDOH. *Evaluation of Environmental Hazards at Sites with Contaminated Soil and Groundwater*. Summer 2008 (updated October 2008).

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

TEC, Inc. *Red Hill Bulk Fuel Storage Facility, Final Groundwater Protection Plan, Pearl Harbor, Hawaii.* January 2008 revised in December 2009.

Appendix A

Laboratory Analytical Reports

SGS North America Inc.
Alaska Division
Level II Laboratory Data Report

Project:	3354-010 Red Hill BFSF
Client:	The Environmental Company, Inc. (TEC)
SGS Work Order:	1100319

Released by:

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.

Client Name: The Environmental Company, Inc. (TEC)
Project Name: 3354-010 Red Hill BFSF
Workorder No.: 1100319

Sample Comments

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

Lab Sample ID	Sample Type	Client Sample ID
1100319001	PS	OWDFMW01-WG-03
	DRO by 8015C - Unknown hydrocarbon with several peaks is present.	
1100319002	BMS	OWDFMW01-WG-03 MS
	AK101 - MS recovery does not meet QC criteria.See the LCS/LCSD for precision and accuracy. 8260B - MS recovery for 1,1-dichloroethane, cis-1,3-dichloropropene and methyl-t-butyl ether does not meet QC criteria (biased high). See LCS for accuracy. 8270D SIM - MS recovery is outside of QC criteria for fluoranthene (biased high). Refer to LCS for accuracy.	
1100319003	BMSD	OWDFMW01-WG-03 MSD
	AK101 - MSD recovery does not meet QC criteria.See the LCS/LCSD for precision and accuracy. 8260B - MSD recovery for 1,1-dichloroethane and methyl-t-butyl ether does not meet QC criteria (biased high). See LCS for accuracy. 8270D SIM - MSD recovery is outside of QC criteria for fluoranthene (biased high). Refer to LCS for accuracy.	
947497	MB	MB for HBN 225159 [XXX/22245]
	8270D SIM - Phenanthrene detected in the MB greater than one-half the LOQ. The concentration of phenanthrene in the associated samples is less than the LOQ or greater than ten times the MB contamination.	

SGS North America Inc. | Environmental Division 200 West Potter Drive Anchorage AK 99518 t(907)562.2343 f(907)561.5301
www.us.sgs.com Member of SGS Group

Laboratory Analytical Report

Client: **The Environmental Company, Inc.**
1003 Bishop Street,
Pauahi Tower Suite 1550
Honolulu, HI 96813

Attn: **Rick Adkisson**
T: (808)528-1445 F:(808)528-0768

Project: **3354-010 Red Hill BFSF**

Workorder No.: **1100319**

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.

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

Jennifer Serna

Project Manager

Enclosed are the analytical results associated with the above work order. If you have any questions regarding this report, or if we can be of any other assistance, please contact your SGS Project Manager at 907-562-2343. All work is provided under SGS general terms and conditions (<http://www.sgs.com/terms_and_conditions.htm>), unless other written agreements have been accepted by both parties.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and AK100001 for NELAP (RCRA methods: 1020A, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035B, 6010B, 6020, 7470A, 7471B, 8021B, 8081B, 8082A, 8260B, 8270D, 8270D-SIM, 9040B, 9045C, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, the National Environmental Laboratory Accreditation Program and other regulatory authorities. The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV	Continuing Calibration Verification
CL	Control Limit
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LOD	Limit of Detection (i.e., 2xDL)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.
All DRO/RRO analyses are integrated per SOP.

SAMPLE SUMMARY

Print Date: 2/5/2010 9:27 am

Client Name: The Environmental Company, Inc. (TEC)
Project Name: 3354-010 Red Hill BFSF
Workorder No.: 1100319

Analytical Methods

Method Description	Analytical Method
8270 PAH SIM Semi-Vol GC/MS Liq/Liq ext.	8270D SIMS
AFCEE 3.1 8260 (W)	SW8260B
Dissolved Metals by ICP-MS	SW6020
DRO by 8015C (W)	SW8015C
GRO (W)	SW8015C

Sample ID Cross Reference

Lab Sample ID	Client Sample ID
1100319001	OWDFMW01-WG-03
1100319002	OWDFMW01-WG-03 MS
1100319003	OWDFMW01-WG-03 MSD
1100319004	RHMW04-WG-03
1100319005	RHMWA01-WG-03
1100319006	HDMW2253-03-WG-03
1100319007	TB01-WG-03

SGS North America Inc. | Environmental Division 200 West Potter Drive Anchorage AK 99518 t(907)562.2343 f(907)561.5301
www.us.sgs.com
Member of SGS Group

Client Sample ID: **OWDFMW01-WG-03**
SGS Ref. #: 1100319001
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 09:20
Receipt Date/Time: 01/28/10 14:45

Dissolved Metals by ICP/MS

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Lead	0.620 U	1.00	0.310	ug/L	5	MMS6300	MXX22714	

Batch Information

Analytical Batch: MMS6300
Analytical Method: SW6020
Analysis Date/Time: 02/02/10 17:03
Dilution Factor: 5

Prep Batch: MXX22714
Prep Method: SW3010A
Prep Date/Time: 02/01/10 14:00

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID:1100319001-L
Analyst: NRB

Client Sample ID: **OWDFMW01-WG-03**
SGS Ref. #: 1100319001
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 09:20
Receipt Date/Time: 01/28/10 14:45

Volatile Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	60.0 U	100	30.0	ug/L	1	VFC9852	VXX20441	
4-Bromofluorobenzene <surr>	100	50-150		%	1	VFC9852	VXX20441	

Batch Information

Analytical Batch: VFC9852
Analytical Method: SW8015C
Analysis Date/Time: 02/01/10 11:31
Dilution Factor: 1

Prep Batch: VXX20441
Prep Method: SW5030B
Prep Date/Time: 02/01/10 10:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1100319001-A
Analyst: HM

Client Sample ID: **OWDFMW01-WG-03**
SGS Ref. #: 1100319001
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 09:20
Receipt Date/Time: 01/28/10 14:45

Semivolatile Organic Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	1.49	0.440	0.165	mg/L	1	XFC9100	XXX22248	
5a Androstane <surr>	89.9	50-150		%	1	XFC9100	XXX22248	

Batch Information

Analytical Batch: XFC9100
Analytical Method: SW8015C
Analysis Date/Time: 02/02/10 17:29
Dilution Factor: 1

Prep Batch: XXX22248
Prep Method: SW3520C
Prep Date/Time: 02/01/10 10:20

Initial Prep Wt./Vol.: 910 mL
Prep Extract Vol.: 1 mL
Container ID:1100319001-I
Analyst: LCE

Client Sample ID: **OWDFMW01-WG-03**
SGS Ref. #: 1100319001
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 09:20
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
Toluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Ethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
n-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,4-Dichlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3,5-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
4-Methyl-2-pentanone (MIBK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
cis-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Isopropyltoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
cis-1,3-Dichloropropene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
n-Propylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Styrene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromomethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,3-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Acetone	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
1,1,2,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dibromo-3-chloropropane	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Methyl-t-butyl ether	3.00 U	5.00	1.50	ug/L	1	VMS11092	VXX20444	
Tetrachloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromochloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3-Dichloropropane	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
1,2-Dibromoethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Carbon tetrachloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
Chloroform	0.600 U	1.00	0.300	ug/L	1	VMS11092	VXX20444	
Bromobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromomethane	1.88 U	3.00	0.940	ug/L	1	VMS11092	VXX20444	
Bromochloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Vinyl chloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dichlorodifluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	

Client Sample ID: **OWDFMW01-WG-03**
SGS Ref. #: 1100319001
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 09:20
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
sec-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromodichloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Butanone (MEK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
Methylene chloride	2.00 U	5.00	1.00	ug/L	1	VMS11092	VXX20444	
Trichlorofluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
P & M -Xylene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Naphthalene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
o-Xylene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromoform	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1-Chlorohexane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
tert-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Trichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Hexachlorobutadiene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Isopropylbenzene (Cumene)	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,2-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,3-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Xylenes (total)	2.00 U	2.00	1.00	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane-D4 <surr>	104	73-120		%	1	VMS11092	VXX20444	
Toluene-d8 <surr>	101	80-120		%	1	VMS11092	VXX20444	
4-Bromofluorobenzene <surr>	103	76-120		%	1	VMS11092	VXX20444	

Client Sample ID: **OWDFMW01-WG-03**
SGS Ref. #: 1100319001
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 09:20
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS11092
Analytical Method: SW8260B
Analysis Date/Time: 02/01/10 18:48
Dilution Factor: 1

Prep Batch: VXX20444
Prep Method: SW5030B
Prep Date/Time: 02/01/10 12:35

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1100319001-D
Analyst: DSH

Client Sample ID: **OWDFMW01-WG-03**
SGS Ref. #: 1100319001
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 09:20
Receipt Date/Time: 01/28/10 14:45

Polynuclear Aromatics GC/MS

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Acenaphthylene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Acenaphthene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Fluorene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Phenanthrene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Anthracene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Fluoranthene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Pyrene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Benzo(a)Anthracene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Chrysene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Benzo[b]Fluoranthene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Benzo[k]fluoranthene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Benzo[a]pyrene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Indeno[1,2,3-c,d] pyrene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Dibenzo[a,h]anthracene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Benzo[g,h,i]perylene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Naphthalene	0.0664 U	0.107	0.0332	ug/L	1	XMS5285	XXX22249	
1-Methylnaphthalene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
2-Methylnaphthalene	0.0320 U	0.0535	0.0160	ug/L	1	XMS5285	XXX22249	
Terphenyl-d14 <surr>	102	50-126		%	1	XMS5285	XXX22249	

Batch Information

Analytical Batch: XMS5285
Analytical Method: 8270D SIMS
Analysis Date/Time: 02/02/10 11:47
Dilution Factor: 1

Prep Batch: XXX22249
Prep Method: SW3520C
Prep Date/Time: 02/01/10 11:20

Initial Prep Wt./Vol.: 935 mL
Prep Extract Vol.: 1 mL
Container ID:1100319001-J
Analyst: JDH

Client Sample ID: **RHMW04-WG-03**
SGS Ref. #: 1100319004
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 14:10
Receipt Date/Time: 01/28/10 14:45

Dissolved Metals by ICP/MS

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Lead	0.620 U	1.00	0.310	ug/L	5	MMS6300	MXX22713	

Batch Information

Analytical Batch: MMS6300
Analytical Method: SW6020
Analysis Date/Time: 02/02/10 16:34
Dilution Factor: 5

Prep Batch: MXX22713
Prep Method: SW3010A
Prep Date/Time: 02/01/10 14:00

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID:1100319004-G
Analyst: NRB

Client Sample ID: **RHMW04-WG-03**
SGS Ref. #: 1100319004
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 14:10
Receipt Date/Time: 01/28/10 14:45

Volatile Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	60.0 U	100	30.0	ug/L	1	VFC9852	VXX20441	
4-Bromofluorobenzene <surr>	104	50-150		%	1	VFC9852	VXX20441	

Batch Information

Analytical Batch: VFC9852
Analytical Method: SW8015C
Analysis Date/Time: 02/01/10 12:43
Dilution Factor: 1

Prep Batch: VXX20441
Prep Method: SW5030B
Prep Date/Time: 02/01/10 10:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1100319004-A
Analyst: HM

Client Sample ID: **RHMW04-WG-03**
SGS Ref. #: 1100319004
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 14:10
Receipt Date/Time: 01/28/10 14:45

Semivolatile Organic Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	0.334 U	0.444	0.167	mg/L	1	XFC9100	XXX22248	
5a Androstane <surr>	86.3	50-150		%	1	XFC9100	XXX22248	

Batch Information

Analytical Batch: XFC9100
Analytical Method: SW8015C
Analysis Date/Time: 02/02/10 18:32
Dilution Factor: 1

Prep Batch: XXX22248
Prep Method: SW3520C
Prep Date/Time: 02/01/10 10:20

Initial Prep Wt./Vol.: 900 mL
Prep Extract Vol.: 1 mL
Container ID:1100319004-I
Analyst: LCE

Client Sample ID: **RHMW04-WG-03**
SGS Ref. #: 1100319004
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 14:10
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
Toluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Ethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
n-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,4-Dichlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3,5-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
4-Methyl-2-pentanone (MIBK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
cis-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Isopropyltoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
cis-1,3-Dichloropropene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
n-Propylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Styrene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromomethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,3-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Acetone	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
1,1,2,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dibromo-3-chloropropane	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Methyl-t-butyl ether	3.00 U	5.00	1.50	ug/L	1	VMS11092	VXX20444	
Tetrachloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromochloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3-Dichloropropane	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
1,2-Dibromoethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Carbon tetrachloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
Chloroform	0.600 U	1.00	0.300	ug/L	1	VMS11092	VXX20444	
Bromobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromomethane	1.88 U	3.00	0.940	ug/L	1	VMS11092	VXX20444	
Bromochloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Vinyl chloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dichlorodifluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	

Client Sample ID: **RHMW04-WG-03**
SGS Ref. #: 1100319004
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 14:10
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
sec-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromodichloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Butanone (MEK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
Methylene chloride	2.00 U	5.00	1.00	ug/L	1	VMS11092	VXX20444	
Trichlorofluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
P & M -Xylene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Naphthalene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
o-Xylene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromoform	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1-Chlorohexane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
tert-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Trichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Hexachlorobutadiene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Isopropylbenzene (Cumene)	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,2-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,3-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Xylenes (total)	2.00 U	2.00	1.00	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane-D4 <surr>	100	73-120		%	1	VMS11092	VXX20444	
Toluene-d8 <surr>	99.6	80-120		%	1	VMS11092	VXX20444	
4-Bromofluorobenzene <surr>	103	76-120		%	1	VMS11092	VXX20444	

Client Sample ID: **RHMW04-WG-03**
SGS Ref. #: 1100319004
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 14:10
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Batch Information								
Analytical Batch: VMS11092		Prep Batch: VXX20444				Initial Prep Wt./Vol.: 5 mL		
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL		
Analysis Date/Time: 02/01/10 19:19		Prep Date/Time: 02/01/10 12:35				Container ID:1100319004-D		
Dilution Factor: 1						Analyst: DSH		

Client Sample ID: **RHMW04-WG-03**
SGS Ref. #: 1100319004
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 14:10
Receipt Date/Time: 01/28/10 14:45

Polynuclear Aromatics GC/MS

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Acenaphthylene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Acenaphthene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Fluorene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Phenanthrene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Anthracene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Fluoranthene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Pyrene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Benzo(a)Anthracene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Chrysene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Benzo[b]Fluoranthene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Benzo[k]fluoranthene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Benzo[a]pyrene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Indeno[1,2,3-c,d] pyrene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Dibenzo[a,h]anthracene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Benzo[g,h,i]perylene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Naphthalene	0.0674 U	0.109	0.0337	ug/L	1	XMS5285	XXX22249	
1-Methylnaphthalene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
2-Methylnaphthalene	0.0326 U	0.0543	0.0163	ug/L	1	XMS5285	XXX22249	
Terphenyl-d14 <surr>	111	50-126		%	1	XMS5285	XXX22249	

Batch Information

Analytical Batch: XMS5285
Analytical Method: 8270D SIMS
Analysis Date/Time: 02/02/10 13:24
Dilution Factor: 1

Prep Batch: XXX22249
Prep Method: SW3520C
Prep Date/Time: 02/01/10 11:20

Initial Prep Wt./Vol.: 920 mL
Prep Extract Vol.: 1 mL
Container ID:1100319004-J
Analyst: JDH

Client Sample ID: **RHMWA01-WG-03**
SGS Ref. #: 1100319005
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 12:05
Receipt Date/Time: 01/28/10 14:45

Dissolved Metals by ICP/MS

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Lead	0.620 U	1.00	0.310	ug/L	5	MMS6300	MXX22713	

Batch Information

Analytical Batch: MMS6300
Analytical Method: SW6020
Analysis Date/Time: 02/02/10 16:36
Dilution Factor: 5

Prep Batch: MXX22713
Prep Method: SW3010A
Prep Date/Time: 02/01/10 14:00

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID:1100319005-G
Analyst: NRB

Client Sample ID: **RHMWA01-WG-03**
SGS Ref. #: 1100319005
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 12:05
Receipt Date/Time: 01/28/10 14:45

Volatile Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	60.0 U	100	30.0	ug/L	1	VFC9852	VXX20441	
4-Bromofluorobenzene <surr>	99.1	50-150		%	1	VFC9852	VXX20441	

Batch Information

Analytical Batch: VFC9852
Analytical Method: SW8015C
Analysis Date/Time: 02/01/10 13:02
Dilution Factor: 1

Prep Batch: VXX20441
Prep Method: SW5030B
Prep Date/Time: 02/01/10 10:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1100319005-A
Analyst: HM

Client Sample ID: **RHMWA01-WG-03**
SGS Ref. #: 1100319005
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 12:05
Receipt Date/Time: 01/28/10 14:45

Semivolatile Organic Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	0.330 U	0.440	0.165	mg/L	1	XFC9100	XXX22248	
5a Androstane <surr>	95.2	50-150		%	1	XFC9100	XXX22248	

Batch Information

Analytical Batch: XFC9100
Analytical Method: SW8015C
Analysis Date/Time: 02/02/10 18:53
Dilution Factor: 1

Prep Batch: XXX22248
Prep Method: SW3520C
Prep Date/Time: 02/01/10 10:20

Initial Prep Wt./Vol.: 910 mL
Prep Extract Vol.: 1 mL
Container ID:1100319005-J
Analyst: LCE

Client Sample ID: **RHMWA01-WG-03**
SGS Ref. #: 1100319005
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 12:05
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
Toluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Ethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
n-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,4-Dichlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3,5-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
4-Methyl-2-pentanone (MIBK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
cis-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Isopropyltoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
cis-1,3-Dichloropropene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
n-Propylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Styrene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromomethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,3-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Acetone	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
1,1,2,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dibromo-3-chloropropane	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Methyl-t-butyl ether	3.00 U	5.00	1.50	ug/L	1	VMS11092	VXX20444	
Tetrachloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromochloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3-Dichloropropane	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
1,2-Dibromoethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Carbon tetrachloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
Chloroform	0.600 U	1.00	0.300	ug/L	1	VMS11092	VXX20444	
Bromobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromomethane	1.88 U	3.00	0.940	ug/L	1	VMS11092	VXX20444	
Bromochloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Vinyl chloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dichlorodifluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	

Client Sample ID: **RHMWA01-WG-03**
SGS Ref. #: 1100319005
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 12:05
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
sec-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromodichloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Butanone (MEK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
Methylene chloride	2.00 U	5.00	1.00	ug/L	1	VMS11092	VXX20444	
Trichlorofluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
P & M -Xylene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Naphthalene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
o-Xylene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromoform	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1-Chlorohexane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
tert-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Trichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Hexachlorobutadiene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Isopropylbenzene (Cumene)	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,2-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,3-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Xylenes (total)	2.00 U	2.00	1.00	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane-D4 <surr>	101	73-120		%	1	VMS11092	VXX20444	
Toluene-d8 <surr>	99.4	80-120		%	1	VMS11092	VXX20444	
4-Bromofluorobenzene <surr>	106	76-120		%	1	VMS11092	VXX20444	

Client Sample ID: **RHMWA01-WG-03**
SGS Ref. #: 1100319005
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 12:05
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS11092
Analytical Method: SW8260B
Analysis Date/Time: 02/01/10 19:51
Dilution Factor: 1

Prep Batch: VXX20444
Prep Method: SW5030B
Prep Date/Time: 02/01/10 12:35

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1100319005-D
Analyst: DSH

Client Sample ID: **RHMWA01-WG-03**
SGS Ref. #: 1100319005
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 12:05
Receipt Date/Time: 01/28/10 14:45

Polynuclear Aromatics GC/MS

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Acenaphthylene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Acenaphthene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Fluorene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Phenanthrene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Anthracene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Fluoranthene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Pyrene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Benzo(a)Anthracene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Chrysene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Benzo[b]Fluoranthene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Benzo[k]fluoranthene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Benzo[a]pyrene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Indeno[1,2,3-c,d] pyrene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Dibenzo[a,h]anthracene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Benzo[g,h,i]perylene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Naphthalene	0.0696 U	0.112	0.0348	ug/L	1	XMS5282	XXX22245	
1-Methylnaphthalene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
2-Methylnaphthalene	0.0338 U	0.0562	0.0169	ug/L	1	XMS5282	XXX22245	
Terphenyl-d14 <surr>	103	50-126		%	1	XMS5282	XXX22245	

Batch Information

Analytical Batch: XMS5282
Analytical Method: 8270D SIMS
Analysis Date/Time: 02/01/10 13:53
Dilution Factor: 1

Prep Batch: XXX22245
Prep Method: SW3520C
Prep Date/Time: 01/29/10 11:00

Initial Prep Wt./Vol.: 890 mL
Prep Extract Vol.: 1 mL
Container ID:1100319005-K
Analyst: JDH

Client Sample ID: **HDMW2253-03-WG-03**
SGS Ref. #: 1100319006
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 11:00
Receipt Date/Time: 01/28/10 14:45

Dissolved Metals by ICP/MS

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Lead	0.620 U	1.00	0.310	ug/L	5	MMS6300	MXX22714	

Batch Information

Analytical Batch: MMS6300
Analytical Method: SW6020
Analysis Date/Time: 02/02/10 17:13
Dilution Factor: 5

Prep Batch: MXX22714
Prep Method: SW3010A
Prep Date/Time: 02/01/10 14:00

Initial Prep Wt./Vol.: 50 mL
Prep Extract Vol.: 50 mL
Container ID:1100319006-L
Analyst: NRB

Client Sample ID: **HDMW2253-03-WG-03**
SGS Ref. #: 1100319006
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 11:00
Receipt Date/Time: 01/28/10 14:45

Volatile Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	60.0 U	100	30.0	ug/L	1	VFC9852	VXX20441	
4-Bromofluorobenzene <surr>	100	50-150		%	1	VFC9852	VXX20441	

Batch Information

Analytical Batch: VFC9852
Analytical Method: SW8015C
Analysis Date/Time: 02/01/10 13:22
Dilution Factor: 1

Prep Batch: VXX20441
Prep Method: SW5030B
Prep Date/Time: 02/01/10 10:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1100319006-A
Analyst: HM

Client Sample ID: **HDMW2253-03-WG-03**
SGS Ref. #: 1100319006
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 11:00
Receipt Date/Time: 01/28/10 14:45

Semivolatile Organic Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	0.322 J	0.460	0.172	mg/L	1	XFC9100	XXX22248	
5a Androstane <surr>	80.6	50-150		%	1	XFC9100	XXX22248	

Batch Information

Analytical Batch: XFC9100
Analytical Method: SW8015C
Analysis Date/Time: 02/02/10 19:14
Dilution Factor: 1

Prep Batch: XXX22248
Prep Method: SW3520C
Prep Date/Time: 02/01/10 10:20

Initial Prep Wt./Vol.: 870 mL
Prep Extract Vol.: 1 mL
Container ID:1100319006-I
Analyst: LCE

Client Sample ID: **HDMW2253-03-WG-03**
SGS Ref. #: 1100319006
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 11:00
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
Toluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Ethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
n-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,4-Dichlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3,5-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
4-Methyl-2-pentanone (MIBK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
cis-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Isopropyltoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
cis-1,3-Dichloropropene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
n-Propylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Styrene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromomethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,3-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Acetone	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
1,1,2,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dibromo-3-chloropropane	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Methyl-t-butyl ether	3.00 U	5.00	1.50	ug/L	1	VMS11092	VXX20444	
Tetrachloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromochloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3-Dichloropropane	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
1,2-Dibromoethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Carbon tetrachloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
Chloroform	0.600 U	1.00	0.300	ug/L	1	VMS11092	VXX20444	
Bromobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromomethane	1.88 U	3.00	0.940	ug/L	1	VMS11092	VXX20444	
Bromochloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Vinyl chloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dichlorodifluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	

Client Sample ID: **HDMW2253-03-WG-03**
SGS Ref. #: 1100319006
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 11:00
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
sec-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromodichloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Butanone (MEK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
Methylene chloride	2.00 U	5.00	1.00	ug/L	1	VMS11092	VXX20444	
Trichlorofluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
P & M -Xylene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Naphthalene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
o-Xylene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromoform	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1-Chlorohexane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
tert-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Trichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Hexachlorobutadiene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Isopropylbenzene (Cumene)	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,2-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,3-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Xylenes (total)	2.00 U	2.00	1.00	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane-D4 <surr>	102	73-120		%	1	VMS11092	VXX20444	
Toluene-d8 <surr>	99.7	80-120		%	1	VMS11092	VXX20444	
4-Bromofluorobenzene <surr>	103	76-120		%	1	VMS11092	VXX20444	

Client Sample ID: **HDMW2253-03-WG-03**
SGS Ref. #: 1100319006
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 11:00
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Batch Information								
Analytical Batch: VMS11092		Prep Batch: VXX20444				Initial Prep Wt./Vol.: 5 mL		
Analytical Method: SW8260B		Prep Method: SW5030B				Prep Extract Vol.: 5 mL		
Analysis Date/Time: 02/01/10 20:22		Prep Date/Time: 02/01/10 12:35				Container ID:1100319006-D		
Dilution Factor: 1						Analyst: DSH		

Client Sample ID: **HDMW2253-03-WG-03**
SGS Ref. #: 1100319006
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 11:00
Receipt Date/Time: 01/28/10 14:45

Polynuclear Aromatics GC/MS

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Acenaphthylene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Acenaphthene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Fluorene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Phenanthrene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Anthracene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Fluoranthene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Pyrene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Benzo(a)Anthracene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Chrysene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Benzo[b]Fluoranthene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Benzo[k]fluoranthene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Benzo[a]pyrene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Indeno[1,2,3-c,d] pyrene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Dibenzo[a,h]anthracene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Benzo[g,h,i]perylene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Naphthalene	0.103 U	0.167	0.0517	ug/L	1	XMS5282	XXX22245	
1-Methylnaphthalene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
2-Methylnaphthalene	0.0500 U	0.0833	0.0250	ug/L	1	XMS5282	XXX22245	
Terphenyl-d14 <surr>	107	50-126		%	1	XMS5282	XXX22245	

Batch Information

Analytical Batch: XMS5282
Analytical Method: 8270D SIMS
Analysis Date/Time: 02/01/10 14:26
Dilution Factor: 1

Prep Batch: XXX22245
Prep Method: SW3520C
Prep Date/Time: 01/29/10 11:00

Initial Prep Wt./Vol.: 600 mL
Prep Extract Vol.: 1 mL
Container ID:1100319006-K
Analyst: JDH

Client Sample ID: **TB01-WG-03**
SGS Ref. #: 1100319007
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 08:05
Receipt Date/Time: 01/28/10 14:45

Volatile Fuels Department

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Gasoline Range Organics	60.0 U	100	30.0	ug/L	1	VFC9852	VXX20441	
4-Bromofluorobenzene <surr>	104	50-150		%	1	VFC9852	VXX20441	

Batch Information

Analytical Batch: VFC9852
Analytical Method: SW8015C
Analysis Date/Time: 02/01/10 13:41
Dilution Factor: 1

Prep Batch: VXX20441
Prep Method: SW5030B
Prep Date/Time: 02/01/10 10:00

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1100319007-A
Analyst: HM

Client Sample ID: **TB01-WG-03**
SGS Ref. #: 1100319007
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 08:05
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
Toluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Ethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
n-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,4-Dichlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3,5-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chlorobenzene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
4-Methyl-2-pentanone (MIBK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
cis-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
4-Isopropyltoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
cis-1,3-Dichloropropene	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
n-Propylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Styrene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromomethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,3-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Acetone	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
1,1,2,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,2-Dibromo-3-chloropropane	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Methyl-t-butyl ether	3.00 U	5.00	1.50	ug/L	1	VMS11092	VXX20444	
Tetrachloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dibromochloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,3-Dichloropropane	0.240 U	0.400	0.120	ug/L	1	VMS11092	VXX20444	
1,2-Dibromoethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Carbon tetrachloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
Chloroform	0.600 U	1.00	0.300	ug/L	1	VMS11092	VXX20444	
Bromobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Chloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromomethane	1.88 U	3.00	0.940	ug/L	1	VMS11092	VXX20444	
Bromochloromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Vinyl chloride	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Dichlorodifluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	

Client Sample ID: **TB01-WG-03**
SGS Ref. #: 1100319007
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 08:05
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Chloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
sec-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromodichloromethane	0.300 U	0.500	0.150	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Butanone (MEK)	6.20 U	10.0	3.10	ug/L	1	VMS11092	VXX20444	
Methylene chloride	2.00 U	5.00	1.00	ug/L	1	VMS11092	VXX20444	
Trichlorofluoromethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
P & M -Xylene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
Naphthalene	1.24 U	2.00	0.620	ug/L	1	VMS11092	VXX20444	
o-Xylene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Bromoform	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1-Chlorohexane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,4-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
tert-Butylbenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,1-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2-Chlorotoluene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Trichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
trans-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
2,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Hexachlorobutadiene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Isopropylbenzene (Cumene)	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1-Dichloropropene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,1,2-Trichloroethane	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,3-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
1,2,3-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	1	VMS11092	VXX20444	
Xylenes (total)	2.00 U	2.00	1.00	ug/L	1	VMS11092	VXX20444	
1,2-Dichloroethane-D4 <surr>	99.9	73-120		%	1	VMS11092	VXX20444	
Toluene-d8 <surr>	102	80-120		%	1	VMS11092	VXX20444	
4-Bromofluorobenzene <surr>	105	76-120		%	1	VMS11092	VXX20444	

Client Sample ID: **TB01-WG-03**
SGS Ref. #: 1100319007
Project ID: 3354-010 Red Hill BFSF
Matrix: Water (Surface, Eff., Ground)

Collection Date/Time: 01/26/10 08:05
Receipt Date/Time: 01/28/10 14:45

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	LOQ/CL	DL	Units	DF	Analytical Batch	Prep Batch	Qualifiers

Batch Information

Analytical Batch: VMS11092
Analytical Method: SW8260B
Analysis Date/Time: 02/01/10 17:45
Dilution Factor: 1

Prep Batch: VXX20444
Prep Method: SW5030B
Prep Date/Time: 02/01/10 12:35

Initial Prep Wt./Vol.: 5 mL
Prep Extract Vol.: 5 mL
Container ID:1100319007-C
Analyst: DSH

SGS Ref.#	947497 Method Blank	**Printed Date/Time**	02/05/2010 9:27
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	XXX22245
Project Name/#	3354-010 Red Hill BFSF	**Method**	SW3520C
Matrix	Water (Surface, Eff., Ground)	**Date**	01/29/2010

QC results affect the following production samples:

1100319005, 1100319006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Polynuclear Aromatics GC/MS					
Acenaphthylene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Acenaphthene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Fluorene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Phenanthrene	0.0251 J	0.0500	0.0150	ug/L	02/01/10
Anthracene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Fluoranthene	0.0154 J	0.0500	0.0150	ug/L	02/01/10
Pyrene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Benzo(a)Anthracene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Chrysene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Benzo[b]Fluoranthene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Benzo[k]fluoranthene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Benzo[a]pyrene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Indeno[1,2,3-c,d] pyrene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Dibenzo[a,h]anthracene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Benzo[g,h,i]perylene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Naphthalene	0.0620 U	0.100	0.0310	ug/L	02/01/10
1-Methylnaphthalene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
2-Methylnaphthalene	0.0300 U	0.0500	0.0150	ug/L	02/01/10
Surrogates					
Terphenyl-d14 <surr>	106	50-126		%	02/01/10

Batch XMS5282
Method 8270D SIMS
Instrument HP 6890/5973 MS SVQA

SGS Ref.#	947654 Method Blank	**Printed Date/Time**	02/05/2010 9:27
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	XXX22248
Project Name/#	3354-010 Red Hill BFSF	**Method**	SW3520C
Matrix	Water (Surface, Eff., Ground)	**Date**	02/01/2010

QC results affect the following production samples:

1100319001, 1100319004, 1100319005, 1100319006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	0.300 U	0.400	0.150	mg/L	02/02/10
Surrogates					
5a Androstane <surr>	93.2	60-120		%	02/02/10

Batch XFC9100
Method SW8015C
Instrument HP 7890A FID SV E F

SGS Ref.#	947711 Method Blank	**Printed Date/Time**	02/05/2010 9:27
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	XXX22249
Project Name/#	3354-010 Red Hill BFSF	**Method**	SW3520C
Matrix	Water (Surface, Eff., Ground)	**Date**	02/01/2010

QC results affect the following production samples:

1100319001, 1100319004

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Polynuclear Aromatics GC/MS					
Acenaphthylene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Acenaphthene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Fluorene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Phenanthrene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Anthracene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Fluoranthene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Pyrene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Benzo(a)Anthracene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Chrysene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Benzo[b]Fluoranthene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Benzo[k]fluoranthene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Benzo[a]pyrene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Indeno[1,2,3-c,d] pyrene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Dibenzo[a,h]anthracene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Benzo[g,h,i]perylene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Naphthalene	0.0620 U	0.100	0.0310	ug/L	02/02/10
1-Methylnaphthalene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
2-Methylnaphthalene	0.0300 U	0.0500	0.0150	ug/L	02/02/10
Surrogates					
Terphenyl-d14 <surr>	109	50-126		%	02/02/10

Batch XMS5285
Method 8270D SIMS
Instrument HP 6890/5973 MS SVQA

SGS Ref.#	947724	Method Blank	**Printed Date/Time**	02/05/2010	9:27
Client Name	The Environmental Company, Inc. (TEC)		**Prep Batch**	VXX20441	
Project Name/#	3354-010 Red Hill BFSF		**Method**	SW5030B	
Matrix	Water (Surface, Eff., Ground)		**Date**	02/01/2010	

QC results affect the following production samples:

1100319001, 1100319004, 1100319005, 1100319006, 1100319007

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Volatile Fuels Department					
Gasoline Range Organics	60.0 U	100	30.0	ug/L	02/01/10
Surrogates					
4-Bromofluorobenzene <surr>	104	50-150		%	02/01/10

Batch VFC9852
Method SW8015C
Instrument HP 5890 Series II PID+HECD VBA

SGS Ref.#	947759 Method Blank	**Printed Date/Time**	02/05/2010 9:27
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX20444
Project Name/#	3354-010 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	02/01/2010

QC results affect the following production samples:

1100319001, 1100319004, 1100319005, 1100319006, 1100319007

Parameter	Results	LOQ/CL	DL	Units	Analysis Date

Volatile Gas Chromatography/Mass Spectroscopy

SGS

SGS Ref.#	947759 Method Blank	**Printed Date/Time**	02/05/2010 9:27
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX20444
Project Name/#	3354-010 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	02/01/2010

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Benzene	0.240 U	0.400	0.120	ug/L	02/01/10
Toluene	0.620 U	1.00	0.310	ug/L	02/01/10
Ethylbenzene	0.620 U	1.00	0.310	ug/L	02/01/10
n-Butylbenzene	0.620 U	1.00	0.310	ug/L	02/01/10
1,4-Dichlorobenzene	0.300 U	0.500	0.150	ug/L	02/01/10
1,2-Dichloroethane	0.300 U	0.500	0.150	ug/L	02/01/10
1,3,5-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	02/01/10
4-Chlorotoluene	0.620 U	1.00	0.310	ug/L	02/01/10
Chlorobenzene	0.300 U	0.500	0.150	ug/L	02/01/10
4-Methyl-2-pentanone (MIBK)	6.20 U	10.0	3.10	ug/L	02/01/10
cis-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	02/01/10
4-Isopropyltoluene	0.620 U	1.00	0.310	ug/L	02/01/10
cis-1,3-Dichloropropene	0.300 U	0.500	0.150	ug/L	02/01/10
n-Propylbenzene	0.620 U	1.00	0.310	ug/L	02/01/10
Styrene	0.620 U	1.00	0.310	ug/L	02/01/10
Dibromomethane	0.620 U	1.00	0.310	ug/L	02/01/10
trans-1,3-Dichloropropene	0.620 U	1.00	0.310	ug/L	02/01/10
1,2,4-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	02/01/10
Acetone	6.20 U	10.0	3.10	ug/L	02/01/10
1,1,2,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	02/01/10
1,2-Dibromo-3-chloropropane	1.24 U	2.00	0.620	ug/L	02/01/10
Methyl-t-butyl ether	3.00 U	5.00	1.50	ug/L	02/01/10
Tetrachloroethene	0.620 U	1.00	0.310	ug/L	02/01/10
Dibromochloromethane	0.300 U	0.500	0.150	ug/L	02/01/10
1,3-Dichloropropane	0.240 U	0.400	0.120	ug/L	02/01/10
1,2-Dibromoethane	0.620 U	1.00	0.310	ug/L	02/01/10
Carbon tetrachloride	0.620 U	1.00	0.310	ug/L	02/01/10
1,1,1,2-Tetrachloroethane	0.300 U	0.500	0.150	ug/L	02/01/10
Chloroform	0.600 U	1.00	0.300	ug/L	02/01/10
Bromobenzene	0.620 U	1.00	0.310	ug/L	02/01/10
Chloromethane	0.620 U	1.00	0.310	ug/L	02/01/10
1,2,3-Trichloropropane	0.620 U	1.00	0.310	ug/L	02/01/10
Bromomethane	1.88 U	3.00	0.940	ug/L	02/01/10
Bromochloromethane	0.620 U	1.00	0.310	ug/L	02/01/10
Vinyl chloride	0.620 U	1.00	0.310	ug/L	02/01/10
Dichlorodifluoromethane	0.620 U	1.00	0.310	ug/L	02/01/10
Chloroethane	0.620 U	1.00	0.310	ug/L	02/01/10
sec-Butylbenzene	0.620 U	1.00	0.310	ug/L	02/01/10
Bromodichloromethane	0.300 U	0.500	0.150	ug/L	02/01/10

SGS Ref.#	947759 Method Blank	**Printed Date/Time**	02/05/2010 9:27
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	VXX20444
Project Name/#	3354-010 Red Hill BFSF	**Method**	SW5030B
Matrix	Water (Surface, Eff., Ground)	**Date**	02/01/2010

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
1,1-Dichloroethene	0.620 U	1.00	0.310	ug/L	02/01/10
2-Butanone (MEK)	6.20 U	10.0	3.10	ug/L	02/01/10
Methylene chloride	2.00 U	5.00	1.00	ug/L	02/01/10
Trichlorofluoromethane	0.620 U	1.00	0.310	ug/L	02/01/10
P & M -Xylene	1.24 U	2.00	0.620	ug/L	02/01/10
Naphthalene	1.24 U	2.00	0.620	ug/L	02/01/10
o-Xylene	0.620 U	1.00	0.310	ug/L	02/01/10
Bromoform	0.620 U	1.00	0.310	ug/L	02/01/10
1-Chlorohexane	0.620 U	1.00	0.310	ug/L	02/01/10
1,2,4-Trimethylbenzene	0.620 U	1.00	0.310	ug/L	02/01/10
tert-Butylbenzene	0.620 U	1.00	0.310	ug/L	02/01/10
1,1,1-Trichloroethane	0.620 U	1.00	0.310	ug/L	02/01/10
1,1-Dichloroethane	0.620 U	1.00	0.310	ug/L	02/01/10
2-Chlorotoluene	0.620 U	1.00	0.310	ug/L	02/01/10
Trichloroethene	0.620 U	1.00	0.310	ug/L	02/01/10
trans-1,2-Dichloroethene	0.620 U	1.00	0.310	ug/L	02/01/10
1,2-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	02/01/10
2,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	02/01/10
Hexachlorobutadiene	0.620 U	1.00	0.310	ug/L	02/01/10
Isopropylbenzene (Cumene)	0.620 U	1.00	0.310	ug/L	02/01/10
1,2-Dichloropropane	0.620 U	1.00	0.310	ug/L	02/01/10
1,1-Dichloropropene	0.620 U	1.00	0.310	ug/L	02/01/10
1,1,2-Trichloroethane	0.620 U	1.00	0.310	ug/L	02/01/10
1,3-Dichlorobenzene	0.620 U	1.00	0.310	ug/L	02/01/10
1,2,3-Trichlorobenzene	0.620 U	1.00	0.310	ug/L	02/01/10
Xylenes (total)	2.00 U	2.00	1.00	ug/L	02/01/10
Surrogates					
1,2-Dichloroethane-D4 <surr>	100	73-120		%	02/01/10
Toluene-d8 <surr>	99.1	80-120		%	02/01/10
4-Bromofluorobenzene <surr>	103	76-120		%	02/01/10

Batch VMS11092
Method SW8260B
Instrument HP 5890 Series II MS1 VJA

SGS Ref.#	947859	Method Blank	**Printed Date/Time**	02/05/2010	9:27
Client Name	The Environmental Company, Inc. (TEC)		**Prep** **Batch**	MXX22713	
Project Name/#	3354-010 Red Hill BFSF		**Method**	SW3010A	
Matrix	Water (Surface, Eff., Ground)		**Date**	02/01/2010	

QC results affect the following production samples:

1100319004, 1100319005

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Metals by ICP/MS					
Lead	0.620 U	1.00	0.310	ug/L	02/02/10
Batch	MMS6300				
Method	SW6020				
Instrument	Perkin Elmer Sciex ICP-MS P3				

SGS Ref.#	947864 Method Blank	**Printed Date/Time**	02/05/2010 9:27
Client Name	The Environmental Company, Inc. (TEC)	**Prep Batch**	MXX22714
Project Name/#	3354-010 Red Hill BFSF	**Method**	SW3010A
Matrix	Water (Surface, Eff., Ground)	**Date**	02/01/2010

QC results affect the following production samples:

1100319001, 1100319006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Metals by ICP/MS					
Lead	0.620 U	1.00	0.310	ug/L	02/02/10
Batch	MMS6300				
Method	SW6020				
Instrument	Perkin Elmer Sciex ICP-MS P3				

SGS Ref.#	947498	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947499	Lab Control Sample Duplicate	**Prep Batch**	XXX22245	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-010 Red Hill BFSF		**Date**	01/29/2010	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1100319005, 1100319006

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polynuclear Aromatics GC/MS								
Acenaphthylene	LCS	0.421	84	(50-101)			0.5 ug/L	02/01/2010
	LCSD	0.394	79		7	(< 30)	0.5 ug/L	02/01/2010
Acenaphthene	LCS	0.414	83	(45-93)			0.5 ug/L	02/01/2010
	LCSD	0.393	79		5	(< 30)	0.5 ug/L	02/01/2010
Fluorene	LCS	0.418	84	(50-98)			0.5 ug/L	02/01/2010
	LCSD	0.415	83		1	(< 30)	0.5 ug/L	02/01/2010
Phenanthrene	LCS	0.426	85	(50-104)			0.5 ug/L	02/01/2010
	LCSD	0.409	82		4	(< 30)	0.5 ug/L	02/01/2010
Anthracene	LCS	0.421	84	(55-105)			0.5 ug/L	02/01/2010
	LCSD	0.405	81		4	(< 30)	0.5 ug/L	02/01/2010
Fluoranthene	LCS	0.479	96	(58-109)			0.5 ug/L	02/01/2010
	LCSD	0.472	95		2	(< 30)	0.5 ug/L	02/01/2010
Pyrene	LCS	0.461	92	(56-105)			0.5 ug/L	02/01/2010
	LCSD	0.458	92		1	(< 30)	0.5 ug/L	02/01/2010
Benzo(a)Anthracene	LCS	0.520	104	(55-120)			0.5 ug/L	02/01/2010
	LCSD	0.513	103		1	(< 30)	0.5 ug/L	02/01/2010
Chrysene	LCS	0.469	94	(56-109)			0.5 ug/L	02/01/2010
	LCSD	0.457	91		3	(< 30)	0.5 ug/L	02/01/2010
Benzo[b]Fluoranthene	LCS	0.535	107	(45-120)			0.5 ug/L	02/01/2010
	LCSD	0.519	104		3	(< 30)	0.5 ug/L	02/01/2010
Benzo[k]fluoranthene	LCS	0.515	103	(56-112)			0.5 ug/L	02/01/2010
	LCSD	0.508	102		1	(< 30)	0.5 ug/L	02/01/2010
Benzo[a]pyrene	LCS	0.545	109	(57-110)			0.5 ug/L	02/01/2010
	LCSD	0.551	110		1	(< 30)	0.5 ug/L	02/01/2010
Indeno[1,2,3-c,d] pyrene	LCS	0.496	99	(55-111)			0.5 ug/L	02/01/2010
	LCSD	0.485	97		2	(< 30)	0.5 ug/L	02/01/2010

SGS Ref.#	947498	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947499	Lab Control Sample Duplicate	**Prep Batch**	XXX22245	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-010 Red Hill BFSF		**Date**	01/29/2010	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polynuclear Aromatics GC/MS								
Dibenzo[a,h]anthracene	LCS	0.483	97	(54-113)			0.5 ug/L	02/01/2010
	LCSD	0.488	98		1	(< 30)	0.5 ug/L	02/01/2010
Benzo[g,h,i]perylene	LCS	0.482	96	(49-116)			0.5 ug/L	02/01/2010
	LCSD	0.494	99		2	(< 30)	0.5 ug/L	02/01/2010
Naphthalene	LCS	0.382	77	(44-89)			0.5 ug/L	02/01/2010
	LCSD	0.379	76		1	(< 30)	0.5 ug/L	02/01/2010
1-Methylnaphthalene	LCS	0.394	79	(42-92)			0.5 ug/L	02/01/2010
	LCSD	0.401	80		2	(< 30)	0.5 ug/L	02/01/2010
2-Methylnaphthalene	LCS	0.365	73	(45-89)			0.5 ug/L	02/01/2010
	LCSD	0.364	73		0	(< 30)	0.5 ug/L	02/01/2010
Surrogates								
Terphenyl-d14 <surr>	LCS		98	(50-126)				02/01/2010
	LCSD		106		8			02/01/2010

Batch XMS5282
Method 8270D SIMS
Instrument HP 6890/5973 MS SVQA

SGS Ref.#	947712	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
			Prep Batch	XXX22249	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1100319001, 1100319004

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

Polynuclear Aromatics GC/MS

SGS Ref.#	947712	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
			Prep Batch	XXX22249	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
Matrix	Water (Surface, Eff., Ground)				

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polynuclear Aromatics GC/MS								
Acenaphthylene	LCS	0.403	81	(50-101)			0.5 ug/L	02/02/2010
Acenaphthene	LCS	0.406	81	(45-93)			0.5 ug/L	02/02/2010
Fluorene	LCS	0.421	84	(50-98)			0.5 ug/L	02/02/2010
Phenanthrene	LCS	0.434	87	(50-104)			0.5 ug/L	02/02/2010
Anthracene	LCS	0.437	87	(55-105)			0.5 ug/L	02/02/2010
Fluoranthene	LCS	0.512	102	(58-109)			0.5 ug/L	02/02/2010
Pyrene	LCS	0.491	98	(56-105)			0.5 ug/L	02/02/2010
Benzo(a)Anthracene	LCS	0.523	105	(55-120)			0.5 ug/L	02/02/2010
Chrysene	LCS	0.464	93	(56-109)			0.5 ug/L	02/02/2010
Benzo[b]Fluoranthene	LCS	0.481	96	(45-120)			0.5 ug/L	02/02/2010
Benzo[k]fluoranthene	LCS	0.493	99	(56-112)			0.5 ug/L	02/02/2010
Benzo[a]pyrene	LCS	0.507	101	(57-110)			0.5 ug/L	02/02/2010
Indeno[1,2,3-c,d] pyrene	LCS	0.456	91	(55-111)			0.5 ug/L	02/02/2010
Dibenzo[a,h]anthracene	LCS	0.461	92	(54-113)			0.5 ug/L	02/02/2010
Benzo[g,h,i]perylene	LCS	0.439	88	(49-116)			0.5 ug/L	02/02/2010
Naphthalene	LCS	0.354	71	(44-89)			0.5 ug/L	02/02/2010
1-Methylnaphthalene	LCS	0.385	77	(42-92)			0.5 ug/L	02/02/2010
2-Methylnaphthalene	LCS	0.363	73	(45-89)			0.5 ug/L	02/02/2010
Surrogates								
Terphenyl-d14 <surr>	LCS		103	(50-126)				02/02/2010

SGS Ref.#	947712 Lab Control Sample	**Printed Date/Time**		02/05/2010	9:27
		Prep	**Batch**	XXX22249	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
Matrix	Water (Surface, Eff., Ground)				

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

Polynuclear Aromatics GC/MS

Batch	XMS5285
Method	8270D SIMS
Instrument	HP 6890/5973 MS SVQA

SGS Ref.#	947725	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947726	Lab Control Sample Duplicate	**Prep Batch**	VXX20441	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1100319001, 1100319004, 1100319005, 1100319006, 1100319007

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Fuels Department								
Gasoline Range Organics	LCS	210	105	(79-108)			200 ug/L	02/01/2010
	LCSD	199	100		5	(< 20)	200 ug/L	02/01/2010
Surrogates								
4-Bromofluorobenzene <surr>	LCS		103	(50-150)				02/01/2010
	LCSD		103		0			02/01/2010

Batch VFC9852
Method SW8015C
Instrument HP 5890 Series II PID+HECD VBA

SGS Ref.#	947760	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947761	Lab Control Sample Duplicate	**Prep Batch**	VXX20444	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1100319001, 1100319004, 1100319005, 1100319006, 1100319007

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

Volatile Gas Chromatography/Mass Spectroscopy

SGS Ref.#	947760	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947761	Lab Control Sample Duplicate	**Prep Batch**	VXX20444	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
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								
Benzene	LCS	29.9	100	(80-120)			30 ug/L	02/01/2010
	LCSD	28.5	95		5	(< 20)	30 ug/L	02/01/2010
Toluene	LCS	31.3	104	(77-120)			30 ug/L	02/01/2010
	LCSD	29.7	99		5	(< 20)	30 ug/L	02/01/2010
Ethylbenzene	LCS	31.4	105	(80-120)			30 ug/L	02/01/2010
	LCSD	29.5	98		6	(< 20)	30 ug/L	02/01/2010
n-Butylbenzene	LCS	34.9	116	(80-124)			30 ug/L	02/01/2010
	LCSD	33.1	110		5	(< 20)	30 ug/L	02/01/2010
1,4-Dichlorobenzene	LCS	32.0	107	(80-120)			30 ug/L	02/01/2010
	LCSD	30.3	101		6	(< 20)	30 ug/L	02/01/2010
1,2-Dichloroethane	LCS	30.9	103	(80-129)			30 ug/L	02/01/2010
	LCSD	30.6	102		1	(< 20)	30 ug/L	02/01/2010
1,3,5-Trimethylbenzene	LCS	33.8	113	(80-128)			30 ug/L	02/01/2010
	LCSD	31.9	106		6	(< 20)	30 ug/L	02/01/2010
4-Chlorotoluene	LCS	34.1	114	(79-128)			30 ug/L	02/01/2010
	LCSD	32.3	108		5	(< 20)	30 ug/L	02/01/2010
Chlorobenzene	LCS	31.1	104	(80-120)			30 ug/L	02/01/2010
	LCSD	29.5	98		5	(< 20)	30 ug/L	02/01/2010
4-Methyl-2-pentanone (MIBK)	LCS	90.5	101	(69-134)			90 ug/L	02/01/2010
	LCSD	97.4	108		7	(< 20)	90 ug/L	02/01/2010
cis-1,2-Dichloroethene	LCS	29.8	99	(80-125)			30 ug/L	02/01/2010
	LCSD	28.1	94		6	(< 20)	30 ug/L	02/01/2010
4-Isopropyltoluene	LCS	34.2	114	(80-125)			30 ug/L	02/01/2010
	LCSD	32.0	107		7	(< 20)	30 ug/L	02/01/2010
cis-1,3-Dichloropropene	LCS	33.9	113	(80-120)			30 ug/L	02/01/2010
	LCSD	32.9	110		3	(< 20)	30 ug/L	02/01/2010
n-Propylbenzene	LCS	34.0	113	(80-129)			30 ug/L	02/01/2010
	LCSD	32.0	107		6	(< 20)	30 ug/L	02/01/2010

SGS Ref.#	947760	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947761	Lab Control Sample Duplicate	**Prep Batch**	VXX20444	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
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								
Styrene	LCS	31.8	106	(80-120)			30 ug/L	02/01/2010
	LCSD	30.1	100		5	(< 20)	30 ug/L	02/01/2010
Dibromomethane	LCS	30.4	101	(80-120)			30 ug/L	02/01/2010
	LCSD	30.8	103		1	(< 20)	30 ug/L	02/01/2010
trans-1,3-Dichloropropene	LCS	32.5	108	(80-124)			30 ug/L	02/01/2010
	LCSD	32.4	108		1	(< 20)	30 ug/L	02/01/2010
1,2,4-Trichlorobenzene	LCS	31.5	105	(80-120)			30 ug/L	02/01/2010
	LCSD	31.4	105		0	(< 20)	30 ug/L	02/01/2010
Acetone	LCS	72.4	80	(50-135)			90 ug/L	02/01/2010
	LCSD	88.5	98		20	(< 20)	90 ug/L	02/01/2010
1,1,2,2-Tetrachloroethane	LCS	32.7	109	(76-123)			30 ug/L	02/01/2010
	LCSD	33.7	112		3	(< 20)	30 ug/L	02/01/2010
1,2-Dibromo-3-chloropropane	LCS	33.1	110	(73-130)			30 ug/L	02/01/2010
	LCSD	36.5	122		10	(< 20)	30 ug/L	02/01/2010
Methyl-t-butyl ether	LCS	52.3	116	(80-120)			45 ug/L	02/01/2010
	LCSD	53.2	118		2	(< 20)	45 ug/L	02/01/2010
Tetrachloroethene	LCS	31.2	104	(79-122)			30 ug/L	02/01/2010
	LCSD	28.9	96		8	(< 20)	30 ug/L	02/01/2010
Dibromochloromethane	LCS	28.7	96	(80-120)			30 ug/L	02/01/2010
	LCSD	28.4	95		1	(< 20)	30 ug/L	02/01/2010
1,3-Dichloropropane	LCS	32.7	109	(80-121)			30 ug/L	02/01/2010
	LCSD	32.3	108		1	(< 20)	30 ug/L	02/01/2010
1,2-Dibromoethane	LCS	31.7	106	(80-120)			30 ug/L	02/01/2010
	LCSD	31.8	106		0	(< 20)	30 ug/L	02/01/2010
Carbon tetrachloride	LCS	31.7	106	(80-126)			30 ug/L	02/01/2010
	LCSD	29.4	98		8	(< 20)	30 ug/L	02/01/2010
1,1,1,2-Tetrachloroethane	LCS	33.5	112	(80-120)			30 ug/L	02/01/2010

SGS Ref.#	947760	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947761	Lab Control Sample Duplicate	**Prep Batch**	VXX20444	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
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								
	LCSD	31.6	105		6	(< 20)	30 ug/L	02/01/2010
Chloroform	LCS	30.1	100	(80-124)			30 ug/L	02/01/2010
	LCSD	28.4	95		6	(< 20)	30 ug/L	02/01/2010
Bromobenzene	LCS	31.1	104	(80-120)			30 ug/L	02/01/2010
	LCSD	30.1	100		3	(< 20)	30 ug/L	02/01/2010
Chloromethane	LCS	32.1	107	(67-125)			30 ug/L	02/01/2010
	LCSD	32.3	108		1	(< 20)	30 ug/L	02/01/2010
1,2,3-Trichloropropane	LCS	31.4	105	(80-120)			30 ug/L	02/01/2010
	LCSD	32.0	107		2	(< 20)	30 ug/L	02/01/2010
Bromomethane	LCS	27.6	92	(30-140)			30 ug/L	02/01/2010
	LCSD	29.6	99		7	(< 20)	30 ug/L	02/01/2010
Bromochloromethane	LCS	28.0	94	(77-129)			30 ug/L	02/01/2010
	LCSD	27.1	90		3	(< 20)	30 ug/L	02/01/2010
Vinyl chloride	LCS	28.3	94	(72-145)			30 ug/L	02/01/2010
	LCSD	28.0	93		1	(< 20)	30 ug/L	02/01/2010
Dichlorodifluoromethane	LCS	32.7	109	(62-153)			30 ug/L	02/01/2010
	LCSD	32.0	107		2	(< 20)	30 ug/L	02/01/2010
Chloroethane	LCS	29.2	97	(67-133)			30 ug/L	02/01/2010
	LCSD	27.8	93		5	(< 20)	30 ug/L	02/01/2010
sec-Butylbenzene	LCS	33.8	113	(80-120)			30 ug/L	02/01/2010
	LCSD	32.0	107		6	(< 20)	30 ug/L	02/01/2010
Bromodichloromethane	LCS	32.8	109	(80-120)			30 ug/L	02/01/2010
	LCSD	31.9	106		3	(< 20)	30 ug/L	02/01/2010
1,1-Dichloroethene	LCS	27.2	91	(76-130)			30 ug/L	02/01/2010
	LCSD	25.8	86		5	(< 20)	30 ug/L	02/01/2010
2-Butanone (MEK)	LCS	88.7	99	(66-136)			90 ug/L	02/01/2010
	LCSD	99.9	111		12	(< 20)	90 ug/L	02/01/2010

SGS Ref.#	947760	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947761	Lab Control Sample Duplicate	**Prep Batch**	VXX20444	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
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								
Methylene chloride	LCS	25.9	86	(63-131)			30 ug/L	02/01/2010
	LCSD	25.1	84		3	(< 20)	30 ug/L	02/01/2010
Trichlorofluoromethane	LCS	29.0	97	(68-145)			30 ug/L	02/01/2010
	LCSD	27.4	91		6	(< 20)	30 ug/L	02/01/2010
P & M -Xylene	LCS	64.8	108	(80-120)			60 ug/L	02/01/2010
	LCSD	61.0	102		6	(< 20)	60 ug/L	02/01/2010
Naphthalene	LCS	31.6	105	(75-120)			30 ug/L	02/01/2010
	LCSD	34.3	114		8	(< 20)	30 ug/L	02/01/2010
o-Xylene	LCS	30.9	103	(80-120)			30 ug/L	02/01/2010
	LCSD	29.1	97		6	(< 20)	30 ug/L	02/01/2010
Bromoform	LCS	30.1	100	(80-120)			30 ug/L	02/01/2010
	LCSD	29.6	99		2	(< 20)	30 ug/L	02/01/2010
1-Chlorohexane	LCS	48.4	108	(70-125)			45 ug/L	02/01/2010
	LCSD	45.2	101		7	(< 20)	45 ug/L	02/01/2010
1,2,4-Trimethylbenzene	LCS	33.6	112	(80-125)			30 ug/L	02/01/2010
	LCSD	31.9	106		5	(< 20)	30 ug/L	02/01/2010
tert-Butylbenzene	LCS	32.9	110	(80-122)			30 ug/L	02/01/2010
	LCSD	30.8	103		7	(< 20)	30 ug/L	02/01/2010
1,1,1-Trichloroethane	LCS	31.8	106	(80-122)			30 ug/L	02/01/2010
	LCSD	29.8	100		7	(< 20)	30 ug/L	02/01/2010
1,1-Dichloroethane	LCS	36.0	120	(80-120)			30 ug/L	02/01/2010
	LCSD	34.2	114		5	(< 20)	30 ug/L	02/01/2010
2-Chlorotoluene	LCS	33.5	112	(80-125)			30 ug/L	02/01/2010
	LCSD	31.7	106		6	(< 20)	30 ug/L	02/01/2010
Trichloroethene	LCS	31.3	104	(80-125)			30 ug/L	02/01/2010
	LCSD	29.6	99		5	(< 20)	30 ug/L	02/01/2010
trans-1,2-Dichloroethene	LCS	31.9	106	(79-132)			30 ug/L	02/01/2010
	LCSD	30.3	101		5	(< 20)	30 ug/L	02/01/2010

SGS Ref.#	947760	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947761	Lab Control Sample Duplicate	**Prep Batch**	VXX20444	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
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-Dichlorobenzene	LCS	31.2	104	(80-120)			30 ug/L	02/01/2010
	LCSD	30.2	101		3	(< 20)	30 ug/L	02/01/2010
2,2-Dichloropropane	LCS	32.4	108	(80-132)			30 ug/L	02/01/2010
	LCSD	30.5	102		6	(< 20)	30 ug/L	02/01/2010
Hexachlorobutadiene	LCS	31.1	104	(77-125)			30 ug/L	02/01/2010
	LCSD	29.7	99		5	(< 20)	30 ug/L	02/01/2010
Isopropylbenzene (Cumene)	LCS	32.8	109	(80-121)			30 ug/L	02/01/2010
	LCSD	30.7	102		7	(< 20)	30 ug/L	02/01/2010
1,2-Dichloropropane	LCS	33.2	111	(80-121)			30 ug/L	02/01/2010
	LCSD	31.8	106		4	(< 20)	30 ug/L	02/01/2010
1,1-Dichloropropene	LCS	32.7	109	(80-122)			30 ug/L	02/01/2010
	LCSD	30.7	102		6	(< 20)	30 ug/L	02/01/2010
1,1,2-Trichloroethane	LCS	32.0	107	(77-120)			30 ug/L	02/01/2010
	LCSD	31.9	106		0	(< 20)	30 ug/L	02/01/2010
1,3-Dichlorobenzene	LCS	32.1	107	(80-120)			30 ug/L	02/01/2010
	LCSD	30.4	101		5	(< 20)	30 ug/L	02/01/2010
1,2,3-Trichlorobenzene	LCS	29.7	99	(77-120)			30 ug/L	02/01/2010
	LCSD	30.7	102		3	(< 20)	30 ug/L	02/01/2010
Xylenes (total)	LCS	95.6	106	(80-120)			90 ug/L	02/01/2010
	LCSD	90.1	100		6	(< 20)	90 ug/L	02/01/2010
Surrogates								
1,2-Dichloroethane-D4 <surr>	LCS		97	(73-120)				02/01/2010
	LCSD		99		3			02/01/2010
Toluene-d8 <surr>	LCS		97	(80-120)				02/01/2010
	LCSD		96		1			02/01/2010
4-Bromofluorobenzene <surr>	LCS		103	(76-120)				02/01/2010
	LCSD		103		1			02/01/2010

SGS Ref.#	947760	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
	947761	Lab Control Sample Duplicate	**Prep Batch**	VXX20444	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW5030B	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
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

Batch	VMS11092
Method	SW8260B
Instrument	HP 5890 Series II MS1 VJA

SGS Ref.#	947860	Lab Control Sample	**Printed Date/Time**	02/05/2010 9:27
			Prep Batch	MXX22713
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3010A
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010
Matrix	Water (Surface, Eff., Ground)			

QC results affect the following production samples:

1100319004, 1100319005

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Metals by ICP/MS								
Lead	LCS	1030	103	(80-120)			1000 ug/L	02/02/2010

Batch MMS6300
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3

SGS Ref.#	947865	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
			Prep Batch	MXX22714	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3010A	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1100319001, 1100319006

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Metals by ICP/MS								
Lead	LCS	1020	102	(80-120)			1000 ug/L	02/02/2010

Batch MMS6300
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3

SGS Ref.#	947982	Lab Control Sample	**Printed Date/Time**	02/05/2010	9:27
			Prep Batch	XXX22248	
Client Name	The Environmental Company, Inc. (TEC)		**Method**	SW3520C	
Project Name/#	3354-010 Red Hill BFSF		**Date**	02/01/2010	
Matrix	Water (Surface, Eff., Ground)				

QC results affect the following production samples:

1100319001, 1100319004, 1100319005, 1100319006

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Semivolatile Organic Fuels Department								
Diesel Range Organics	LCS	4.84	97	(75-125)			5 mg/L	02/02/2010
Surrogates								
5a Androstane <surr>	LCS		98	(60-120)				02/02/2010

Batch	XFC9100	
Method	SW8015C	
Instrument	HP 7890A	FID SV E F

SGS Ref.#	947861	Matrix Spike	**Printed Date/Time**	02/05/2010 9:27
	947862	Matrix Spike Duplicate	**Prep Batch**	MXX22713
			Method	3010 H20 Digest for Metals ICI
			Date	02/01/2010
Original	1100328001			
Matrix	Water (Surface, Eff., Ground)			

QC results affect the following production samples:

1100319004, 1100319005

Parameter	Qualifiers		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount		Analysis Date
Metals by ICP/MS											
Lead		MS	(0.620) U	1050	105	(80-120)			1000	ug/L	02/02/2010
		MSD		1010	101		4	(< 15)	1000	ug/L	02/02/2010

Batch	MMS6300
Method	SW6020
Instrument	Perkin Elmer Sciex ICP-MS P3

SGS Ref.#	1100319002	Billable Matrix Spike	**Printed Date/Time**	02/05/2010 9:27
	1100319003	Billable Matrix Spike Dup.	**Prep Batch**	MXX22714
			Method	3010 H20 Digest for Metals ICI
			Date	02/01/2010
Original	1100319001			
Matrix	Water (Surface, Eff., Ground)			

QC results affect the following production samples:

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount		Analysis Date
Dissolved Metals by ICP/MS										
Lead	BMS	(0.620) U	985	99	(80-120)			1000	ug/L	02/02/2010
	BMSD		1010	101		3	(< 15)	1000	ug/L	02/02/2010
Batch	MMS6300									
Method	SW6020									
Instrument	Perkin Elmer Sciex ICP-MS P3									
Volatile Fuels Department										
Gasoline Range Organics	BMS	(60.0) U	494	110*	(79-108)			450	ug/L	02/01/2010
	BMSD		498	111*		1	(< 20)	450	ug/L	02/01/2010
Surrogates										
4-Bromofluorobenzene <surr>	BMS		57.9	116	(50-150)					02/01/2010
	BMSD		53.5	107		8				02/01/2010
Batch	VFC9852									
Method	SW8015C									
Instrument	HP 5890 Series II PID+HECD VBA									
Semivolatile Organic Fuels Department										
Diesel Range Organics	BMS	1.49	5.83	80	(75-125)			5.43	mg/L	02/02/2010
	BMSD		6.19	84		6	(< 30)	5.62	mg/L	02/02/2010
Surrogates										
5a Androstane <surr>	BMS		.0941	87	(50-150)					02/02/2010
	BMSD		0.0948	84		1				02/02/2010
Batch	XFC9100									
Method	SW8015C									
Instrument	HP 7890A	FID SV E F								
Volatile Gas Chromatography/Mass Spectroscopy										

SGS

SGS Ref.#	1100319002	Billable Matrix Spike	**Printed Date/Time**	02/05/2010 9:27
	1100319003	Billable Matrix Spike Dup.	**Prep Batch**	VXX20444
			Method	Volatiles Extraction AFCEE 3.1
			Date	02/01/2010
Original	1100319001			
Matrix	Water (Surface, Eff., Ground)			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	BMS	(0.240) U	31.9	106	(80-120)			30.0 ug/L	02/01/2010
	BMSD		31.4	105		1	(< 20)	30.0 ug/L	02/01/2010
Toluene	BMS	(0.620) U	33.7	112	(77-120)			30.0 ug/L	02/01/2010
	BMSD		33.3	111		1	(< 20)	30.0 ug/L	02/01/2010
Ethylbenzene	BMS	(0.620) U	33.4	111	(80-120)			30.0 ug/L	02/01/2010
	BMSD		33.1	110		1	(< 20)	30.0 ug/L	02/01/2010
n-Butylbenzene	BMS	(0.620) U	36.5	122	(80-124)			30.0 ug/L	02/01/2010
	BMSD		37.1	124		2	(< 20)	30.0 ug/L	02/01/2010
1,4-Dichlorobenzene	BMS	(0.300) U	33.6	112	(80-120)			30.0 ug/L	02/01/2010
	BMSD		34.0	113		1	(< 20)	30.0 ug/L	02/01/2010
1,2-Dichloroethane	BMS	(0.300) U	33.5	112	(80-129)			30.0 ug/L	02/01/2010
	BMSD		33.5	112		0	(< 20)	30.0 ug/L	02/01/2010
1,3,5-Trimethylbenzene	BMS	(0.620) U	35.2	117	(80-128)			30.0 ug/L	02/01/2010
	BMSD		35.6	119		1	(< 20)	30.0 ug/L	02/01/2010
4-Chlorotoluene	BMS	(0.620) U	35.3	118	(79-128)			30.0 ug/L	02/01/2010
	BMSD		36.4	121		3	(< 20)	30.0 ug/L	02/01/2010
Chlorobenzene	BMS	(0.300) U	33.2	111	(80-120)			30.0 ug/L	02/01/2010
	BMSD		32.9	110		1	(< 20)	30.0 ug/L	02/01/2010
4-Methyl-2-pentanone (MIBK)	BMS	(6.20) U	104	116	(69-134)			90.0 ug/L	02/01/2010
	BMSD		98.0	109		6	(< 20)	90.0 ug/L	02/01/2010
cis-1,2-Dichloroethene	BMS	(0.620) U	30.7	102	(80-125)			30.0 ug/L	02/01/2010
	BMSD		31.1	104		1	(< 20)	30.0 ug/L	02/01/2010
4-Isopropyltoluene	BMS	(0.620) U	35.8	119	(80-125)			30.0 ug/L	02/01/2010
	BMSD		36.2	121		1	(< 20)	30.0 ug/L	02/01/2010
cis-1,3-Dichloropropene	BMS	(0.300) U	36.5	122*	(80-120)			30.0 ug/L	02/01/2010
	BMSD		35.8	119		2	(< 20)	30.0 ug/L	02/01/2010
n-Propylbenzene	BMS	(0.620) U	35.1	117	(80-129)			30.0 ug/L	02/01/2010
	BMSD		36.0	120		3	(< 20)	30.0 ug/L	02/01/2010
Styrene	BMS	(0.620) U	33.3	111	(80-120)			30.0 ug/L	02/01/2010
	BMSD		32.8	109		1	(< 20)	30.0 ug/L	02/01/2010
Dibromomethane	BMS	(0.620) U	33	110	(80-120)			30.0 ug/L	02/01/2010
	BMSD		32.9	110		1	(< 20)	30.0 ug/L	02/01/2010
trans-1,3-Dichloropropene	BMS	(0.620) U	34.9	116	(80-124)			30.0 ug/L	02/01/2010
	BMSD		35.2	117		1	(< 20)	30.0 ug/L	02/01/2010
1,2,4-Trichlorobenzene	BMS	(0.620) U	34.4	115	(80-120)			30.0 ug/L	02/01/2010
	BMSD		34.3	114		0	(< 20)	30.0 ug/L	02/01/2010
Acetone	BMS	(6.20) U	88.4	98	(50-135)			90.0 ug/L	02/01/2010
	BMSD		91.6	102		4	(< 20)	90.0 ug/L	02/01/2010
1,1,2,2-Tetrachloroethane	BMS	(0.300) U	35.8	119	(76-123)			30.0 ug/L	02/01/2010
	BMSD		35.9	120		0	(< 20)	30.0 ug/L	02/01/2010

SGS

SGS Ref.#	1100319002	Billable Matrix Spike	**Printed Date/Time**	02/05/2010 9:27
	1100319003	Billable Matrix Spike Dup.	**Prep Batch**	VXX20444
			Method	Volatiles Extraction AFCEE 3.1
			Date	02/01/2010
Original	1100319001			
Matrix	Water (Surface, Eff., Ground)			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,2-Dibromo-3-chloropropane	BMS	(1.24) U	37.7	126	(73-130)			30.0 ug/L	02/01/2010
	BMSD		36.9	123		2	(< 20)	30.0 ug/L	02/01/2010
Methyl-t-butyl ether	BMS	(3.00) U	56.4	125*	(80-120)			45.0 ug/L	02/01/2010
	BMSD		55.7	124*		1	(< 20)	45.0 ug/L	02/01/2010
Tetrachloroethene	BMS	(0.620) U	33.4	111	(79-122)			30.0 ug/L	02/01/2010
	BMSD		32.6	109		2	(< 20)	30.0 ug/L	02/01/2010
Dibromochloromethane	BMS	(0.300) U	31.3	104	(80-120)			30.0 ug/L	02/01/2010
	BMSD		30.4	101		3	(< 20)	30.0 ug/L	02/01/2010
1,3-Dichloropropane	BMS	(0.240) U	35	117	(80-121)			30.0 ug/L	02/01/2010
	BMSD		34.4	115		2	(< 20)	30.0 ug/L	02/01/2010
1,2-Dibromoethane	BMS	(0.620) U	33.8	113	(80-120)			30.0 ug/L	02/01/2010
	BMSD		33.8	113		0	(< 20)	30.0 ug/L	02/01/2010
Carbon tetrachloride	BMS	(0.620) U	33.4	111	(80-126)			30.0 ug/L	02/01/2010
	BMSD		33.1	110		1	(< 20)	30.0 ug/L	02/01/2010
1,1,1,2-Tetrachloroethane	BMS	(0.300) U	35.2	117	(80-120)			30.0 ug/L	02/01/2010
	BMSD		34.8	116		1	(< 20)	30.0 ug/L	02/01/2010
Chloroform	BMS	(0.600) U	31.8	106	(80-124)			30.0 ug/L	02/01/2010
	BMSD		31.8	106		0	(< 20)	30.0 ug/L	02/01/2010
Bromobenzene	BMS	(0.620) U	32.6	109	(80-120)			30.0 ug/L	02/01/2010
	BMSD		33.0	110		2	(< 20)	30.0 ug/L	02/01/2010
Chloromethane	BMS	(0.620) U	36.3	121	(67-125)			30.0 ug/L	02/01/2010
	BMSD		35.8	119		1	(< 20)	30.0 ug/L	02/01/2010
1,2,3-Trichloropropane	BMS	(0.620) U	33.2	111	(80-120)			30.0 ug/L	02/01/2010
	BMSD		33.6	112		1	(< 20)	30.0 ug/L	02/01/2010
Bromomethane	BMS	(1.88) U	33.9	113	(30-140)			30.0 ug/L	02/01/2010
	BMSD		35.6	119		5	(< 20)	30.0 ug/L	02/01/2010
Bromochloromethane	BMS	(0.620) U	29.1	97	(77-129)			30.0 ug/L	02/01/2010
	BMSD		29.3	98		1	(< 20)	30.0 ug/L	02/01/2010
Vinyl chloride	BMS	(0.620) U	30.6	102	(72-145)			30.0 ug/L	02/01/2010
	BMSD		30.8	103		1	(< 20)	30.0 ug/L	02/01/2010
Dichlorodifluoromethane	BMS	(0.620) U	35.9	120	(62-153)			30.0 ug/L	02/01/2010
	BMSD		35.9	120		0	(< 20)	30.0 ug/L	02/01/2010
Chloroethane	BMS	(0.620) U	30.3	101	(67-133)			30.0 ug/L	02/01/2010
	BMSD		30.5	102		1	(< 20)	30.0 ug/L	02/01/2010
sec-Butylbenzene	BMS	(0.620) U	35.5	118	(80-120)			30.0 ug/L	02/01/2010
	BMSD		36.0	120		1	(< 20)	30.0 ug/L	02/01/2010
Bromodichloromethane	BMS	(0.300) U	34.9	116	(80-120)			30.0 ug/L	02/01/2010
	BMSD		34.7	116		1	(< 20)	30.0 ug/L	02/01/2010
1,1-Dichloroethene	BMS	(0.620) U	29.1	97	(76-130)			30.0 ug/L	02/01/2010
	BMSD		28.7	96		2	(< 20)	30.0 ug/L	02/01/2010

SGS

SGS Ref.#	1100319002	Billable Matrix Spike	**Printed Date/Time**	02/05/2010 9:27
	1100319003	Billable Matrix Spike Dup.	**Prep Batch**	VXX20444
			Method	Volatiles Extraction AFCEE 3.1
			Date	02/01/2010
Original	1100319001			
Matrix	Water (Surface, Eff., Ground)			

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
2-Butanone (MEK)	BMS	(6.20) U	100	111	(66-136)			90.0 ug/L	02/01/2010
	BMSD		102	114		2	(< 20)	90.0 ug/L	02/01/2010
Methylene chloride	BMS	(2.00) U	27.9	93	(63-131)			30.0 ug/L	02/01/2010
	BMSD		27.7	93		1	(< 20)	30.0 ug/L	02/01/2010
Trichlorofluoromethane	BMS	(0.620) U	30.8	103	(68-145)			30.0 ug/L	02/01/2010
	BMSD		30.7	102		1	(< 20)	30.0 ug/L	02/01/2010
P & M -Xylene	BMS	(1.24) U	68.2	114	(80-120)			60.0 ug/L	02/01/2010
	BMSD		67.7	113		1	(< 20)	60.0 ug/L	02/01/2010
Naphthalene	BMS	(1.24) U	35.9	120	(75-120)			30.0 ug/L	02/01/2010
	BMSD		36.1	120		0	(< 20)	30.0 ug/L	02/01/2010
o-Xylene	BMS	(0.620) U	32.5	108	(80-120)			30.0 ug/L	02/01/2010
	BMSD		31.9	106		2	(< 20)	30.0 ug/L	02/01/2010
Bromoform	BMS	(0.620) U	32.3	108	(80-120)			30.0 ug/L	02/01/2010
	BMSD		30.9	103		4	(< 20)	30.0 ug/L	02/01/2010
1-Chlorohexane	BMS	(0.620) U	50.5	112	(70-125)			45.0 ug/L	02/01/2010
	BMSD		50.5	112		0	(< 20)	45.0 ug/L	02/01/2010
1,2,4-Trimethylbenzene	BMS	(0.620) U	34.9	116	(80-125)			30.0 ug/L	02/01/2010
	BMSD		36.1	120		3	(< 20)	30.0 ug/L	02/01/2010
tert-Butylbenzene	BMS	(0.620) U	34.2	114	(80-122)			30.0 ug/L	02/01/2010
	BMSD		34.9	116		2	(< 20)	30.0 ug/L	02/01/2010
1,1,1-Trichloroethane	BMS	(0.620) U	33.5	112	(80-122)			30.0 ug/L	02/01/2010
	BMSD		32.9	110		2	(< 20)	30.0 ug/L	02/01/2010
1,1-Dichloroethane	BMS	(0.620) U	37.9	126*	(80-120)			30.0 ug/L	02/01/2010
	BMSD		38.0	127*		0	(< 20)	30.0 ug/L	02/01/2010
2-Chlorotoluene	BMS	(0.620) U	35	117	(80-125)			30.0 ug/L	02/01/2010
	BMSD		36.1	120		3	(< 20)	30.0 ug/L	02/01/2010
Trichloroethene	BMS	(0.620) U	33.5	112	(80-125)			30.0 ug/L	02/01/2010
	BMSD		32.7	109		2	(< 20)	30.0 ug/L	02/01/2010
trans-1,2-Dichloroethene	BMS	(0.620) U	33.6	112	(79-132)			30.0 ug/L	02/01/2010
	BMSD		33.3	111		1	(< 20)	30.0 ug/L	02/01/2010
1,2-Dichlorobenzene	BMS	(0.620) U	33	110	(80-120)			30.0 ug/L	02/01/2010
	BMSD		33.6	112		2	(< 20)	30.0 ug/L	02/01/2010
2,2-Dichloropropane	BMS	(0.620) U	34.6	115	(80-132)			30.0 ug/L	02/01/2010
	BMSD		34.8	116		1	(< 20)	30.0 ug/L	02/01/2010
Hexachlorobutadiene	BMS	(0.620) U	33.2	111	(77-125)			30.0 ug/L	02/01/2010
	BMSD		32.3	108		3	(< 20)	30.0 ug/L	02/01/2010
Isopropylbenzene (Cumene)	BMS	(0.620) U	34.5	115	(80-121)			30.0 ug/L	02/01/2010
	BMSD		34.4	115		0	(< 20)	30.0 ug/L	02/01/2010
1,2-Dichloropropane	BMS	(0.620) U	35.4	118	(80-121)			30.0 ug/L	02/01/2010
	BMSD		35.5	118		0	(< 20)	30.0 ug/L	02/01/2010

SGS Ref.#	1100319002	Billable Matrix Spike	**Printed Date/Time**	02/05/2010 9:27
	1100319003	Billable Matrix Spike Dup.	**Prep Batch**	VXX20444
			Method	Volatiles Extraction AFCEE 3.1
			Date	02/01/2010

Original 1100319001

Matrix Water (Surface, Eff., Ground)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,1-Dichloropropene	BMS	(0.620) U	34.8	116	(80-122)			30.0 ug/L	02/01/2010
	BMSD		34.2	114		2	(< 20)	30.0 ug/L	02/01/2010
1,1,2-Trichloroethane	BMS	(0.620) U	34.7	116	(77-120)			30.0 ug/L	02/01/2010
	BMSD		33.7	112		3	(< 20)	30.0 ug/L	02/01/2010
1,3-Dichlorobenzene	BMS	(0.620) U	33.7	112	(80-120)			30.0 ug/L	02/01/2010
	BMSD		34.0	113		1	(< 20)	30.0 ug/L	02/01/2010
1,2,3-Trichlorobenzene	BMS	(0.620) U	31.8	106	(77-120)			30.0 ug/L	02/01/2010
	BMSD		33.6	112		5	(< 20)	30.0 ug/L	02/01/2010
Xylenes (total)	BMS	(2.00) U	101	112	(80-120)			90.0 ug/L	02/01/2010
	BMSD		99.6	111		1	(< 20)	90.0 ug/L	02/01/2010
Surrogates									
1,2-Dichloroethane-D4 <surr>	BMS		29.4	98	(73-120)				02/01/2010
	BMSD		29.7	99		1			02/01/2010
Toluene-d8 <surr>	BMS		29.2	97	(80-120)				02/01/2010
	BMSD		29.2	97		0			02/01/2010
4-Bromofluorobenzene <surr>	BMS		30.9	103	(76-120)				02/01/2010
	BMSD		31.3	104		1			02/01/2010

Batch VMS11092
Method SW8260B
Instrument HP 5890 Series II MS1 VJA

Polynuclear Aromatics GC/MS

SGS

SGS Ref.#	1100319002	Billable Matrix Spike	**Printed Date/Time**		02/05/2010 9:27
	1100319003	Billable Matrix Spike Dup.	**Prep**	**Batch**	XXX22249
				Method	3520 Liquid/Liquid Ext for 827
				Date	02/01/2010
Original	1100319001				
Matrix	Water (Surface, Eff., Ground)				

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount		Analysis Date
Polynuclear Aromatics GC/MS										
Acenaphthylene	BMS	(0.0320) U	.484	88	(50-101)			0.549	ug/L	02/02/2010
	BMSD		0.419	76		14	(< 30)	0.549	ug/L	02/02/2010
Acenaphthene	BMS	(0.0320) U	.447	81	(45-93)			0.549	ug/L	02/02/2010
	BMSD		0.411	75		9	(< 30)	0.549	ug/L	02/02/2010
Fluorene	BMS	(0.0320) U	.465	85	(50-98)			0.549	ug/L	02/02/2010
	BMSD		0.432	79		7	(< 30)	0.549	ug/L	02/02/2010
Phenanthrene	BMS	(0.0320) U	.486	89	(50-104)			0.549	ug/L	02/02/2010
	BMSD		0.471	86		3	(< 30)	0.549	ug/L	02/02/2010
Anthracene	BMS	(0.0320) U	.474	86	(55-105)			0.549	ug/L	02/02/2010
	BMSD		0.467	85		1	(< 30)	0.549	ug/L	02/02/2010
Fluoranthene	BMS	(0.0320) U	.632	115*	(58-109)			0.549	ug/L	02/02/2010
	BMSD		0.646	117*		2	(< 30)	0.549	ug/L	02/02/2010
Pyrene	BMS	(0.0320) U	.549	100	(56-105)			0.549	ug/L	02/02/2010
	BMSD		0.558	102		2	(< 30)	0.549	ug/L	02/02/2010
Benzo(a)Anthracene	BMS	(0.0320) U	.59	107	(55-120)			0.549	ug/L	02/02/2010
	BMSD		0.601	109		2	(< 30)	0.549	ug/L	02/02/2010
Chrysene	BMS	(0.0320) U	.497	91	(56-109)			0.549	ug/L	02/02/2010
	BMSD		0.509	93		2	(< 30)	0.549	ug/L	02/02/2010
Benzo[b]Fluoranthene	BMS	(0.0320) U	.557	101	(45-120)			0.549	ug/L	02/02/2010
	BMSD		0.564	103		1	(< 30)	0.549	ug/L	02/02/2010
Benzo[k]fluoranthene	BMS	(0.0320) U	.525	96	(56-112)			0.549	ug/L	02/02/2010
	BMSD		0.530	97		1	(< 30)	0.549	ug/L	02/02/2010
Benzo[a]pyrene	BMS	(0.0320) U	.588	107	(57-110)			0.549	ug/L	02/02/2010
	BMSD		0.593	108		1	(< 30)	0.549	ug/L	02/02/2010
Indeno[1,2,3-c,d] pyrene	BMS	(0.0320) U	.561	102	(55-111)			0.549	ug/L	02/02/2010
	BMSD		0.558	102		1	(< 30)	0.549	ug/L	02/02/2010
Dibenzo[a,h]anthracene	BMS	(0.0320) U	.56	102	(54-113)			0.549	ug/L	02/02/2010
	BMSD		0.567	103		1	(< 30)	0.549	ug/L	02/02/2010
Benzo[g,h,i]perylene	BMS	(0.0320) U	.545	99	(49-116)			0.549	ug/L	02/02/2010
	BMSD		0.548	100		1	(< 30)	0.549	ug/L	02/02/2010
Naphthalene	BMS	(0.0664) U	.363	66	(44-89)			0.549	ug/L	02/02/2010
	BMSD		0.288	52		23	(< 30)	0.549	ug/L	02/02/2010
1-Methylnaphthalene	BMS	(0.0320) U	.367	67	(42-92)			0.549	ug/L	02/02/2010
	BMSD		0.312	57		16	(< 30)	0.549	ug/L	02/02/2010
2-Methylnaphthalene	BMS	(0.0320) U	.302	55	(45-89)			0.549	ug/L	02/02/2010
	BMSD		0.254	46		17	(< 30)	0.549	ug/L	02/02/2010
Surrogates										
Terphenyl-d14 <surr>	BMS		.577	105	(50-126)					02/02/2010
	BMSD		0.563	102		3				02/02/2010

SGS Ref.#	1100319002	Billable Matrix Spike	**Printed Date/Time**	02/05/2010	9:27
	1100319003	Billable Matrix Spike Dup.	**Prep Batch**	XXX22249	
			Method	3520 Liquid/Liquid Ext for 827	
			Date	02/01/2010	
Original	1100319001				
Matrix	Water (Surface, Eff., Ground)				

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date

Polynuclear Aromatics GC/MS

Batch	XMS5285
Method	8270D SIMS
Instrument	HP 6890/5973 MS SVQA

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CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

1100319

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CLIENT:	TEC INC.	SGS Reference #:	page _____ of _____
CONTACT:	Rick Adkisson	PHONE NO:	808.528.1445
PROJECT:	3354-010	SITE/PWSID#:	Red Hill BFSF
REPORTS TO:	Rick Adkisson	email	rkadkisson@tecinc.com
		cc	wmcwhitman@tecinc.com
INVOICE TO:	TEC INC	QUOTE #:	
		P.O. NUMBER:	

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used	SAMPLE TYPE C = COMP G = GRAB	TPH-GRO (8015B)	TPH-DRO (8015B)	VOC's (8260B)	PAH's (8270C-SIMS)	Diss Pb (6020)									REMARKS
	OWDFMW01-WG-03	1/26/2010	0920	Water	26			X	X	X	X		(1)	A-L	(2)	A-L	(3)	A-J			3x Volume sent in 2 coolers
	RHMW04-WG-03	1/26/2010	1410	Water	6			X		X			(4)	A-F							
	RHMWA01-WG-03	1/26/2010	1205	Water	6			X		X			(5)	↓							
	HDMW2253-03-WG-03	1/26/2010	1100	Water	6			X		X			(6)	↓							
	TB01-WG-03	1/26/2010	0805	Water	3			X		X			(7)	↓	A-C						

Collected/Relinquished By: (1)	Date: 1/27/10	Time: 8:30	Received By:
Relinquished By: (2)	Date: 1/27/10	Time: 14:30	Received By:
Relinquished By: (3)	Date:	Time:	Received By:
Relinquished By: (4)	Date: 1/28/10	Time: 1445	Received For Laboratory By:

Shipping Carrier:	Samples Received Cold? (YES) NO (JJ)
Shipping Ticket No:	Temperature °C: 3.6D TB-3.3 c=2.4
Special Deliverable Requirements: See Contract	Chain of Custody Seal: (Circle) (INTACT) X2 BROKEN ABSENT
Requested Turnaround Time and-or Special Instructions: **See Contract**	

- ☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
- ☐ 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) 845-2287
- ☐ 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
- ☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

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CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

1100319

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CLIENT:	TEC INC.	SGS Reference #:	page _____ of _____
CONTACT:	**Rick Adkisson**	PHONE NO:	808.528.1445
PROJECT:	**3354-010**	SITE/PWSID#:	Red Hill BFSF
REPORTS TO:	Rick Adkisson	email	rkadkisson@tecinc.com
		cc	wmcwhitman@tecinc.com
INVOICE TO:	TEC INC	QUOTE #:	
		P.O. NUMBER:	

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used	SAMPLE TYPE C = COMP G = GRAB	TPH-GRO (8015B)	TPH-DRO (8015B)	VOC's (8260B)	PAH's (8270C-SIMS)	Diss Pb (6020)	H3							* REMARKS
	OWDFMW01-WG-03	**1/26/2010**	1120	**Water**	**7**				X		X	X	(1)	G-L	(2)	G-L	(3)	G-J		Diss. Pb not filtered 3x Volume sent in 2 coolers
	RHMW04-WG-03	**1/26/2010**	1410	**Water**	**5**				X		X	X	(4)	H-J						

Collected/Relinquished By: (1)	Date 1/27/10	Time 8:30	Received By:	Shipping Carrier:	Samples Received Cold? YES NO
Relinquished By: (2)	Date 1/27/10	Time 14:30	Received By:	Shipping Ticket No:	Temperature °C:
Relinquished By: (3)	Date	Time	Received By:	Special Deliverable Requirements: **See Contract**	Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Relinquished By: (4)	Date 1/28/10	Time 1445	Received For Laboratory By:	Requested Turnaround Time and-or Special Instructions: **See Contract** * Must filter Pb in LAB.	

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 3180 Peger Road **Fairbanks, AK 99701** Tel: (907) 474-8656 Fax: (907) 474-9685
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CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

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CLIENT:	TEC INC.	SGS Reference #:	page _____ of _____
CONTACT:	Rick Adkisson	PHONE NO:	808.528.1445
PROJECT:	3354-010	SITE/PWSID#:	Red Hill BFSF
REPORTS TO:	Rick Adkisson	email	rkadkisson@tecinc.com
		cc	wmcwhitman@tecinc.com
INVOICE TO:	TEC INC	QUOTE #:	
		P.O. NUMBER:	

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	# CONTAINERS	Preserv. Used	SAMPLE TYPE C = COMP G = GRAB	TPH-GRO (8015B)	TPH-DRO (8015B)	VOC's (8260B)	PAH's (8270C-SIMS)	Diss Pb (6020)							REMARKS
	HDMW2253-03-WG-03	1/26/2010	1100	Water	5				X		X	X	(6)	G-L					Diss Pb not filtered!
	RHMWA01-WG-03	1/26/2010	1205	Water	5				X		X	X	(5)	G-K					

Collected/Relinquished By: (1)	Date: 1/27/10	Time: 8:30	Received By:
Relinquished By: (2)	Date: 1/27/10	Time: 1430	Received By:
Relinquished By: (3)	Date:	Time:	Received By:
Relinquished By: (4)	Date: 1/28/10	Time: 1445	Received For Laboratory By:

Shipping Carrier:	Samples Received Cold? (YES) NO
Shipping Ticket No:	Temperature °C:
Special Deliverable Requirements: See Contract	Chain of Custody Seal: (Circle) (INTACT) BROKEN ABSENT
Requested Turnaround Time and-or Special Instructions: See Contract * Must filter Pb in Lab.	

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
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☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

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1100319

SAMPLE RECEIPT FORM

SGS WO#:

Yes	No	NA		
	✓		Are samples **RUSH**, priority or *w/in 72 hrs* of **hold time**?	**TAT (circle one):** (Standard) -or- Rush
		✓	If yes, have you done *e-mail ALERT notification*?	**Received Date:** 1/28/10
	✓		Are samples *within 24 hrs.* of **hold time** or **due date**?	**Received Time:** 14:45
		✓	If yes, have you also *spoken with* supervisor?	
		✓	Archiving bottles: Are lids marked w/ red "X" ?	
✓			Were samples collected with proper preservative?	
✓			**Any problems (ID, cond'n , HT, etc)? Explain:** Broken jars - see Bottom	
		✓	If this is for PWS, provide **PWSID:**	
	✓		Payment received: $_____ by Check or Credit Card	
	✓		Will courier charges apply?	
✓			Data package required? (Level: 1 / 2 / 3 / 4)	
			Notes:	
✓			Is this a DoD project? (USACE, Navy, AFCEE)	

Cooler ID	Temperature	Measured w/ (Therm #)
1	3.7 °C	36D
2 (JJR)	3.5 °C	↓
3	3.9 °C	
	°C	

Note: Temperature readings include thermometer correction factors

Delivery method (circle all that apply):
Client / Alert Courier / Lynden / SGS
UPS / (FedEx) / USPS / DHL / Carlile
AkAir Goldstreak / NAC / ERA / PenAir
Other: _____

Additional Sample Remarks: (√ *if applicable*)
_____ Extra Sample Volume?
✓ Limited Sample Volume?
_____ Multi-Incremental Samples?
_____ Lab-filtered for dissolved_____
_____ Ref Lab required for_____
_____ Foreign Soil?

This section must be filled out for DoD projects (USACE, Navy, AFCEE):

Yes	No		Yes	N/A
✓		Is received temperature ≤6°C?	✓	Was pH verified upon receipt?
✓		Were containers ice-free? *Notify PM **immediately** of any ice in samples.* If some cooler temperatures are non-compliant, see form FS-0029 (attached) for samples/analyses affected.		
✓		Was there an airbill? *(If "yes," see attached.)*		
✓		Was cooler sealed with custody seals & were they intact? # / where: 2 on front + 1 on back x 3		
✓		Was there a COC with cooler?		
✓		Was COC sealed in plastic bag & taped inside lid of cooler?		
✓		Was the COC filled out properly? Did labels correspond?		
✓		Did the COC indicate USACE / Navy / AFCEE project?		
		Samples were packed to prevent breakage with *(circle one)*: (Bubble Wrap) Vermiculite Other (specify):		
	✓	Were all samples sealed in separate plastic bags?		
✓		Were all VOCs free of headspace and/or MeOH preserved?		
✓		Were correct container / sample sizes submitted?		
✓		Was the PM notified of arrival so they can send Sample Receipt Acknowledgement to client?		

Cooler ID 1	Cooler Temp °C 2.4	Cooler ID 3	Cooler Temp °C 1.9
Cooler ID 2	Cooler Temp °C 2.4	Cooler ID _____	Cooler Temp °C _____

This section must be completed if problems are noted.

Was client notified of problems? Yes / No

By (SGS PM): _____

Individual contacted: _____

Via: Phone / Fax / E-mail (*circle one*)

Date/Time: _____

Reason for contact: _____

Change Order Required? Yes / No

Notes: Sample OWDFMW01-WG-03 had two jars broken in transit one jars for DRO + (JJR) one jars for PAH - they were both in cooler 3 - sample RHMW04-WG-03 had one jar PAH broken in transit - it was in cooler 1.

Completed by (sign): _____ **(print):** Joe Right

Login proof: **Self-check completed** JJR **Peer-reviewer's In itials** JD

SGS

1100319

SAMPLE RECEIPT FORM

SGS WO#:

Yes	No	NA		
___	X	___	Are samples **RUSH**, priority or *w/in 72 hrs* of **hold time**?	
___	___	X	If yes, have you done *e-mail ALERT notification*?	
___	X	___	Are samples *within 24 hrs.* of **hold time** or **due date**?	
___	___	NA	If yes, have you also *spoken with* supervisor?	
___	X	___	Archiving bottles: Are lids marked w/ red "X"?	
X	___	___	Were samples collected with proper preservative?	
___	X	___	**Any problems (ID, cond'n, HT, etc)? Explain:**	
___	X	___	If this is for PWS, provide **PWSID:**_____	
___	___	NA	Payment received: $_____ by Check or Credit Card	
___	X	___	Will courier charges apply?	
X	___	___	Data package required? (Level: 1 / 2 / 3 / (4))	
			Notes: _____	
X	___	___	Is this a DoD project? (USACE, Navy, (AFCEE))	

TAT (circle one): (Standard) -or- Rush

Received Date: 1-27-10

Received Time: 8:30

Cooler ID	Temperature	Measured w/ (Therm/IR ID#)
#1	3 °C	
#2	3 °C	
#3	5 °C	
	°C	

Note: Temperature readings include thermometer correction factors

Delivery method (circle all that apply):

(Client) / Alert Courier / Lynden / SGS UPS / FedEx / USPS / DHL / Carlile AkAir Goldstreak / NAC / ERA / PenAir

Other: _____

Additional Sample Remarks: *(√ if applicable)*

_____ Extra Sample Volume?

_____ Limited Sample Volume?

_____ Multi-Incremental Samples?

_____ Lab-filtered for dissolved_____

_____ Ref Lab required for_____

_____ Foreign Soil?

This section must be filled out for DoD projects (USACE, Navy, AFCEE):

Yes	No	
X	___	Is received temperature ≤6°C?
X	___	Were containers ice-free? *Notify PM **immediately** of any ice in samples.* If some cooler temperatures are non-compliant, see form FS-0029 (attached) for samples/analyses affected.
___	X	Was there an airbill? *(If "yes," see attached.)*
___	X	Was cooler sealed with custody seals & were they intact? # / where: _____
X	___	Was there a COC with cooler?
___	X	Was COC sealed in plastic bag & taped inside lid of cooler?
X	___	Was the COC filled out properly? Did labels correspond?
X	___	Did the COC indicate USACE / Navy / AFCEE project?
		Samples were packed to prevent breakage with *(circle one)*: (Bubble Wrap) Vermiculite Other (specify): _____
___	X	Were all samples sealed in separate plastic bags?
X	___	Were all VOCs free of headspace and/or MeOH preserved?
X	___	Were correct container / sample sizes submitted?
X	___	Was the PM notified of arrival so they can send Sample Receipt Acknowledgement to client?

This section must be completed if problems are noted.

Was client notified of problems? Yes / No

By (SGS PM): _____

Individual contacted: _____

Via: Phone / Fax / E-mail *(circle one)*

Date/Time: _____

Reason for contact: _____

Change Order Required? Yes / No

Notes: * Samples OW DFMW01-WG-03, RHMW04-WG-03, HPMW2253-03-WG-03, + RHMWA01-WG-03 need to be filtered in lab for dissolved Pb. See COC

Completed by (sign): _____ **(print):** Mark Abo

Login proof: Self-check completed X **Peer-reviewer's Initials** Ale

1100319

SGS

SAMPLE RECEIPT FORM - Bottle Tracking SGS WO#

#	Container ID	Matrix	Test	QC	TB	Container Volume: 1L	500mL	250mL or 8oz	125mL or 4oz	60mL	40mL	Other:	Container Type: AG	CG	HDPE	Nalgene	Coli	Septa	Other:	Preservative: None	HCl	HNO3	H2SO4	NaOH	Ascorbic Acid	NH_4Cl	Other:	*Notes
1	A-C	1	GRO								3		✓					✓			✓							
	D-F	‖	VOC								3		✓					✓			✓							
	G	‖	Filter					1								✓				✓								
	~~H~~ I	‖	DRO			2							✓								✓							
	J,K	‖	PAH			2							✓							✓								
	L	↓	Diss metals									1							✓			✓						
2	A-C	1	GRO	MS							3		✓					✓			✓							
	D-F	‖	VOC	‖							3		✓					✓			✓							
	G	‖	extra Volume	‖				1								✓				✓								
	~~H~~ I	‖	DRO	‖		2							✓								✓							
	JK	‖	PAH	‖		2							✓							✓								
	L	↓	Diss metals	↓			S	J	A	①	G	L																
3	A-C	1	GRO	MSD							3		✓					✓			✓							
	D-F	‖	VOC	‖							3		✓					✓			✓							
	G	‖	Filter	‖				1								✓				✓								
	H	‖	DRO	‖		1							✓							✓	✓							
	I	↓	PAH	↓		1							✓							✓								
Bottle Totals						6		2			18	1																

* Note: Containers which require (additional) chemical preservation upon receipt must be documented per SOP#106

Completed by: Joe Rud Date: 1/28/10

1100319

SGS

SAMPLE RECEIPT FORM - Bottle Tracking SGS WO#

#	Container ID	Matrix	Test	QC	TB	Container Volume: 1L	500mL	250mL or 8oz	125mL or 4oz	60mL	40mL	Other:	Container Type: AG	CG	HDPE	Nalgene	Coli	Septa	Other:	Preservative: None	HCl	HNO3	H2SO4	NaOH	Ascorbic Acid	NH_4Cl	Other:	*Notes
3	J	1	Diss metals	MSD			S	J	A	G	L																
4	A-C	1	GRO								3		✓					✓			✓						
	D-F		VOC								3		✓					✓			✓						
	G		~~DSP~~ Filter Diss metals					1								✓						✓					
	HI		DRO			2							✓								✓						
	JK	↓	PAH			1							✓							✓							
	~~L~~ (1)	✓																									
5	A-C	1	GRO								3		✓					✓			✓						
	D-F		VOC								3		✓					✓			✓						
	G		Diss metals					1								✓						✓					
	HI		DRO			2							✓								✓						
	JK	↓	PAH			2							✓							✓							
6	A-C	1	GRO								3		✓					✓			✓						
	D-F	1	VOC								3		✓					✓			✓						
Bottle Totals						7		2			18																

* Note: Containers which require (additional) chemical preservation upon receipt must be documented per SOP#106

Completed by: Joe Rudi Date: 1/28/10

F042r02 Revised 9/8/2009

1100319

SGS

SAMPLE RECEIPT FORM - Bottle Tracking SGS WO#

#	Container ID	Matrix	Test	QC	TB	Container Volume: 1L	500mL	250mL or 8oz	125mL or 4oz	60mL	40mL	Other:	Container Type: AG	CG	HDPE	Nalgene	Coli	Septa	Other:	Preservative: None	HCl	HNO3	H2SO4	NaOH	Ascorbic Acid	NH4Cl	Other:	*Notes
6	G	1	Filter					1								✓				✓								
	HI	1	DRO			2							✓								✓							
	JK	1	PAH			2							✓							✓								
	L	1	Diss metals									1										✓						
7	AC	1	~~JK VOC~~ GRO		✓						8		✓					✓			✓							
	BC	1	VOC		✓						2		✓					✓			✓							
Bottle Totals						4		1			3	1																

* Note: Containers which require (additional) chemical preservation upon receipt must be documented per SOP#106

Completed by: _____ Date: 1/28/10

F042r02 Revised 9/8/2009

36D

SGS Environmental **CUSTODY SEAL**

Signature: _____ Date/Time: 1-27-10

TB= 3.3
C= 2.4

SGS Environmental **CUSTODY SEAL**

Signature: _____ Date/Time: 1-27-10

SGS Environmental **CUSTODY SEAL**

Signature: _____ Date/Time: 1-27-10

TB= 3.5
C= 2.4

SGS Environmental **CUSTODY SEAL**

Signature: _____ Date/Time: 1-27-10

SGS Environmental **CUSTODY SEAL**

Signature: _____ Date/Time: 1-27-10

TB= 3.9
C= 1.9

SGS Environmental **CUSTODY SEAL**

Signature: _____ Date/Time: 1-27-10

1100319

FedEx® US Airbill
Express

8709 5110 7641

0200 Form ID No.

FedEx Copy

From

Date 1-27-10 Sender's FedEx Account Number

Sender's Name Mark Abe Phone 88 388-C700

Company

Address 38-417 Kealaka St. #B205 Dept./Floor/Suite/Room

City Aiea State HI ZIP 96701

Your Internal Billing Reference

To

Recipient's Name Phone

Company S G S Environmental

HOLD Weekday 1 ☐ Print FedEx location address below. **NOT available for** FedEx First Overnight.

HOLD Saturday 31 ☐ Print FedEx location address below. **Available ONLY for** FedEx Priority Overnight and FedEx 2Day to select locations.

Address 200 W. Potter Dr. Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Print FedEx location address here if a HOLD option is selected.

City Anchorage State AK ZIP 99518

8709 5110 7641

4a Express Package Service * To most locations. *Packages up to 150 lbs.*

1 ☐ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

5 ☐ FedEx Standard Overnight — Next b... Satu...

6 ☐ FedEx First Overnight

3 ☐ FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20 ☐ Fe... Thir... Satu...

1100319

4b Express Freight Service ** To mo...

7 ☐ FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Da...

8 ☐ FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

83 ☐ FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

6 ☐ FedEx Envelope* 2 ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak. 3 ☐ FedEx Box 4 ☐ FedEx Tube 1 ☒ Other

6 Special Handling and Delivery Signature Options

3 ☐ **SATURDAY DELIVERY**

☐ No Signature Required — Package may be left without obtaining a signature for delivery.

10 ☐ Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*

34 ☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods?

One box must be checked.

☒ No 4 ☐ Yes — As per attached Shipper's Declaration. ☐ Yes — Shipper's Declaration not required. 6 ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

1 ☐ Sender — Acct. No. in Section 1 will be billed. 2 ☒ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

Obtain Recip. Acct. No. ☐

FedEx Acct. No. / Credit Card No. 113 367 643 Exp. Date

Total Packages	Total Weight	Total Declared Value†	Credit Card Auth.
1	11 lbs.	$ .00	

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

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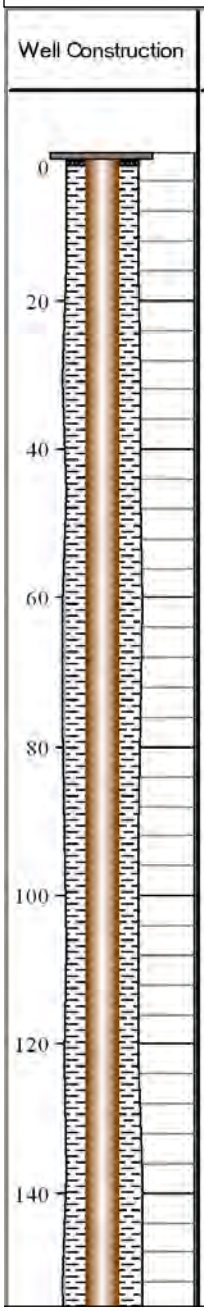
Appendix B

Monitoring Well Construction Logs

GEOLOGIC BOREHOLE LOG

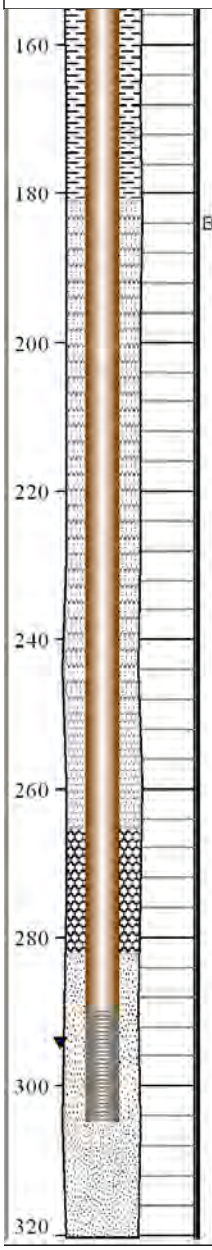
Location: **RHFSF**	Station Name: **RHMW04**	Location Type: **Monitoring Well**
Location Description: **west. access rd., S of Navy Firing Range**		Establishing Company: **TEC Inc.**
Drilling Foreman: **Tomas Fernandez**		Drilling Company: **Valley Well Drilling**
Geologist: **N. Griffin/S. MacMillan**	Ground Surface Elevation (ft): **313.03**	Datum: **MSL**
Drilling Sampling Method: **Rock Coring**		Borehole Diameter (in): **8**
Total Depth (ft): **320.5**	Date Drilling Started: **22 July 2005**	Date Drilling Ended: **26 July 2005**
Remarks:		



Well Construction	Well Fill	USCS	Soil Description	Soil Sample
	Cement Grout	GW	Well-graded gravel with sand - dark reddish brown (5YR 2.5/2), medium stiff, moist, 80% gravel, 15% fines, 5% fines, road base.	RHMW04S02
			Basalt bedrock.	
			Basalt - moderate brown (5YR 3/4), Rate = 5/5, 50 - 80% vesicles.	
			Basalt - dark gray (blue rock) (N3), Rate = 5/10, massive, 5% small crystals.	
		IE	Basalt - dark gray (N3), Rate = 5/10, 70 - 90% vesicles:small.	
			Basalt - dark gray (N3), Rate = 5/7, massive.	
			Basalt - dark gray (N3), Rate = 5/10, 70 - 90% vesicles.	
			Basalt - dark gray (N3), Rate = 5/10, vesicles.	
			Basalt - dark gray (N3), Rate = 5/10, vesicles.	
			Basalt - dark gray (N3), Rate = 5/12, vesicles.	
		NSNR	Rate = 5/18, no recovery.	
			Basalt - moderate brown to dark gray (5YR 3/4 to N3), Rate = 5/12, vesicles.	
			Basalt - dark gray (N3), Rate = 5/16, vesicles with min. deposits, Perched water encountered - to approx. 130 feet.	
			Basalt - dark gray (N3), Rate = 5/15, massive.	
			Basalt - dark reddish brown to dark gray (10YR 3/4 to N3), Rate = 5/20, vesicles.	
			Basalt - medium dark gray to dark gray (N4 to N3), Rate = 5/15, vesicles.	
		IE	Basalt - dark reddish brown to dark gray (10YR 3/4 to N3), Rate = 5/15, massive and vesicles.	
			Basalt - dark reddish brown (10YR 3/4), Rate = 5/10, vesicles.	
			Basalt - dark gray (N3), Rate = 5/12, vesicles.	

GEOLOGIC BOREHOLE LOG

Location: **RHFSF**	Station Name: **RHMW04**	Location Type: **Monitoring Well**
Location Description: **west. access rd., S of Navy Firing Range**		Establishing Company: **TEC Inc.**
Drilling Foreman: **Tomas Fernandez**		Drilling Company: **Valley Well Drilling**
Geologist: **N. Griffin/S. MacMillan**	Ground Surface Elevation (ft): **313.03**	Datum: **MSL**
Drilling Sampling Method: **Rock Coring**		Borehole Diameter (in): **8**
Total Depth (ft): **320.5**	Date Drilling Started: **22 July 2005**	Date Drilling Ended: **26 July 2005**
Remarks:		



IE	Basalt - dark gray (N3), Rate = 5/5, vesicles.
	Basalt - dark gray (N3), Rate = 5/15, vesicles.
	Basalt - dark gray (N3), Rate = 5/30, vesicles.
NSNR	Rate = 5/14, No recovery.
	Basalt - dark gray (N3), Rate = 5/10, vesicles.
IE	Basalt - dark gray (N3), Rate = 5/13, vesicles.
	Rate = 5/10, No recovery.
NSNR	Rate = 5/15, No recovery.
	Rate = 5/12, No recovery.
IE	Basalt - dark gray (N3), Rate = 5/12, vesicles.
	Basalt - medium dark gray (N4), Rate = 5/10, vesicles.
	Basalt - medium dark gray (N4), Rate = 5/10, vesicles.
	Basalt - medium dark gray (N4), Rate = 5/10, vesicles.
	Basalt - dark gray (N3), Rate = 5/10, vesicles.
	Basalt - dark gray (N3), Rate = 5/10, vesicles.
	Basalt - dark gray to blackish red (N3 to 5R 2/2), Rate = 5/8, vesicles, water at 311'.

EARTH TECH

Borehole/Well Construction Log

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number:	MW08
Borehole Location	Near AST	*Northing*	75254 41 *Easting* 530845 19	Sheet	1 of 9
Drilling Agency	Valley Well Drilling	Driller	Dean Mclure, David Brown		
Drilling Equipment	B59, Jaswell 3000	Date & Time Started	4/7/98	Total Depth (feet)	142 8
Drilling Method	Air Rotary, Hollow Stem Auger	Top of Casing Elevation (feet msl) 138 06	Date & Time Finished 4/24/98	Depth to Water (feet)	See remarks
Size and Type of Bit	-	Borehole Diameter (in) 10	Sample Type *Bulk* NA *Drive* x SS 16 *Grab* NA	Sample Length (in) 1 5 or 5 Driving Weight NA Drop Length NA	
Drilling Fluid	Air	Drilling Angle (degrees) 90	Number of Samples 16		
Completion Information	See remarks		Logged By W Wen	Checked By	B Tsutsui

Depth (feet)	Samples: Number	Type	Blow Count	Percent Recovery	Time	Estimated %: Gravel	Sand	Fines	Log: Graphic	USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
											Topsoil		Ground surface elevation 135 67 feet msl
1			50/5"	40	1352	5	TR	95		CL	**LOW PLASTIC INORGANIC CLAY**, black, 5YR 2 5/1, dry, hard, CL, 95% low plastic inorganic clay, 5% fine, subangular gravel, trace amount of sand and roots		
2													Steel casing (12 inch diameter)
3													PVC Casing
4													Grout
5			50/5"	35	1359	TR	80	20		SC	**CLAYEY SAND**, dark yellowish brown, 10YR 4/6, dry, dense, SC, 80% fine, medium, coarse, subrounded sand, 20% low plastic inorganic clay, trace amount of fine, subangular gravel		
6													
7													
8													
9													
10			50/6"	15	1410	-	-	-		IE	**EXTRUSIVE**, basalt, gray, 10YR 6/1, vesicular basalt, fresh, hard, dry, IE		
11													
12													
13													
14													
15													

EARTH TECH

Borehole/Well Construction Log
(Continuation Sheet)

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number:	MW08
Borehole Location	Near AST			Sheet	2 of 9

Depth (feet)	Samples: Number	Samples: Type	Samples: Blow Count	Samples: Percent Recovery	Samples: Time	Estimated %: Gravel	Estimated %: Sand	Estimated %: Fines	Log: Graphic	Log: USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
16			NA	5	1420	-	-	-		IE	Same as above		
17													
18			50/3"	0		-	-	-			No Recovery Called off at 1435, 4/7/98		
19													
20			NA	70	1300	-	-	-			No recovery		
21													
22						-	-	-			No Recovery		
23													
24													
25			NA	0	1442	40 -	- -	60 -		CL	GRAVELLY CLAY, strong brown and dark gray, 7 5YR 5/6, 4/1, dry, soft, CL, 60% high plastic inorganic clay; 40% fine, subrounded basalt gravel. No Recovery Called off at 1442, 4/13/98		
26													
27													
28													
29													
30													Bottom of steel casing
31													
32			NA	80	1430	-	TR	100		CH	HIGH PLASTIC INORGANIC CLAY, dark		

EARTH TECH

Borehole/Well Construction Log (Continuation Sheet)

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number:	MW08
Borehole Location	Near AST			Sheet	3 of 9

Depth (feet)	Samples: Number	Type	Blow Count	Percent Recovery	Time	Estimated %: Gravel	Sand	Fines	Log: Graphic	USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
33											brown, 7 5YR 3/3, moist, soft, CH, 100% high plastic inorganic clay trace amount of sand		
34											Logged at 1439, 4/14/98		
35													
36						30	TR	70		CL	GRAVELLY CLAY, very dark gray and brown, 10YR 3/2, moist, stiff; CL, 30% subrounded gravel, 70% low plastic inorganic clay, trace amount of sand, extensive mottling.		
37			NA	60		-	-	-		IE	EXTRUSIVE, basalt, light gray, 5YR 7/2, vesicular basalt, highly weathered, friable, dry, IE		
38						-	-	-		IE	Same as above		
39						100	TR	-		GP	POORLY GRADED GRAVEL, pale olive gray, 5YR 6/2, dry, GP, 100% coarse, subrounded gravel, trace amount of coarse sand		
40						-	-	-		IE	EXTRUSIVE, basalt, pale olive, 5YR 7/2, lightly weathered, massive, friable, dry, IE		
41													
42			NA	70		80	10	10		GC	CLAYEY GRAVEL, strong brown, 7 5YR 4/6, moist, GC, 80% fine, medium and coarse subrounded gravel, 10% coarse subrounded sand, 10% high plastic inorganic clay		
43													
44						100	-	-		GW	WELL GRADED GRAVEL, brown, 7 5YR 4/3, moist; GW, 100% medium coarse subrounded gravel		
45										IE	EXTRUSIVE, basalt, brown, 7 5YR 4/3, highly weathered, vesicular basalt, fractured, moist, IE.		
46						90	5	5		GP	POORLY GRADED GRAVEL, strong brown, 7 5YR 4/6, moist, GP, 90% fine, medium, coarse subrounded gravel, 5% coarse, subrounded sand, 5% high plastic inorganic clay		
47			NA	80		-	-	-		IE	EXTRUSIVE, basalt, brown, 7 5YR 4/3, highly weathered, vesicular basalt, fractured, moist, IE		
48						-	-	100		CH	HIGH PLASTIC INORGANIC CLAY, brown, 7 5YR 4/2, moist, firm, CH, 100% medium plasticity inorganic clay		
49						-	-	-		IE	EXTRUSIVE, basalt, olive gray, 5YR 5/2, fresh, vesicular; moist, IE		
50													

EARTH TECH

Borehole/Well Construction Log
(Continuation Sheet)

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number	MW08
Borehole Location	Near AST			Sheet	4 of 9

Depth (feet)	Samples: Number	Samples: Type	Samples: Blow Count	Samples: Percent Recovery	Samples: Time	Estimated %: Gravel	Estimated %: Sand	Estimated %: Fines	Log: Graphic	Log: USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
51													
52			NA	100	1700	-	-	-		IE	Same as above		
53													
54						-	-	-		IE	EXTRUSIVE, basalt, gray, 10YR 5/1, moist massive basalt with some vesicular fabric, fresh, hard, moist, IE		
55													
56						-	-	-		IE	EXTRUSIVE, basalt, olive gray, 5YR 5/2, fresh, vesicular; moist, IE		
57			NA	80	0917	-	-	-		IE	No Recovery		
58						-	-	-		IE	Grading to faintly weathered, well developed fracture in basalt		
59													
60											Color changes to brown (7 5YR 4/4), grading to highly weathered and soft.		
61						70	10	20		GC	CLAYEY GRAVEL, dark gray, 5YR 4/1, dry, dense; GC, 70% fine, subangular and subrounded gravel, 20% low plastic, inorganic clay, 10% fine, subangular sand		
62			NA	85	0947	-	-	-		IE	EXTRUSIVE, basalt, brown, 7 5YR 4/4, massive basalt, highly weathered, medium hard, moist, IE		
63										IE	EXTRUSIVE, volcanic breccia, gray, 5YR 5/1, 60% basalt clast, 20% matrix, 20% porosity, faintly weathered, hard, dry, IE		
64													
65													
66													
67			NA	80	1040	-	-	-			No recovery		

EARTH TECH

Borehole/Well Construction Log
(Continuation Sheet)

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number:	MW08
Borehole Location	Near AST			Sheet	5 of 9

Depth (feet)	Samples: Number	Type	Blow Count	Percent Recovery	Time	Estimated %: Gravel	Sand	Fines	Log: Graphic	USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
68						-	-	-		IE	EXTRUSIVE, volcanic breccia, gray, 7 5YR 5/1, 40% basalt clast, 40% matrix, 20% porosity, faintly weathered, hard, wet, IE		
69						-	-	-		IE	EXTRUSIVE, basalt, dark gray, 7 5YR 4/1, massive basalt, fresh, hard, wet, IE		
70													
71													
72			NA	90	1130	-	-	-		IE	Same as above		
73													
74													
75													
76													
77						-	-	-		IE	Same as above Switch to Jaswell, no sample taken after 77 feet Lithology was estimated from blown hole		
78													
79													
80													
81													
82													
83													
84													
85													

EARTH TECH

Borehole/Well Construction Log
(Continuation Sheet)

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number:	MW08
Borehole Location	Near AST			Sheet	6 of 9

Depth (feet)	Samples: Number	Samples: Type	Samples: Blow Count	Samples: Percent Recovery	Samples: Time	Estimated %: Gravel	Estimated %: Sand	Estimated %: Fines	Log: Graphic	Log: USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
86						-	-	-		IE	Same as above (Basalt)		
87													
88													
89													
90													
91													
92													
93													
94													
95													
96													
97													
98													
99													
100													
101													
102													Top of Bentonite seal

EARTH TECH

Borehole/Well Construction Log
(Continuation Sheet)

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number:	MW08
Borehole Location	Near AST			Sheet	7 of 9

Depth (feet)	Samples: Number	Samples: Type	Samples: Blow Count	Samples: Percent Recovery	Samples: Time	Estimated %: Gravel	Estimated %: Sand	Estimated %: Fines	Log: Graphic	Log: USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
103						-	-	-		IE	Same as above (basalt)		
104													
105													
106													
107													
108													
109													
110													
111													
112													
113													
114													
115													
116													
117													
118													
119													
120													

EARTH TECH

Borehole/Well Construction Log (Continuation Sheet)

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number:	MW08
Borehole Location	Near AST			Sheet	8 of 9

Depth (feet)	Samples: Number	Samples: Type	Samples: Blow Count	Samples: Percent Recovery	Samples: Time	Estimated %: Gravel	Estimated %: Sand	Estimated %: Fines	Log: Graphic	Log: USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
31						-	-	-		IE	Same as above (basalt)		
32													Approximate static basal groundwater level (122 2 feet bgs), top of filter pack
33													Top of screen
34													0 02 inch stainless steel screen
35													
36													
37													

EARTH TECH

Borehole/Well Construction Log
(Continuation Sheet)

Project Name	Red Hill Phase II RI/FS	Project Number	CTO-0034	Borehole Number:	MW08
Borehole Location	Near AST			Sheet	9 of 9

Depth (feet)	Samples: Number	Samples: Type	Samples: Blow Count	Samples: Percent Recovery	Samples: Time	Estimated %: Gravel	Estimated %: Sand	Estimated %: Fines	Log: Graphic	Log: USCS or Rock Type	Lithologic Description	Well Construction Diagram	Remarks
138						-	-	-		IE	Same as above (basalt)		
139													First encountered depth of basal groundwater (138 5 feet bgs)
140													
141													
142													Bottom of well
											Boring finished at 143 feet on 4/24/98		Total depth of borehole