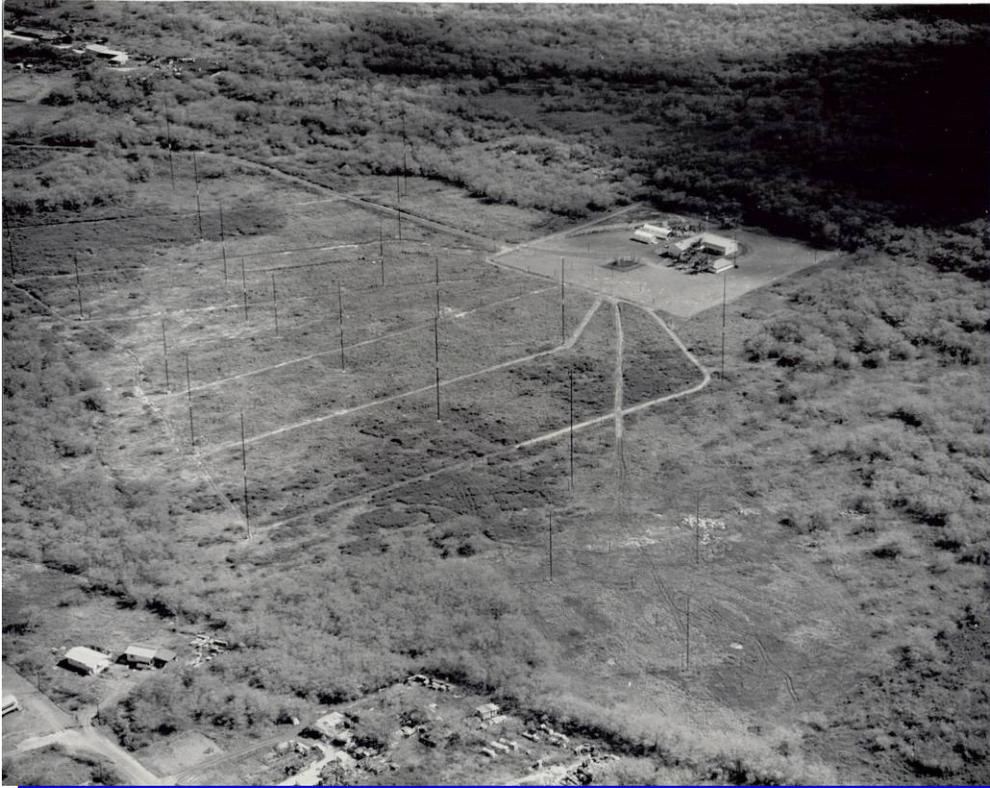


**Final Project Report
Phase II Confirmatory Sampling
84-acre Former Voice of America Site**

Maili, Oahu, Hawaii



Prepared for:

U.S. Coast Guard
Civil Engineering Unit
300 Ala Moana Blvd., Room 8-134
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Contract No: HSCG86-09-C-6XA003

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Executive Summary

Element Environmental, LLC (E2) completed an environmental site characterization of the former Voice of America (VOA) site, located in Mailli on the western side of the island of Oahu, Hawaii. The site has an area of approximately 89 acres and is located southeast of the intersection of Kulaaupuni Street and the Mailli Channel. A 5-acre portion of the former VOA site is currently leased by the State of Hawaii and has been developed for transitional housing. The remainder of the former VOA site is the 84-acre project site. The project site is currently vacant and is bounded by Kulaaupuni Street to the west, the northern portion of Mailli Channel (formerly Holt Road) to the north, a vacant property to the east and residential housing along Kulawae Street to the south.

A conceptual site model (CSM) developed for the site identified future construction workers and residential users as potential receptors that may be exposed to soils that have been impacted by historical uses. The results of this site characterization may be used to help determine if design considerations and/or other precautions must be implemented to protect human health during the construction phase and future use of the site due to the presence of contamination.

Multi-increment (MI) soil sampling strategies, discrete grid sampling, and groundwater sampling were employed to characterize the project site. Five investigation areas were selected based on historical use and topography. A systematic random sampling scheme was utilized to determine the increment sampling locations for MI soil samples. Collection of samples was as follows:

- 4-Acre Transmitter Buildings Area - This decision unit (DU) encompassed the former site of the VOA broadcast transmitter buildings. MI surface soil samples were collected from 30 increment sample locations located throughout the DU and analyzed for Polychlorinated Biphenyls (PCBs), Resource Conservation and Recovery Act (RCRA) metals, Total Petroleum Hydrocarbons as Gasoline (TPH-G), TPH as Diesel (TPH-D), TPH as Oil and Grease (TPH-O), and asbestos. After the initial sampling, this investigation area was further subdivided into five DUs and five MI surface soil samples were collected and analyzed for PCBs and lead.
- The large concrete slab foundation within the Transmitter Buildings Area was divided into seven (7) DUs, which were sampled to determine the presence of PCB contamination in the concrete surface. Three (3) discrete soil samples were also collected from beneath the concrete slab to determine the presence of organochlorine pesticide contamination.
- 80-Acre Area outside of the Transmitter Buildings Area - MI surface soil samples from 20 DUs within this investigation area were collected. Each sample was collected from 30 increment sample locations and analyzed for PCBs and RCRA metals.
- Previously Identified PCB-Contaminated Area - This investigation area encompassed the subset of the Transmitter Buildings Area that was previously identified as contaminated with PCBs. Two hundred forty-two (242) discrete sampling locations were advanced up to 2 or 4 feet in depth within an approximately 200-foot by 250-foot sampling grid to determine the lateral and vertical extent of PCB contamination.
- Berms and Mounds - This investigation area consisted of berms and mounds found throughout the project site. An electromagnetic survey was completed to determine if construction debris or other solid waste had been disposed and buried within the berms

and mounds. The berms and mounds were also trenched and sampled to determine the presence and extent of associated contamination. Twenty (20) MI soil samples were collected from berms and mounds at the investigation site and were analyzed for PCBs and RCRA metals.

- Groundwater - Six groundwater monitoring wells were installed surrounding the Transmitter Buildings Area to determine if historic use of the investigation site resulted in contamination of groundwater. Groundwater samples were collected and analyzed for PCBs, RCRA metals, and petroleum related contamination (including Benzene, Toluene, Ethylbenzene, and Xylenes [BTEX]; Methyl Tert-Butyl Ether [MTBE]; Polynuclear Aromatic Hydrocarbons [PAHs]; and Halogenated Volatile Organic Compounds [HVOCs]).

The MI soil samples from the 4-acre Transmitter Buildings Area were collected on July 31, 2009 and December 29, 2009. The MI soil samples from the 80-acre area outside of the Transmitter Buildings Area were collected on July 30 and 31, 2009. The discrete soil samples from the previously identified PCB-contaminated areas were collected on July 28 through July 30, August 5 and 18, and September 17, 2009 as well as May 27 and September 1, 2010. The MI soil samples from the berms and mounds were collected on August 25 and 26, 2009. The groundwater samples were collected on August 13, 2009.

Previously Identified PCB-Contaminated Area

Three hundred eighty-three (383) primary soil samples and 46 duplicates were collected from 242 sampling nodes within an approximately 200-foot by 250-foot sampling grid area surrounding the two previously identified PCB-contaminated areas. Discrete soil sampling results indicate that PCB contamination is present in surface and subsurface soil down to 4 feet below ground surface (bgs) in the 200-foot by 250-foot sampling grid area. A significant portion of this sampling grid area contains PCB levels that exceed U.S. Environmental Protection Agency (EPA) Residential Regional Screening Levels (RSLs) and State of Hawaii Department of Health (HDOH) Unrestricted Land Use Environmental Action Levels (EALs). Estimated soil volumes containing PCB concentrations that exceed various contamination thresholds are presented in Table 5-1. The distributions of PCB contaminated soil above the various thresholds within the sampling grid area are displayed on Figures 5-2 through 5-5.

4-Acre Transmitter Buildings Area

The MI surface soil sample results from the initial DU that encompassed the Transmitter Buildings Area indicated the presence of PCB Aroclor 1260, arsenic, and lead above their respective EPA Residential RSLs and HDOH Unrestricted Land Use EALs. However, arsenic results were below the HDOH assumed background level of 20 milligrams per kilogram (mg/kg).

After the initial sampling, this investigation area was further subdivided into five DUs and five MI surface soil samples were collected and analyzed for PCBs and lead. The MI sample results from the five DUs indicate that one of the five DUs contains PCB Aroclor 1260 at a concentration greater than both the EPA Residential RSL and the HDOH Unrestricted Land Use EAL. This DU surrounds the PCB-contaminated area targeted by the discrete sampling. Taking into consideration all the grid expansions, the grid appears to be fully characterized. The data also indicates that PCB contamination above the HDOH Unrestricted Land Use EAL is bounded by this DU. The lead sample results from all five DUs were below the EPA Residential RSL and HDOH Unrestricted Land Use EAL.

Six (6) of the seven (7) MI sample results from the concrete slab foundation within the Transmitter Buildings Area contain PCB contamination at levels in exceedance of EPA Residential RSLs and HDOH Unrestricted Land Use EALs. Concrete DU analytical results are displayed on Figure 5-8.

Analytical results of soil samples collected from beneath the concrete slab indicate that 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT are present but at levels below both EPA Residential RSLs and HDOH Unrestricted Land Use EALs.

80-Acre Area outside of the Transmitter Buildings Area

PCB Aroclor 1260 was detected in eight of the 20 DUs at well below the EPA Residential RSL and the HDOH Unrestricted Land Use EAL. Arsenic was detected in all 20 MI samples at concentrations above the EPA Residential RSL and the HDOH Unrestricted Land Use EAL, but below the HDOH assumed background level.

Berms and Mounds

PCB Aroclor 1260 was detected in five out of the 20 berms at concentrations well below the EPA Residential RSL and the HDOH Unrestricted Land Use EAL. Arsenic was detected in all 20 samples at concentrations above the EPA Residential RSL and the HDOH Unrestricted Land Use EAL, but below the HDOH assumed background level.

Chromium was detected in all 20 berm samples, nine of which were at levels above the EPA Residential RSL. Those nine sample results were still below the HDOH Unrestricted Land Use EAL.

Groundwater

Groundwater sample results indicate that trace levels of petroleum contamination are present in the groundwater surrounding the Transmitter Buildings Area. However, the levels detected are orders of magnitude lower than the HDOH Groundwater Action Levels (GALs).

In conclusion, this site characterization has identified PCB contamination in surface and subsurface soil down to 4 feet below ground surface in the 200-foot by 250-foot sampling grid area within the Transmitter Buildings Area. A significant portion of this sampling grid area contains PCB levels that exceed EPA Residential RSLs and HDOH Unrestricted Land Use EALs. The DU immediately surrounding this grid area also contains PCBs in exceedance of both the EPA Residential RSL and the HDOH Unrestricted Land Use EAL. Taking into consideration all the grid expansions, the grid appears to be fully characterized. The data also indicates that PCB contamination above the HDOH Unrestricted Land Use EAL is bounded by this DU.

MI soil sampling results from areas outside of the Transmitter Buildings Area including results from the berms and mounds do not indicate the presence of PCB and metals contamination above EPA Residential RSLs and HDOH Unrestricted Land Use EALs. Groundwater sampling results do indicate the presence of petroleum hydrocarbons in the groundwater but at levels significantly lower than the HDOH GALs.

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List of Acronyms

°C	Degree Celsius
°F	Degree Fahrenheit
ACM	asbestos-containing material
AST	aboveground storage tank
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CEU	Civil Engineer Unit
COC	chain of custody
COPC	Contaminant of Potential Concern
CSM	Conceptual Site Model
DRO	Diesel Range Organics
DU	decision unitE2 Element Environmental, LLC
EAL	Environmental Action Level
EDDA	Environmental Due Diligence Audit
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
GAL	Groundwater Action Level
GPR	ground penetrating radar
GPS	Global Positioning System
GRO	Gasoline Range Organics
GSA	General Services Administration
HDOH	State of Hawaii Department of Health
HVOC	Halogenated Volatile Organic Compound
LBP	lead-based paint
MACTEC	MACTEC Engineering and Consulting, Inc.
µg/L	microgram per liter
mg/kg	milligram per kilogram
mg/L	milligram per liter
MI	multi-increment
MTBE	Methyl Tertiary Butyl Ether
MW	monitoring well
NA	not applicable
ND	non-detect
NELAC	National Environmental Laboratory Accreditation Conference
NRTF	Naval Radio Transmitter Facility
NS	No Standard
PAH	Polynuclear Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyls
ppm	part per million
PRG	Preliminary Remediation Goal
PVC	polyvinyl chloride
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
RRO	Residual Range Organics
RSD	Relative Standard Deviation

RSL	Regional Screening Level
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
SVOC	Semi-Volatile Organic Compound
TPH	Total Petroleum Hydrocarbon
TPH-D	Total Petroleum Hydrocarbon as Diesel
TPH-G	Total Petroleum Hydrocarbon as Gasoline
TPH-O	Total Petroleum Hydrocarbon as Oil and Grease
TSCA	Toxic Substances Control Act
UCL	Upper Confidence Limit
U.S.	United States
USCG	United States Coast Guard
USDA	United States Department of Agriculture
UST	underground storage tank
VOC	Volatile Organic Compound
WP	Work Plan

Section I Introduction

I.1 Project Identification and Approvals

Project Name: Phase II Confirmatory Sampling, 84-Acre Portion of the Former Voice of America Site, Maili, Oahu, Hawaii

Contract Number: HSCG86-09-C-6XA003

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Date of Issue: July 2011

Approvals:



Roger Aoki, Primary Author, Element Environmental, LLC

July 21, 2011
Date



Ryan Yamauchi, President, Element Environmental, LLC

July 21, 2011
Date

1.2 Project Purpose

This report presents the results of a site characterization conducted at an 84-acre portion of the former Voice of America (VOA) site in Maili, Oahu, Hawaii.

Element Environmental, LLC (E2) conducted surface soil, subsurface soil, and groundwater sampling at the site in order to determine if past uses have impacted the site. Impacted soil and groundwater may affect future uses at the site and require further remedial action prior to redevelopment. The sampling results are intended to help determine if design considerations and/or other precautions must be implemented in order to protect the health of future construction workers and future residents from the presence of contamination (if any).

This report has been prepared by E2 for the United States Coast Guard (USCG), Civil Engineering Unit (CEU) under Contract No. HSCG86-09-C-6XA003 and is based on the scope of work entitled "*Phase I Environmental Site Assessment & Phase II Confirmatory Sampling for 84 Acres of the Former Voice of America Site in Maili, Hawaii*" dated January 12, 2009 and modifications 1 through 8.

This site characterization was developed in accordance with industry standards and United States Environmental Protection Agency (EPA) guidelines for sampling and analysis. All work was conducted by E2 and E2's subcontractors in accordance with the project-specific Work Plan (WP) submitted under separate cover (E2, 2009c) and as directed in applicable scope of work modifications.

1.3 Report Organization

This report is organized into the following sections:

- Section 1 – Introduction
- Section 2 – Location, Description, and Site Setting
- Section 3 – Conceptual Site Model
- Section 4 – Site Characterization Field Tasks
- Section 5 – Sample Analysis and Characterization Results
- Section 6 – Data Quality Assessment and Quality Control
- Section 7 – Summary and Conclusions

Section 2 Location, Description, and Site Setting

2.1 Site Location and Description

The former VOA site is located in Maili on the western side of the island of Oahu, Hawaii. The Tax Map Key number for the site is (1) 8-7-010:007. The former VOA site has an area of approximately 89-acres and is located southeast of the intersection of Kulaaupuni Street and the Maili Channel. A 5-acre portion of the former VOA site is currently leased by the State of Hawaii and has been developed for transitional housing. The remainder of the former VOA site is the 84-acre project site, which is the subject of this report. The project site is currently vacant and is bounded by Kulaaupuni Street to the west, the northern portion of the Maili Channel (formerly Holt Road) to the north, a vacant property to the east, and residential housing along Kulawae Street to the south (Figure 2-1).

2.2 Site Setting

2.2.1 Climate

The climate in Maili is warm and relatively dry. Data from the University of Hawaii School of Ocean and Earth Science and Technology and the Department of Meteorology shows an average temperature range between 72.1 degrees Fahrenheit (°F) and 79.7°F with temperature extremes ranging between from 45°F and 96°F. The average annual precipitation in the Maili area is approximately 21 inches.

2.2.2 Geology

2.2.2.1 Regional Geology

The project site is located on the western slopes of the Waianae Range. The Waianae Range is one of two shield volcanoes on the island of Oahu. The Waianae Range rises 1.2 kilometers above sea level, making it higher than the younger, adjacent Koolau Range. The Waianae and Koolau volcanic shields were built during the late Pliocene and early Pleistocene Epochs by thinly bedded lava flows. The main shield building activities ceased approximately 3.5 to 2.5 million years ago (Stearns, 1985).

The Waianae Volcanic Series is divided into lower, middle, and upper members. The lower member is made up of the lava flows and pyroclastics that built the main mass of the Waianae shield; the middle member is mainly rocks that accumulated in the caldera, gradually filling it; and the upper member is a thin cap that has covered much of the shield late in its history. The volcano is now extensively eroded, bearing large amphitheater valleys on its western slopes. These valleys (such as Lualualei where the subject parcel is located) are some of the largest in Hawaii, and they are believed to represent the sources for large landslides now seen on the sea floor to the west of the island (Stearns, 1985).

2.2.2.2 Site Geology and Soils

According to the United States (U.S.) Soil Conservation Service, the soil in the area of the project site is classified as Mamala stony silty clay loam, Mokuleia clay, and Keaau stony clay (United States Department of Agriculture [USDA], 2008).

- The Mamala series consists of shallow, well-drained soils on coastal plains on the island of Oahu. These soils formed in recent alluvium deposited over coral limestone and consolidated calcareous sand. Permeability is moderate; runoff is very slow to medium; and the erosion hazard is slight to moderate.
- The Mokuleia series consists of well-drained soils on coastal plains on the island of Oahu. These soils formed in recent alluvium deposited over coral sand. Permeability is slow on the surface layer and rapid in the subsoil; runoff is slow; and the erosion hazard is no more than slight.
- The Keaau series consists of poorly-drained soils on coastal plains on the island of Oahu. These soils developed in alluvium deposited over reef limestone or consolidated coral sand. Permeability is slow; runoff is slow; and the erosion hazard is no more than slight (USDA, 2008).

2.2.3 Hydrogeology

2.2.3.1 Regional Hydrogeology

Groundwater resources beneath the project site are part of the Lualualei aquifer system of the Waianae Aquifer Sector (Mink and Lau, 1990). Two aquifers are present below the area of the subject property.

- The upper aquifer is basal, where fresh water is in contact with sea water and unconfined, where the water table is the upper surface of the saturated aquifer. The aquifer is sedimentary, where the soil has a non-volcanic lithology. The aquifer is listed as having moderate salinity (1,000 to 5,000 milligrams per liter [mg/L] of chloride), with a high vulnerability to contamination, and is considered to be irreplaceable. The aquifer is currently used, but is neither a drinking water source nor ecologically important.
- The lower aquifer is basal, where fresh water is in contact with sea water and confined, where the aquifer is bounded by impermeable or poorly permeable formations. The aquifer is in dike compartments. The aquifer is listed as having moderate salinity (1,000 to 5,000 mg/L of chloride), with a low vulnerability to contamination, and is considered to be replaceable. The aquifer has the potential to be used, but is neither a drinking water source nor ecologically important (Mink and Lau, 1990).

2.2.3.2 Site Hydrogeology

Based on regional topography, the regional groundwater flow direction is expected to be north and west toward the Maili Channel. The nearest drinking water supply well is located over three-and-a-half miles northwest of the project site (E2, 2009a).

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Section 3 Conceptual Site Model

3.1 Project Background and Historical Site Use

The 84-acre project site consists of a portion of the former VOA site. Documents and aerial photographs indicate that the 89-acre site was part of a 93-acre condemnation by the U.S. State Department in 1949. The 93-acre site appeared to have operated as an antenna relay station from as early as 1944 through 1971. The U.S. State Department utilized the relay station to transmit VOA broadcasts.

By 1971, the U.S. State Department discontinued use of the facility and utilized the General Services Administration (GSA) to find a new user. Four acres of the site was transferred to the City and County of Honolulu for the construction of the Maili Channel. The USCG initially accepted the remaining 89-acre portion of the facility with the intention of using it as a Long Range Radio Station. However, the USCG later determined that its existing facility at the Naval Radio Transmitter Facility (NRTF) Lualualei was suitable for its needs and again requested the GSA assist to find a new user.

By 1986, all but one of the six transmitter buildings within the 4-acre portion (herein referred to as the Transmitter Buildings Area) of the former VOA site were demolished. The last building was demolished by the USCG in 1989. A chained link fence was installed around a portion of the Transmitter Buildings Area in 2008 after sampling indicated contamination in the area (see following Section 3.2). The remaining building remnants within the fenced area were removed in December 2009 leaving only the concrete foundations.

In 2007, the State of Hawaii, announced plans to utilize a 5-acre portion of the former VOA site at its northwest corner to construct a transitional village to ease the homeless situation facing the State. Construction of the transitional village began in 2008 and was completed in 2009.

3.2 Previous Investigations

In order to facilitate the lease of the 5-acre portion of the former VOA site to the State of Hawaii for construction of the transitional village, the GSA hired MACTEC Engineering and Consulting, Inc. (MACTEC) to complete a Phase I Environmental Site Assessment (ESA) of the 5-acre site. The Phase I ESA was completed in March 2007 and concluded that no recognized environmental conditions existed at the 5-acre site (MACTEC, 2007a).

The GSA also retained MACTEC to complete a Phase I ESA of the remaining 84 acres of the former VOA site. The Phase I ESA was also completed in March 2007 and concluded the following:

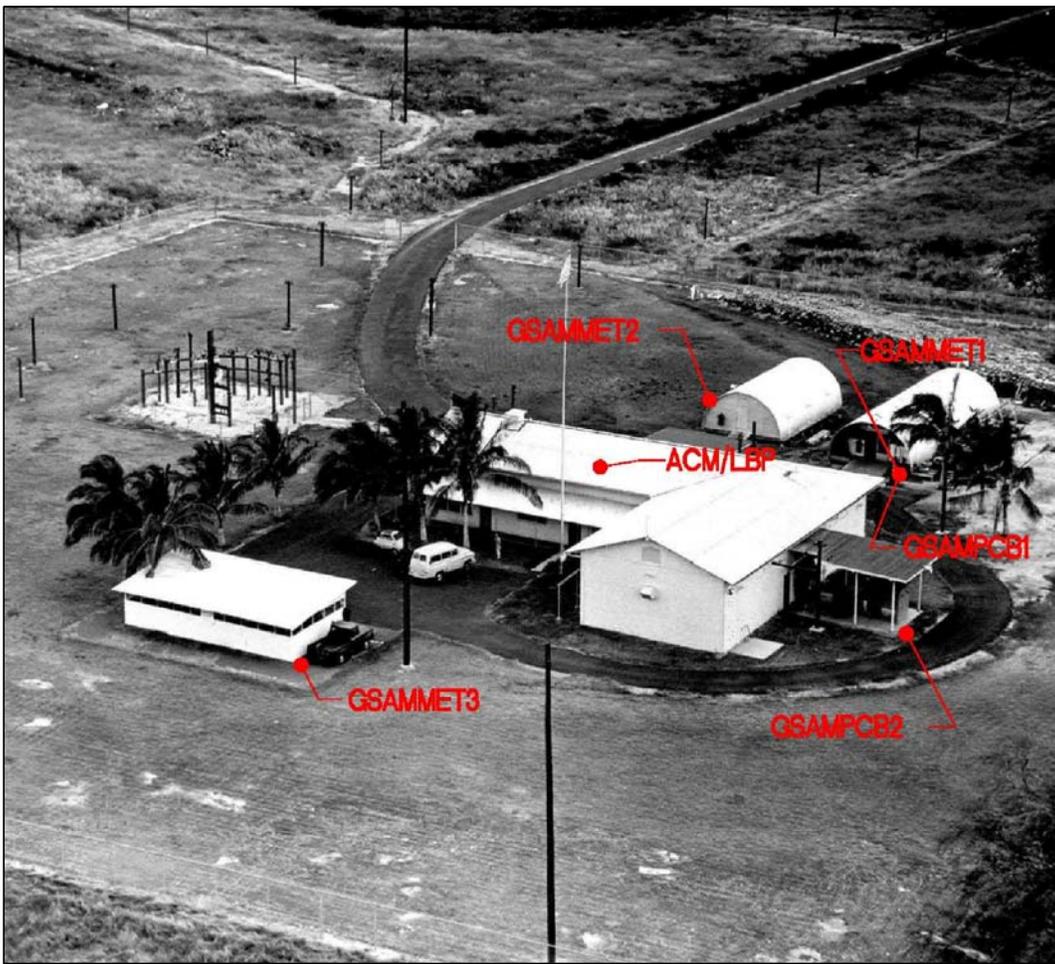
- Debris and remnants of the former transmitter buildings were observed on site. Other wood, metal (including abandoned cars and household appliances), and concrete debris were strewn around the former buildings.
- The buildings were constructed in 1948. Therefore, asbestos-containing materials (ACM), lead-based paint (LBP), and polychlorinated biphenyl (PCB) and mercury-containing electrical equipment may be present in the debris.

- According to information provided by the GSA, underground storage tanks (USTs) may have been present onsite; however, no records of the USTs were found and the USCG personnel interviewed had no knowledge of any USTs (MACTEC, 2007b).

Based on their findings, MACTEC recommended that a metal detector survey be conducted near the former buildings to determine the possible presence of USTs. They also recommended that buildings debris/remnants be tested for asbestos, PCBs, and metals prior to removal and disposal.

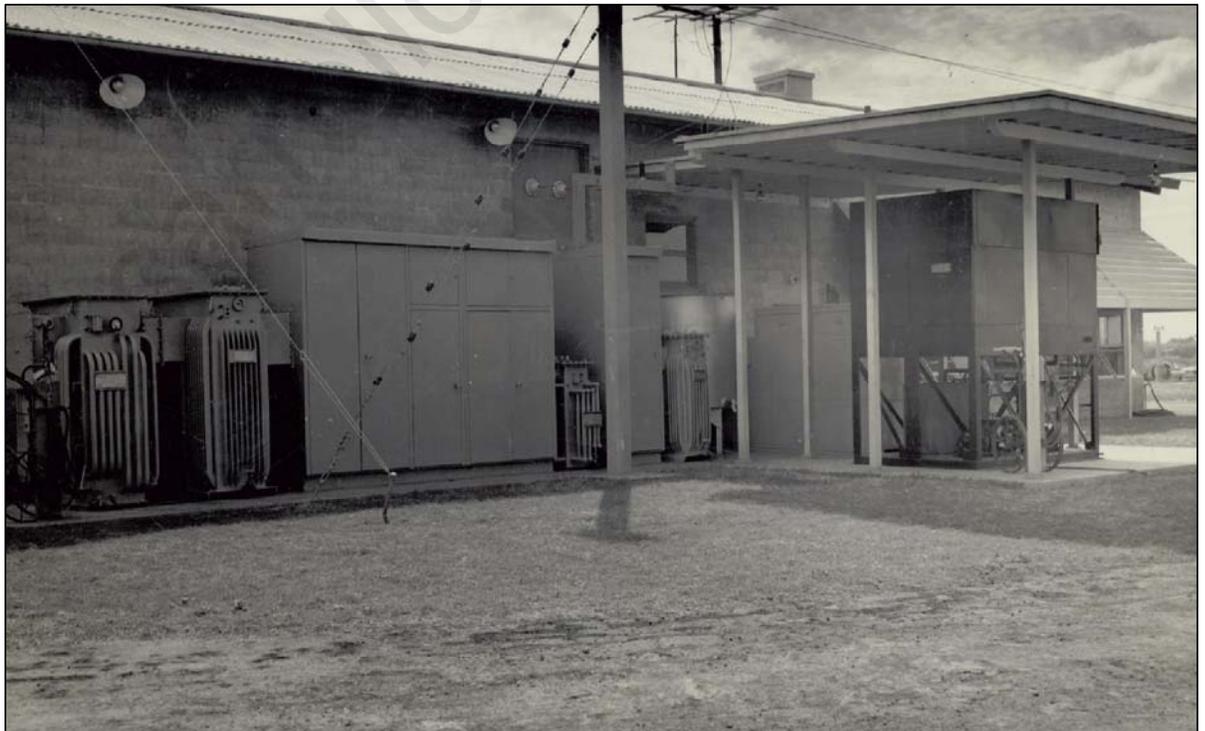
Following the Phase I ESA, MACTEC was contracted by the GSA to complete Phase II ESA sampling at the 84-acre site. The Phase II ESA sampling was generally concentrated within the Transmitter Buildings Area. The Phase II ESA Report completed in July 2007 indicated the following:

- Building materials/debris including white faded vinyl floor tiles, silver coat/paint on corrugated panels, and gray corrugated panels were found to contain asbestos. Approximately 500 square feet of each material was detected. The materials were observed in the debris scattered throughout the former building area of the site.
- LBP was detected in paint chips on the concrete walls of the former buildings.
- Two surface soil samples (GSAMPCB1 and GSAMPCB2) were collected and analyzed for PCBs. Sample locations were selected based on information obtained from photographs for the Transmitter Buildings Area that showed the presence of a former gasoline pump and perhaps a former generator or machinery that was stored under a covered shelter (Figure 3-1). The results indicated the presence of PCB Aroclor 1260 at concentrations of 3,200 and 2.61 milligrams per kilogram (mg/kg), respectively. These results exceeded the EPA Region 9 Preliminary Remediation Goal (PRG) for Residential Use (0.22 mg/kg) published at that time.
- Three surface soil samples were collected from the former building areas and analyzed for the eight Resource Conservation and Recovery Act (RCRA) metals (Figure 3-2). The concentrations in all three samples did not exceed their respective EPA Region 9 PRGs for Residential Use.
- A ground penetrating radar (GPR) survey was conducted. The survey identified an object measuring approximately 4.5 feet by 11 feet buried in the area of the former gasoline pump. The object was suspected to be a former fuel UST. The survey also identified a void near the north side of the investigation area that was suspected to be the location of a former cesspool, and several discontinuous lines that are characteristic of abandoned underground utility lines (MACTEC, 2007c).



FORMER TRANSMITTER STATION BUILDINGS WITH MACTEC PHASE II SAMPLING LOCATIONS
DIRECTION: FACING NORTHWEST
(MACTEC, 2007)

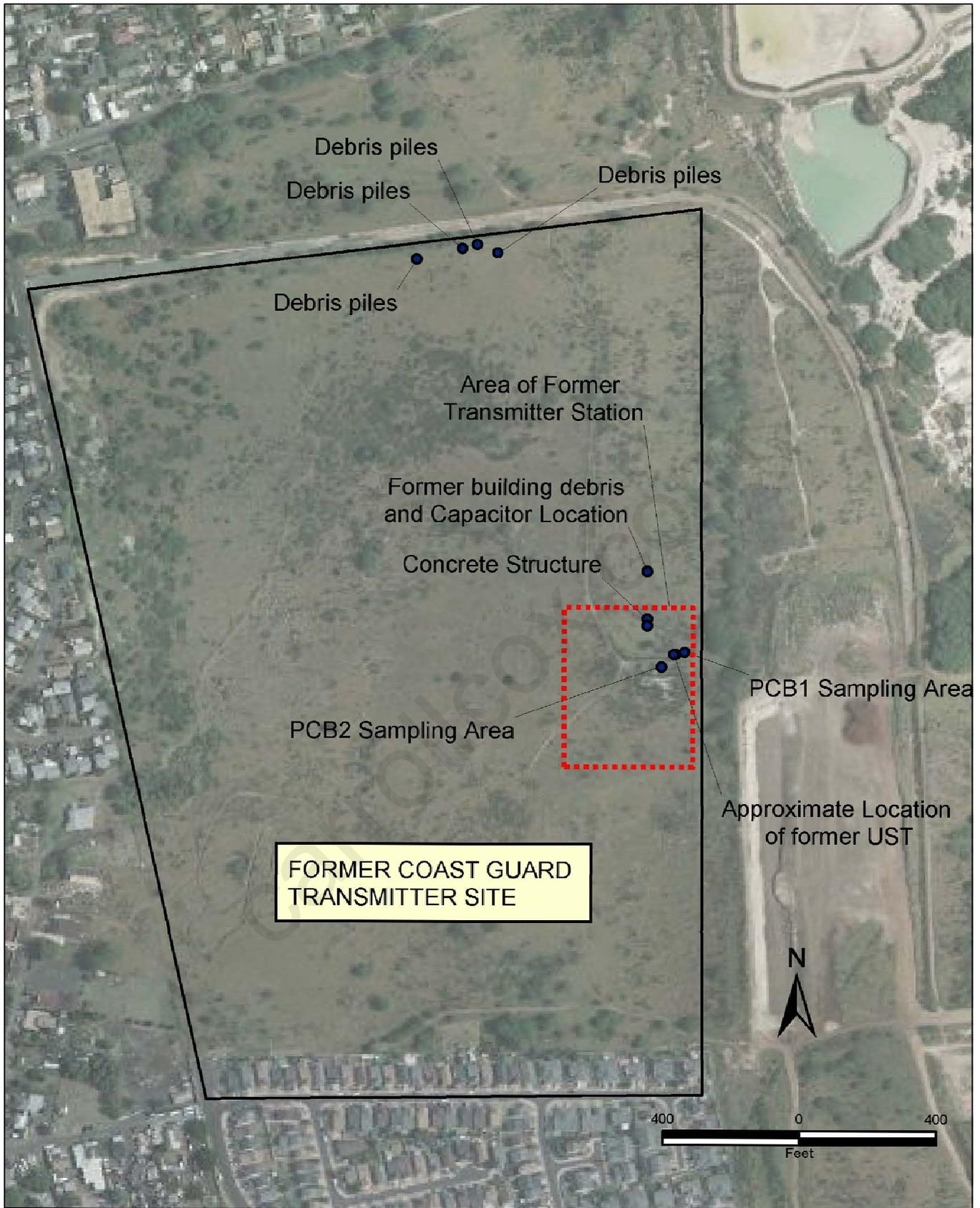
FORMER TRANSMITTER STATION BUILDING WITH TRANSFORMERS ALONG NORTHERN SIDE OF THE BUILDING
DIRECTION: FACING SOUTHWEST
(MACTEC, 2008)



SOURCES: MACTEC, 2007
DRAFT REPORT OF PHASE II ACTIVITIES
MACTEC, 2008
SUPPLEMENTAL PHASE II ACTIVITIES

	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: HISTORIC PHOTOGRAPHS OF TRANSMITTER BUILDINGS AREA 84-ACRE FORMER VOA SITE, MAILI, OAHU, HAWAII	FIGURE NO.: 3-1

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	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: AREAS OF CONCERN PREVIOUSLY IDENTIFIED 84-ACRE FORMER VOA SITE MAILI, OAHU, HAWAII	FIGURE NO.: 3-2

SOURCE: MACTEC, 2008
SUPPLEMENTAL PHASE II DATA

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Based on the Phase II ESA findings, MACTEC conducted Supplemental Phase II ESA sampling. The Supplemental Phase II ESA Report completed in May 2008 indicated the following:

- During a site reconnaissance prior to sampling, USCG personnel found a capacitor in a mound just to the north of the Transmitter Buildings Area (Figure 3-2). The mound was suspected to potentially contain building debris, and was not evident in aerial photographs taken in 1986 (prior to the building demolition in 1989). A sample from the capacitor resulted in the detection of PCB Aroclor 1254 at a concentration of 410,000 mg/kg.
- During the site reconnaissance, piles of debris were also observed to the north of the Transmitter Buildings Area beyond the access road (Figure 3-2). The debris contained building materials and what appeared to be several automobile batteries. The source of the debris was unknown.
- The anomaly identified during the GPR survey was confirmed to be a 500-gallon UST (Figure 3-2). The UST was removed and disposed. No evidence of holes in the tank or stained soil in the excavation was observed. Groundwater was not encountered in the excavation, which extended to approximately 6 feet below ground surface (bgs). Two confirmatory soil samples were collected from the north and south ends of the excavation and analyzed for total petroleum hydrocarbons as gasoline (TPH-G), diesel (TPH-D), and oil and grease (TPH-O); and for volatile organic compounds (VOCs). TPH-G and VOCs were not detected in either sample. TPH-D and TPH-O were detected, but at levels below the State of Hawaii Department of Health (HDOH) soil action levels. After backfilling the excavation, one boring was advanced to 20 feet bgs in the excavation area and one groundwater sample was collected from the boring and analyzed for TPH-G, TPH-D, and VOCs. The groundwater sample results were all non-detect (ND).
- A subsurface investigation was completed, which consisted of the sampling at four step out locations, one in each direction (i.e., north, south, east, and west), at a distance of approximately five feet from the two original sampling locations (GSASAMPCB1 and GSASAMPCB2) where PCBs were previously detected. Samples were collected at the surface and at a depth of approximately 2 feet bgs. Additionally, two of the borings (one downgradient boring at each PCB sampling location) were advanced up to five feet below encountered groundwater (to 15 feet bgs) and grab groundwater samples were collected from each of the boreholes. PCB Aroclor 1260 was detected in all 16 soil samples. Thirteen (13) of the soil samples exceeded the EPA Region 9 PRG for PCBs for Residential Use (0.22 mg/kg) published at that time. PCBs were also detected in one of the groundwater samples (GSASAMPCB1) at a concentration of 2.36 micrograms per liter ($\mu\text{g/L}$), which is above the EPA Primary Drinking Water Standard of 0.5 $\mu\text{g/L}$. It should be noted that the sampling location for GSASAMPCB2 is shown to be located to the north of the transmitter building in the Supplemental Phase II ESA Report (Figure 3-2), but is shown to be located to the east of the transmitter building in the Phase II ESA Report (Figure 3-1).
- A concrete structure was observed to the north of the former transmitter building (Figure 3-2). The structure consisted of concrete curbing enclosing a square area (sides of about 5 feet) with what appeared to be traffic bollards on each corner. The center of the area consisted of soil. The use of the concrete structure was not identified. One soil

boiling was drilled to a depth of 20 feet bgs in the immediate downgradient vicinity of the concrete structure. One soil sample from about 5-6 feet bgs and one grab groundwater sample were collected and analyzed for TPH-G, TPH-D, and VOCs. None of the constituents analyzed were detected in the soil or groundwater samples (MACTEC, 2008).

As the landowner of the property, the USCG contracted E2 to complete an Environmental Due Diligence Audit (EDDA) Phase I Liability Assessment of the 5-acre parcel being leased to the State of Hawaii. The EDDA Phase I Liability Assessment Report completed in January 2009 indicated the following:

- Although past sampling had been limited to the Transmitter Buildings Area, the lateral and vertical extent of contaminants such as PCBs had not been established. In addition, the 5-acre project site provided one of the more convenient routes of access to and from the Transmitter Buildings Area. Therefore, there is a possibility that equipment may have been disposed on or near the 5-acre project site and/or soil particulates may have been tracked onto the project site. There is no specific evidence to indicate that PCBs or PCB-containing equipment were disposed at the project site; however, due to the nature and extent of other PCB-containing electrical equipment disposed at the adjacent Transmitter Buildings Area, PCBs and other similar contamination in the soil and groundwater are considered to be potential hazardous waste concerns at the project site (E2, 2009a).

Following the EDDA Phase I Liability Assessment, E2 was contracted by the USCG to complete Phase II confirmatory sampling at the 5-acre site. The Phase II Confirmatory Sampling Report completed in January 2009 indicated the following:

- A multi-increment (MI) soil sampling approach was used to characterize the residual levels of contaminants in the surface soils at the project site. The 5-acre site was divided into three decision units (DUs) approximately 1.6 acres in size with one MI surface soil sample and two replicates collected from each DU. The MI samples were analyzed for PCBs and heavy metals. The results of the MI sampling analyses indicated the following:
 1. PCBs, arsenic, cadmium, selenium, and silver were not detected in any of the nine MI samples.
 2. Barium, chromium, and mercury were detected in all nine MI samples.
 3. Lead was detected in two of the nine MI samples.
 4. None of the detected metals concentrations exceeded the respective HDOH Environmental Action Levels (EALs) and EPA Region 9 Residential PRGs.
- One groundwater sample was also collected from an open trench at the site to determine if the shallow groundwater has been impacted with PCBs and petroleum-related contaminants. The results of the laboratory analyses indicated the following:
 1. TPH-G, TPH-D, TPH-O, benzene, ethylbenzene, xylene, methyl tertiary butyl ether (MTBE), halogenated volatile organic compounds (HVOCs), semi-volatile organic compounds (SVOCs), and PCBs were not detected.

2. Toluene was detected at a concentration of 2.55 µg/L, which is well below the HDOH GAL of 130 µg/L.
3. Arsenic, barium, and chromium were detected below their respective HDOH GALs.
4. Selenium was detected at a concentration of 18 µg/L, approximately three times higher than the HDOH GAL of 5 µg/L.
5. Mercury was detected at a concentration of 0.12 µg/L, approximately five times higher than the HDOH GAL of 0.025 µg/L.

The EALs for both mercury and selenium are based on chronic Aquatic Habitat Goals. Considering that: (1) mercury was detected below EALs in site soils and selenium was not detected in site soils; (2) the Phase I ESA did not identify sources of mercury and selenium within the 5-acre site; and (3) similar levels of these two metals have been detected in coastal groundwater aquifers elsewhere on Oahu (CH2M Hill, 2003), it is believed that the low concentrations of mercury and selenium detected at the project site are related to regional background concentrations in the local calcareous aquifer.

- Based on the MI surface soil and the groundwater sample results, no further action was recommended for the 5-acre parcel (E2, 2009b).

As part of this current contract, E2 also completed an EDDA Phase I Liability Assessment of the 84-acre project site. The EDDA Phase I Liability Assessment report completed in January 2010 concluded the following:

- Due to the nature and extent of PCB-containing electrical equipment utilized and disposed at the transmitter facility, PCBs and other related contamination in the soil and groundwater are considered to be potential hazardous waste concerns at the project site.
- The remnants of demolished buildings remaining on site have been confirmed to contain ACM and LBP.
- In addition to the demolished buildings in the Transmitter Buildings Area, dozens of demolished radio antenna towers and soil mounds/berms are located throughout the project site.
- The assessment has revealed the presence of soil and groundwater contamination related to the former VOA transmitter facility. Outside of the 5-acre portion of the project site currently leased by the State of Hawaii, past sampling has focused on the identification of contaminants within the Transmitter Buildings Area. However, the sampling has not delineated the lateral and vertical extent of contaminants in the soil or groundwater at the Transmitter Buildings Area, nor has it evaluated contamination outside of the Transmitter Buildings Area. The 84-acre project site, including the mounds and berms, should be further evaluated for potential PCB and heavy metals contamination (E2, 2010). 

3.3 Conceptual Site Model

As described above, the project site was used for VOA broadcasts from 1944 to 1971 and demolition of on-site structures was completed in 1989. Resulting environmental concerns from the historical use include the following:

- Building construction, repair, and demolition - Possible releases of asbestos from ACM in building materials, such as vinyl floor tile, silver coat/paint, corrugated paneling, etc.
- PCBs from electrical equipment (e.g., capacitors and transformers, etc.) - Potential introduction of PCBs into the soils as a result of broken, leaking, or abandoned capacitors and transformers.
- Lead from paints, batteries, or gasoline - Introduction of lead from use of lead paints, leaded gasoline, or lead acid batteries either from maintenance, spillage, disposal, or during structure demolition.
- Former UST/Aboveground Storage Tank (AST) - Accidental releases or leaks of petroleum may have impacted areas around the site where USTs or ASTs may have been located.

Potential future receptors at the project site include construction workers and future residents. Based on the nature of the contaminants of potential concern (COPCs), complete exposure pathways at the site include: (1) dermal contact with site soils; (2) inhalation of dust and SVOCs; and (3) incidental ingestion of site soils.

Based on the relatively low mobility of the COPCs and the absence of nearby groundwater production wells or surface water bodies, it is unlikely that the human receptors will come into direct contact with the groundwater present at the project site, with the exception of construction or trench workers. Since the upper aquifer beneath the site is not utilized as a potable water source, exposure to groundwater through drinking water resources is not considered a complete pathway for potential future receptors.

The complete conceptual site model (CSM) is presented on Figure 3-3.

HISTORICAL USE:
(1) VOICE OF AMERICA

TRANSMITTER BUILDINGS AREA—
TRANSFORMERS, BATTERIES, FUEL
COPCS:
(1) PCBs
(2) RCRA METALS
(3) TPH
(4) ASBESTOS

OUTSIDE TRANSMITTER BUILDINGS
AREA – DEMOLITION OF
STRUCTURES
COPCS:
(1) PCBs
(2) RCRA METALS

GROUNDWATER – RESULTING
FROM SURFACE ACTIVITIES
COPCS:
(1) PCBs
(2) RCRA METALS
(3) PETROLEUM-RELATED
(4) CONTAMINATION

MI SOIL SAMPLING:
SURFACE TO
SUBSURFACE
SOIL FROM 4-
ACRE AREA

DISCRETE SOIL
SAMPLING:
SURFACE TO
SUBSURFACE
SOIL FROM 4-
ACRE AREA

MI SOIL SAMPLING:
SURFACE TO
SUBSURFACE
SOIL FROM 81-
ACRE AREA

MI SOIL SAMPLING:
SURFACE TO
SUBSURFACE
SOIL FROM
BERMS AND
MOUNDS

GROUNDWATER
SAMPLING:
SURROUNDING
4-ACRE AREA

FUTURE USE:
ENGINEER, MP, AND EOD
OPERATIONS AND MAINTENANCE
FACILITIES AND OTHER
INFRASTRUCTURE FACILITIES

EXPOSURE PATHWAYS FOR
SITE SOILS:
•DERMAL CONTACT
•INHALATION
•INGESTION

POTENTIAL
RECEPTORS:
(1) CONSTRUCTION WORKERS
(2) INDUSTRIAL SITE USERS

EXPOSURE PATHWAYS FOR
GROUNDWATER:
•NONE - NOT USED AS
DRINKING WATER SOURCE

	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S. COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: CONCEPTUAL SITE MODEL	

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3.4 Sampling Rationale

The objectives of the confirmatory sampling were as follows:

- to determine the lateral and vertical extent of PCB contamination in surface and subsurface soils at two areas within the Transmitter Buildings Area previously identified to contain PCBs;
- to determine if residual levels of COPCs resulting from historic use of the 4-acre Transmitter Buildings Area are present in the surface soils, in the concrete foundation, and soil directly beneath the concrete foundation;
- to determine if residual levels of COPCs resulting from historic use of the 80-acre site outside of the Transmitter Buildings Area are present in the surface soils;
- to determine if construction debris or other solid waste has been disposed and buried within soil berms and mounds onsite and if residual levels of COPCs resulting from such disposal are present in the soils; and
- to determine if residual levels of COPCs resulting from historic use of the 4-acre Transmitter Buildings Area are present in the groundwater.

Sampling areas were developed based on historic uses, previous sampling results, and potential migration pathways and/or accumulation points for chemical releases. Five investigation areas were identified for sampling as follows:

1. Previously Identified PCB-Contaminated Areas within the Transmitter Buildings Area

Assessment of the lateral and vertical extent of PCB contamination in surface and subsurface soils. Discrete sampling of surface and subsurface soil surrounding the previously identified locations of PCB contamination within the Transmitter Buildings Area was conducted to evaluate the nature and extent of contamination at the project site. Previously identified PCB-contaminated areas are presented on Figure 3-4.

2. 4-Acre Transmitter Buildings Area

Assessment of the presence of PCBs, RCRA metals, TPH-G, TPH-D, TPH-O, and asbestos in surface soils. MI sampling was conducted to evaluate the nature and extent of contamination throughout the Transmitter Buildings Area. Boundaries of this DU are presented on Figure 3-5.

Assessment of the presence of PCBs in the concrete foundation. Composite sampling of concrete was conducted to evaluate the nature and extent of PCB contamination throughout the former Transmitter Building concrete foundation within the Transmitter Buildings Area. Photographs of the concrete foundation can be found in Appendix A.

Assessment of the presence of Pesticides directly beneath the concrete foundation. Discrete sampling of subsurface soil was conducted to evaluate the nature and extent of pesticide contamination directly beneath the former Transmitter Building concrete foundation within the Transmitter Buildings Area.

3. 80-Acre Area outside of the Transmitter Buildings Area

Assessment of the presence of PCBs and RCRA metals in surface soils. MI sampling was conducted to evaluate the nature and extent of contamination throughout the 80-acre site. The 20 MI sampling DUs for this investigation area, each about four acres in size, are presented on Figure 3-5.

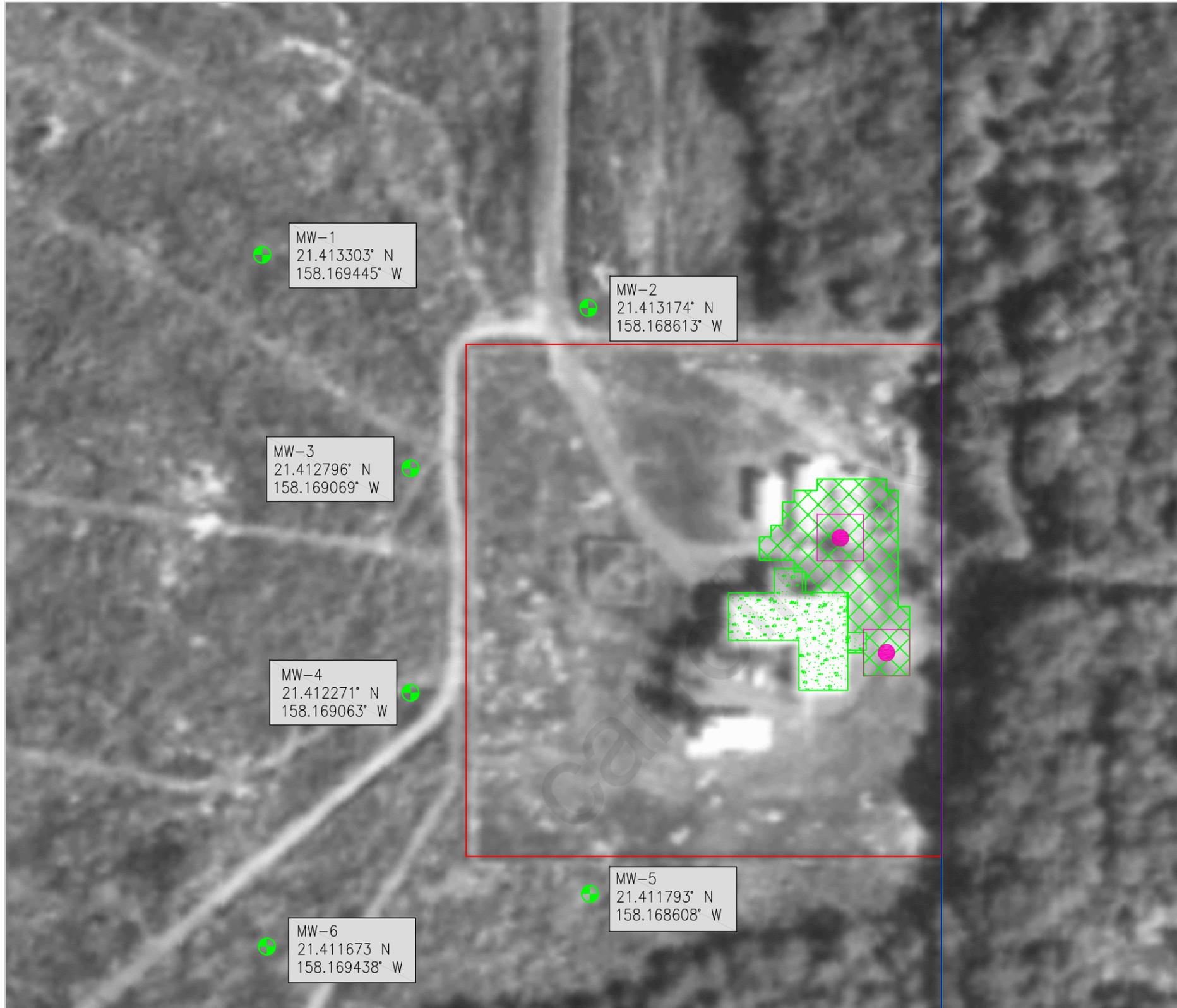
4. Berms and Mounds

Assessment of the presence of PCBs and RCRA metals in soil berms and mounds. MI sampling was conducted to evaluate the nature and extent of contamination within berms and mounds throughout the project site. Locations of berms and mounds within the project site are presented on Figure 3-6.

5. Groundwater

Assessment of the presence of PCBs, RCRA metals, and petroleum-related contamination (including benzene, toluene, ethylbenzene, and xylene [BTEX], MTBE, polynuclear aromatic hydrocarbons [PAHs], and HVOCs) in groundwater near the Transmitter Buildings Area. Groundwater monitoring wells (MWs) were installed and groundwater sampling was conducted to evaluate the nature and extent of contamination at the site. Groundwater MW locations are presented on Figure 3-4.

TRUE NORTH
SCALE: 1"=100'



MW-1
21.413303° N
158.169445° W

MW-2
21.413174° N
158.168613° W

MW-3
21.412796° N
158.169069° W

MW-4
21.412271° N
158.169063° W

MW-5
21.411793° N
158.168608° W

MW-6
21.411673° N
158.169438° W

LEGEND

- PROJECT BOUNDARY OF FORMER VOA SITE
- BOUNDARY OF FORMER TRANSMITTER BUILDINGS AREA
- MONITORING WELL LOCATION
- MW-1 MONITORING WELL IDENTIFICATION
- 21.413303° N 158.169445° W MONITORING WELL LOCATION LATITUDE/LONGITUDE
- PREVIOUS PCB SAMPLE LOCATION (MACTEC 2007)
- INITIAL 40'X40' PCB CONTAMINATION DELINEATION SAMPLING GRID
- EXTENT OF PCB CONTAMINATION DELINEATION SAMPLING GRID
- CONCRETE FOUNDATION OF FORMER TRANSMITTER BUILDING



SOURCE: 1962 AERIAL PHOTOGRAPH
UNIVERSITY OF HAWAII

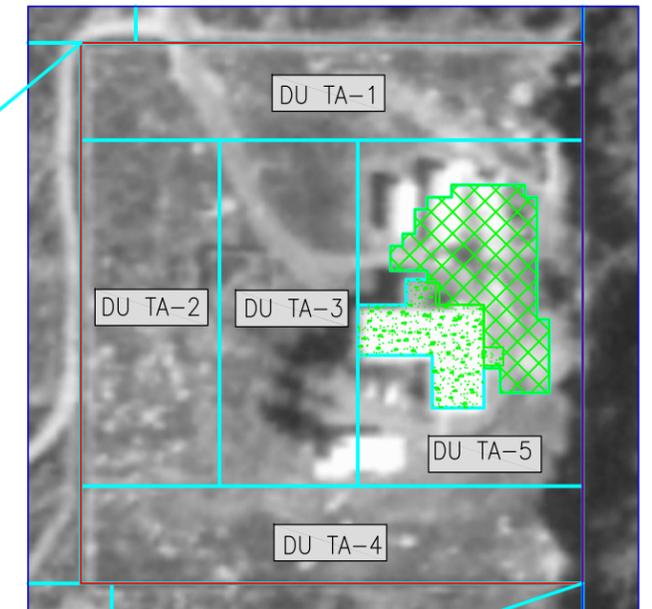
 element environmental llc environmental · engineering · water resources	
PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU	
FIGURE TITLE: PCB SAMPLE GRID AND MONITORING WELL LOCATIONS 84-ACRE FORMER VOA SITE MAILI, OAHU, HAWAII	
DATE: JUL 2011	FIGURE NO.: 3-4

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TRUE NORTH
SCALE: 1"=400'



400' 0 400' 800'
SCALE: 1"=400'



TRUE NORTH
SCALE: 1"=150'

150' 0 150' 300'
SCALE: 1"=150'

LEGEND

-  PROJECT BOUNDARY OF FORMER VOA SITE
-  DU TC INITIAL 4-ACRE AREA OF THE FORMER TRANSMITTER BUILDINGS AREA DECISION UNIT
-  DU TA-1 FOLLOW-UP DECISION UNITS INSIDE OF THE FORMER TRANSMITTER BUILDINGS AREA
-  DU 1 DECISION UNITS OUTSIDE OF THE FORMER TRANSMITTER BUILDINGS AREA
-  PCB SAMPLING GRID AREA EXCLUDED FROM THE DECISION UNIT
-  CONCRETE SLAB EXCLUDED FROM THE DECISION UNIT
-  5-ACRE AREA PREVIOUSLY SAMPLED FOR STATE OF HAWAII LEASE

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environmental · engineering · water resources

PROJECT TITLE:
PHASE II CONFIRMATORY SAMPLING
U.S.COAST GUARD
CIVIL ENGINEER UNIT HONOLULU

FIGURE TITLE:
DECISION UNITS
84-ACRE FORMER VOA SITE
MAILI, OAHU, HAWAII

DATE:
JUL 2011

FIGURE NO.:
3-5

SOURCE: 1962 AERIAL PHOTOGRAPH
UNIVERSITY OF HAWAII

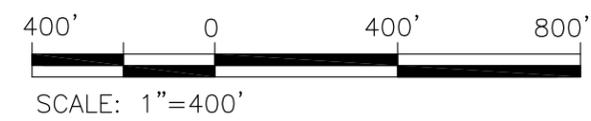
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TRUE NORTH
SCALE: 1"=400'



LEGEND

-  PROJECT BOUNDARY OF FORMER VOA SITE
-  APPROXIMATE LOCATION OF LARGE BERMS
-  APPROXIMATE LOCATION OF SMALL BERMS THAT WERE TRENCHED
-  BERM 3 - B03 TRENCHED BERM NUMBER AND BERM SAMPLE NUMBER
-  BERM 24 TRENCHED BERM NUMBER (BERM NOT SAMPLED)
-  5-ACRE AREA PREVIOUSLY SAMPLED FOR STATE OF HAWAII LEASE



SOURCE: 2008 AERIAL PHOTOGRAPH
GOOGLE EARTH

 element environmental llc environmental · engineering · water resources	
PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU	
FIGURE TITLE: BERM LOCATIONS 84-ACRE FORMER VOA SITE MAILI, OAHU, HAWAII	
DATE: JUL 2011	FIGURE NO.: 3-6

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Section 4 Site Characterization Field Tasks

E2 collected and analyzed soil and groundwater samples from the five investigation areas described in Section 3 in order to evaluate the nature and extent of potential contamination at the project site. Project COPCs include: PCBs, RCRA metals, TPH-G, TPH-D, TPH-O, asbestos, and petroleum-related contamination (including BTEX, MTBE, PAHs, and HVOCs).

4.1 Characterization Activities

The following tasks were completed during this site characterization:

- Sample location layout and site preparation;
- Soil sample collection and analysis; and
- Site restoration.

Select photographs taken during the field activities are included in Appendix A and a copy of the field notes is included in Appendix B.

4.1.1 Utility Clearance and Underground Toning

E2 contracted Hawaii Geophysical Services, LLC to tone the berms and mounds prior to trenching and sampling to ensure that any anomalies were included in the sampling. An electromagnetic toner was utilized to detect metallic debris within the berms and mounds.

4.1.2 Sample Location Layout and Site Preparation

The sample locations for the investigation were based on locations developed in the Project WP (E2, 2009c). PCB sampling grids 1 and 2 were established based on the previous PCB sample locations from 2008, GSAMPCB1 AND GSAMPCB2, as shown on Figure 3-4. A survey crew from R.M. Towill Corporation surveyed and staked these two previous sampling locations on July 28, 2009.

DU boundaries were located in the field using a hand-held global positioning system (GPS) device. The boundaries of the 20 DUs outside of the Transmitter Buildings Area and the original DU within the Transmitter Buildings Area, each roughly four acres in size, are shown on Figure 3-5. The boundaries of the five DUs within the Transmitter Buildings Area are also shown on Figure 3-5. The boundaries of the seven DUs within the concrete foundation are shown on Figure 5-8.

Groundwater MWs were located around the Transmitter Buildings Area in order to evaluate the nature and extent of contamination at the project site. Previous groundwater sampling from 2008 indicated contamination within the Transmitter Buildings Area. Groundwater MW locations are presented on Figure 3-4.

4.1.3 Sample Collection and Analysis

Prior to the start of each work day, a safety and health meeting was conducted by the Site Safety and Health Officer (SSHO) as required by the Project Site Safety and Health Plan (SSHP). The E2 Site Foreman also conducted a meeting describing the work that was to be performed.

Project personnel were responsible for collecting samples and decontaminating the sampling equipment. To avoid cross-contamination of the samples and to protect worker safety and health, the person performing the sample collection donned a new pair of disposable nitrile gloves while collecting each sample.

Field notes were maintained by E2 personnel recording the location, sample media, number, date and time for each sample collected, as well as any relevant observations. The field notes were recorded in a bound notebook using an indelible marker. A copy of the field notes is included in Appendix B. Digital color photographs were taken to document the field investigation, and select photographs are included in Appendix A.

The discrete soil samples from the previously identified PCB-contaminated areas were initially collected on July 28 through July 30, 2009. The PCB grids were expanded and additional samples were collected on August 5, August 18, September 17, and December 29, 2009, as well as May 27 and September 1, 2010.

The MI soil samples from the 4-acre area DU within the Transmitter Buildings Area were initially collected on July 31, 2009. This DU was further divided into five smaller DUs and re-sampled on December 29, 2009. The concrete foundation was divided into seven decision units and samples were collected on May 20 and September 1, 2010. The soil samples from directly beneath the concrete foundation were collected on May 19, 2010.

The MI soil samples from the 80-acre area outside of the Transmitter Buildings Area were collected on July 30 and 31, 2009.

The MI soil samples from the berms and mounds were collected on August 25 and 26, 2009.

The groundwater samples were collected on August 13, 2009.

4.1.3.1 Collection of Discrete Soil Samples from the Previously Identified PCB-Contaminated Areas

Discrete surface soil samples were collected from the two previously identified PCB-contaminated areas utilizing a hand trowel to remove the top 2-3 inches of soil and a Terra-core plunger to retrieve each sample.

Subsurface samples were collected at approximately 2 feet and 4 feet bgs at alternate sampling nodes of the sampling grid. Sample borings were advanced utilizing a post-hole digger to approximately 2 feet bgs and a slide hammer to approximately 4 feet bgs. Primary and duplicate samples were collected directly from the borehole using a Terra-core plunger while post-hole digging between 6 inches and 2 feet bgs. Then, a slide hammer equipped with a hollow sampler was driven into the hole to approximately 4 feet bgs. Primary and duplicate samples were collected from the acetate sleeve liner or directly from the hollow sampler at the drive depth. Soil samples were placed directly into resealable bags.

Each sample consisted of approximately 20 grams of soil. Sample locations were initially based off a simple 10' grid system that surrounded the two surveyed PCB hot spot locations. As immunoassay results were interpreted, the sampling grid was extended twice in an attempt to completely delineate the extent of the PCB contamination.

After the second grid expansion, the surface soil sample grids were expanded twice more with samples being collected utilizing a hand trowel to remove the top 2-3 inches of soil then collecting approximately 20 grams of soil placed directly into an 8 ounce glass jar.

4.1.3.2 Collection of Multi-increment Soil Samples from the 4-Acre Area within the Transmitter Buildings Area

The initial MI soil sample from the 4-acre DU within the Transmitter Buildings Area excluded the two 40-foot by 40-foot discrete sampling grid areas centered around the two locations known to have PCB contamination.

A MI surface soil sample was collected from the 4-acre DU within the Transmitter Buildings Area utilizing a hand trowel to remove the top 2-3 inches of soil and a Terra-core plunger to retrieve each increment. Each increment consisted of approximately 20 grams of soil; and each sample consisted of 30 increments. Increment samples were located in a stratified-random manner (e.g., even spacing along a serpentine path traversing the area).

Two replicate MI surface samples were collected from the same DU using the same stratified-random manner, but from a different direction or starting point. Increment samples from the same MI sample were combined in the field and placed directly into resealable bags.

The analytical results of the MI and two replicate samples had high relative standard deviations (RSDs), which indicate a high degree of variation of contaminant concentrations in the soil. The high RSDs were likely due to the elevated concentrations of PCBs in the soils surrounding the two discrete sampling grids. As detailed in the previous section, the two discrete sampling grids were subsequently expanded after the initial sampling was completed. The expanded grid areas were included in the initial MI sampling DU for the 4-acre area (DU TC on Figure 3-4).

Follow-up MI soil sampling from the 4-acre area within the Transmitter Buildings Area consisted of MI sample collection from five smaller DUs (DU TA-1 through 5 on Figure 3-4) that excluded the expanded grid areas around the two locations known to have PCB contamination.

The five surface MI soil samples were collected from the 4-acre area utilizing a hand trowel to remove the top 2-3 inches of soil and a Terra-core plunger to retrieve each increment. Each increment consisted of approximately 20 grams of soil; and each sample consisted of 30 increments. Increment samples were located in a stratified-random manner (e.g., even spacing along a serpentine path traversing the area).

Two replicate MI surface samples were collected from one of the five DUs using the same stratified-random manner, but from a different direction or starting point. Increment samples from the same MI sample were combined in the field and placed directly into resealable bags.

In addition to the MI soil samples, concrete samples were collected from the large concrete slab within this investigation area. The concrete slab was divided into seven (7) DUs (Figure 5-8). A handheld rotor hammer was used to bore through the top inch of the concrete slab at least ten locations within each DU. Dust from the boring was collected and placed directly into specially cleaned glass sample containers.

Three soil samples were collected from directly beneath the concrete foundation. A concrete core was advanced through the entire thickness of the concrete slab at three different locations around the slab. The full thickness was found to be between 5" and 7". Soil was collected from

beneath the concrete slab at these sample locations and collected in specially cleaned glass sample containers. These soil samples were analyzed for organochlorine pesticides.

4.1.3.3 Collection of Multi-increment Soil Samples from the 80-Acre Area outside of the Transmitter Buildings Area

Twenty (20) surface MI soil samples were collected from the 80-acre area outside of the Transmitter Buildings Area utilizing a hand trowel to remove the top 2-3 inches of soil and a Terra-core plunger to retrieve each increment. Each increment consisted of approximately 20 grams of soil; and each sample consisted of 30 increments. Increment samples were located in a stratified-random manner (e.g., even spacing along a serpentine path traversing the area).

Two replicate MI surface samples were collected from two of the DUs using the same stratified-random manner, but from a different direction or starting point. Increment samples from the same MI sample were combined in the field and placed directly into resealable bags.

4.1.3.4 Collection of Multi-increment Soil Samples from the Berms and Mounds

An excavator was utilized to trench portions of selected berms to visually identify buried construction debris or other solid waste. After trenching was complete, MI soil samples were collected using Terra-core soil plungers that were driven directly into the soil. Each increment was comprised of approximately 20 grams of soil; and each sample consisted of 30 increments. Increment samples from the same MI sample were combined in the field and placed directly into resealable bags.

4.1.3.5 Collection of Groundwater Samples

Six MWs were installed at the site on August 10 and 11, 2009. The well casings were constructed of flush-threaded two-inch diameter schedule 40 polyvinyl chloride (PVC) pipe. The wells were set at a depth of 20 feet bgs with a screened interval of 10 feet. Filter pack of medium-grained sand was packed from the bottom of the well up to a depth of two feet above the top of the screened section. A bentonite pellet seal was placed above the filter pack to within 1.0 to 0.5 feet of the ground surface. Wells were finished flush to the ground with a traffic-rated cover. Select photographs of completed MWs are provided in Appendix A. Copies of boring and well construction logs are provided in Appendix B.

Development of the groundwater MWs was performed on August 12, 2009. A surge block was manually plunged up and down the interior of each MW for a minimum of 15 minutes. The fine-grained material that entered the well during construction and surging activities was then removed by purging a volume of 55 gallons from each well.

Groundwater samples were collected on August 17, 2009. Prior to sampling, the MW was purged by removing a minimum of three times the standing volume of static water present in the well.

The recovered water samples were placed in the appropriate sample jars provided by the analytical laboratory. The water samples collected for metals analysis were filtered in the field with a 0.45 micron filter prior to placement into the laboratory-supplied container. These jars were then properly labeled and placed on ice to ensure that the temperature of the collected samples remained below 4 degrees Celsius (°C) prior to arrival at the analytical laboratory.

4.1.3.6 Collection of PCB Congener Samples

On September 1, 2010, five soil samples were collected from the PCB-contaminated area within the Transmitters Building Area. The purpose of the analysis was to evaluate the relative composition of the 209 PCB congeners. Due to the relatively high concentration of PCBs in previous samples, all five samples were screened by analyzing by EPA Method 8082 prior to the EPA Method 1668 analysis.

4.1.3.7 Sample Identification and Handling

All soil samples were labeled with the sample identification information described below and placed into insulated coolers filled with ice for preservation. The samples were chilled and maintained at a temperature of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and managed under chain of custody (COC) protocol and documentation until delivery to the analytical laboratory.

MI soil samples were hand delivered to TestAmerica Laboratories, Inc. - Honolulu where MI sample preparation was conducted. The samples were then shipped to TestAmerica - Tacoma for analysis of PCBs (EPA Method 8082), RCRA Metals (EPA Methods 6010B and 7471), TPH-G, TPH-D, and TPH-O (EPA Method 8015B), depending on the analytical methods listed in the table below. Asbestos (EPA Method 600/R-93/116) samples were analyzed by AmeriSci - Los Angeles.

Analysis of soil samples from the original grids and two grid expansions from the two previously identified PCB-contaminated areas were analyzed by E2 with RaPID Assay Test Kits and laboratory confirmation samples were analyzed by TestAmerica – Tacoma. Soil samples from the latest grid expansions were analyzed by TestAmerica Honolulu and TestAmerica – Tacoma, respectively. TestAmerica – West Sacramento was also utilized to analyze samples for PCB congeners by EPA Method 1668.

Analysis of discrete soil samples analyzed for Organochlorine Pesticides (EPA Method 8081A) was performed by TestAmerica – Tacoma.

Groundwater samples were shipped to TestAmerica - Tacoma for analysis of PCBs (EPA Method 8082), RCRA Metals (EPA Methods 6010B and 7471), TPH-G, TPH-D, and TPH-O (EPA Method 8015B), MTBE (EPA Method 8260B), BTEX (EPA Method 8260B), PAHs (EPA Method 8270 SIM), and HVOCs (EPA Method 8260B).

Table 4-1 below summarizes the soil and groundwater sample analyses by investigation area.

Table 4-1: Soil and Groundwater Sample and Analysis Summary

Feature/Facility	Sample Description	Laboratory Analyses
Two previously identified locations of PCB contamination	A sampling grid (approximately 200-foot by 250-foot at its longest width and length, respectively) with sample nodes at every ten feet surrounding the two previously identified locations of PCB contamination. Discrete surface soil samples were collected at 242 sample nodes. Discrete subsurface soil samples were collected at 2 and 4 feet bgs at alternating nodes.	Surface and Subsurface Soil Samples: <ul style="list-style-type: none"> • PCBs, RaPID Assay Test Kits • PCBs, EPA Method 8082 • PCBs, EPA Method 1668 Concrete Slab Samples: <ul style="list-style-type: none"> • PCBs, EPA Method 8082
4-acre Transmitter Buildings Area	The entire area was initially one DU. One (1) primary and two (2) replicate MI surface soil samples were collected from the entire DU. Each MI soil sample was collected from 30 increment sample locations.	Surface Soil Samples: <ul style="list-style-type: none"> • PCBs, EPA Method 8082 • RCRA Metals, EPA Methods 6010B and 7471 • TPH-G, TPH-D, and TPH-O, EPA Method 8015B • Asbestos, EPA Method 600/R-93/116
4-acre Transmitter Buildings Area	Follow-up sampling consisting of five DUs. One (1) primary surface soil sample was collected from each DU. Two (2) replicate MI surface soil samples were collected from one (1) DU. Each MI soil sample was collected from 30 increment sample locations.	Surface Soil Samples: <ul style="list-style-type: none"> • PCBs, EPA Method 8082 • Lead, EPA Method 6010B
4-acre area Transmitter Buildings Area	The concrete slab was divided into 7 DUs.	Concrete Foundation Samples: <ul style="list-style-type: none"> • PCBs, EPA Method 8082
4-acre area Transmitter Buildings Area	Three discrete soil samples were collected from beneath the concrete slab.	Beneath Concrete Foundation Soil Samples: <ul style="list-style-type: none"> • Organochlorine Pesticides, EPA Method 8081A
80-acre area outside of the Transmitter Buildings Area	One (1) primary MI surface soil sample was collected from each of the 20 DUs. Two (2) replicate MI surface soil samples were collected from two (2) of the DUs. Each MI soil sample was collected from 30 increment sample locations.	Surface Soil Samples: <ul style="list-style-type: none"> • PCBs, EPA Method 8082 • RCRA Metals, EPA Methods 6010B and 7471

Feature/Facility	Sample Description	Laboratory Analyses
Berms and mounds	Twenty (20) separate DUs consisting of one berm each were sampled. One (1) primary MI soil sample was collected from each berm. Two (2) replicate MI soil samples were collected from two (2) of the berms. Each MI soil sample was collected from 30 increment sample locations.	Berm Soil Samples: <ul style="list-style-type: none"> • PCBs, EPA Method 8082 • RCRA Metals, EPA Methods 6010B and 7471
Groundwater	Six groundwater MWs were installed at the project site. MWs were installed surrounding the Transmitter Buildings Area. Based on topographic maps, depth to groundwater was estimated to be 8 to 10 feet bgs. Therefore, well depths were set at 20 feet bgs.	Groundwater Samples: <ul style="list-style-type: none"> • PCBs, EPA Method 8082 • RCRA Metals, EPA Methods 6010B and 7471 • TPH-G, TPH-D, and TPH-O, EPA Method 8015B • MTBE, EPA Method 8260B • BTEX, EPA Method 8260B • PAHs, EPA Method 8270 SIM • HVOCs, EPA Method 8260B

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Section 5 Sample Analysis and Characterization Results

Project soil and groundwater samples were analyzed by TestAmerica - Honolulu, TestAmerica - Tacoma, and AmeriSci - Los Angeles, which are all commercial analytical laboratories. Analytical methods used by the laboratories are from EPA publication SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA, 1996).

The following subsections summarize the results generated from this investigation. Summary analytical data tables for soil and groundwater samples are included in Appendix C. Complete laboratory data packages are included in Appendix D.

5.1 Data Evaluation Criteria

Statistical analysis of the MI soil samples were completed per the HDOH's *Technical Guidance Manual for the Implementation of the Hawaii State Contingency Plan* (HDOH, 2009). In accordance with the guidance document, an estimation of the upper end of the variation from the mean (mean plus one standard deviation) has also been calculated. As the CSM indicated future residential use at the project site, the results are compared to HDOH EALs, Toxic Substances Control Act (TSCA) High Occupancy Areas as well as EPA Region 9 Regional Screening Levels (RSLs) for Residential Soils updated in November 2010. Specific EALs to be used for soil are the *Unrestricted Land Use* values listed in the HDOH Guidance document *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table I-1 for Soil*, updated in March 2009. Specific EALs to be used for groundwater are the *Groundwater Action Levels* values listed in *Table D-1d*.

5.2 Soil Sample Analysis Results

5.2.1 Previously Identified PCB-Contaminated Areas

Three hundred eighty-three (383) primary samples and 46 duplicates were collected from 242 sampling nodes within an approximately 200-foot by 250-foot area surrounding the two previously identified PCB-contaminated areas. In addition to the field duplicates, 42 replicate samples were collected and sent to the analytical laboratory. Samples were collected from the subsurface soil as described in Section 4.1.3.1. Sample points were laid out in a square grid with sample nodes at ten-foot offsets. Discrete surface soil samples were collected at the 242 sample nodes. Discrete subsurface soil samples were collected at 2 and 4 feet bgs at alternating nodes.

Primary and duplicate samples were analyzed for PCBs with RaPID Assay Test Kits. A subset of replicate samples was submitted to the laboratory for analysis of PCBs (EPA Method 8082).

Analytical results of the soil samples indicated the following:

- Of the 242 primary surface samples collected, 218 samples exceeded the EPA Residential RSL of 0.22 mg/kg.
- Of the 52 primary samples collected from 2 feet bgs, 23 samples exceeded the EPA Residential RSL of 0.22 mg/kg.

- Of the 54 primary samples collected from 4 feet bgs, 17 samples exceeded the EPA Residential RSL of 0.22 mg/kg.

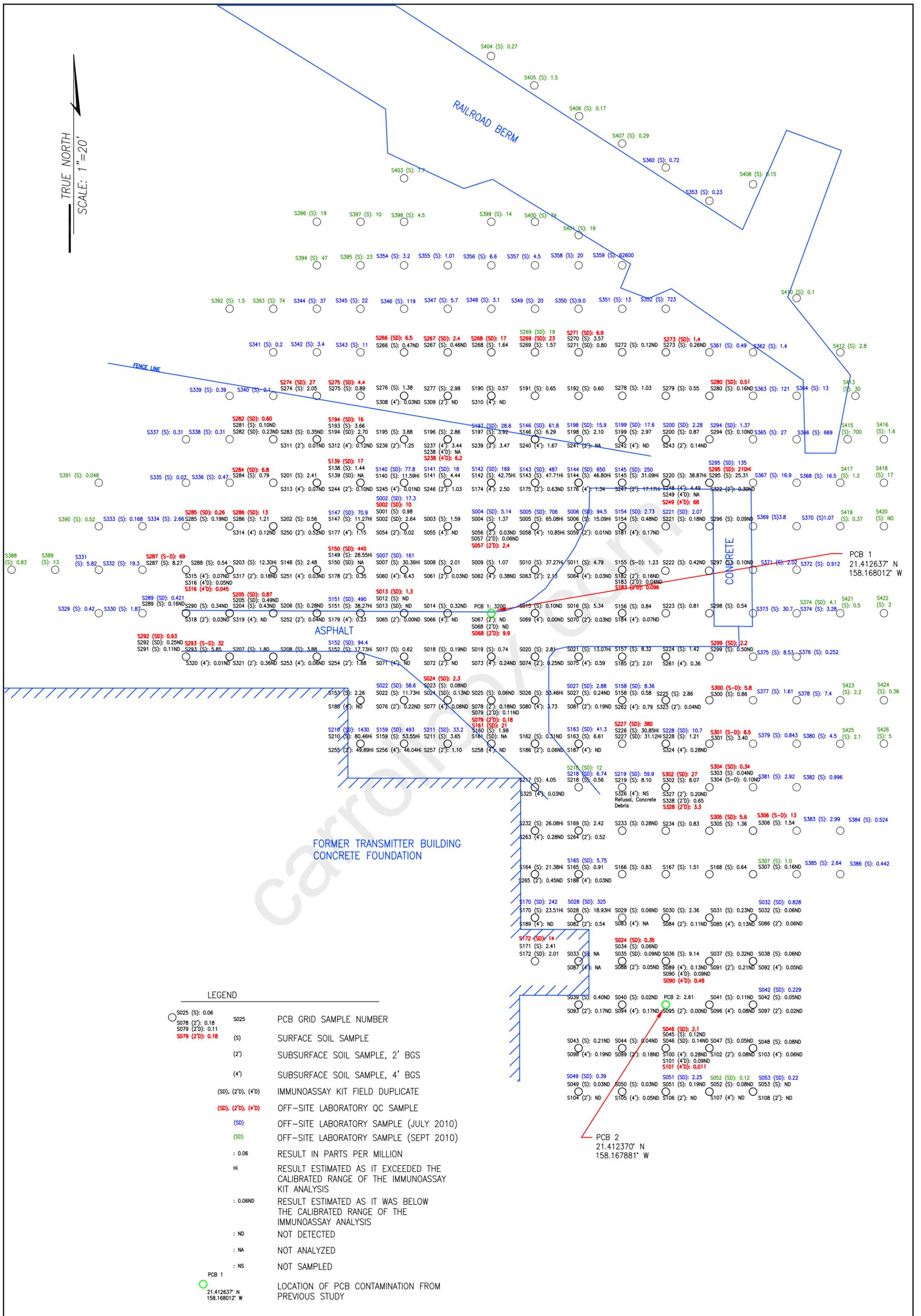
Complete analytical results are shown on Figure 5-1. Figures 5-2 through 5-5 depict estimated volumes of soil that contain PCBs above various thresholds. These results are summarized below in Table 5-1. The thresholds included in Table 5-1 and Figures 5-2 through 5-5 are based on the EPA Residential RSL of 0.22 mg/kg, the TSCA High Occupancy Area cleanup level of 1.0 parts per million (ppm) (equivalent to 1.0 mg/kg), the TSCA High Occupancy Area cleanup level of 10 ppm with a cap, and TSCA Low Occupancy cleanup level with markings and a fence. The 50 ppm concentration also represents the threshold at which soil may be disposed at State approved landfill.

Table 5-1: Estimated Total Volume of Contaminated Soil

Threshold (mg/kg)	Volume up to 1' bgs (cubic yards)	Volume up to 3' bgs (cubic yards)	Volume up to 4' bgs (cubic yards)	Total Volume (cubic yards)
0.22 (EPA Residential RSL)	807	256	252	1,315
1.0 (TSCA High Occupancy Area)	615	133	119	867
10	278	22	44	344
50	137	22	44	204

A complete summary of the soil sample analytical results is presented in Appendix C. The complete analytical laboratory reports are presented in Appendix D.

TRUE NORTH
SCALE: 1"=20'



LEGEND

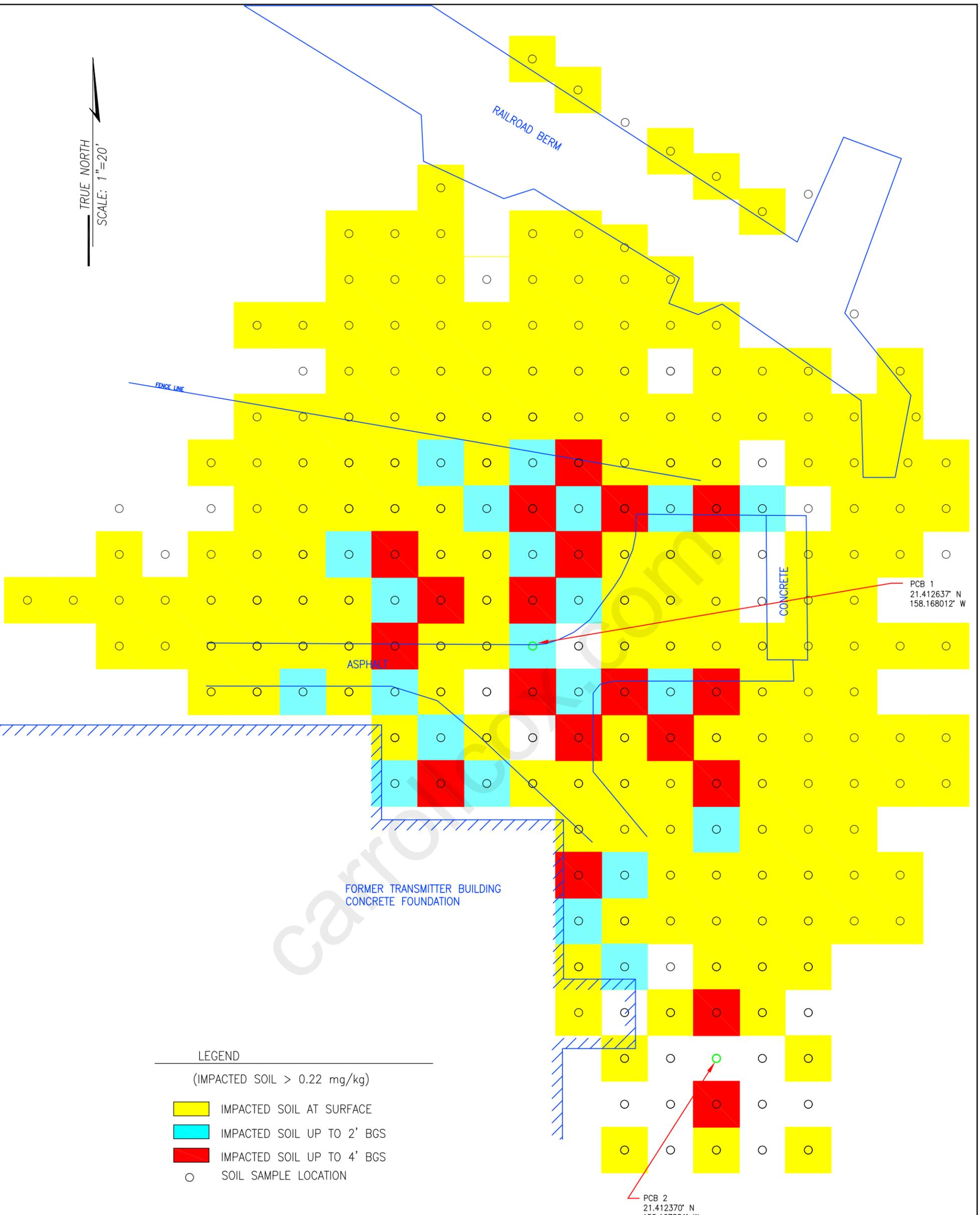
S025 (S): 0.06	S025	PCB GRID SAMPLE NUMBER
S078 (2'): 0.18	(S)	SURFACE SOIL SAMPLE
S079 (2'D): 0.11	(2')	SUBSURFACE SOIL SAMPLE, 2' BGS
S079 (2'D): 0.18	(4')	SUBSURFACE SOIL SAMPLE, 4' BGS
(SD), (2'D), (4'D)		IMMUNOASSAY KIT FIELD DUPLICATE
(SD), (2'D), (4'D)		OFF-SITE LABORATORY QC SAMPLE
(SD)		OFF-SITE LABORATORY SAMPLE (JULY 2010)
(SD)		OFF-SITE LABORATORY SAMPLE (SEPT 2010)
: 0.06		RESULT IN PARTS PER MILLION
HI		RESULT ESTIMATED AS IT EXCEEDED THE CALIBRATED RANGE OF THE IMMUNOASSAY KIT ANALYSIS
: 0.06ND		RESULT ESTIMATED AS IT WAS BELOW THE CALIBRATED RANGE OF THE IMMUNOASSAY ANALYSIS
: ND		NOT DETECTED
: NA		NOT ANALYZED
: NS		NOT SAMPLED
PCB 1 21.412637° N 158.168012° W		LOCATION OF PCB CONTAMINATION FROM PREVIOUS STUDY



	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: PCB SAMPLE GRIDS CONFIRMATION ANALYTICAL RESULTS 84-ACRE FORMER VOA SITE, MAILI, OAHU, HAWAII	FIGURE NO.: 5-1

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TRUE NORTH
SCALE: 1"=20'



LEGEND
(IMPACTED SOIL > 0.22 mg/kg)

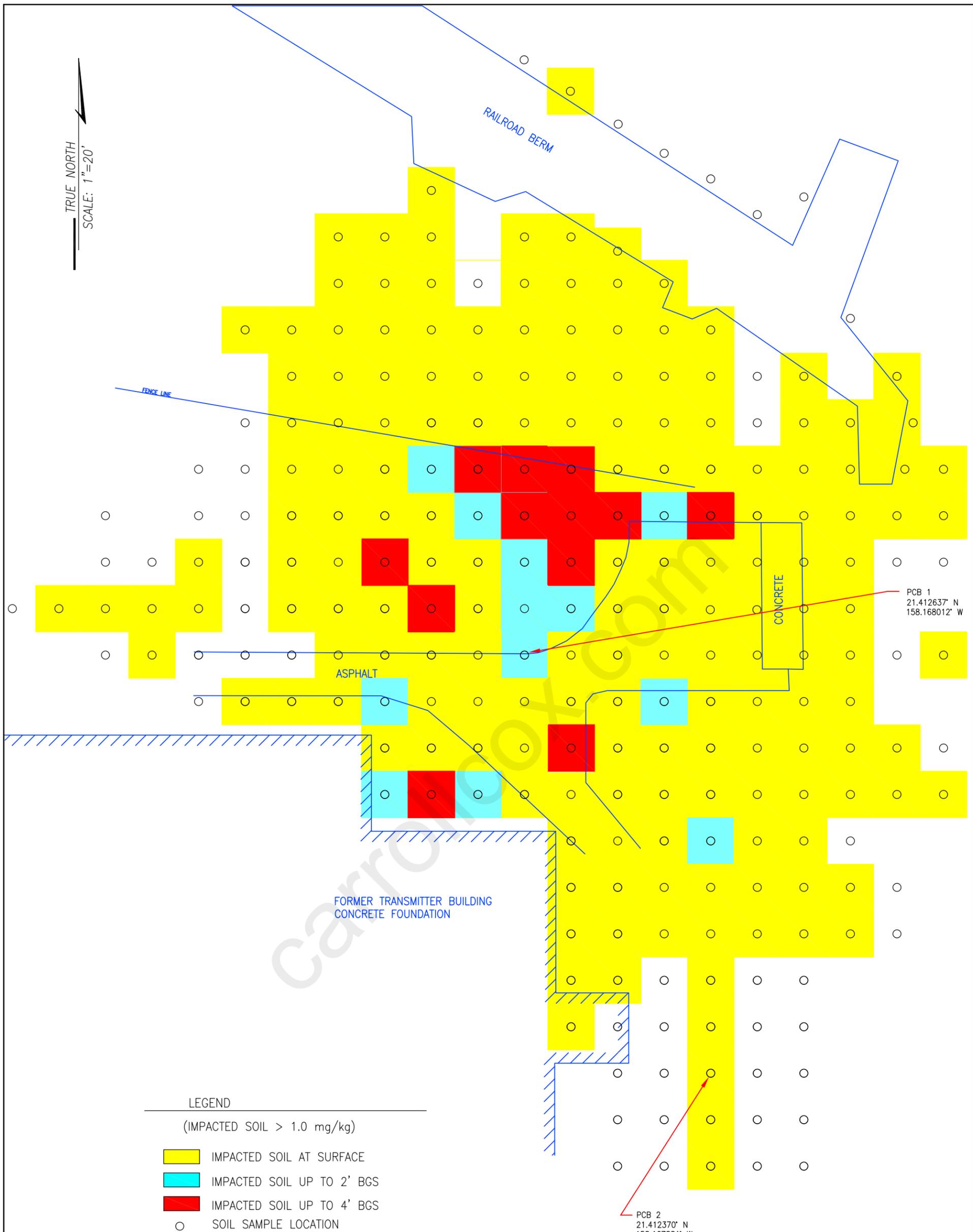
- IMPACTED SOIL AT SURFACE
- IMPACTED SOIL UP TO 2' BGS
- IMPACTED SOIL UP TO 4' BGS
- SOIL SAMPLE LOCATION

20' 0 20' 40'
SCALE: 1"=20'

	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: ESTIMATED AREA OF PCB CONCENTRATIONS THAT EXCEED EPA RESIDENTIAL RSL 84-ACRE FORMER VOA SITE, MAILI, OAHU, HAWAII	FIGURE NO.: 5-2

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TRUE NORTH
SCALE: 1"=20'



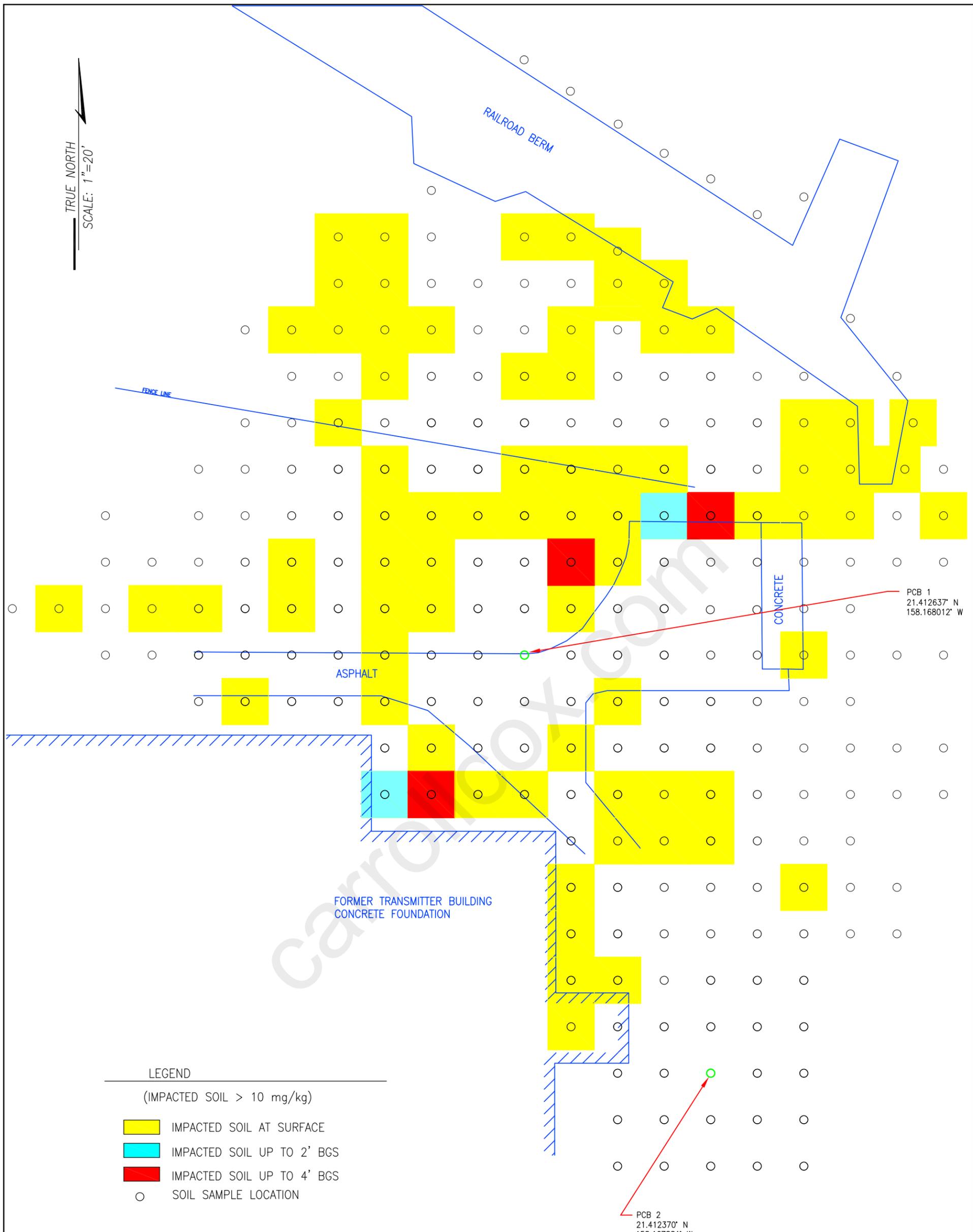
- LEGEND
(IMPACTED SOIL > 1.0 mg/kg)
- IMPACTED SOIL AT SURFACE
 - IMPACTED SOIL UP TO 2' BGS
 - IMPACTED SOIL UP TO 4' BGS
 - SOIL SAMPLE LOCATION



	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: ESTIMATED AREA OF PCB CONCENTRATIONS THAT EXCEED TSCA HIGH OCCUPANCY CLEANUP LEVEL, 84-ACRE FORMER VOA SITE, MAILI, OAHU, HAWAII	FIGURE NO.: 5-3

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TRUE NORTH
SCALE: 1"=20'



LEGEND

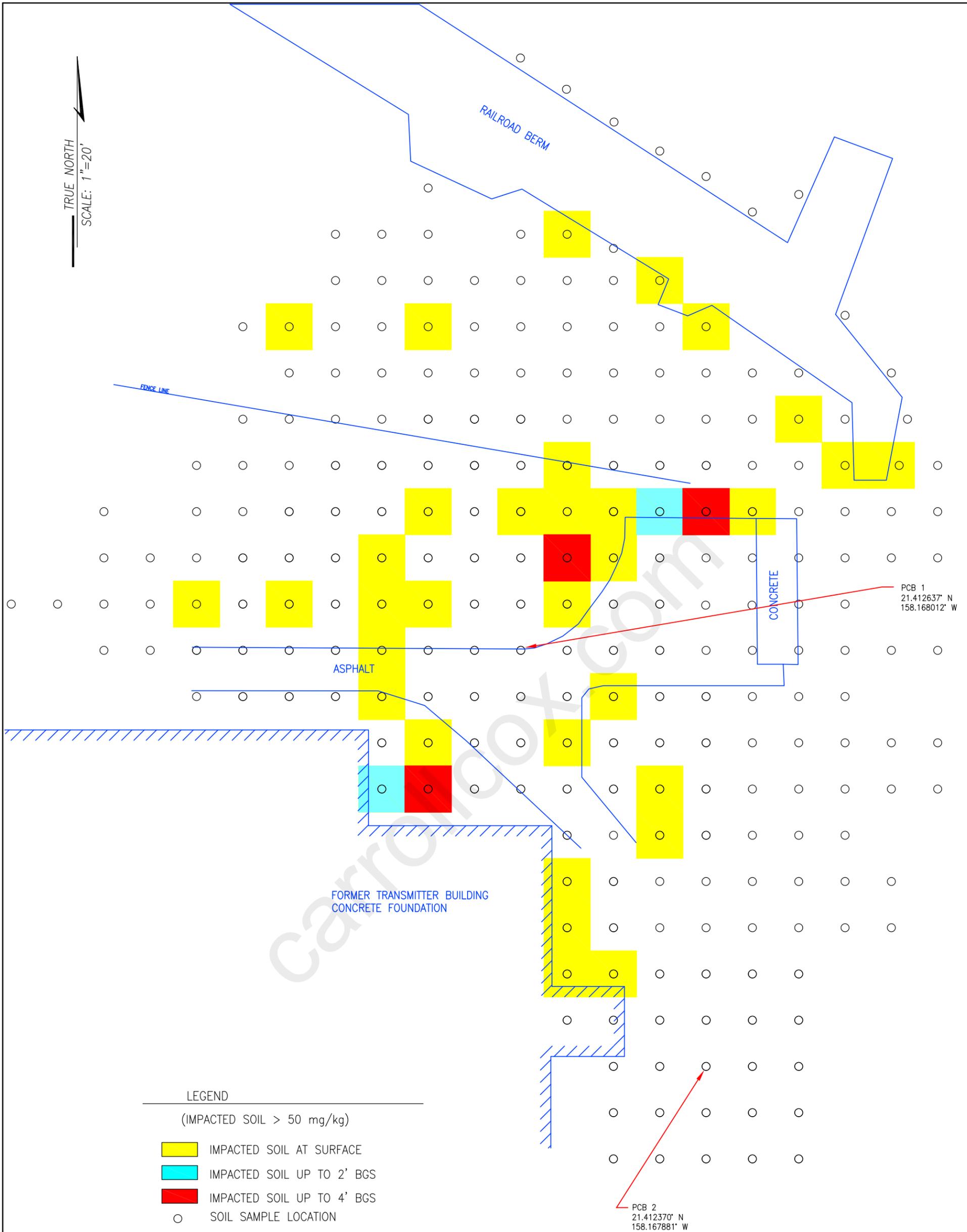
- (IMPACTED SOIL > 10 mg/kg)
- IMPACTED SOIL AT SURFACE
 - IMPACTED SOIL UP TO 2' BGS
 - IMPACTED SOIL UP TO 4' BGS
 - SOIL SAMPLE LOCATION



	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: ESTIMATED AREA OF PCB CONCENTRATIONS THAT EXCEED 10 MG/KG 84-ACRE FORMER VOA SITE, MAILI, OAHU, HAWAII	FIGURE NO.: 5-4

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TRUE NORTH
SCALE: 1"=20'



- LEGEND
(IMPACTED SOIL > 50 mg/kg)
- IMPACTED SOIL AT SURFACE
 - IMPACTED SOIL UP TO 2' BGS
 - IMPACTED SOIL UP TO 4' BGS
 - SOIL SAMPLE LOCATION



	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: ESTIMATED AREA OF PCB CONCENTRATIONS THAT EXCEED 50 MG/KG 84-ACRE FORMER VOA SITE, MAILI, OAHU, HAWAII	FIGURE NO.: 5-5

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5.2.2 4-Acre Area within the Transmitter Buildings Area

An initial primary soil sample and two replicates were collected from 30 increment sample locations within the 4-acre Transmitter Buildings Area. Samples were collected from the surface soil as described in Section 4.1.3.2. The soil samples were analyzed for PCBs (EPA Method 8082), RCRA metals (EPA Methods 6010B and 7471), TPH-G, TPH-D, and TPH-O (EPA Method 8015B), and asbestos (EPA Method 600/R-93/116).

Analytical results of the soil samples indicated the following:

- PCB Aroclor 1260 was detected in the primary sample and both replicate samples at levels ranging from 1.8 to 15 mg/kg. These concentrations are above the EPA Residential RSL of 0.22 mg/kg and the HDOH Unrestricted Land Use EAL of 1.1 mg/kg. All other PCB Aroclor results were ND.
- Arsenic was detected in the primary sample and both replicate samples at levels ranging from 9.0 to 11 mg/kg. These values exceed the EPA Residential RSL of 0.39 mg/kg and the HDOH Unrestricted Land Use EAL of 0.43 mg/kg. The concentrations do not exceed the HDOH assumed background level for arsenic of 20 mg/kg.
- Lead was detected in the primary sample and both replicate samples at levels ranging from 54 to 1,900 mg/kg. The replicate sample with the result of 1,900 mg/kg is in exceedance of the EPA Residential RSL and the HDOH Unrestricted Land Use EAL, both of which are 400 mg/kg.
- Silver was not detected in any MI samples from this DU. All other RCRA metals (Barium, Cadmium, Chromium, Selenium, and Mercury) were detected in the primary sample and one or both replicate samples, but at levels below the respective EPA Residential RSLs and the HDOH Unrestricted Land Use EALs.
- TPH was detected in the primary sample and both replicate samples, but at levels below the EPA Residential RSLs and the HDOH Unrestricted Land Use EALs.
- Asbestos was not detected in the primary sample or either replicate samples.

Analytical results are summarized in Table 5-2 below. The results are depicted on Figure 5-6. A complete summary of the sample analytical results is presented in Appendix C. The complete analytical laboratory reports are presented in Appendix D.

Table 5-2: Initial Four-Acre Transmitter Buildings Area DU Soil Sample Results Summary

Analyte	Average Conc. (mg/kg)	Standard Deviation (mg/kg)	Average + Standard Deviation (mg/kg)	95% UCL (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>						
PCB - 1016	ND	NA	NA	NA	3.9	1.1
PCB - 1221	ND	NA	NA	NA	0.14	1.1
PCB - 1232	ND	NA	NA	NA	0.14	1.1
PCB - 1242	ND	NA	NA	NA	0.22	1.1
PCB - 1248	ND	NA	NA	NA	0.22	1.1
PCB - 1254	ND	NA	NA	NA	0.22	1.1
PCB - 1260	7.4	7	14	15.1	0.22	1.1
<i>RCRA Metals (EPA 6010B/7471A)</i>						

Analyte	Average Conc. (mg/kg)	Standard Deviation (mg/kg)	Average + Standard Deviation (mg/kg)	95% UCL (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Arsenic	10	1	11	11.1	0.39	0.43
Lead	688	1,050	1,738	1,876.2	400	400
Barium	141	48	189	195.7	15,000	3,100
Cadmium	0.8	0	1	1.2	70	14
Chromium	113	6	119	119.9	280	500
Selenium	1.1	0	1	1.4	390	78
Silver	ND	NA	NA	NA	390	78
Mercury	0.0	0	0	0.0073	5.6	4.7
<i>Total Petroleum Hydrocarbons (EPA 8015B)</i>						
GRO	2.2	0	3	2.6	NS	600
DRO	10	7	17	17.8	NS	500
RRO	52	35	87	92.1	NS	2,300
<i>Asbestos (EPA 600/R-93/116)</i>						
Asbestos	ND	NA	NA	NA	NS	NS

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL.

NA = Not applicable; average, standard deviation, and 95% UCL not calculated for analytes with all non-detects.

ND = Non-detect.

NS = No Standard published.

Notes: (1) All EALs are for Unrestricted Land Use unless otherwise indicated.

(2) In cases where at least one analyte was detected, the average, standard deviation, and 95% UCL were calculated using the method detection limit for analytes with non-detects.

After the discrete PCB sampling grid was expanded for the third time, the 4-acre area was divided into five DUs that excluded the expanded PCB sampling grid. Five primary soil samples and two replicates were collected from the five DUs. Each MI sample was collected from 30 increment sample locations within each DU. The soil samples were analyzed for PCBs (EPA Method 8082) and lead (EPA Method 6010B).

Analytical results of the soil samples indicated the following:

- PCB Aroclor 1260 was detected in all five DUs at concentrations ranging from 0.060 to 2.6 mg/kg. Two samples were well below the EPA Residential RSL of 0.22 mg/kg and all but one were below the HDOH Unrestricted Land Use EAL of 1.1 mg/kg.
- Lead was detected in all five samples at concentrations between 15 and 130 mg/kg. All five samples were well below the EPA Residential RSL and the HDOH Unrestricted Land Use EAL, both of which are 400 mg/kg.

Analytical results are summarized in Table 5-3 below. The results are depicted in Figure 5-7. A complete summary of the soil sample analytical results is presented in Appendix C. The complete analytical laboratory reports are presented in Appendix D.

TRUE NORTH
SCALE: 1"=400'



LEGEND

- PROJECT BOUNDARY OF FORMER VOA SITE
- ORIGINAL 4-ACRE TRANSMITTER BUILDINGS AREA DECISION UNIT
- DECISION UNITS OUTSIDE OF THE TRANSMITTER BUILDINGS AREA
- 5-ACRE AREA PREVIOUSLY SAMPLED FOR STATE OF HAWAII LEASE

DU 1: 0.0025 mg/kg
 ND NOT DETECTED

DECISION UNIT IDENTIFICATION AND PCB ANALYTICAL RESULT IN MILLIGRAMS PER KILOGRAM

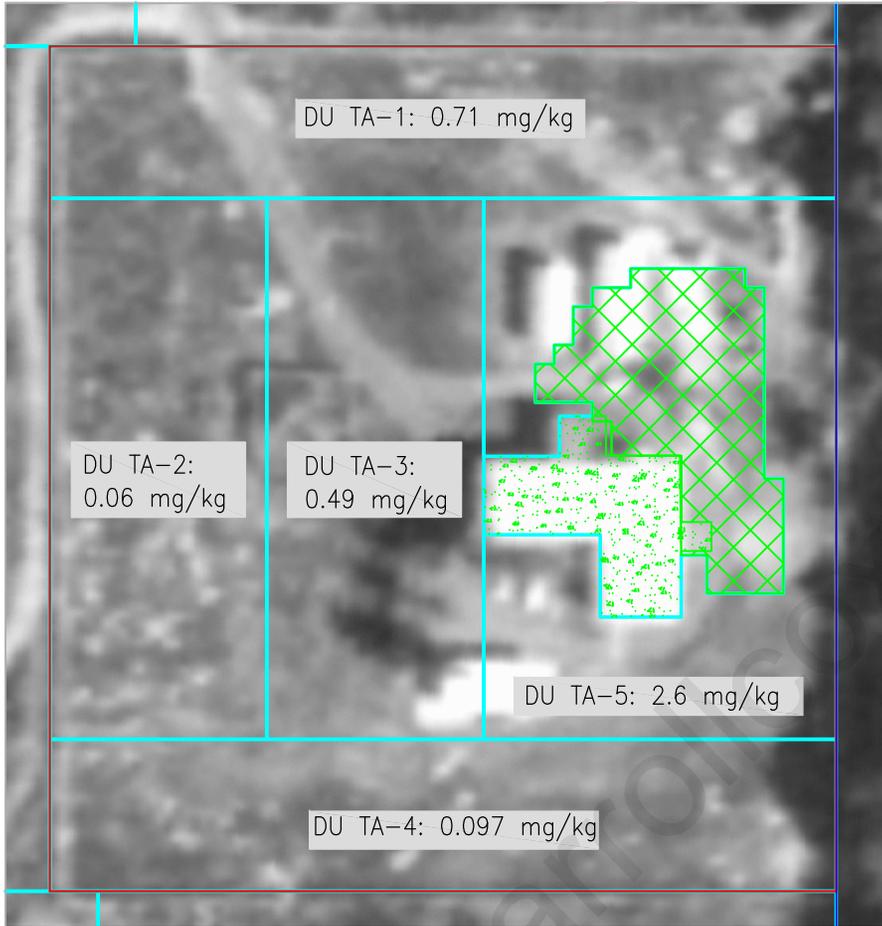


SOURCE: 1962 AERIAL PHOTOGRAPH UNIVERSITY OF HAWAII

<p>environmental · engineering · water resources</p>	
<p>PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU</p>	
<p>FIGURE TITLE: 80-ACRE AREA DECISION UNITS - PCB ANALYTICAL RESULTS 84-ACRE FORMER VOA SITE MAILI, OAHU, HAWAII</p>	
<p>DATE: JUL 2011</p>	<p>FIGURE NO.: 5-6</p>

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TRUE NORTH
SCALE: 1"=100'



LEGEND

-  PROJECT BOUNDARY OF FORMER VOA SITE
 -  ORIGINAL 4-ACRE AREA OF THE FORMER TRANSMITTER BUILDINGS AREA DECISION UNIT
 -  DECISION UNITS INSIDE FORMER TRANSMITTER BUILDINGS AREA
 -  PCB SAMPLING GRID AREA EXCLUDED FROM THE DECISION UNIT
 -  CONCRETE SLAB EXCLUDED FROM THE DECISION UNIT
- DU TA-1: DECISION UNIT IDENTIFICATION AND PCB ANALYTICAL RESULT IN MILLIGRAMS PER KILOGRAM
0.71 mg/kg



	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TRANSMITTER BUILDINGS AREA DECISION UNITS TITLE: - PCB ANALYTICAL RESULTS 84-ACRE FORMER VOA SITE, MAILI, OAHU, HAWAII	

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Table 5-3: Follow-up DUs within the Four-Acre Transmitter Buildings Area Soil Sample Results Summary

Analyte	DU TA-1 T001 (Primary Sample)	DU TA-1 T002 (Replicate Sample)	DU TA-1 T003 (Replicate Sample)	DU TA-2 T004 (Primary Sample)	DU TA-3 T005 (Primary Sample)	DU TA-4 T006 (Primary Sample)	DU TA-5 T007 (Primary Sample)	EPA RSL	HDOH EAL
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>									
PCB - 1016	ND	ND	ND	ND	ND	ND	ND	3.9	1.1
PCB - 1221	ND	ND	ND	ND	ND	ND	ND	0.14	1.1
PCB - 1232	ND	ND	ND	ND	ND	ND	ND	0.14	1.1
PCB - 1242	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1248	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1254	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1260	0.50	0.71	0.64	0.060	0.49	0.097	2.6	0.22	1.1
<i>RCRA Metals (EPA 6010B/7471A)</i>									
Lead	15	130	97	41	59	16	71	400	400

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL.

The former Transmitter Building concrete slab foundation within this investigation area was divided into seven (7) DUs. MI samples were collected from each and sent to the analytical laboratory for PCBs analysis (EPA Method 8082). Samples were collected from the concrete as described in Section 4.1.3.2.

Analytical results of the concrete slab samples indicated the following:

- Of the 7 primary concrete samples collected, 6 samples exceeded the EPA Residential RSL of 0.22 mg/kg.

Complete analytical results are shown on Figure 5-8. These results are summarized below in Table 5-4.

Table 5-4: Concrete Slab Sample Results

Analyte	Concrete DU 1 (Primary Sample)	Concrete DU 2 (Primary Sample)	Concrete DU 3 (Primary Sample)	Concrete DU 4 (Primary Sample)	Concrete DU 5 (Primary Sample)	Concrete DU 6 (Primary Sample)	Concrete DU 7 (Primary Sample)	EPA RSL	HDOH EAL
	(mg/kg)	(mg/kg)	(mg/kg)						
<i>Polychlorinated Biphenyls (EPA 8082)</i>									
PCB-1016	0.131	ND	ND	ND	ND	ND	ND	3.9	1.1
PCB-1221	ND	0.14	1.1						
PCB-1232	ND	0.14	1.1						
PCB-1242	ND	0.22	1.1						
PCB-1248	ND	0.22	1.1						
PCB-1254	ND	0.22	1.1						
PCB-1260	225	0.36	68	67	84	0.61	0.1	0.22	1.1
Area (sqft)	562	818	851	582	714	1052	1273	-	-
Volume (cubic feet)	281	409	426	291	357	526	637	-	-

Three discrete subsurface soil samples were collected from beneath the large concrete slab foundation within this investigation area. Samples were collected from the subsurface soil as described in Section 4.1.3.2.

Analytical results of the samples of the soil beneath the concrete slab indicated the following:

- 4,4'-DDD was detected in one of the three samples at a concentration of 0.0049 mg/kg. This is below the EPA Residential RSL and HDOH EAL of 2.0 mg/kg.
- 4,4'-DDE was detected in two of the three samples at concentrations of 0.015 mg/kg and 0.00013 mg/kg. These concentrations are below the EPA Residential RSL and HDOH EALS of 1.4 mg/kg.
- 4,4'-DDT was detected in two of the three samples at concentrations of 0.024 mg/kg and 0.00086 mg/kg. These concentrations are below the EPA Residential RSL and HDOH EAL of 1.7 mg/kg.
- Results for all other organochlorine pesticides were ND.

These results are summarized below in Table 5-5.

Table 5-5: Beneath Concrete Slab Soil Sample Results

Analyte	Concrete Pad Pesticide Sample 1 (mg/kg)	Concrete Pad Pesticide Sample 2 (mg/kg)	Concrete Pad Pesticide Sample 3 (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
<i>Organochlorine Pesticides (EPA 8081A)</i>					
4,4'-DDD	ND	0.0049	ND	2.0	2.0
4,4'-DDE	ND	0.015	0.00013	1.4	1.4
4,4'-DDT	ND	0.024	0.00086	1.7	1.7

Only analytes with detected results are displayed
 ND = Non-detect.

TRUE NORTH
SCALE: 1"=20'

ASHPHALT

CONCRETE PAD
PESTICIDE SAMPLE 1

DU-7: 0.1

DU-6: 0.61

DU-5: 84

DU-4: 67

DU-3: 68

DU-2: 0.36

DU-1: 225

CONCRETE PAD
PESTICIDE SAMPLE 2

CONCRETE PAD
PESTICIDE SAMPLE 3

LEGEND



TRENCH WITHIN THE CONCRETE SLAB



DECISION UNIT BOUNDARIES

DU-7: 0.1

DECISION UNIT IDENTIFICATION AND PCB
ANALYTICAL RESULT IN MILLIGRAMS PER
KILOGRAM



SOIL SAMPLE COLLECTED BELOW CONCRETE PAD



INCREMENT CONCRETE SAMPLE LOCATION (10 PER DU)

NOTE: CONCRETE PAD THICKNESS IS BETWEEN 5" AND 7"



SCALE: 1"=20'

	DATE: JUL 2011	PROJECT TITLE: PHASE II CONFIRMATORY SAMPLING U.S.COAST GUARD CIVIL ENGINEER UNIT HONOLULU
	FIGURE TITLE: CONCRETE SLAB DECISION UNITS - PCB ANALYTICAL RESULTS 84-ACRE FORMER MOA SITE, MAILI, OAHU, HAWAII	FIGURE NO.: 5-8

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5.2.3 80-Acre Area outside of the Transmitter Buildings Area

Twenty (20) primary soil samples and four replicates were collected from 20 DUs in the 80-acre area outside of the Transmitter Buildings Area. Each MI sample was collected from 30 increment sample locations within each DU. Samples were collected from the surface soil as described in Section 4.1.3.3. The soil samples were analyzed for PCBs (EPA Method 8082) and RCRA metals (EPA Methods 6010B and 7471).

Analytical results of the soil samples indicated the following:

- PCB Aroclor 1260 was detected above the laboratory reporting limits in eight DUs at concentrations ranging from 0.0031 to 0.015 mg/kg. These detected concentrations are all well below the EPA Residential RSL of 0.22 mg/kg and the HDOH Unrestricted Land Use EAL of 1.1 mg/kg. All other PCB Aroclor results were ND.
- Arsenic was detected in all 20 samples at concentrations between 2.0 and 17 mg/kg. All 20 samples exceeded the EPA Residential RSL of 1.6 mg/kg and the HDOH Unrestricted Land Use EAL of 1.9 mg/kg. The concentrations do not exceed the HDOH assumed background level for arsenic of 20 mg/kg.
- All other RCRA metals results were well below their respective EPA Residential RSLs and the HDOH Unrestricted Land Use EALs.

Analytical results are summarized below in Table 5-6. The results are depicted in Figure 5-6. A complete summary of the soil sample analytical results is presented in Appendix C. The complete analytical laboratory reports are presented in Appendix D.

Table 5-6: 81-Acre Area outside of the Transmitter Buildings Area Soil Sample Results Summary

Analyte	DU 1 - S111 (Primary Sample)	DU 1 - S112 (Replicate Sample)	DU 1 - S113 (Replicate Sample)	DU 2 - S114 (Primary Sample)	DU 3 - S115 (Primary Sample)	DU 4 - S116 (Primary Sample)	DU 5 - S117 (Primary Sample)	DU 6 - S118 (Primary Sample)	DU 7 - S119 (Primary Sample)	DU 8 - S120 (Primary Sample)	DU 9 - S121 (Primary Sample)	DU 10 - S122 (Primary Sample)	EPA RSL	HDOH EAL
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.9	1.1
PCB - 1221	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	1.1
PCB - 1232	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	1.1
PCB - 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1260	<i>0.0024</i>	<i>0.0025</i>	<i>0.0024</i>	0.0037	<i>0.0030</i>	<i>0.0024</i>	ND	<i>0.0017</i>	ND	0.0031	0.015	ND	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	3.8	4.4	2.6	5.4	3.9	7.8	2.0	2.3	9.1	14	17	4.9	0.39	0.43
Lead	7.7	58	9.3	12	17	11	5.1	10	17	11	11	11	400	400
Barium	80	80	84	120	66	81	51	66	71	57	55	70	15,000	3,100
Cadmium	ND	ND	ND	0.25	ND	0.25	ND	ND	0.36	0.30	0.26	ND	70	14
Chromium	140	140	130	150	120	160	62	98	110	100	110	110	280	500
Selenium	ND	ND	ND	ND	ND	ND	0.31	ND	1.8	2.8	0.94	0.41	390	78
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	390	78
Mercury	ND	ND	0.0080	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.3	4.7
Analyte	DU 11 - S123 (Primary Sample)	DU 12 - S124 (Primary Sample)	DU 12 - S125 (Replicate Sample)	DU 12 - S126 (Replicate Sample)	DU 13 - S127 (Primary Sample)	DU 14 - S128 (Primary Sample)	DU 15 - S129 (Primary Sample)	DU 16 - S130 (Primary Sample)	DU 17 - S131 (Primary Sample)	DU 18 - S132 (Primary Sample)	DU 19 - S133 (Primary Sample)	DU 20 - S134 (Primary Sample)	EPA RSL	HDOH EAL
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.9	1.1
PCB - 1221	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	1.1
PCB - 1232	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	1.1
PCB - 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.1
PCB - 1260	0.0033	0.0019	ND	0.0076	0.0024	0.0067	0.0044	0.0060	ND	0.0023	0.0017	0.0021	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	11	1.8	4.4	15	2.6	6.7	11	11	1.0	4.7	4.5	8.2	0.39	0.43
Lead	6.8	11	11	46	18	8.5	9.5	11	7.0	7.0	6.7	8.3	400	400
Barium	51	65	67	66	55	53	53	58	95	88	65	64	15,000	3,100
Cadmium	0.22	ND	0.16	0.25	ND	ND	ND	0.42	ND	ND	ND	0.24	70	14
Chromium	78	87	100	98	240	240	230	130	270	250	290	200	280	500
Selenium	3.1	ND	ND	2.7	ND	0.59	390	78						
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	390	78
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL.
Italic values are estimated as they were detected above the method detection limit but below the reporting limit.

5.2.4 Berms and Mounds

Twenty (20) primary MI soil samples and four replicates, each consisting of 30 increments, were collected from berms and mounds at the investigation site (Figure 3-6). Samples were collected from the surface soil as described in Section 4.1.3.4. The soil samples were analyzed for PCBs (EPA Method 8082) and RCRA metals (EPA Methods 6010B and 7471).

Analytical results of the soil samples indicated the following:

- PCB Aroclor 1260 was detected above laboratory reporting limits in five out of the 20 berms at concentrations ranging from 0.0033 to 0.033 mg/kg. These detected concentrations are all well below the EPA Residential RSL of 0.22 mg/kg and the HDOH Unrestricted Land Use EAL of 1.1 mg/kg. All other PCB Aroclor results were ND.
- Arsenic was detected in all 20 samples at concentrations between 1.8 and 15 mg/kg. All 20 samples exceeded the EPA Residential RSL of 1.6 mg/kg and the HDOH Unrestricted Land Use EAL of 1.9 mg/kg. The concentrations do not exceed the HDOH assumed background level for arsenic of 20 mg/kg.
- Chromium was detected in all 20 samples. Nine (9) of these were at levels above the EPA Residential RSL of 280 mg/kg. The maximum detected chromium result was 480 mg/kg, which is still below the HDOH Unrestricted Land Use EAL of 500 mg/kg.
- Silver and cadmium were not detected at levels above the laboratory reporting limits in any of the berm samples.
- All other RCRA metals results were well below their respective EPA Residential RSLs and HDOH Unrestricted Land Use EALs.

Analytical results are summarized in Table 5-7 below. A complete summary of the soil sample analytical results is presented in Appendix C. The complete analytical laboratory reports are presented in Appendix D.

Table 5-7: Berms and Mounds Soil Sample Results Summary

Analyte	Berm 1 - B01 (Primary Sample)	Berm 2 - B02 (Primary Sample)	Berm 3 - B03 (Primary Sample)	Berm 4 - B04 (Primary Sample)	Berm 5 - B05 (Primary Sample)	Berm 6 - B06 (Primary Sample)	Berm 7 - B07 (Primary Sample)	Berm 8 - B08 (Primary Sample)	Berm 9 - B09 (Primary Sample)	Berm 10 - B10 (Primary Sample)	Berm 10 - B11 (Replicate Sample)	Berm 10 - B12 (Replicate Sample)	EPA RSL	HDOH EAL
	(mg/kg)	(mg/kg)												
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	ND	3.9	1.1										
PCB - 1221	ND	ND	0.17	1.1										
PCB - 1232	ND	ND	0.17	1.1										
PCB - 1242	ND	ND	0.22	1.1										
PCB - 1248	ND	ND	0.22	1.1										
PCB - 1254	ND	ND	0.22	1.1										
PCB - 1260	ND	ND	ND	ND	0.0029	ND	0.0074	ND	0.033	0.019	0.019	0.017	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	6.4	4.4	2.2	2.4	16	4.3	37	9.1	10	13	10	15	0.39	0.43
Lead	4.8	5.0	8.1	4.7	ND	2.0	7.7	ND	25	12	5.6	5.8	400	400
Barium	78	130	280	230	110	110	140	36	140	150	140	150	15,000	3,100
Cadmium	ND	ND	70	14										
Chromium	250	260	270	290	160	260	350	51	190	220	200	220	280	500
Selenium	ND	ND	ND	ND	1.2	ND	ND	2.5	ND	ND	ND	ND	390	78
Silver	ND	ND	390	78										
Mercury	0.011	0.017	ND	0.0065	ND	ND	4.3	4.7						
Analyte	Berm 11 - B13 (Primary Sample)	Berm 12 - B14 (Primary Sample)	Berm 13 - B15 (Primary Sample)	Berm 14 - B16 (Primary Sample)	Berm 15 - B17 (Primary Sample)	Berm 16 - B18 (Primary Sample)	Berm 17 - B19 (Primary Sample)	Berm 18 - B20 (Primary Sample)	Berm 19 - B21 (Primary Sample)	Berm 20 - B22 (Primary Sample)	Berm 20 - B23 (Replicate Sample)	Berm 20 - B24 (Replicate Sample)	EPA RSL	HDOH EAL
	(mg/kg)	(mg/kg)												
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	ND	3.9	1.1										
PCB - 1221	ND	ND	0.17	1.1										
PCB - 1232	ND	ND	0.17	1.1										
PCB - 1242	ND	ND	0.22	1.1										
PCB - 1248	ND	ND	0.22	1.1										
PCB - 1254	ND	ND	0.22	1.1										
PCB - 1260	ND	ND	ND	ND	0.0022	ND	ND	0.0031	0.0057	0.0036	0.0033	0.0033	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	4.6	5.8	2.6	8.5	1.8	13	9.0	2.7	9.1	6.5	6.4	6.5	0.39	0.43
Lead	ND	2.2	ND	ND	ND	ND	ND	ND	7.8	1.6	1.6	1.3	400	400
Barium	32	140	79	79	200	73	100	100	140	130	130	130	15,000	3,100
Cadmium	ND	ND	70	14										
Chromium	49	480	430	440	450	320	380	430	200	220	210	210	280	500
Selenium	1.5	ND	ND	390	78									
Silver	ND	ND	390	78										
Mercury	ND	0.013	ND	0.0090	0.0075	0.012	ND	0.012	ND	ND	ND	ND	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL.
Italic values are estimated as they were detected above the method detection limit but below the reporting limit.

5.2.5 Groundwater

Six primary groundwater samples and one duplicate groundwater sample were collected from the six groundwater MWs installed at the investigation site. Samples were collected from MWs as described in Section 4.1.3.5. The groundwater samples were analyzed for PCBs (EPA Method 8082), RCRA metals (EPA Methods 6010B and 7471), TPH-G, TPH-D, and TPH-O (EPA Method 8015B), MTBE (EPA Method 8260B), BTEX (EPA Method 8260B), PAHs (EPA Method 8270 SIM), and HVOCs (EPA Method 8260B).

Analytical results of the groundwater samples indicated the following:

- Two VOCs, Trichloroethene and Toluene, were detected in six and three of the groundwater samples, respectively. These detected results were below their reporting limits and well below the HDOH Groundwater Action Levels (GALs) of 480 $\mu\text{g/L}$ for Trichloroethene and 400 $\mu\text{g/L}$ for Toluene.
- Gasoline Range Organics (GRO) were detected in all groundwater samples at concentrations between 150 and 510 $\mu\text{g/L}$. These results are all below the HDOH GAL of 5,000 $\mu\text{g/L}$.
- Diesel Range Organics (DRO) and Residual Range Organics (RRO) were detected in one and five groundwater samples, respectively. These detected results were below their reporting limits and well below the HDOH GAL of 2,500 $\mu\text{g/L}$ for both DRO and RRO.
- Barium was detected in all seven groundwater samples at concentrations between 14 and 30 $\mu\text{g/L}$. These concentrations are well below the HDOH GAL of 2,000 $\mu\text{g/L}$.
- Arsenic and chromium were detected in two groundwater samples each. Results for each compound were below their reporting limits and well below the HDOH GALs of 69 $\mu\text{g/L}$ for Arsenic and 570 $\mu\text{g/L}$ for Chromium.
- PCBs were not detected in any of the groundwater samples.

Analytical results are summarized in Table 5-8 below. A complete summary of the groundwater sample analytical results is presented in Appendix C. The complete analytical laboratory reports are presented in Appendix D.

Table 5-8: Groundwater Sample Results Summary

Analyte	MW-1 - W03 (Primary Sample)	MW-2 - W01 (Primary Sample)	MW-2 - W02 (Duplicate Sample)	MW-3 - W04 (Primary Sample)	MW-4 - W05 (Primary Sample)	MW-5 - W07 (Primary Sample)	MW-6 - W06 (Primary Sample)	HDOH GAL
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
<i>Volatile Organic Compounds (EPA 8260B)</i>								
Trichloroethene	ND	0.71	0.53	0.32	0.50	0.35	0.53	480
Toluene	ND	ND	0.084	ND	0.084	ND	ND	400
<i>Gasoline Range Organics (EPA 8015B)</i>								
HI Gasoline Range Organics	170	510	490	200	160	150	230	5,000
<i>Diesel Range Organics (EPA 8015B)</i>								
HI Diesel Range Organics	ND	ND	62	ND	ND	ND	ND	2,500
HI Residual Range Organics	ND	93	150	62	ND	93	67	2,500
<i>RCRA Metals (EPA 6010B/7471A)</i>								
Arsenic	ND	ND	5.1	ND	ND	5.6	ND	69
Barium	29	29	30	26	22	14	15	2,000
Chromium	4	ND	ND	ND	ND	6.9	ND	570

Bold values indicate that detected concentration exceeds the HDOH GAL where groundwater is not a current or potential drinking water.

Italic values are estimated as the analyte was detected below the reporting limit, but above the method detection limit.

ND = Not detected

All PCB (EPA 8082) results were ND.

All SVOC (EPA 8270C) results were ND.

5.2.6 PCB Congeners

The September 2010 sampling event included the collection of five soil samples to be analyzed for PCB congeners by EPA Method 1668. The purpose of the analysis was to evaluate the relative composition of the 209 PCB congeners. The analytical data is included in Appendix F.

Section 6 Data Quality Assessment and Quality Control

This section presents the data quality assessment for data derived during this project. The field activities consisted of the collection of soil samples, concrete samples, and groundwater samples from the project investigation areas.

The usability of the data collected during this characterization depends on its quality. A large number of factors included in the sample collection and analysis process had the potential to impact the overall quality of the data generated during the project. Adhering to proper sample collection techniques, observing and documenting COC procedures and using certified laboratories and approved analytical methods have ensured that the quality of data generated during the project accurately represents conditions at the site and its vicinity.

6.1 Field Sampling Quality Control

Sample representativeness was ensured through the use of trained sampling personnel, industry-standardized procedures (as detailed in the project WP), peer review of field logs and notes and collection of quality control (QC) samples.

Field QC sample collection was conducted in adherence to industry standards and consisted of collection of field duplicates and replicates, which were sent “blind” to the analytical laboratory.

6.1.1 Field Duplicates

Field duplicates were collected in order to provide a precision assessment of the sample results as well as an assessment of the sample collection and analytical process. The field duplicate samples were submitted to the RaPID assay kit processors and or off-site laboratory with unique sample identification numbers so as to be “blind” to the laboratory.

Field sampling, laboratory sub-sampling, and analytical precision was evaluated from the field duplicate sample analyses results (Appendix E, Tables E-1, E-6, and E-7). The relative percent difference (RPD) measured of the field duplicates served as a quantitative measure of precision. The RPD (expressed as a percent) for the data set represents how precisely the analytical method measures the concentration of the contaminant(s) detected. The lower the RPD the more precise the duplicates are or the analytical methods are in accurately estimating the contaminant concentration.

Comparison of Primary and Duplicate Soil and Water Sample Laboratory Analytical Results

Previously Identified PCB-Contaminated Area

- The RPD values for the PCB results from the primary and duplicate samples both analyzed by RaPID assay kits ranges from 1% to 127%. The high RPD values indicate that there is high variability in the soil matrix or that the immunoassay kits do not provide a very high degree of precision, or both.
- The RPD values for the PCB results from the primary sample analyzed by the RaPID assay kit and the duplicate sample analyzed by the off-site laboratory ranges from 1% to

194%. The RPD values for nearly all results are very high due to the inability to obtain precision between the off-site laboratory and the PCB immunoassay kits. In general, the laboratory results were 5 to 10 times higher than the immunoassay kit results. A potential reason for this difference may be an inability of the immunoassay kit to fully extract the PCBs from the soil matrix.

Groundwater

- The relative percent difference (RPD) value for Trichloroethene is 29%. The low RPD value indicates that the detected concentrations are considered valid for decision-making.
- The RPD value for Toluene is 10%. The low RPD value indicates that the detected concentrations are considered valid for decision-making.
- The RPD value for GRO is 4.0%. The low RPD value indicates that the detected concentrations are considered valid for decision-making.
- The RPD value for DRO is 0.0%. The low RPD value indicates that the detected concentrations are considered valid for decision-making.
- The RPD value for Arsenic is 8.2%. The low RPD value indicates that the detected concentrations are considered valid for decision-making.
- The RPD value for Barium is 3.4%. The low RPD value indicates that the detected concentrations are considered valid for decision-making.
- The RPD value for RRO is 47%. Considering that the detected RRO concentrations in groundwater are below reporting limits and over one order of magnitude lower than the HDOH GAL, the detected concentrations are considered valid for decision-making.

PCB Congeners

- No sample duplicates were collected for the PCB congener analyses, however, as the samples were screened through the EPA Method 8082 prior to analysis by EPA Method 1668, some general comparisons could be made.
- In comparing the sum of the Aroclors from the Method 8082 analysis with the sum of the congeners from the Method 1668 analysis, and correcting for the coeluting congeners, the RPD for two of the samples were within 10%, one was 20%, and two were nearly 70%.
- Analysis of PCB Aroclors by Method 8082 could overestimate the amount of total PCBs, however, with the RPD over 30%, it is likely due to the high variability of PCBs in the soils.
- It should be noted that the sample was shipped to TestAmerica – Tacoma, where it was split into subsamples for analysis for Method 8082 analysis by TestAmerica - Tacoma and Method 1668 analysis performed by TestAmerica – West Sacramento.

6.1.2 Field Replicates

Field replicates were collected from the DUs in order to provide a precision assessment of the sample results as well as an assessment of the sample collection and analytical process.

Replicate samples were collected from DUs in each investigation area. The field replicate samples were submitted to the laboratory with unique sample identification numbers so as to be “blind” to the laboratory.

Field sampling, laboratory sub-sampling, and analytical precision was evaluated from the field replicate sample analyses results (Appendix E, Tables E-2, E-3, E-4, and E-5). The RSD measured of the field replicates served as a quantitative measure of precision. The RSD (expressed as a percent) for the data set represents how precisely the three replicates measure the average concentration of the contaminant(s) detected in the decision unit. The lower the RSD, also called the “coefficient of variation,” the more precise the replicates are as an estimate of the average contaminant concentration in the decision unit under investigation.

An RSD of 35% or less indicates the amount of estimated error is within a reasonable range for decision-making. In instances where an RSD is determined to be 40% to 50%, but the contaminant concentration is a factor of 3 to 4 times below the relevant EAL, then a decision that the contaminant is below levels of concern would still be valid.

Comparison of Primary and Replicate Soil Sample Laboratory Analytical Results

Four-Acre Transmitter Buildings Area

- The RSD value for PCB Aroclor 1260 from the initial DU sampling was 92%. PCB Aroclor 1260 was detected at levels above the HDOH Unrestricted Land Use EAL. The RSD is likely very high due to inclusion of soils near the previously identified PCB contaminated areas.
- The RSD value for the PCB Aroclor 1260 from the follow-up DU sampling was 17%, which indicates that the detected concentrations are considered valid for decision-making.
- The RSD value for Lead from the initial DU sampling was 153%.
- The RSD value for Lead from the follow-up DU sampling was 73%. Although this value is still relatively high, Lead was detected at concentrations of 15 to 130 mg/kg, all well below the HDOH Unrestricted Land Use EAL and EPA Residential RSL of 400 mg/kg.
- The RSD values for DRO and RRO from the initial DU sampling are 65% and 67%, respectively. Considering that the detected DRO and RRO concentrations are approximately two orders of magnitude lower than the HDOH Unrestricted Land Use EALs, the detected concentrations are considered valid for decision-making. The follow-up DU samples were not analyzed for DRO or RRO.
- The RSD value for arsenic is 10%. The low RSD value for arsenic indicates that the detected concentrations are considered valid for decision-making. The follow-up DU samples were not analyzed for arsenic.

80-Acre Area outside of the Transmitter Buildings Area

- The RSD values for PCB Aroclor 1260 are 2% and 102% for the two sets of replicate samples. Considering that the detected PCB Aroclor 1260 concentrations in this investigation area are approximately two orders of magnitude lower than the EPA Residential RSLs, the detected concentrations are considered valid for decision-making.
- The RSD values for Lead are 114% and 89% for the two sets of replicate samples. Considering that the detected Lead concentrations in this investigation area are an order

of magnitude lower than the EPA Residential RSLs and HDOH Unrestricted Land Use EALs, the detected concentrations are considered valid for decision-making.

- The RSD values for Arsenic are 26% and 99% for the two sets of replicate samples. Considering that all Arsenic concentrations in this investigation area are below the HDOH assumed background level for arsenic of 20 mg/kg, the detected concentrations are considered valid for decision-making.

Berms and Mounds

- The RSD values for PCB Aroclor 1260 are 6% and 5% for the two sets of replicate samples. The low RSD values indicate that the detected concentrations are considered valid for decision-making.
- The RSD values for Lead are 47% and 11% for the two sets of replicate samples. Considering that the detected Lead concentrations in this investigation area are two orders of magnitude lower than the EPA Residential RSLs and HDOH Unrestricted Land Use EALs, the detected concentrations are considered valid for decision-making.
- The RSD values for Arsenic are 20% and 1% for the two sets of replicate samples. The low RSD values indicate that the detected concentrations are considered valid for decision-making.

6.1.3 Sample Handling and Custody

Industry standard sample handling and COC procedures were adhered to during all sampling and sample handling activities.

All soil samples were kept at approximately $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ in insulated coolers packed with ice. Samples were properly preserved and hand delivered to TestAmerica - Honolulu, or shipped via Federal Express to TestAmerica - Tacoma or AmeriSci Los Angeles along with completed COC forms.

6.1.4 Deviations of Field Standard Operating Procedures

There were no deviations from standard operating procedures during field activities for this project.

6.2 Analytical Quality Control/Procedures

Analytical methods utilized during this project included standard laboratory methods.

6.2.1 Laboratory Analytical Procedures

The laboratories selected to perform the soil analyses (TestAmerica - Honolulu, TestAmerica - Tacoma, AmeriSci Los Angeles) have Quality Assurance/Quality Control (QA/QC) programs in place and are certified by the National Environmental Laboratory Accreditation Conference (NELAC). All analyses were conducted according to the guidance outlined in EPA SW-846 (EPA, 1996) and the *Department of Defense, Quality Systems Manual for Environmental Laboratories* (Department of Defense Environmental Data Quality Workgroup, 2000).

6.2.2 Deviations from Laboratory Standard Operating Procedures

There were no significant deviations from standard operating procedures during laboratory activities during this project. Any deviations from standard operating procedures are listed in the individual laboratory reports included in Appendix D.

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Section 7 Summary and Conclusions

7.1 Summary

E2 completed an environmental site characterization of the former VOA site, located in Maili on the island of Oahu, Hawaii. The former VOA site has an area of approximately 89 acres and is located southeast of the intersection of Kulaaupuni Street and the Maili Channel. A 5-acre portion of the former VOA site is currently leased by the State of Hawaii and has been developed for transitional housing. The remainder of the former VOA site is the 84-acre project site that was investigated during this site characterization. The site is currently vacant and is bounded by Kulaaupuni Street to the west, the northern portion of the Maili Channel (formerly Holt Road) to the north, a vacant property to the east, and residential housing along Kulawae Street to the south.

MI soil sampling strategies, discrete grid sampling, and groundwater sampling were employed to characterize the project site. The five investigation areas were selected based on historical use, previous investigation results, and topography. Collection of samples was as follows:

- Previously Identified PCB-Contaminated Area - This investigation area encompassed the area within the Transmitter Buildings Area that was previously identified to be contaminated with PCBs. Two hundred forty-two (242) discrete sampling locations were sampled within an approximately 200-foot by 250-foot grid to determine the lateral and vertical extent of PCB contamination in soil.
- 4-Acre Transmitter Buildings Area - This investigation area encompassed the former site of the VOA broadcast transmitter buildings (referred to in this report as the Transmitter Buildings Area). A MI surface soil sample was collected from 30 increment sample locations located throughout the DU encompassing the entire investigation area and analyzed for PCBs, RCRA metals, TPH-G, TPH-D, TPH-O, and asbestos. This investigation area was further subdivided into five DUs and five MI surface soil samples were collected and analyzed for PCBs and lead.
- The large concrete slab foundation in the Transmitter Buildings Area was divided into seven (7) DUs. One MI sample was collected from each concrete slab DU and analyzed for PCBs. Three discrete soil samples were also collected from beneath the concrete slab and analyzed for organochlorine pesticides.
- 80-Acre Area outside of the Transmitter Buildings Area - This investigation area encompassed the project area remaining outside of the Transmitter Buildings Area. MI surface soil samples were collected from 20 DUs within this investigation area. Each MI sample was collected from 30 increment sample locations and analyzed for PCBs and RCRA metals.
- Berms and Mounds - This investigation area consisted of berms and mounds found throughout the project site. An electromagnetic survey was completed to determine if construction debris or other solid waste had been disposed and buried within the berms and mounds. The berms and mounds were also trenched and sampled to determine the presence and extent of associated contamination. Twenty (20) MI soil samples were collected from the berms and mounds located throughout the investigation area and were analyzed for PCBs and RCRA metals.

- Groundwater - Six groundwater MWs were installed surrounding the Transmitter Buildings Area to determine if historic use resulted in contamination of groundwater. Groundwater samples were collected and analyzed for PCBs, RCRA metals, and petroleum-related contamination (including BTEX, MTBE, PAHs, and HVOCs).
- PCB Congeners – Five soils samples were collected from the Previously Identified PCB-Contaminated Area to evaluate the relative composition of the 209 PCB congeners.

The discrete soil samples from the Previously Identified PCB-contaminated Area were collected on July 28 through July 30, August 5 and 18, and September 17, 2009, as well as May 27 and September 1, 2010. The MI soil samples from the 4-acre Transmitter Buildings Area were collected on July 31 and December 29, 2009. The concrete foundation MI samples were collected on May 20 and September 1, 2010. The soil samples from directly beneath the concrete foundation were collected on May 19, 2010. The MI soil samples from the 80-acre area outside of the Transmitter Buildings Area were collected on July 30 and 31, 2009. The MI soil samples from the berms and mounds were collected on August 25 and 26, 2009. The groundwater samples were collected on August 13, 2009.

7.1.1 Investigation Area Analytical Results

Previously Identified PCB-Contaminated Area

Three hundred eighty-three (383) primary samples and 46 duplicates were collected from 242 sampling nodes within an approximately 200-foot by 250-foot area surrounding the two previously identified PCB-contaminated areas and were analyzed using RaPID assay kits. In addition to the field duplicates, 42 replicate samples were collected and sent to the analytical laboratory. The correlation between the RaPID assay kits and the analytical laboratory was not reliable. All grid extension samples were analyzed in a laboratory by method 8082 and the exterior of the grid was completely encompassed by lab samples. PCB analytical results indicated the following:

- PCBs were detected in surface and subsurface soils down to depths of 4 feet bgs with detected concentrations ranging from 0.0004 to 62,600 mg/kg.
- The estimated volume of PCB contaminated soil that is in exceedance of the EPA Residential RSL of 0.22 mg/kg is 1,315 cubic yards.
- The estimated volume of PCB contaminated soil that is in exceedance of the TSCA High Occupancy Area cleanup level of 1.0 mg/kg is 867 cubic yards.
- The estimated volume of PCB contaminated soil that is above 10 mg/kg is 344 cubic yards.
- The estimated volume of PCB contaminated soil that is above 50 mg/kg is 203 cubic yards.

4-Acre Transmitter Buildings Area

One primary soil sample and two replicates were initially collected from 30 increment sample locations within the 4-acre Transmitter Buildings Area. After the completion of the PCB grid expansion, the investigation area was subdivided into five DUs and re-sampled for PCBs and lead. Analytical results of the soil samples indicated the following:

- PCB Aroclor 1260 was initially detected in the primary sample and both replicate samples at levels ranging from 1.8 to 15 mg/kg, which are above the EPA Residential RSL of 0.22 mg/kg and the HDOH Unrestricted Land Use EAL of 1.1 mg/kg. All other PCB Aroclor results were ND.
- In the follow-up sampling, PCB Aroclor 1260 was detected in the five DUs at levels ranging from 0.060 to 2.6 mg/kg. Two DU samples were well below the EPA Residential RSL of 0.22 mg/kg and all but one was below the HDOH Unrestricted Land Use EAL of 1.1 mg/kg. All other PCB Aroclor results were ND.
- Lead was initially detected in the primary sample and both replicate samples at levels ranging from 54 to 1,900 mg/kg. The replicate sample with the result of 1,900 mg/kg is in exceedance of the EPA Residential RSL and the HDOH Unrestricted Land Use EAL, both of which are 400 mg/kg.
- In the follow-up sampling, lead was detected in the five DUs at levels ranging from 15 to 130 mg/kg. All detected concentrations were below the EPA Residential RSL and the HDOH Unrestricted Land Use EAL, both of which are 400 mg/kg.
- Arsenic was initially detected in the primary sample and both replicate samples at levels ranging from 9.0 to 11 mg/kg. These values exceed the EPA Residential RSL of 0.39 mg/kg and the HDOH Unrestricted Land Use EAL of 0.43 mg/kg. The concentrations do not exceed the HDOH assumed background level for arsenic of 20 mg/kg.
- Silver was not detected in initial MI samples collected from the investigation area. All other RCRA metals (Barium, Cadmium, Chromium, Selenium, and Mercury) were detected in the primary sample and one or both replicate samples, but at levels below the EPA Residential RSLs and the HDOH Unrestricted Land Use EALs.
- TPHs were detected in the initial primary sample and both replicate samples, but at levels below the EPA Residential RSLs and the HDOH Unrestricted Land Use EALs.
- Asbestos was not detected in the initial primary sample or either replicate samples.

The large concrete slab foundation within this investigation area was divided into seven (7) DUs. MI concrete samples were collected from each and sent to the analytical laboratory. PCB analytical results indicated the following:

- Of the 7 primary surface MI samples collected, 6 samples exceeded the EPA Residential RSL of 0.22 mg/kg with concentrations ranging from 0.1 to 225 mg/kg.
- Four of the seven DUs had PCB concentrations in excess of 50 mg/kg, accounting for approximately 1,350 cubic feet of concrete.
- The remaining 3 DUs with PCB concentrations below 50 mg/kg comprise approximately 1,570 cubic feet of concrete.

Three discrete soil samples were collected from beneath the large concrete slab within this investigation area. Analytical results of the samples of the soil beneath the concrete slab indicated the following:

- 4,4'-DDD was detected in one of the three samples at a concentration of 0.0049 mg/kg. This is below the EPA Residential RSL and HDOH EAL of 2.0 mg/kg.

- 4,4'-DDE was detected in two of the three samples at concentrations of 0.015 mg/kg and 0.00013 mg/kg. These concentrations are below the EPA Residential RSL and HDOH EAL of 1.4 mg/kg.
- 4,4'-DDT was detected in two of the three samples at concentrations of 0.024 mg/kg and 0.00086 mg/kg. These concentrations are below the EPA Residential RSL and HDOH EAL of 1.7 mg/kg.

Eighty Acre Area outside of the Transmitter Buildings Area

Twenty (20) primary MI surface soil samples and four replicates were collected from 20 DUs in the 80-acre area outside of the Transmitter Buildings Area. Each MI sample was collected from 30 increment sample locations within each DU. Analytical results of the soil samples indicated the following:

- PCB Aroclor 1260 was detected above laboratory reporting limits in eight DUs at concentrations ranging from 0.0031 to 0.015 mg/kg, which are well below the EPA Residential RSL of 0.22 mg/kg and the HDOH Unrestricted Land Use EAL of 1.1 mg/kg. All other PCB Aroclor results were ND.
- Arsenic was detected in all 20 MI samples at concentrations between 2.0 and 17 mg/kg. All 20 samples exceeded the EPA Residential RSL of 1.6 mg/kg and the HDOH Unrestricted Land Use EAL of 1.9 mg/kg. The concentrations do not exceed the HDOH assumed background level for arsenic of 20 mg/kg.
- All other RCRA metals results were well below their respective EPA Residential RSLs and the HDOH Unrestricted Land Use EALs.

Berms and Mounds

Twenty (20) primary MI soil samples and four replicates, each consisting of 30 increments, were collected from berms and mounds at the investigation site. Analytical results of the soil samples indicated the following:

- PCB Aroclor 1260 was detected above laboratory reporting limits in five out of the 20 berms at concentrations ranging from 0.0033 to 0.033 mg/kg. These detected concentrations are all well below the EPA Residential RSL of 0.22 mg/kg and the HDOH Unrestricted Land Use EAL of 1.1 mg/kg. All other PCB Aroclor results were ND.
- Arsenic was detected in all 20 berms at concentrations between 1.8 and 15 mg/kg. All 20 samples exceeded the EPA Residential RSL of 1.6 mg/kg and the HDOH Unrestricted Land Use EAL of 1.9 mg/kg. The concentrations do not exceed the HDOH assumed background level for arsenic of 20 mg/kg.
- Chromium was detected in all 20 berm samples. Nine of these were at levels above the EPA Residential RSL of 280 mg/kg. The maximum detected Chromium result was 480 mg/kg, which is still below the HDOH Unrestricted Land Use EAL of 500 mg/kg.
- Silver and Cadmium were not detected at levels above the laboratory reporting limits in any of the berm samples.
- All other RCRA metals results were well below their respective EPA Residential RSLs and HDOH Unrestricted Land Use EALs.

Groundwater

Six primary groundwater samples and one duplicate sample were collected from the six groundwater MWs installed at the investigation site. Analytical results of the groundwater samples indicated the following:

- Two VOCs, Trichloroethene and Toluene, were detected in six and three of the groundwater samples, respectively. The detected results were below reporting limits and were well below the HDOH GALs of 480 µg/L for Trichloroethene and 400 µg/L for Toluene.
- GRO were detected in all groundwater samples at concentrations between 150 and 510 µg/L. The detected results are all below the HDOH GAL of 5,000 µg/L.
- DRO and RRO were detected in one and five groundwater samples, respectively. The detected results were below reporting limits and were well below the HDOH GAL of 2,500 µg/L for both DRO and RRO.
- Barium was detected in all seven groundwater samples at concentrations between 14 and 30 µg/L. The detected concentrations are well below the HDOH GAL of 2,000 µg/L.
- Arsenic and Chromium were detected in two groundwater samples each. Results for each compound were below reporting limits and were well below the HDOH GALs of 69 µg/L for Arsenic and 570 µg/L for Chromium.

PCB Congeners

Five soil samples were collected from the Previously Identified PCB-Contaminated Area and analyzed for PCB congeners by EPA Method 1668. The purpose of the analysis was to evaluate the relative composition of the 209 PCB congeners.. Analytical results of the samples are included in Appendix F.

7.2 Conclusions

Discrete soil sampling results indicate that PCB contamination is present in surface and subsurface soil down to 4 feet bgs in the 200-foot by 250-foot sampling grid area that encompasses the two PCB-contaminated areas previously identified within the Transmitter Buildings Area. A significant portion of this sampling grid area contains PCB levels that exceed EPA Residential RSLs and HDOH Unrestricted Land Use EALs. Estimated soil volumes containing PCB concentrations that exceed various contamination thresholds are presented in Table 5-1. The distributions of contaminated soil above the various thresholds within the sampling grid area are displayed on Figures 5-2 through 5-5.

MI surface soil sampling from the 4-acre Transmitter Buildings Area indicates that one of the five DUs contains PCB Aroclor 1260 at a concentration greater than both the EPA Residential RSL and the HDOH Unrestricted Land Use EAL. This DU surrounds the PCB-contaminated area targeted by the discrete sampling. Taking into consideration all the grid expansions, the grid appears to be fully characterized (Figure 5-7). The data also indicates that PCB contamination above the HDOH Unrestricted Land Use EAL is bounded by this DU.

MI sample results from the concrete slab foundation within the Transmitter Buildings Area indicate that PCB contamination is present in the concrete surface at levels in exceedance of

EPA Residential RSLs and HDOH Unrestricted Land Use EALs. Analytical results are displayed on Figure 5-8. Analytical results of soil samples collected from beneath the concrete slab indicate that 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT are present at levels below the EPA Residential RSLs and HDOH Unrestricted Land Use EALs.

In addition, the MI soil sample results indicate that the areas of the project site outside of the Transmitter Buildings Area do not contain significant levels of PCBs or RCRA metals (i.e., levels were below EPA Residential RSLs and HDOH Unrestricted Land Use EALs). Electromagnetic toning and trenching of a select number of berms and mounds found throughout the project site did not indicate buried debris within the berms and mounds. MI soil sampling of the berms and mounds indicated that several of the berms and mounds have levels of Chromium elevated above the EPA Residential RSL, but below the HDOH Unrestricted Land Use EAL.

Arsenic was also detected in soils throughout the entire project site. However, the levels detected were all below the HDOH accepted naturally-occurring background concentration.

Groundwater sample results indicate that trace levels of petroleum contamination are present in the groundwater surrounding the Transmitter Buildings Area. However, the levels detected are orders of magnitude lower than the HDOH GALs.

Section 8 References

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Appendix A

Project Photographs

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Photograph 1: Digging prior to collection of soil sample within the PCB contaminated soil grid. Direction: Facing Northwest.



Photograph 2: Typical soil core collected using slide hammer within the PCB contaminated grid.

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Photograph 3: Trenching of Berm 16. Direction: Facing West.



Photograph 4: Trenching of Berm 10. Direction: Facing West.

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Photograph 5: Drilling monitoring well MW-4. Direction: Facing Southwest.



Photograph 6: Completed installation of monitoring well MW-5.

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Photograph 7: Sampling within the PCB contaminated soil grid. Direction: Facing West.



Photograph 8: Collecting 2'bgs soil sampling within the PCB contaminated soil grid. . Direction: Facing Southwest.

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Photograph 9: Collecting dust samples from the concrete slab within DU-7. Direction: Facing Northwest.



Photograph 10: Collecting dust samples from the concrete slab within DU-4. Direction: Facing West-Northwest.

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Appendix B

Project Field Notes

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CONTENTS

PAGE

REFERENCE

DATE

Contacts

Site POC:

Tony
Carbi

635-3740

Ray
Purcell

349-2506

TA Tedertt.

12477986

7-28-09

0745- M.N. AL, EL arrive
@ housing - meet
R.M. Towill - proceed
to former station
site - wait for
surveys to establish
Two pts

Proceed to former
USCG facility site

0845- Begin clearing
grid area

0930- Begin est. grids
around survey
pts #1, #2

1100- Begin surface
sample collection
at PCB1 grid

Dr. Mead arrives

on site.

12:00 Complete surface
sampling

Lunch

1300 - Return - proceed to
collect surface
samples from
PCB #2 grid

1500 - Complete PCB #2 grid
surface sampling -

also complete 4 2'
samples and 2 4'
samples.

1515 - leave site for day

royal

Samples collected 7-28-09:

- All surface - both grids
- 2' samples: 4' samples:
 - Sφ86 Sφ92
 - Sφ97 S1φ3
 - S1φ8
 - Sφ84

7-29-09

0750 - Arrive onsite - proceed to setup and prepare to collect subsurface grid samples

1100 - Lunch - Dr. Mead arrives onsite

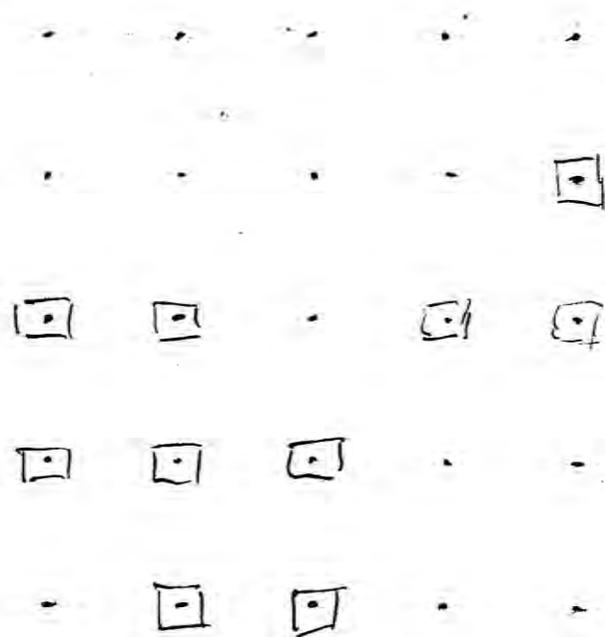
1500 - Complete grid subsurface sampling.

1515 - Leave site for day

Matt



PCB 1 Grid



Legend:

□ - asphalt surface covering

7-30-09

0810. Arrive onsite (on N, EL, AL)
Proceed to layout
VI I suph grid

1115. Collect 50g
discrete surface
soil.

1120. Collect 511g
discrete surface
soil.

GPS unit, go dead-
stop to charge up.

1230 - Lunch

1730 - continue ~~with~~ layout/
Sampling

7.30.09
Sampling Log:

11:00 S122

MI

11:15 S109

Dissect

11:20 S110

Dissect

11:35 S121

WH

11:55 S120

WH

12:00 S126

WH

14:30 S117

WH

14:40 S134

WH

14:57 S114

WH

15:15 S130

WH

14:00 S123

WH

15:13 S116

WH

15:30 S006

Dissect
re sample
PCB-1

1545 - leave sick
for day

~~myself~~

7-31-09

0800 - MR, AL, EL arrive
onsite - proceed to
routine MI
sample collection

1130 - Lunch - RA arrive

1210 - Continue MI
sampling

7-31-09 Sampling Log

S129	8:48
S111	9:15
S133	9:19
S112	9:35
S132	9:42
S118	9:45
S113	9:53
S128	10:05
S124	10:15
S127	10:31
S115	10:44
S125	10:45
S131	10:57
S119	11:17
S135	12:05
S136	12:15
S137	13:00

1330 - Complete with sampling.

1430 - leave site for day

8-17-09

0900 - RA, MN arrive
on-site - prepare
to collect GW
samples

MW-2

Water level : 11.7' Toc
Total Depth : 19.0'
Water Column : 7.3'
Casing Vol : 1.12'
J casing Vol : 3.57'
Purge Vol : 4.0'

0935 - Begin Purging

0945 - collect GW sample

090010 - Multi - Well
Dup " " - W 082

1020 : complete MW2

1030 : Begin ~~next~~ MW-1

MW-1

Water level: 7.9'
Total Depth: 17.44'
Water Column: 9.54'
Casing Vol: 1.5 g
3 casing Vol: 4.57 g
Purge Vol: 5.0 g

1040 - Collect Gw sample
090010 - Maili - W 443

1055 - Complete MW-1

MW-3

Water level: 9.3'
Total Depth: 17.8'
Water Column: 8.5'
Casing Vol: 1.36 g
3 casing Vol: 4.08 g
Purge Vol: 5 g

1115 - Collect Gw sample
090010 - Maili - W 444

1136 - Complete MW-3

MW-4

Water level: 10.7' To
Total Depth: 18.7'
Water Column: 8'
Casing Vol: 1.28 g
3 casing Vol: 3.84 g
Purge Vol: 4.5 g

12:00 - Collect Gw sample
090010 - Maili - W 445

1220 - Repair

MW-5

Water level: 8.1' To
Total Depth: 19.2'
Water Column: 11.1'
Casing Vol: 1.77 g
3 casing Vol: 5.3 g
Purge Vol: 5.5 g

1240: collect Gw sample
090010 - Maili - W 446

MW-5

Water level: 10.9' TOC
Total Depth: 18.4'
Water Column: 7.5'
Casing Vol: 1.2
3 casing Vol: 3.6
Purge Vol: 4.5

1320 - Collect GW
Sample
of 0010-maili-WP07

1345 - Leave site

~~sample~~

8-18-09

0845: MN, RA, DM arrive
on site

Proceed to layout grid

1030 Begin sample collection
1530 PSY arrive on site.

Sample log

ID	Time	ID	Time
S190	1155	S208	1235
S191	1150	S205	>dep
S192	1145	S206	1245
S193	>dep 1215	S207	1240
S194		S208	1246
S195	1200	S209	concrete
S196	1158	S210	1248
S197	1210	S211	1250
S198	1140	S212	
S199	1135	S213	
S200	1130	S214	
S201	1220	S215	>dep
S202	1222	S216	
S203	1230	S217	1253

8/18/19

Sample ID	Time	Sample ID	Time
S218	1310	S241	NA re-bowl
S219	1312	S242	1445
S220	1105	S243	1202
S221	1338	S244	1343
S222	1335	S245	1500
S223	1332	S246	1342
S224	1330	S247	1120
S225	1326	S248	> dup 1450 24"
S226 > dup	1315	S249	
S227		S250	1225
S228	1320	S251	1250
S229	same as S217	S252	1305
S230	same as S218	S253	1350
S231	concrete	S254	1311
S232	approx 1401	S255	1315
S233	1350	S256	1420
S234	1357	S257	1311
S235	concrete	S258	1325
S236	1337	S259 > dup	concrete
S237 > dup	1430 15"	S260	
S238		S261	1425
S239	1344 15"	S262	1330
S240	1445 15"	S263	1435

3/18/09

sample 152
57.04
5265

Time
~~1355~~
1402

1531 Demob and depart site

Page 2 of 2
3/18/09

8/25/09

0715: PA arrive on site

0745: PCS arrive onsite (Dustin,
Justin), prep and unload
backhoe

0800: Mob to berms

0815: Begin trenching soil berms and
mounds.

1105: Completed trenching 34
berms/mounds

12:00: PCS load backhoe, depart
site

12:00-12:45 lunch

12:45: Begin sampling of trenches

<u>Sample ID</u>	<u>Time</u>	<u>Sample ID</u>	<u>Time</u>
B01	1305	B07	1400
B02	1310	B08	1405
B03	1315	B09	1410
B04	1325	B10	1415
B05	1345	B11	1420
B06	1355	B12	1425

8/25/29

1511 Depart from site

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Back
to
8/25/29

8/22/09

1130: Arrive on-site

1145: Begin berm/wood sampling

Sample ID	Time	Sample ID	Time
B13	1300	B19	1235
B14	1250	B20	1225
B15	1255	B21	1220
B16	1205	B22	} replicates 1200
B17	1200	B23	
B18	1305	B24	1215

1330 - Pack samples, complete CRC

1400 - Depart site to drop samples
at TA Humble

Page 2 of 4
8/22/09

Transfer notes from iPhone

8/10/09

0815 Arrive onsite, Valley well
Drillers on site (Steve, Beale)

0845 Mob to MW-2 and setup

0900 start drilling

0935 stop drilling at 20', push
plug, drop casing, add sand
to 2' above screen, add
bentonite

1055 Mob to MW-1 and setup

1115 start drilling

1150 stop drilling at 20', push plug,
drop casing, add sand to
2' above casing, add bentonite

1245 Break for lunch

1345 Mob to MW-3 and setup

1400 start drilling

1445 stop drilling at 20', push
plug, drop casing, add
bentonite sand to 2' above casing,
add bentonite

1535 Demob

1545 Depart site

0815 Arrive onsite, PCS onsite
(Steve, Bala)

0830 Mob to MW-4 and setup

0850 Start drilling

09:15 Stop drilling at 20', push
plug, drop casing, fill sand
to 2' above screen, add
bentonite

0945 Mob to MW-4 and setup

1020 Start drilling

1055 Stop drilling at 20',
push plug, drop casing,
fill sand to 2' above screen,
add bentonite

1230 Break for lunch

1330 Mob to MW-5 and setup

1400 Start drilling

1425 Stop drilling at 20', push plug
drop casing, add sand to
2' above screen, add bentonite

1500 Demob, pick up augers

1545 Depart site

Transfer notes from 'iplan

8/12/09

- 0815 Arrive onsite, PCS onsite
(Steve, Boala), mob to MW-2
- 0840 Begin development of MW-2,
purge 55-gallons
- 0900 Mob to MW-1
- 0910 Begin development of MW-1,
purge 55-gallons
- 0925 Mob to MW-3
- 0930 Begin development of MW-3
purge 55-gallons
- 0945 Mob to MW-4
- 0950 Begin development of MW-4,
purge 55-gallons.
- 1015 Mob to MW-5
- 1025 Begin development of MW-5
purge 5-gallons, pump well
dry
- 1050 Mob to MW-6
- 1110 Dr. Last down long tubes in
it. Boala depart site to
get new drum.
- 1115 Break for lunch

8/12/09

- 1300 Return to site
- 1310 Begin development of MW-5,
purge 55 gallons
- 1330 Mob to MW-5
- 1340 Continue to develop MW-5
- 1400 - 1430 set Altek manometer
all wells
- 1400 - Completed development of
MW-5, purge 55 gallons
- 1645 marshalled all drums
- 1730 Depart site

Roger A. Dyer
8/12/09

9/17/09

0745: Arrive on site (RA, PY)
Mob to site, setup, layout
grid.

0830: Begin sample collection

Sample Log

<u>ID</u>	<u>Time</u>	<u>ID</u>	<u>Time</u>
S266	1048	S281	1145
S267	1045	S282	1150
S268	1042	S283	1140
S269	1040	S284	0925
S270	0945	S285	1200
S271	0950	S286	1155
S272	0943	S287	1210
S273	0935	S288	1205
S274	1023	S289	
S275	1020	S289	1630
S276	1015	S290	1625
S277	1010	S291	1220
S278	0940	S292	1225
S279	0930	S293	1215
S280	0927	S294	0925

9/12/07

ID	Time	ID	Time
S295	0920	S312	1405
S296	0912	S313	1445
S297	0910	S314	1500
S298	0900 5	S315	1555
S299	0903	S316	1600
S300	0858	S317	1515
S301	0855	S318	1640
S302	0900	S319	1620
S303	0845	S320	1655
S304	0850	S321	1715
S305	1120	S322	1735
S306	1123	S323	1130
S307	1125	S324-2'	1203
S308	1035	S325	1335
S309	1013	S326	refusal 2'
S310	0937	S327	1235
S311	1420	S328	1240

1745: Decon, demob
 1800 Depart Site

Concrete debris

Ray Allen

MAILE PHASE II ESA
IMMUNOASSAY ANALYSIS

7/30/09

7/30/09

RUN #1

SAMPLE ID	RESULT
1	0.9784
2	2.6441
3	1.5905
4	1.3689
5	65.0835 Hi
7	30.3591 Hi
8	2.0098
9	1.0652
10	37.2722 Hi
11	4.7884
12	ND
13	ND
14	0.3226 ND
15	0.0991 ND
16	5.3385
17	0.6179
18	0.1864 ND
19	0.7433
20	2.8097
21	13.0746 Hi

RUN #1 (CONT.)

SAMPLE ID	RESULT
22	11.7256 Hi
23	0.0816 ND
24	0.1333 ND
25	0.0560 ND

MAILI PHASE II EA
IMMUNOASSAY ANALYSIS

7/31/09

7/31/09

RUN #2 (CONT.)

RUN #2

SAMPLE ID	RESULT
26	53.4574 HI
27	0.2371 ND
28	18.9323 HI
29	0.0580 ND
30	2.3646
31	0.2320 ND
32	0.0573 ND
34	0.0616 ND
35	0.0881 ND
36	9.1373
37	0.3246 ND
38	0.0601 ND
39	0.4009 ND
40	0.0151 ND
41	0.1109 ND
42	0.0465 ND
43	0.2083 ND
44	0.0402 ND
45	0.1241 ND
46	0.1360 ND

SAMPLE ID	RESULT
47	0.0547 ND
48	0.0776 ND
49	0.0328 ND
50	0.0285 ND
51	0.1926 ND
52	0.0818 ND
53	ND
54	0.0223 ND
55	ND
56	0.0348 ND
57	0.0552 ND
58	10.8458 HI
59	0.0117 ND
60	6.4257
61	0.0310 ND
62	0.3765 ND

MAILI PHASE II ESA
IMMUNOASSAY ANALYSIS

7/31/09

7/31/09

RUN #2 (CONT.)

RUN #2

SAMPLE ID	RESULT
26	53.4574 HI
27	0.2371 ND
28	18.9323 HI
29	0.0580 ND
30	2.3646
31	0.2320 ND
32	0.0573 ND
34	0.0616 ND
35	0.0881 ND
36	9.1373
37	0.3246 ND
38	0.0601 ND
39	0.4009 ND
40	0.0151 ND
41	0.1109 ND
42	0.0465 ND
43	0.2083 ND
44	0.0402 ND
45	0.1241 ND
46	0.1360 ND

SAMPLE ID	RESULT
47	0.0547 ND
48	0.0776 ND
49	0.0328 ND
50	0.0285 ND
51	0.1926 ND
52	0.0818 ND
53	ND
54	0.0223 ND
55	ND
56	0.0348 ND
57	0.0552 ND
58	10.8458 HI
59	0.0117 ND
60	6.4257
61	0.0310 ND
62	0.3765 ND

7/31/09

7/31/09

RUN #3

RUN #3 (CONT.)

SAMPLE ID

RESULT

SAMPLE ID

63	1.9997
64	0.0326 ND
65	0.0004 ND
66	ND
67	ND
68	ND
69	0.0036 ND
70	0.0290 ND
71	ND
72	ND
73	0.2416 ND
74	0.2487 ND
75	0.6759
76	0.3445 ND
77	0.0839 ND
78	0.1825 ND
79	0.1146 ND
80	5.4417
81	0.1917 ND
82	0.6132
84	0.1136 ND
85	0.1310 ND

86	0.0561 ND
88	0.0513 ND
89	0.1320 ND
90	0.0856 ND
91	0.2109 ND
92	0.0482 ND
93	0.1668 ND
94	0.1735 ND
95	0.5125
96	0.5774
97	0.3224 ND
98	0.1927 ND
99	0.1836 ND
100	0.2815 ND

7/31/09

RUN #4

SAMPLE ID

RESULT

101	0.0941 ND
102	0.0841 ND
103	0.0576 ND
104	ND
105	0.0544 ND
106	ND
107	ND
108	ND
109	0.0036 ND
110	0.0831 ND
6	15.0922 HI
63	2.1276
75	0.2212 ND 0.5893
76	0.2212 ND
80	3.7285
82	0.5423
95	0.0003 ND
96	0.0794 ND
97	0.0243 ND

MAILI PHASE II ESA

RUN #5

8/6/09

8/6/09

RUN #5 (CONT.)

SAMPLE ID

RESULT

138 1.4422
140 11.5876 Hi
141 4.4381
142 42.7492 Hi
143 47.7084 Hi
144 46.1953 Hi
145 31.0870 Hi
146 6.2891
147 11.2660 Hi
148 2.4752
149 28.5470 Hi
151 38.2655 Hi
152 17.7334 Hi
153 2.26
154 0.4821 ND
155 1.2279
156 0.8375
157 8.3222
158 0.5756
159 53.5471 Hi
160 1.9838

SAMPLE ID

RESULT

162 0.0311 ND
163 6.6092
164 21.3848 Hi

8/6/09

RUN #6

SAMPLE ID	RESULT
165	0.9063
166	0.8290
167	1.5063
168	0.6444
169	2.4202
170	23.5071 Hi
171	2.4131
172	2.0111
174	2.5021
175	0.0633 ND
176	1.3417
177	1.1536
178	0.3540 ND
179	0.2259 ND
180	ND
181	0.1715 ND
182	0.1561 ND
183	0.0421 ND
184	0.0715 ND
185	2.0060
186	0.0552 ND

8/6/09

RUN #6

SAMPLE ID	RESULT
187	ND
188	0.0280 ND
189	ND

Run #7

8-19-09

Run #7 cont'

8-19-09

Sample ID

Result

ReRun

Sample ID

Result

ReRun

*190

0.5660

0.5748

217

4.0479

191

0.6529

218

0.5580

192

0.6049

*219

8.0955 7.6626

193

3.6647 >D

220

38.8747 Hi

194

2.7018

221

0.1784 nd

195

3.8826

222

0.4227 nd

196

2.8581

223

0.8147

197

3.9216

*224

1.4179 0.6631

198

2.0979

225

2.8624

199

2.9737

226

30.8509 Hi >

200

0.8710

227

31.1203 Hi

*201

2.4087

2.0480

228

1.2075

202

0.5644

232

26.0772 Hi

203

12.3036 Hi

233

0.2801 nd

204

0.4296 nd >

234

0.8319

205

0.4902 nd

Note: * — Sample Re Run

206

0.2784 nd

207

1.8025

208

3.8753

210

80.4582 Hi

211

3.6506

Run #8

8/19/09

Run #8 (cont)

Sample ID	Result
236	1.2461
237	3.4448
239	3.4724
240	1.6725
242	ND
243	0.1440 ND
244	0.0993 ND
245	0.0064 ND
246	1.0260
247	17.1746 Hi
248	4.4940
250	0.0515 ND
251	0.0299 ND
252	0.0458 ND
253	0.0563 ND
254	1.6759
255	49.8921 Hi
256	46.0430 Hi
257	1.0953
258	ND
261	2.1 0.3594

Sample ID	Result
262	0.7881
263	0.2797 ND
264	0.5226
265	0.4535 ND
190	0.5748
201	2.0480
219	7.6026
224	0.6631

MAILI PHASE II ESA
RUN #9

9/19/09

RUN # 9 (CONT.)

SAMPLE ID	RESULT
266	0.4665 ND
267	0.4603 ND
268	1.6351
269	1.5745
270	3.5701
271	0.7968
272	0.1224 ND
273	0.2553 ND
274	2.0529
275	0.8923
276	1.3826
277	2.9854
278	1.0317
279	0.5498
280	0.1625 ND
281	0.0951 ND
282	0.2271 ND
283	0.3547 ND
284	0.7928
285	0.1918 ND
286	1.2087

SAMPLE ID	RESULT
287	8.2666
288	0.5416
289	0.1595 ND
290	0.3439 ND
291	0.1114 ND
292	0.2506 ND
293	5.8494
294	0.1033 ND
295	25.3128 HI
296	0.0932 ND
297	0.1041 ND
298	0.5336

MAILI PHASE IIESA

9/19/09

RUN #10

RUN #10 (CONT.)

SAMPLE ID

RESULT

299	0.4997 ND
300	0.8597
301	3.3954
302	8.0667
303	0.0420 ND
304	0.0982 ND
305	1.3598
306	1.5440
307	0.1654 ND
308	0.0287 ND
309	ND
310	ND
311	0.0137 ND
312	0.1164 ND
313	0.0725 ND
314	0.1162 ND
315	0.0661 ND
316	0.0539 ND
317	0.1851 ND
318	0.0278 ND
319	ND

SAMPLE ID

RESULT

320	0.0056 ND
321	0.3554 ND
322	0.3033 ND
323	0.0394 ND
324	0.2766 ND
325	0.0329 ND
327	0.2052 ND
328	0.6511

12/29/09

0930 RY, RA, EC arrive on site
proceed to lay out sampling
grid.

1015 proceed to collect triplicate
samples from DU TA-1
TA-001, ~~TA-002~~, ~~TA-003~~.
T-001, T-002, T-003

<u>Sample ID</u>	<u>DU</u>	<u>Time</u>
T-001	TA-1	1030
T-002	TA-1	1035
T-003	TA-1	1040

1100 proceed to collect T004-T006

T-004	TA-2	1130
T-005	TA-3	1135
T-006	TA-4	1140

1115 lay out borders of PCB contamination
delineation grid

12/29/09

12:00	proceed to collect	T007
	sample ID	DU
		time
	T007	1A:05
		12:20

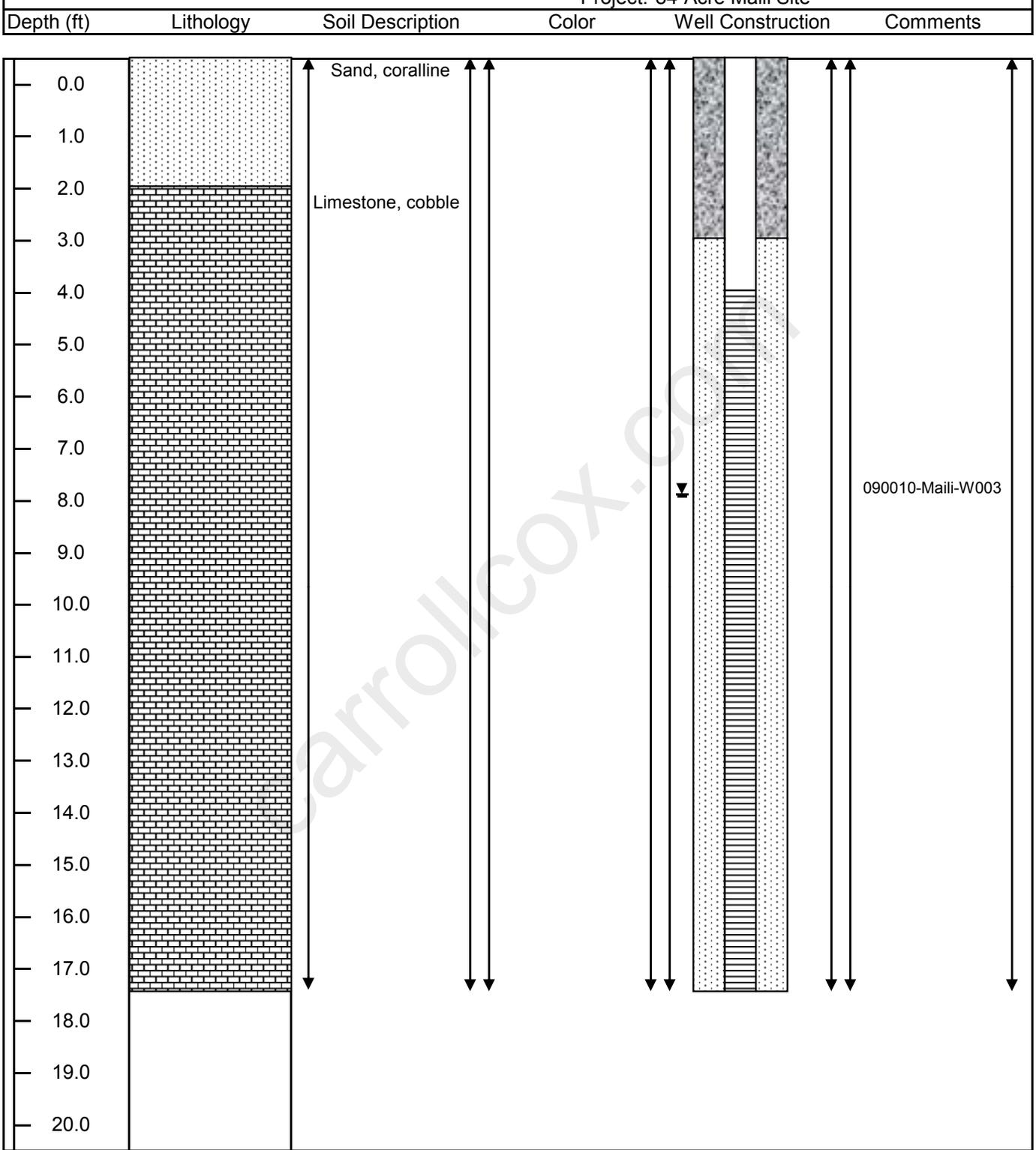
12:55 secure samples, decon equipment,
secure site, depart



Handwritten signature

Station ID: MW-1

Date: 17-Aug-09
 Time: 10:30 to 10:55
 Client: U.S. Coast Guard
 Project: 84-Acre Maili Site



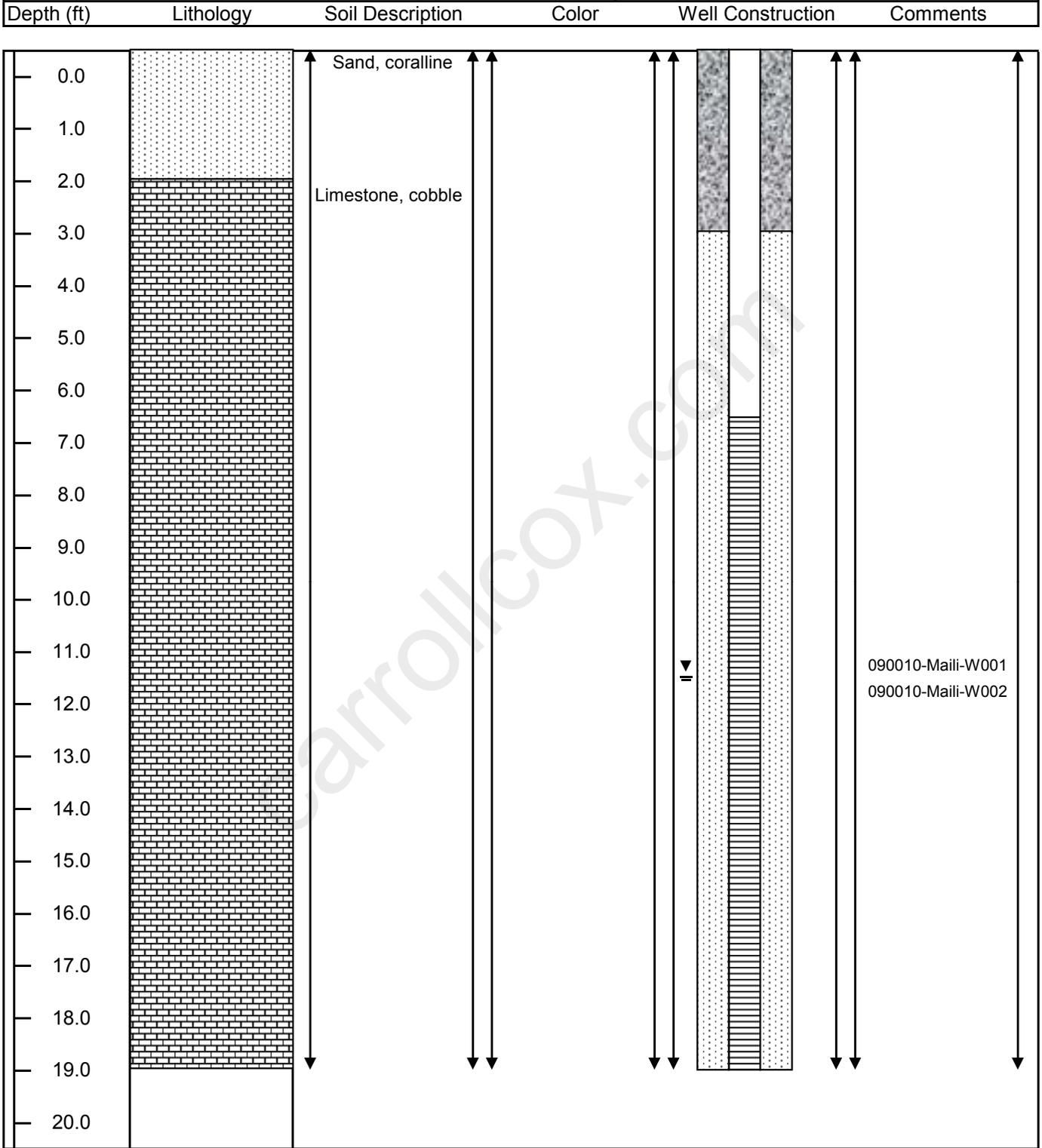
090010-Maili-W003

Attempt:	1	Penetration (ft):	17.4
Depth to Water (ft):	7.9	Final Core Length (ft):	17.4



Station ID: MW-2

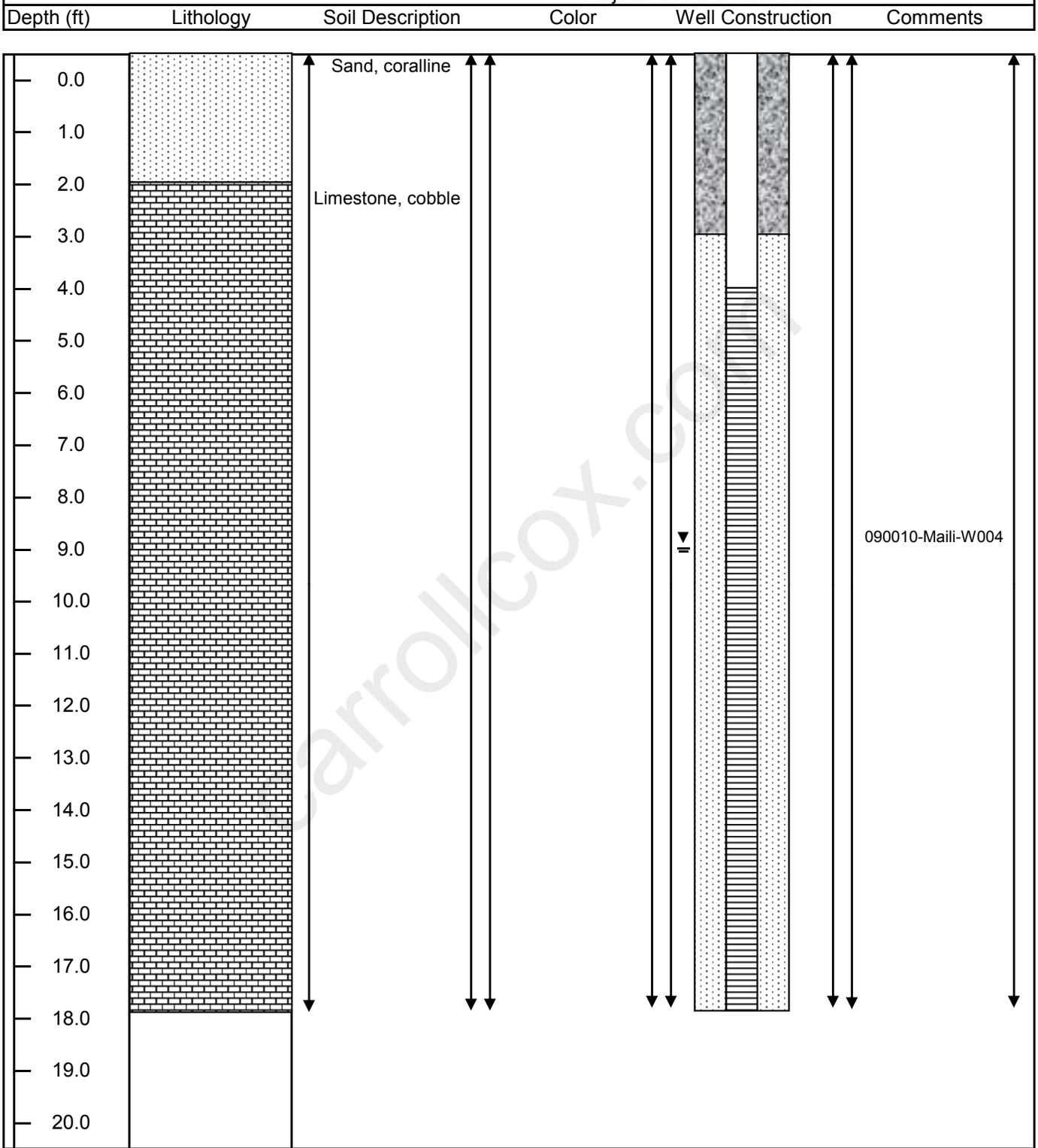
Date: 17-Aug-09
Time: 9:00 to 10:20
Client: U.S. Coast Guard
Project: 84-Acre Maili Site



Attempt:	1	Penetration (ft):	19
Depth to Water (ft):	11.7	Final Core Length (ft):	19

Station ID: MW-3

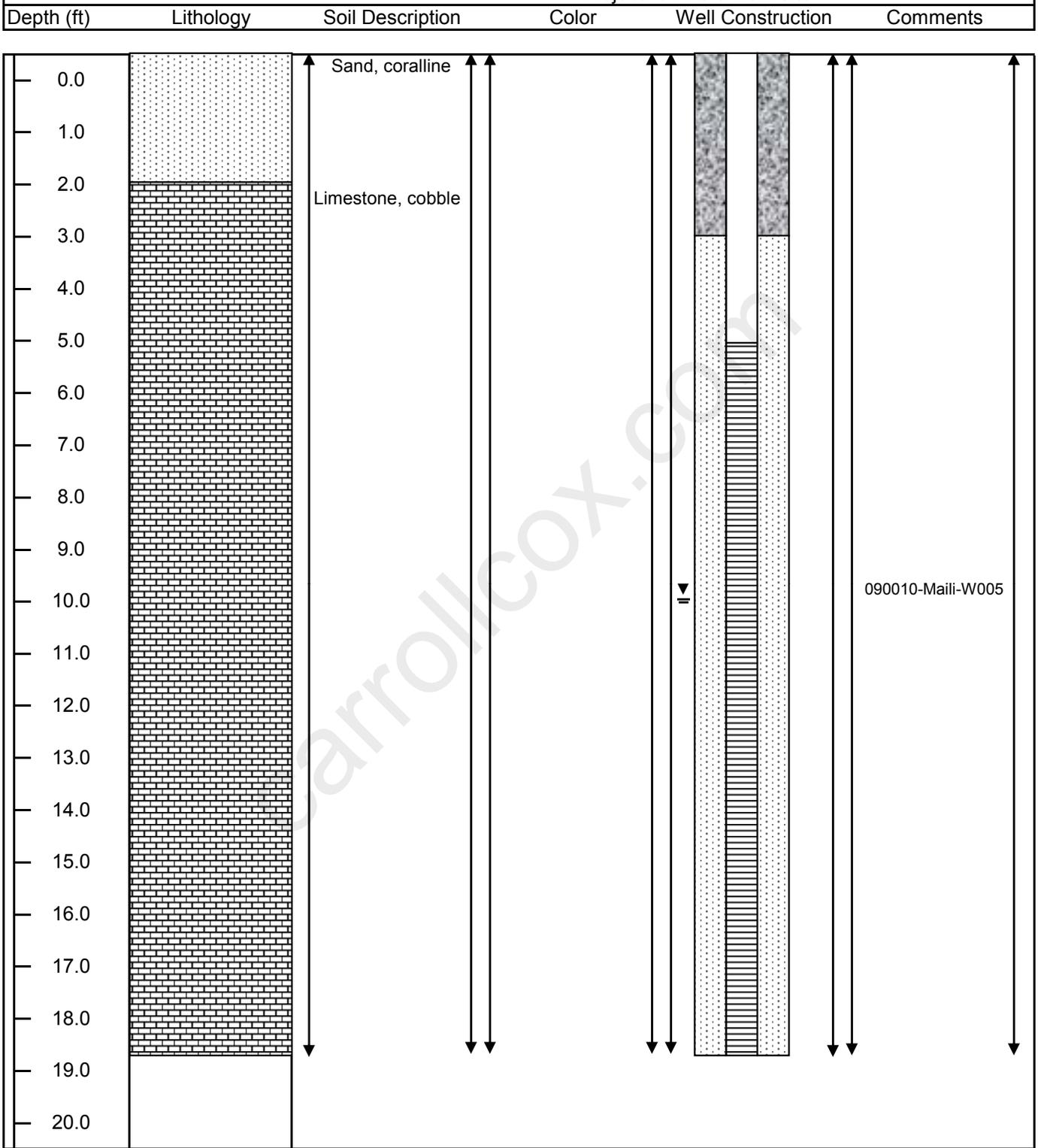
Date: 17-Aug-09
 Time: 10:55 to 11:36
 Client: U.S. Coast Guard
 Project: 84-Acre Maili Site



Attempt:	1	Penetration (ft):	17.8
Depth to Water (ft):	9.3	Final Core Length (ft):	17.8

Station ID: MW-4

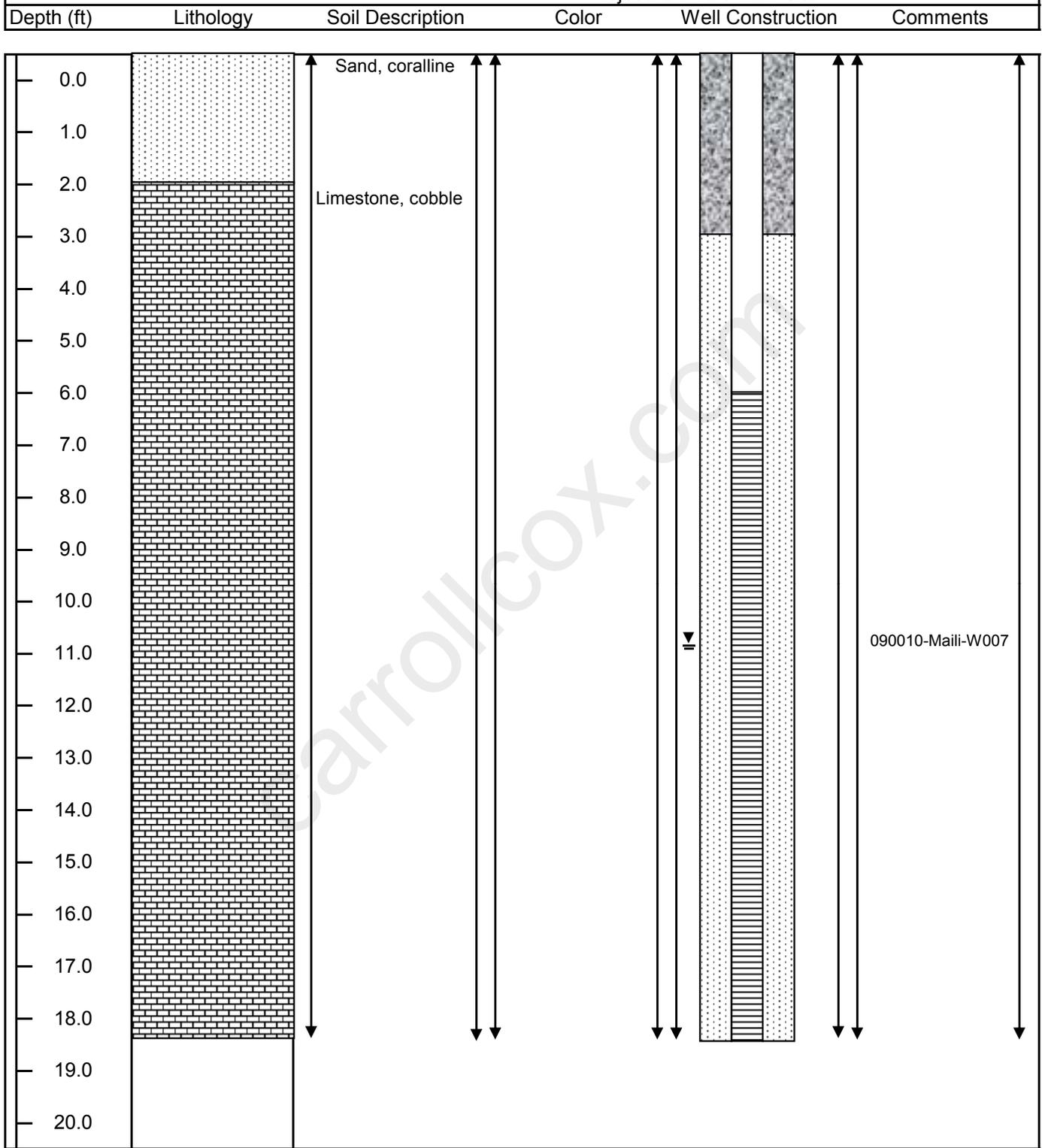
Date: 17-Aug-09
 Time: 11:36 to 12:20
 Client: U.S. Coast Guard
 Project: 84-Acre Maili Site



Attempt:	1	Penetration (ft):	18.7
Depth to Water (ft):	10.7	Final Core Length (ft):	18.7

Station ID: MW-5

Date: 17-Aug-09
 Time: 12:40 to 13:20
 Client: U.S. Coast Guard
 Project: 84-Acre Maili Site



Attempt: 1	Penetration (ft): 18.4
Depth to Water (ft): 10.9	Final Core Length (ft): 18.4

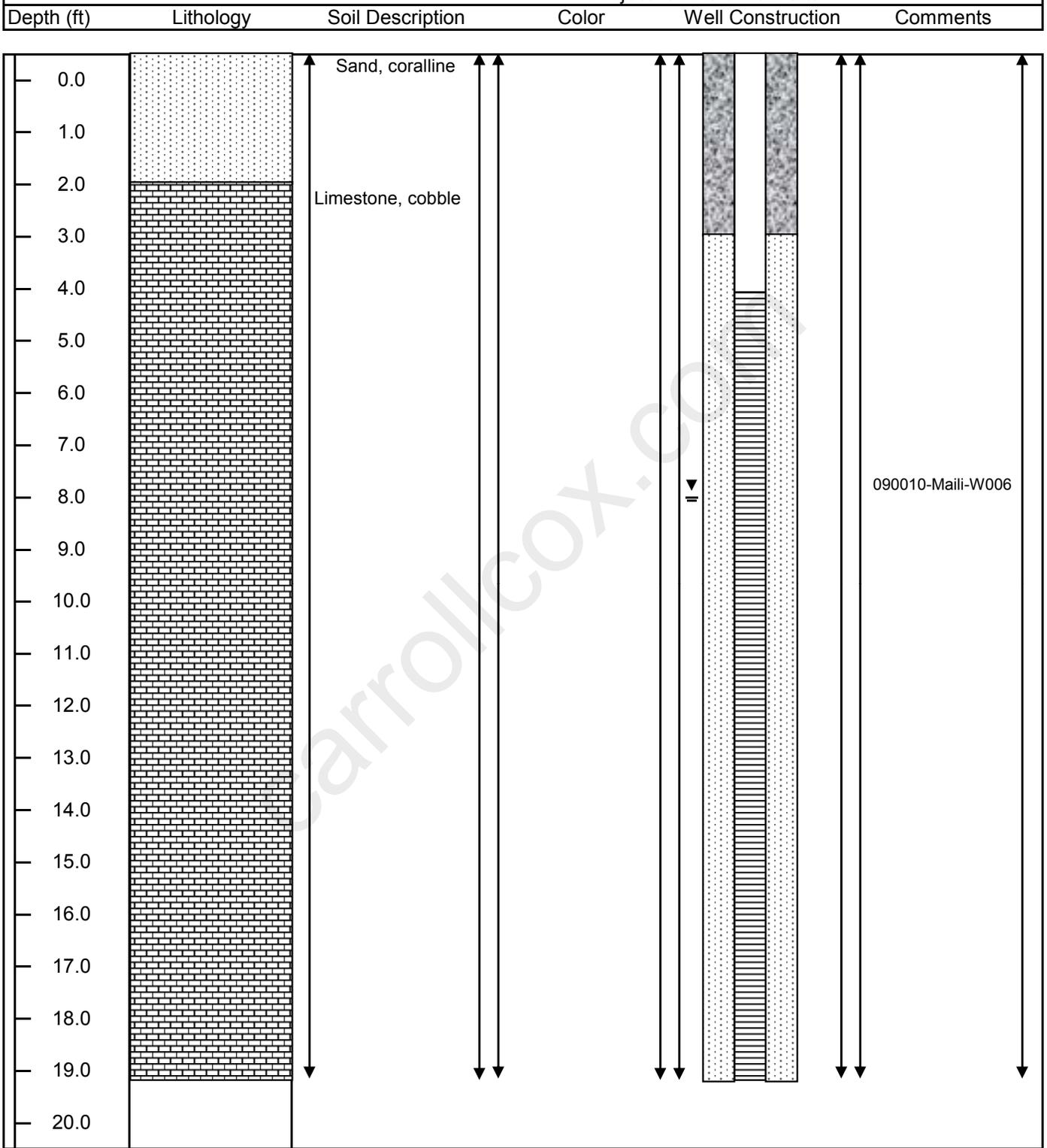
Station ID: MW-6

Date: 17-Aug-09

Time: 12:20 to 12:40

Client: U.S. Coast Guard

Project: 84-Acre Maili Site



Attempt:	1	Penetration (ft):	19.2
Depth to Water (ft):	8.1	Final Core Length (ft):	19.2

5/27/10

0930 Arrive at Maili Site.

RA, EL. proceed to decon
equipment & lay out sample
locations.proceed to collect discrete
samples S329 through S386

<u>Sample</u>	<u>Time</u>	<u>Sample</u>	<u>Time</u>
S329	1130	S343	1158
S330	1132	S344	1200
S331	1134	S345	1202
S332	1136	S346	1204
S333	1138	S347	1206
S334	1140	S348	1208
S335	1142	S349	1210
S336	1144	S350	1212
S337	1146	S351	1214
S338	1148	S352	1216
S339	1150	S353	1218
S340	1152	S354	1220
S341	1154	S355	1222
S342	1156	S356	1224

5/27/10

Sample	Time	Sample	Time
S357	1224	S372	1252
S358	1228	S373	1255
S359	1230	S374	1300
S360	1232	S375	1302
S364	1234	S372	1308
S364	1232	S377	1302
S363	1238	S378	1308
S364	1240	S371	1316
S365	1242	S380	1312
S366	1244	S381	1314
S367	1246	S382	1316
S368	1248	S383	1318
S369	1250	S384	1320
S370	1252	S385	1322
S371	1254	S382	1324
S387	Lead M1 sample		1330
1400 secure samples & depart site.			

partly cloudy, ~ 85°F

9/10

0900 Arrive on site

0915 Layout DWS for concrete pad
Layout grid extension
GPS all features

1140 Begin collecting samples

9/11/10

Sample	Time	Sample	Time
388	1234	410	1150
389	1236	411	NS
390	1238	412	1205
391	1240	413	1232
392	1207	414	NS
393	1209	415	1231
394	1210	416	1230
395	1213	417	1229
396	1212	418	1228
397	1215	419	1227
398	1216	420	1228
399	1218	421	1225
400	1219	422	1226
401	1220	423	1224
402	NS	424	1223
403	1217	425	1221
404	1200	426	1222
405	1202	427	1200
406	1157	428	1230
407	1155	429	1300
408	1145	430	1330
409	NS	431	1400

Sample Time

432 1430

~~438~~

~~431~~

S374 1245

S869 1250

S052 1255

S218 1300

S307 1305

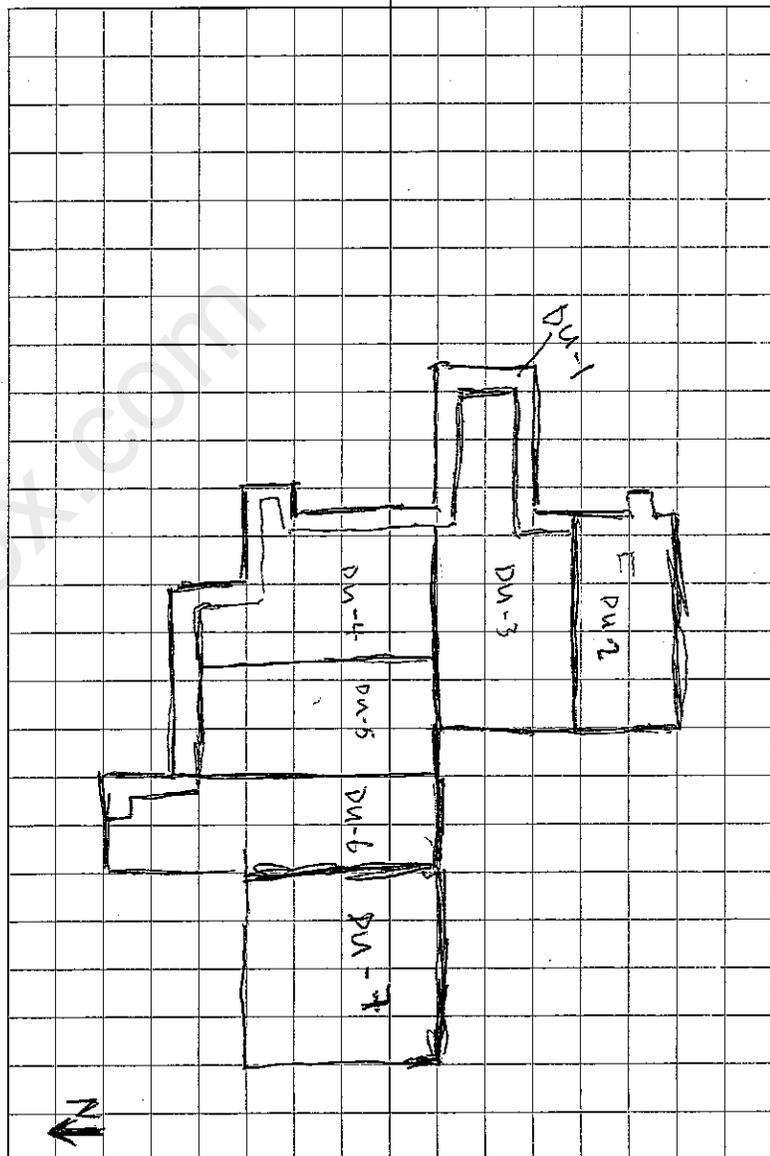
1310 Completed ~~same~~ grid sample collection

1430 Completed concrete sample collection

1445 Decon equipment

1500 Depart site

Roger Parks
9/1/10



Appendix C

Sample Analytical Results Summary Tables

carrollcox.com

carrollcox.com

Table C-1: PCB Grid Sample Results

Immunoassay Analysis Results

Sample ID	Sample Depth (feet)	Result (ppm)	Qualifier	Run #
1	0	0.98		1
2	0	2.64		1
3	0	1.59		1
4	0	1.37		1
5	0	65.08	Hi	1
6	0	15.09	Hi	4
7	0	30.36	Hi	1
8	0	2.01		1
9	0	1.07		1
10	0	37.27	Hi	1
11	0	4.79		1
12	0	ND		1
13	0	ND		1
14	0	0.32	ND	1
15	0	0.10	ND	1
16	0	5.34		1
17	0	0.62		1
18	0	0.19	ND	1
19	0	0.74		1
20	0	2.81		1
21	0	13.07	Hi	1
22	0	11.73	Hi	1
23	0	0.08	ND	1
24	0	0.13	ND	1
25	0	0.06	ND	1
26	0	53.46	Hi	2
27	0	0.24	ND	2
28	0	18.93	Hi	2
29	0	0.06	ND	2
30	0	2.36		2
31	0	0.23	ND	2
32	0	0.06	ND	2
34	0	0.06	ND	2
35	0	0.09	ND	2
36	0	9.14		2
37	0	0.32	ND	2
38	0	0.06	ND	2
39	0	0.40	ND	2
40	0	0.02	ND	2
41	0	0.11	ND	2
42	0	0.05	ND	2
43	0	0.21	ND	2
44	0	0.04	ND	2
45	0	0.12	ND	2
46	0	0.14	ND	2
47	0	0.05	ND	2
48	0	0.08	ND	2

Sample ID	Sample Depth (feet)	Result (ppm)	Qualifier	Run #
49	0	0.03	ND	2
50	0	0.03	ND	2
51	0	0.19	ND	2
52	0	0.08	ND	2
53	0	ND		2
54	2	0.02	ND	2
55	4	ND		2
56	2	0.03	ND	2
57	2	0.06	ND	2
58	4	10.85	Hi	2
59	2	0.01	ND	2
60	4	6.43		2
61	2	0.03	ND	2
62	4	0.38	ND	2
63	2	2.00	J	3
63	2	2.13		4
64	4	0.03	ND	3
65	2	0.00	ND	3
66	4	ND		3
67	2	ND		3
68	2	ND		3
69	4	0.00	ND	3
70	2	0.03	ND	3
71	4	ND		3
72	2	ND		3
73	4	0.24	ND	3
74	2	0.25	ND	3
75	4	0.68	J	3
75	4	0.59		4
76	2	0.34	ND	3
76	2	0.22	ND	4
77	4	0.08	ND	3
78	2	0.18	ND	3
79	2	0.11	ND	3
80	4	5.44	J	3
80	4	3.73		4
81	2	0.19	ND	3
82	2	0.61	J	3
82	2	0.54		4
84	2	0.11	ND	3
85	4	0.13	ND	3
86	2	0.06	ND	3
88	2	0.05	ND	3
89	4	0.13	ND	3
90	4	0.09	ND	3
91	2	0.21	ND	3
92	4	0.05	ND	3

Sample ID	Sample Depth (feet)	Result (ppm)	Qualifier	Run #
93	2	0.17	ND	3
94	4	0.17	ND	3
95	2	0.51		3
95	2	0.00	ND	4
96	4	0.58		3
96	4	0.08	ND	4
97	2	0.32	ND	3
97	2	0.02	ND	4
98	4	0.19	ND	3
99	2	0.18	ND	3
100	4	0.28	ND	3
101	4	0.09	ND	4
102	2	0.08	ND	4
103	4	0.06	ND	4
104	2	ND		4
105	4	0.05	ND	4
106	2	ND		4
107	4	ND		4
108	2	ND		4
109	0	0.00	ND	4
110	0	0.08	ND	4
138	0	1.44		5
140	0	11.59	Hi	5
141	0	4.44		5
142	0	42.75	Hi	5
143	0	47.71	Hi	5
144	0	46.80	Hi	5
145	0	31.09	Hi	5
146	0	6.29		5
147	0	11.27	Hi	5
148	0	2.48		5
149	0	28.55	Hi	5
151	0	38.27	Hi	5
152	0	17.73	Hi	5
153	0	2.26		5
154	0	0.48	ND	5
155	0	1.23		5
156	0	0.84		5
157	0	8.32		5
158	0	0.58		5
159	0	53.55	Hi	5
160	0	1.98		5
162	0	0.31	ND	5
163	0	6.61		5
164	0	21.38	Hi	5
165	0	0.91		6
166	0	0.83		6

Sample ID	Sample Depth (feet)	Result (ppm)	Qualifier	Run #
167	0	1.51		6
168	0	0.64		6
169	0	2.42		6
170	0	23.51	Hi	6
171	0	2.41		6
172	0	2.01		6
174	4	2.50		6
175	2	0.63	ND	6
176	4	1.34		6
177	4	1.15		6
178	2	0.35	ND	6
179	4	0.23	ND	6
180	4	ND		6
181	4	0.17	ND	6
182	2	0.16	ND	6
183	2	0.04	ND	6
184	4	0.07	ND	6
185	2	2.01		6
186	2	0.06	ND	6
187	4	ND		6
188	4	0.03	ND	6
189	4	ND		6
190	0	0.57		7
190	0	0.57		8
191	0	0.65		7
192	0	0.60		7
193	0	3.66		7
194	0	2.70		7
195	0	3.88		7
196	0	2.86		7
197	0	3.92		7
198	0	2.10		7
199	0	2.97		7
200	0	0.87		7
201	0	2.41		7
201	0	2.05		8
202	0	0.56		7
203	0	12.30	Hi	7
204	0	0.43	ND	7
205	0	0.49	ND	7
206	0	0.28	ND	7
207	0	1.80		7
208	0	3.88		7
210	0	80.46	Hi	7
211	0	3.65		7
217	0	4.05		7
218	0	0.56		7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Hi = concentration exceeds the calibrated range of RaPID Assay Kit

ND = Not detected

J = Concentration reported between Method Detection Limit and Reporting Limit

Table C-1: PCB Grid Sample Results (cont.)

Immunoassay Analysis Results

Sample ID	Sample Depth (feet)	Result (ppm)	Qualifier	Run #
219	0	8.10		7
219	0	7.60		8
220	0	38.87	Hi	7
221	0	0.18	ND	7
222	0	0.42	ND	7
223	0	0.81		7
224	0	1.42		7
224	0	0.66		8
225	0	2.86		7
226	0	30.85	Hi	7
227	0	31.12	Hi	7
228	0	1.21		7
232	0	26.08	Hi	7
233	0	0.28	ND	7
234	0	0.83		7
236	2	1.25		8
237	4	3.44		8
239	2	3.47		8
240	4	1.67		8
242	4	ND		8
243	2	0.14	ND	8
244	2	0.10	ND	8
245	4	0.01	ND	8
246	2	1.03		8
247	2	17.17	Hi	8
248	4	4.49		8
250	2	0.05	ND	8
251	4	0.03	ND	8
252	2	0.05	ND	8
253	4	0.06	ND	8
254	2	1.68		8
255	2	49.89	Hi	8
256	4	46.04	Hi	8
257	2	1.10		8
258	4	ND		8
261	4	0.36		8
262	4	0.79		8
263	4	0.28	ND	8
264	2	0.52		8
265	2	0.45	ND	8
266	0	0.47	ND	9
267	0	0.46	ND	9
268	0	1.64		9
269	0	1.57		9
270	0	3.57		9
271	0	0.80		9
272	0	0.12	ND	9

Sample ID	Sample Depth (feet)	Result (ppm)	Qualifier	Run #
273	0	0.26	ND	9
274	0	2.05		9
275	0	0.89		9
276	0	1.38		9
277	0	2.99		9
278	0	1.03		9
279	0	0.55		9
280	0	0.16	ND	9
281	0	0.10	ND	9
282	0	0.23	ND	9
283	0	0.35	ND	9
284	0	0.79		9
285	0	0.19	ND	9
286	0	1.21		9
287	0	8.27		9
288	0	0.54		9
289	0	0.16	ND	9
290	0	0.34	ND	9
291	0	0.11	ND	9
292	0	0.25	ND	9
293	0	5.85		9
294	0	0.10	ND	9
295	0	25.31	Hi	9
296	0	0.09	ND	9
297	0	0.10	ND	9
298	0	0.53		9
299	0	0.50	ND	10
300	0	0.86		10
301	0	3.40		10
302	0	8.07		10
303	0	0.04	ND	10
304	0	0.10	ND	10
305	0	1.36		10
306	0	1.54		10
307	0	0.17	ND	10
308	4	0.03	ND	10
309	2	ND		10
310	4	ND		10
311	2	0.01	ND	10
312	4	0.12	ND	10
313	4	0.07	ND	10
314	4	0.12	ND	10
315	4	0.07	ND	10
316	4	0.05	ND	10
317	2	0.19	ND	10
318	2	0.03	ND	10
319	4	ND		10

Sample ID	Sample Depth (feet)	Result (ppm)	Qualifier	Run #
320	4	0.01	ND	10
321	2	0.36	ND	10
322	2	0.30	ND	10
323	2	0.04	ND	10
324	4	0.28	ND	10
325	4	0.03	ND	10
327	2	0.21	ND	10
328	2	0.65		10

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Hi = concentration exceeds the calibrated range of RaPID Assay Kit

ND = Not detected

J = Concentration reported between Method Detection Limit and Reporting Limit

Table C-2: Initial Transmitter Buildings Area MI Sample Results
Soil Sample Analytical Results Summary

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU TC - S135 (Primary Sample)			DU TC - S136 (Replicate Sample)			DU TC - S137 (Replicate Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0011	ND	0.0032	0.0010	ND	0.0033	0.0011	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0032	0.0026	ND	0.0033	0.0026	0.14	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0032	0.0022	ND	0.0033	0.0023	0.14	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0032	0.00067	ND	0.0033	0.00069	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0032	0.00042	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0032	0.00067	ND	0.0033	0.00069	0.22	1.1
PCB - 1260	5.4	0.33	0.099	15	0.32	0.096	1.8	0.033	0.0099	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	9.0	5.8	0.25	11	6.0	0.26	9.9	5.6	0.24	0.39	0.43
Lead	110	2.9	0.23	54	3.0	0.24	1900	2.8	0.22	400	400
Barium	140	0.97	0.029	94	0.99	0.030	190	0.94	0.028	15000	3100
Cadmium	<i>0.37</i>	0.97	0.15	1.1	0.99	0.16	<i>0.90</i>	0.94	0.15	70	14
Chromium	110	2.5	0.091	110	2.6	0.093	120	2.4	0.088	280	500
Selenium	<i>0.88</i>	9.7	0.23	<i>1.4</i>	9.9	0.24	<i>1.1</i>	9.4	0.22	390	78
Silver	ND	1.9	0.087	ND	2.0	0.089	ND	1.9	0.084	390	78
Mercury	ND	0.018	0.0057	<i>0.0073</i>	0.019	0.0059	ND	0.019	0.0061	5.6	4.7
Total Petroleum Hydrocarbons (EPA 8015M)											
GRO	2.5	8.6	1.4	2.3	7.2	1.2	1.8	6.7	1.1	NS	600
DRO	6.5	8.3	1.5	18	8.2	1.4	6.4	8.2	1.4	NS	500
RRO	25	17	4.6	92	16	4.6	40	16	4.6	NS	2300

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

NS = No Standard

**Table C-3: Follow-Up Transmitter Buildings Area Decision Unit MI Sample Results
Soil Sample Analytical Results Summary**

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU TA-1 - T001 (Primary Sample)			DU TA-1 - T002 (Replicate Sample)			DU TA-1 - T003 (Replicate Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0032	0.00099	ND	0.0031	0.00098	ND	0.0032	0.00097	3.9	1.1
PCB - 1221	ND	0.0032	0.0025	ND	0.0031	0.0025	ND	0.0032	0.0024	0.14	1.1
PCB - 1232	ND	0.0032	0.0022	ND	0.0031	0.0021	ND	0.0032	0.0021	0.14	1.1
PCB - 1242	ND	0.0032	0.00065	ND	0.0031	0.00064	ND	0.0032	0.00064	0.22	1.1
PCB - 1248	ND	0.0032	0.00040	ND	0.0031	0.00040	ND	0.0032	0.00039	0.22	1.1
PCB - 1254	ND	0.0032	0.00065	ND	0.0031	0.00064	ND	0.0032	0.00064	0.22	1.1
PCB - 1260	0.50	0.0032	0.0046	0.71	0.0031	0.0046	0.64	0.0032	0.0045	0.22	1.1
Lead (EPA 6010B)											
Lead	15	14	1.1	130	14	1.1	97	13	1.1	400	400

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU TA-2 - T004 (Primary Sample)			DU TA-3 - T005 (Primary Sample)			DU TA-4 - T006 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0010	ND	0.0033	0.00098	ND	0.0033	0.00095	3.9	1.1
PCB - 1221	ND	0.0033	0.0025	ND	0.0033	0.0024	ND	0.0033	0.0024	0.14	1.1
PCB - 1232	ND	0.0033	0.0022	ND	0.0033	0.0021	ND	0.0033	0.0021	0.14	1.1
PCB - 1242	ND	0.0033	0.00066	ND	0.0033	0.00064	ND	0.0033	0.00062	0.22	1.1
PCB - 1248	ND	0.0033	0.00041	ND	0.0033	0.00040	ND	0.0033	0.00038	0.22	1.1
PCB - 1254	ND	0.0033	0.00066	ND	0.0033	0.00064	ND	0.0033	0.00062	0.22	1.1
PCB - 1260	0.060	0.0033	0.00094	0.49	0.0033	0.0046	0.097	0.0033	0.00089	0.22	1.1
Lead (EPA 6010B)											
Lead	41	14	1.2	59	14	1.1	16	13	1.2	400	400

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-3: Follow-Up Transmitter Buildings Area Decision Unit MI Sample Results (cont.)
Soil Sample Analytical Results Summary**

Sample ID (MI Soil Samples)					
DU TA-5 - T007					
(Primary Sample)					
Analyte	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Regulatory Standard	
				EPA RSL (mg/kg)	HDOH EAL (mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>					
PCB - 1016	ND	0.0033	0.00098	3.9	1.1
PCB - 1221	ND	0.0033	0.0024	0.14	1.1
PCB - 1232	ND	0.0033	0.0021	0.14	1.1
PCB - 1242	ND	0.0033	0.00064	0.22	1.1
PCB - 1248	ND	0.0033	0.0004	0.22	1.1
PCB - 1254	ND	0.0033	0.00064	0.22	1.1
PCB - 1260	2.6	0.0033	0.0092	0.22	1.1
<i>Lead (EPA 6010B)</i>					
Lead	71	14	1.1	400	400

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
ND = Not detected

**Table C-4: 80-Acre Area Outside of the Transmitter Buildings Area MI Sample Results
Soil Sample Analytical Results Summary**

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU 1 - S111 (Primary Sample)			DU 1 - S112 (Replicate Sample)			DU 1 - S113 (Replicate Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0011	ND	0.0033	0.0011	ND	0.0033	0.0011	3.9	1.1
PCB - 1221	ND	0.0033	0.0027	ND	0.0033	0.0026	ND	0.0033	0.0027	0.17	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0033	0.00070	ND	0.0033	0.00069	ND	0.0033	0.00070	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0033	0.00043	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0033	0.00070	ND	0.0033	0.00069	ND	0.0033	0.00070	0.22	1.1
PCB - 1260	<i>0.0024</i>	0.0033	0.00099	<i>0.0025</i>	0.0033	0.00098	<i>0.0024</i>	0.0033	0.00099	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	3.8	5.7	0.25	4.4	5.7	0.25	2.6	5.7	0.25	0.39	0.43
Lead	7.7	2.9	0.23	58	2.8	0.23	9.3	2.9	0.23	400	400
Barium	80	0.96	0.029	80	0.95	0.028	84	0.95	0.029	15000	3100
Cadmium	ND	0.96	0.15	ND	0.95	0.15	ND	0.95	0.15	70	14
Chromium	140	2.5	0.090	140	2.5	0.089	130	2.5	0.090	280	500
Selenium	ND	9.6	0.23	ND	9.5	0.23	ND	9.5	0.23	390	78
Silver	ND	1.9	0.086	ND	1.9	0.085	ND	1.9	0.086	390	78
Mercury	ND	0.018	0.0057	ND	0.020	0.0062	0.0080	0.018	0.0057	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-4: 80-Acre Area Outside of the Transmitter Buildings Area MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU 2 - S114 (Primary Sample)			DU 3 - S115 (Primary Sample)			DU 4 - S116 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0032	0.0010	ND	0.0033	0.0011	ND	0.0031	0.0010	3.9	1.1
PCB - 1221	ND	0.0032	0.0026	ND	0.0033	0.0027	ND	0.0031	0.0025	0.17	1.1
PCB - 1232	ND	0.0032	0.0023	ND	0.0033	0.0023	ND	0.0031	0.0022	0.17	1.1
PCB - 1242	ND	0.0032	0.00068	ND	0.0033	0.00070	ND	0.0031	0.00066	0.22	1.1
PCB - 1248	ND	0.0032	0.00042	ND	0.0033	0.00043	ND	0.0031	0.00041	0.22	1.1
PCB - 1254	ND	0.0032	0.00068	ND	0.0033	0.00070	ND	0.0031	0.00066	0.22	1.1
PCB - 1260	0.0037	0.0032	0.00097	<i>0.0030</i>	0.0033	0.0010	<i>0.0024</i>	0.0031	0.00094	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	5.4	5.4	0.23	3.9	5.9	0.25	7.8	5.6	0.24	0.39	0.43
Lead	12	2.7	0.21	17	2.9	0.23	11	2.8	0.23	400	400
Barium	120	0.89	0.027	66	0.98	0.029	81	0.94	0.028	15000	3100
Cadmium	<i>0.25</i>	0.89	0.14	ND	0.98	0.16	<i>0.25</i>	0.94	0.15	70	14
Chromium	150	2.3	0.084	120	2.5	0.092	160	2.4	0.088	280	500
Selenium	ND	8.9	0.21	ND	9.8	0.23	ND	9.4	0.23	390	78
Silver	ND	1.8	0.080	ND	2.0	0.088	ND	1.9	0.085	390	78
Mercury	ND	0.019	0.0061	ND	0.019	0.0061	ND	0.019	0.0061	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-4: 80-Acre Area Outside of the Transmitter Buildings Area MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU 5 - S117 (Primary Sample)			DU 6 - S118 (Primary Sample)			DU 7 - S119 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0010	ND	0.0033	0.0011	ND	0.0033	0.0011	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0033	0.0026	ND	0.0033	0.0026	0.17	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0033	0.00068	ND	0.0033	0.00069	ND	0.0033	0.00069	0.22	1.1
PCB - 1248	ND	0.0033	0.00042	ND	0.0033	0.00043	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0033	0.00068	ND	0.0033	0.00069	ND	0.0033	0.00069	0.22	1.1
PCB - 1260	ND	0.0033	0.00098	<i>0.0017</i>	0.0033	0.00099	ND	0.0033	0.00099	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	2.0	5.6	0.24	2.3	5.8	0.25	9.1	5.9	0.25	0.39	0.43
Lead	5.1	2.8	0.23	10	2.9	0.23	17	2.9	0.23	400	400
Barium	51	0.94	0.028	66	0.97	0.029	71	0.98	0.029	15000	3100
Cadmium	ND	0.94	0.15	ND	0.97	0.16	<i>0.36</i>	0.98	0.16	70	14
Chromium	62	2.4	0.088	98	2.5	0.091	110	2.5	0.092	280	500
Selenium	<i>0.31</i>	9.4	0.23	ND	9.7	0.23	1.8	9.8	0.23	390	78
Silver	ND	1.9	0.084	ND	1.9	0.087	ND	2.0	0.088	390	78
Mercury	ND	0.019	0.0058	ND	0.019	0.0061	ND	0.020	0.0062	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-4: 80-Acre Area Outside of the Transmitter Buildings Area MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU 8 - S120 (Primary Sample)			DU 9 - S121 (Primary Sample)			DU 10 - S122 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0030	0.00096	ND	0.0033	0.0010	ND	0.0033	0.0011	3.9	1.1
PCB - 1221	ND	0.0030	0.0024	ND	0.0033	0.0026	ND	0.0033	0.0027	0.17	1.1
PCB - 1232	ND	0.0030	0.0021	ND	0.0033	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0030	0.00063	ND	0.0033	0.00069	ND	0.0033	0.00070	0.22	1.1
PCB - 1248	ND	0.0030	0.00039	ND	0.0033	0.00043	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0030	0.00063	ND	0.0033	0.00069	ND	0.0033	0.00070	0.22	1.1
PCB - 1260	0.0031	0.0030	0.00090	0.015	0.0033	0.00098	ND	0.0033	0.0010	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	14	5.8	0.25	17	5.7	0.25	4.9	6.0	0.26	0.39	0.43
Lead	11	2.9	0.23	11	2.8	0.23	11	3.0	0.24	400	400
Barium	57	0.97	0.029	55	0.96	0.029	70	1.0	0.030	15000	3100
Cadmium	<i>0.30</i>	0.97	0.15	<i>0.26</i>	0.96	0.15	ND	1.0	0.16	70	14
Chromium	100	2.5	0.091	110	2.5	0.090	110	2.6	0.094	280	500
Selenium	2.8	9.7	0.23	<i>0.94</i>	9.6	0.23	<i>0.41</i>	10	0.24	390	78
Silver	ND	1.9	0.087	ND	1.9	0.086	ND	2.0	0.090	390	78
Mercury	ND	0.019	0.0061	ND	0.019	0.0061	ND	0.019	0.0061	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-4: 80-Acre Area Outside of the Transmitter Buildings Area MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU 11 - S123 (Primary Sample)			DU 12 - S124 (Primary Sample)			DU 12 - S125 (Replicate Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0032	0.0010	ND	0.0033	0.0011	ND	0.0033	0.0011	3.9	1.1
PCB - 1221	ND	0.0032	0.0026	ND	0.0033	0.0026	ND	0.0033	0.0027	0.17	1.1
PCB - 1232	ND	0.0032	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0032	0.00068	ND	0.0033	0.00070	ND	0.0033	0.00070	0.22	1.1
PCB - 1248	ND	0.0032	0.00042	ND	0.0033	0.00043	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0032	0.00068	ND	0.0033	0.00070	ND	0.0033	0.00070	0.22	1.1
PCB - 1260	0.0033	0.0032	0.00096	<i>0.0019</i>	0.0033	0.0010	ND	0.0033	0.0010	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	11	5.7	0.25	1.8	5.9	0.25	4.4	5.8	0.25	0.39	0.43
Lead	6.8	2.8	0.23	11	2.9	0.23	11	2.9	0.23	400	400
Barium	51	0.95	0.028	65	0.98	0.029	67	0.97	0.029	15000	3100
Cadmium	<i>0.22</i>	0.95	0.15	ND	0.98	0.16	<i>0.16</i>	0.97	0.16	70	14
Chromium	78	2.5	0.089	87	2.5	0.092	100	2.5	0.091	280	500
Selenium	3.1	9.5	0.23	ND	9.8	0.23	ND	9.7	0.23	390	78
Silver	ND	1.9	0.085	ND	2.0	0.088	ND	1.9	0.087	390	78
Mercury	ND	0.019	0.0061	ND	0.020	0.0062	ND	0.019	0.0058	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-4: 80-Acre Area Outside of the Transmitter Buildings Area MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU 12 - S126 (Replicate Sample)			DU 13 - S127 (Primary Sample)			DU 14 - S128 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0032	0.0010	ND	0.0033	0.0011	ND	0.0033	0.0010	3.9	1.1
PCB - 1221	ND	0.0032	0.0026	ND	0.0033	0.0026	ND	0.0033	0.0026	0.17	1.1
PCB - 1232	ND	0.0032	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0032	0.00068	ND	0.0033	0.00070	ND	0.0033	0.00069	0.22	1.1
PCB - 1248	ND	0.0032	0.00042	ND	0.0033	0.00043	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0032	0.00068	ND	0.0033	0.00070	ND	0.0033	0.00069	0.22	1.1
PCB - 1260	0.0076	0.0032	0.00097	0.0024	0.0033	0.00099	0.0067	0.0033	0.00098	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	15	5.8	0.25	2.6	6.0	0.26	6.7	5.7	0.25	0.39	0.43
Lead	46	2.9	0.23	18	3.0	0.24	8.5	2.9	0.23	400	400
Barium	66	0.97	0.029	55	1.0	0.030	53	0.96	0.029	15000	3100
Cadmium	0.25	0.97	0.15	ND	1.0	0.16	ND	0.96	0.15	70	14
Chromium	98	2.5	0.091	240	2.6	0.094	240	2.5	0.090	280	500
Selenium	2.7	9.7	0.23	ND	10	0.24	ND	9.6	0.23	390	78
Silver	ND	1.9	0.087	ND	2.0	0.090	ND	1.9	0.086	390	78
Mercury	ND	0.020	0.0062	ND	0.019	0.0059	ND	0.018	0.0055	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-4: 80-Acre Area Outside of the Transmitter Buildings Area MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU 15 - S129 (Primary Sample)			DU 16 - S130 (Primary Sample)			DU 17 - S131 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0032	0.0010	ND	0.0033	0.0011	ND	0.0033	0.0010	3.9	1.1
PCB - 1221	ND	0.0032	0.0026	ND	0.0033	0.0026	ND	0.0033	0.0026	0.14	1.1
PCB - 1232	ND	0.0032	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	0.14	1.1
PCB - 1242	ND	0.0032	0.00068	ND	0.0033	0.00069	ND	0.0033	0.00069	0.22	1.1
PCB - 1248	ND	0.0032	0.00042	ND	0.0033	0.00043	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0032	0.00068	ND	0.0033	0.00069	ND	0.0033	0.00069	0.22	1.1
PCB - 1260	0.0044	0.0032	0.00097	0.0060	0.0033	0.00099	ND	0.0033	0.00098	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	11	5.9	0.25	11	5.6	0.24	1.0	5.8	0.25	0.39	0.43
Lead	9.5	2.9	0.23	11	2.8	0.22	7.0	2.9	0.23	400	400
Barium	53	0.98	0.029	58	0.94	0.028	95	0.97	0.029	15000	3100
Cadmium	ND	0.98	0.16	<i>0.42</i>	0.94	0.15	ND	0.97	0.15	70	14
Chromium	230	2.5	0.092	130	2.4	0.088	270	2.5	0.091	280	500
Selenium	ND	9.8	0.23	ND	9.4	0.22	ND	9.7	0.23	390	78
Silver	ND	2.0	0.088	ND	1.9	0.084	ND	1.9	0.087	390	78
Mercury	ND	0.017	0.0053	ND	0.019	0.0061	ND	0.020	0.0062	5.6	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-4: 80-Acre Area Outside of the Transmitter Buildings Area MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (MI Soil Samples)									Regulatory Standard	
	DU 18 - S132 (Primary Sample)			DU 19 - S133 (Primary Sample)			DU 20 - S134 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0010	ND	0.0032	0.0010	ND	0.0032	0.0010	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0032	0.0026	ND	0.0032	0.0025	0.14	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0032	0.0023	ND	0.0032	0.0022	0.14	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0032	0.00068	ND	0.0032	0.00067	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0032	0.00042	ND	0.0032	0.00041	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0032	0.00068	ND	0.0032	0.00067	0.22	1.1
PCB - 1260	<i>0.0023</i>	0.0033	0.00098	<i>0.0017</i>	0.0032	0.00097	<i>0.0021</i>	0.0032	0.00096	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	4.7	5.7	0.25	4.5	5.8	0.25	8.2	5.9	0.25	0.39	0.43
Lead	7.0	2.8	0.23	6.7	2.9	0.23	8.3	2.9	0.23	400	400
Barium	88	0.95	0.028	65	0.97	0.029	64	0.98	0.029	15000	3100
Cadmium	ND	0.95	0.15	ND	0.97	0.16	<i>0.24</i>	0.98	0.16	70	14
Chromium	250	2.5	0.089	290	2.5	0.092	200	2.5	0.092	280	500
Selenium	ND	9.5	0.23	ND	9.7	0.23	<i>0.59</i>	9.8	0.23	390	78
Silver	ND	1.9	0.085	ND	1.9	0.088	ND	2.0	0.088	390	78
Mercury	ND	0.019	0.0061	ND	0.018	0.0056	ND	0.019	0.0061	5.6	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-5: Berm and Mound MI Sample Results
Soil Sample Analytical Results Summary

Analyte	Sample ID (Trenched Berm/Mound Soil Samples)									Regulatory Standard	
	Berm 1 - B01 (Primary Sample)			Berm 2 - B02 (Primary Sample)			Berm 3 - B03 (Primary Sample)			EPA RSL (mg/kg)	HDOH EAL (mg/kg)
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)		
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0032	0.0010	ND	0.0031	0.00099	ND	0.0032	0.0010	3.9	1.1
PCB - 1221	ND	0.0032	0.0026	ND	0.0031	0.0025	ND	0.0032	0.0026	0.14	1.1
PCB - 1232	ND	0.0032	0.0022	ND	0.0031	0.0025	ND	0.0032	0.0023	0.14	1.1
PCB - 1242	ND	0.0032	0.00067	ND	0.0031	0.00065	ND	0.0032	0.00068	0.22	1.1
PCB - 1248	ND	0.0032	0.00042	ND	0.0031	0.00040	ND	0.0032	0.00042	0.22	1.1
PCB - 1254	ND	0.0032	0.00067	ND	0.0031	0.00065	ND	0.0032	0.00068	0.22	1.1
PCB - 1260	ND	0.0032	0.00096	ND	0.0031	0.00093	ND	0.0032	0.00096	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	6.4	27	1.2	4.4	27	1.2	2.2	27	1.2	0.39	0.43
Lead	4.8	14	1.1	5.0	14	1.1	8.1	13	1.1	400	400
Barium	78	4.5	0.14	130	4.5	0.14	280	4.5	0.13	15000	3100
Cadmium	ND	4.5	0.72	ND	4.5	0.73	ND	4.5	0.71	70	14
Chromium	250	12	0.42	260	12	0.43	270	12	0.42	280	500
Selenium	ND	45	1.1	ND	45	1.1	ND	45	1.1	390	78
Silver	ND	9.0	0.41	ND	9.1	0.41	ND	8.9	0.40	390	78
Mercury	<i>0.011</i>	0.018	0.0056	<i>0.017</i>	0.018	0.0057	ND	0.018	0.0056	5.6	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-5: Berm and Mound MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Trenched Berm/Mound Soil Samples)									Regulatory Standard	
	Berm 4 - B04 (Primary Sample)			Berm 5 - B05 (Primary Sample)			Berm 6 - B06 (Primary Sample)			EPA RSL (mg/kg)	HDOH EAL (mg/kg)
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)		
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0010	ND	0.0033	0.0010	ND	0.0033	0.0010	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0033	0.0026	ND	0.0033	0.0026	0.14	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	0.14	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0033	0.00068	ND	0.0033	0.00069	0.22	1.1
PCB - 1248	ND	0.0033	0.00042	ND	0.0033	0.00042	ND	0.0033	0.00042	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0033	0.00068	ND	0.0033	0.00069	0.22	1.1
PCB - 1260	ND	0.0033	0.00098	<i>0.0029</i>	0.0033	0.00098	ND	0.0033	0.00098	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	2.4	29	1.2	16	29	1.2	4.3	29	1.2	0.39	0.43
Lead	4.7	14	1.2	ND	14	1.2	2.0	14	1.2	400	400
Barium	230	4.8	0.14	110	4.8	0.14	110	4.8	0.14	15000	3100
Cadmium	ND	4.8	0.77	ND	4.8	0.77	ND	4.8	0.77	70	14
Chromium	290	12	0.45	160	12	0.45	260	12	0.45	280	500
Selenium	ND	48	1.2	1.2	48	1.2	ND	48	1.2	390	78
Silver	ND	9.6	0.43	ND	9.6	0.43	ND	9.6	0.43	390	78
Mercury	<i>0.0065</i>	0.019	0.0061	ND	0.019	0.0061	ND	0.019	0.0061	5.6	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-5: Berm and Mound MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Trenched Berm/Mound Soil Samples)									Regulatory Standard	
	Berm 7 - B07 (Primary Sample)			Berm 8 - B08 (Primary Sample)			Berm 9 - B09 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0011	ND	0.0033	0.0010	ND	0.0032	0.0010	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0033	0.0026	ND	0.0032	0.0026	0.17	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0032	0.0023	0.17	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0033	0.00069	ND	0.0032	0.00068	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0033	0.00043	ND	0.0032	0.00042	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0033	0.00069	ND	0.0032	0.00068	0.22	1.1
PCB - 1260	0.0074	0.0033	0.00099	ND	0.0033	0.00098	0.033	0.0032	0.00097	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	37	29	1.2	9.1	29	1.2	10	28	1.2	0.39	0.43
Lead	7.7	14	1.2	ND	14	1.1	25	14	1.1	400	400
Barium	140	4.8	0.14	36	4.8	0.14	140	4.7	0.14	15000	3100
Cadmium	ND	4.8	0.77	ND	4.8	0.76	ND	4.7	0.75	70	14
Chromium	350	12	0.45	51	12	0.45	190	12	0.44	280	500
Selenium	ND	48	1.2	2.5	48	1.1	ND	47	1.1	390	78
Silver	ND	9.6	0.43	ND	9.5	0.43	ND	9.4	0.42	390	78
Mercury	ND	0.019	0.0061	ND	0.019	0.0060	ND	0.019	0.0059	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-5: Berm and Mound MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Trenched Berm/Mound Soil Samples)									Regulatory Standard	
	Berm 10 - B10 (Primary Sample)			Berm 10 - B11 (Replicate Sample)			Berm 10 - B12 (Replicate Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0010	ND	0.0033	0.0010	ND	0.0033	0.0010	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0033	0.0026	ND	0.0033	0.0026	0.17	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0033	0.00069	ND	0.0033	0.00068	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0033	0.00042	ND	0.0033	0.00042	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0033	0.00069	ND	0.0033	0.00068	0.22	1.1
PCB - 1260	0.019	0.0033	0.00098	0.019	0.0033	0.00098	0.017	0.0033	0.00098	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	13	29	1.2	10	28	1.2	15	28	1.2	0.39	0.43
Lead	12	14	1.2	5.6	14	1.1	5.8	14	1.1	400	400
Barium	150	4.8	0.14	140	4.6	0.14	150	4.7	0.14	15000	3100
Cadmium	ND	4.8	0.77	ND	4.6	0.74	ND	4.7	0.75	70	14
Chromium	220	12	0.45	200	12	0.44	220	12	0.44	280	500
Selenium	ND	48	1.2	ND	46	1.1	ND	47	1.1	390	78
Silver	ND	9.6	0.43	ND	9.3	0.42	ND	9.3	0.42	390	78
Mercury	ND	0.019	0.0061	ND	0.019	0.0058	ND	0.019	0.0059	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-5: Berm and Mound MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Trenched Berm/Mound Soil Samples)									Regulatory Standard	
	Berm 11 - B13 (Primary Sample)			Berm 12 - B14 (Primary Sample)			Berm 13 - B15 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0011	ND	0.0033	0.0011	ND	0.0032	0.0010	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0033	0.0026	ND	0.0032	0.0026	0.17	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0032	0.0023	0.17	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0033	0.00070	ND	0.0032	0.00068	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0033	0.00043	ND	0.0032	0.00042	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0033	0.00070	ND	0.0032	0.00068	0.22	1.1
PCB - 1260	ND	0.0033	0.00099	ND	0.0033	0.00099	ND	0.0032	0.00097	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	4.6	29	1.3	5.8	29	1.2	2.6	29	1.2	0.39	0.43
Lead	ND	15	1.2	2.2	14	1.1	ND	14	1.1	400	400
Barium	32	4.9	0.15	140	4.8	0.14	79	4.8	0.14	15000	3100
Cadmium	ND	4.9	0.78	ND	4.8	0.76	ND	4.8	0.76	70	14
Chromium	49	13	0.46	480	12	0.45	430	12	0.45	280	500
Selenium	1.5	49	1.2	ND	48	1.1	ND	48	1.1	390	78
Silver	ND	9.8	0.44	ND	9.5	0.43	ND	9.5	0.43	390	78
Mercury	ND	0.020	0.0062	<i>0.013</i>	0.019	0.0060	ND	0.019	0.0060	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-5: Berm and Mound MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Trenched Berm/Mound Soil Samples)									Regulatory Standard	
	Berm 14 - B16 (Primary Sample)			Berm 15 - B17 (Primary Sample)			Berm 16 - B18 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0011	ND	0.0033	0.0011	ND	0.0033	0.0010	3.9	1.1
PCB - 1221	ND	0.0033	0.0027	ND	0.0033	0.0026	ND	0.0033	0.0026	0.17	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0033	0.00070	ND	0.0033	0.00069	ND	0.0033	0.00069	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0033	0.00043	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0033	0.00070	ND	0.0033	0.00069	ND	0.0033	0.00069	0.22	1.1
PCB - 1260	ND	0.0033	0.0010	<i>0.0022</i>	0.0033	0.00099	ND	0.0033	0.00098	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	8.5	29	1.2	1.8	27	1.2	13	28	1.2	0.39	0.43
Lead	ND	14	1.2	ND	14	1.1	ND	14	1.1	400	400
Barium	79	4.8	0.14	200	4.5	0.14	73	4.6	0.14	15000	3100
Cadmium	ND	4.8	0.77	ND	4.5	0.73	ND	4.6	0.74	70	14
Chromium	440	12	0.45	450	12	0.43	320	12	0.44	280	500
Selenium	ND	48	1.2	ND	45	1.1	ND	46	1.1	390	78
Silver	ND	9.6	0.43	ND	9.1	0.41	ND	9.3	0.42	390	78
Mercury	<i>0.0090</i>	0.019	0.0061	<i>0.0075</i>	0.018	0.0057	<i>0.012</i>	0.019	0.0058	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-5: Berm and Mound MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Trenched Berm/Mound Soil Samples)									Regulatory Standard	
	Berm 17 - B19 (Primary Sample)			Berm 18 - B20 (Primary Sample)			Berm 19 - B21 (Primary Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0033	0.0011	ND	0.0032	0.0010	ND	0.0033	0.0011	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0032	0.0026	ND	0.0033	0.0026	0.17	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0032	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0032	0.00068	ND	0.0033	0.00069	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0032	0.00042	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0032	0.00068	ND	0.0033	0.00069	0.22	1.1
PCB - 1260	ND	0.0033	0.00099	<i>0.0031</i>	0.0032	0.00097	0.0057	0.0033	0.00099	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	9.0	28	1.2	2.7	29	1.2	9.1	28	1.2	0.39	0.43
Lead	ND	14	1.1	ND	14	1.1	7.8	14	1.1	400	400
Barium	100	4.6	0.14	100	4.8	0.14	140	4.6	0.14	15000	3100
Cadmium	ND	4.6	0.73	ND	4.8	0.76	ND	4.6	0.73	70	14
Chromium	380	12	0.43	430	12	0.45	200	12	0.43	280	500
Selenium	ND	46	1.1	ND	48	1.1	ND	46	1.1	390	78
Silver	ND	9.2	0.41	ND	9.5	0.43	ND	9.2	0.41	390	78
Mercury	ND	0.018	0.0058	<i>0.012</i>	0.019	0.0060	ND	0.018	0.0057	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-5: Berm and Mound MI Sample Results (cont.)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Trenched Berm/Mound Soil Samples)									Regulatory Standard	
	Berm 20 - B22 (Primary Sample)			Berm 20 - B23 (Replicate Sample)			Berm 20 - B24 (Replicate Sample)				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB - 1016	ND	0.0030	0.0010	ND	0.0033	0.0011	ND	0.0033	0.0011	3.9	1.1
PCB - 1221	ND	0.0030	0.0024	ND	0.0033	0.0027	ND	0.0033	0.0027	0.17	1.1
PCB - 1232	ND	0.0030	0.0021	ND	0.0033	0.0023	ND	0.0033	0.0023	0.17	1.1
PCB - 1242	ND	0.0030	0.00064	ND	0.0033	0.00070	ND	0.0033	0.00070	0.22	1.1
PCB - 1248	ND	0.0030	0.00040	ND	0.0033	0.00043	ND	0.0033	0.00043	0.22	1.1
PCB - 1254	ND	0.0030	0.00069	ND	0.0033	0.00070	ND	0.0033	0.00070	0.22	1.1
PCB - 1260	0.0036	0.0030	0.00091	0.0033	0.0033	0.0010	0.0033	0.0033	0.0010	0.22	1.1
RCRA Metals (EPA 6010B/7471A)											
Arsenic	6.5	28	1.2	6.4	27	1.2	6.5	28	1.2	0.39	0.43
Lead	1.6	14	1.1	1.6	14	1.1	1.3	14	1.1	400	400
Barium	130	4.7	0.14	130	4.5	0.14	130	4.6	0.14	15000	3100
Cadmium	ND	4.7	0.75	ND	4.5	0.73	ND	4.6	0.74	70	14
Chromium	220	12	0.44	210	12	0.43	210	12	0.44	280	500
Selenium	ND	47	1.1	ND	45	1.1	ND	46	1.1	390	78
Silver	ND	9.3	0.42	ND	9.1	0.41	ND	9.3	0.42	390	78
Mercury	ND	0.019	0.0059	ND	0.018	0.0057	ND	0.0019	0.0058	4.3	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-6: Groundwater Sample Results
Groundwater Sample Analytical Results Summary

Analyte	Sample ID (Groundwater Samples)									HDOH GAL (µg/L)
	MW-2 - W01 (Primary Sample)			MW-2 - W02 (Duplicate Sample)			MW-1 - W03 (Primary Sample)			
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	
<i>Volatile Organic Compounds (EPA 8260B)</i>										
Chloromethane	ND	5.0	0.18	ND	5.0	0.18	ND	5.0	0.18	290
Vinyl Chloride	ND	1.0	0.091	ND	1.0	0.091	ND	1.0	0.091	21
Bromomethane	ND	5.0	0.091	ND	5.0	0.091	ND	5.0	0.091	360
Chloroethane	ND	5.0	0.25	ND	5.0	0.25	ND	5.0	0.25	3.9
Trichlorofluoromethane	ND	1.0	0.069	ND	1.0	0.069	ND	1.0	0.069	NS
1,1-Dichloroethene	ND	1.0	0.066	ND	1.0	0.066	ND	1.0	0.066	3900
Methylene Chloride	ND	1.0	0.10	ND	1.0	0.10	ND	1.0	0.10	3100
trans-1,2-Dichloroethene	ND	1.0	0.051	ND	1.0	0.051	ND	1.0	0.051	2600
1,1-Dichloroethane	ND	1.0	0.049	ND	1.0	0.049	ND	1.0	0.049	47
cis-1,2-Dichloroethene	ND	1.0	0.067	ND	1.0	0.067	ND	1.0	0.067	4300
Chloroform	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057	74
1,1,1-Trichloroethane	ND	1.0	0.041	ND	1.0	0.041	ND	1.0	0.041	6000
Carbon tetrachloride	ND	1.0	0.10	ND	1.0	0.10	ND	1.0	0.10	31
1,2-Dichloroethane	ND	1.0	0.076	ND	1.0	0.076	ND	1.0	0.076	120
Trichloroethene	<i>0.71</i>	1.0	0.056	<i>0.53</i>	1.0	0.056	ND	1.0	0.056	480
1,2-Dichloropropane	ND	1.0	0.14	ND	1.0	0.14	ND	1.0	0.14	100
Bromodichloromethane	ND	1.0	0.053	ND	1.0	0.053	ND	1.0	0.053	160
cis-1,3-Dichloropropene	ND	1.0	0.051	ND	1.0	0.051	ND	1.0	0.051	260
trans-1,3-Dichloropropene	ND	1.0	0.043	ND	1.0	0.043	ND	1.0	0.043	260
1,1,2-Trichloroethane	ND	1.0	0.062	ND	1.0	0.062	ND	1.0	0.062	300
Tetrachloroethene	ND	1.0	0.063	ND	1.0	0.063	ND	1.0	0.063	140
Dibromochloromethane	ND	1.0	0.32	ND	1.0	0.32	ND	1.0	0.32	270
Chlorobenzene	ND	1.0	0.086	ND	1.0	0.086	ND	1.0	0.086	160
Bromoform	ND	1.0	0.11	ND	1.0	0.11	ND	1.0	0.11	5100
Methyl tert-butyl ether	ND	1.0	0.062	ND	1.0	0.062	ND	1.0	0.062	1800
1,1,2,2-Tetrachloroethane	ND	1.0	0.062	ND	1.0	0.062	ND	1.0	0.062	160
1,3-Dichlorobenzene	ND	1.0	0.091	ND	1.0	0.091	ND	1.0	0.091	370

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-6: Groundwater Sample Results (cont.)
Groundwater Sample Analytical Results Summary

Analyte	Sample ID (Groundwater Samples)									HDOH GAL (µg/L)
	MW-2 - W01 (Primary Sample)			MW-2 - W02 (Duplicate Sample)			MW-1 - W03 (Primary Sample)			
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	
Volatile Organic Compounds (EPA 8260B)										
1,4-Dichlorobenzene	ND	1.0	0.075	ND	1.0	0.075	ND	1.0	0.075	110
1,2-Dichlorobenzene	ND	1.0	0.061	ND	1.0	0.061	ND	1.0	0.061	100
Benzene	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057	1500
Toluene	ND	1.0	0.076	<i>0.084</i>	1.0	0.076	ND	1.0	0.076	400
Ethylbenzene	ND	1.0	0.061	ND	1.0	0.061	ND	1.0	0.061	300
m-Xylene & p-Xylene	ND	2.0	0.11	ND	2.0	0.11	ND	2.0	0.11	1000
o-Xylene	ND	1.0	0.080	ND	1.0	0.080	ND	1.0	0.080	1000
Semivolatile Compounds (EPA 8270C)										
Naphthalene	ND	2.1	0.077	ND	2.1	0.076	ND	2.1	0.076	210
2-Methylnaphthalene	ND	1.0	0.10	ND	1.0	0.10	ND	1.0	0.10	100
1-Methylnaphthalene	ND	0.31	0.15	ND	0.31	0.14	ND	0.31	0.14	100
Acenaphthylene	ND	0.42	0.039	ND	0.41	0.038	ND	0.41	0.038	300
Acenaphthene	ND	0.52	0.040	ND	0.52	0.039	ND	0.51	0.039	200
Fluorene	ND	0.31	0.039	ND	0.31	0.038	ND	0.31	0.038	300
Phenanthrene	ND	0.42	0.048	ND	0.41	0.047	ND	0.41	0.047	7.7
Anthracene	ND	0.21	0.043	ND	0.21	0.042	ND	0.20	0.042	0.73
Fluoranthene	ND	0.26	0.067	ND	0.26	0.066	ND	0.26	0.065	40
Pyrene	ND	0.31	0.055	ND	0.31	0.055	ND	0.31	0.054	2.0
Benzo[a]anthracene	ND	0.31	0.070	ND	0.31	0.069	ND	0.31	0.068	0.027
Chysene	ND	0.21	0.068	ND	0.21	0.067	ND	0.20	0.066	0.35
Benzo[b]fluoranthene	ND	0.42	0.057	ND	0.41	0.057	ND	0.41	0.056	0.092
Benzo[k]fluoranthene	ND	0.31	0.046	ND	0.31	0.045	ND	0.31	0.045	0.40
Benzo[a]pyrene	ND	0.21	0.075	ND	0.21	0.074	ND	0.20	0.073	0.014
Indeno[1,2,3-cd]pyrene	ND	0.31	0.059	ND	0.31	0.059	ND	0.31	0.058	0.092
Dibenz(a,h)anthracene	ND	0.31	0.054	ND	0.31	0.054	ND	0.31	0.053	0.52
Benzo[g,h,i]perylene	ND	0.31	0.060	ND	0.31	0.060	ND	0.31	0.059	0.10

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-6: Groundwater Sample Results (cont.)
Groundwater Sample Analytical Results Summary

Analyte	Sample ID (Groundwater Samples)									HDOH GAL (µg/L)
	MW-2 - W01 (Primary Sample)			MW-2 - W02 (Duplicate Sample)			MW-1 - W03 (Primary Sample)			
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	
Gasoline Range Organics (EPA 8015B)										
HI Gasoline Range Organics	510	50	9.2	490	50	9.2	170	50	9.2	5000
Diesel Range Organics (EPA 8015B)										
HI Diesel Range Organics	ND	250	62	62	250	62	ND	270	67	2500
HI Residual Range Organics	93	500	56	150	510	57	ND	550	65	2500
Polychlorinated Bipheynls (EPA 8082)										
PCB - 1016	ND	0.59	0.053	ND	0.57	0.051	ND	0.55	0.049	2.0
PCB - 1221	ND	0.59	0.073	ND	0.57	0.071	ND	0.55	0.068	2.0
PCB - 1232	ND	0.59	0.049	ND	0.57	0.047	ND	0.55	0.045	2.0
PCB - 1242	ND	0.59	0.049	ND	0.57	0.047	ND	0.55	0.045	2.0
PCB - 1248	ND	0.59	0.084	ND	0.57	0.081	ND	0.55	0.078	2.0
PCB - 1254	ND	0.59	0.052	ND	0.57	0.050	ND	0.55	0.048	2.0
PCB - 1260	ND	0.59	0.046	ND	0.57	0.044	ND	0.55	0.043	2.0
RCRA Metals (EPA 6010B/7471A)										
Arsenic	ND	60	4.7	5.1	60	4.7	ND	60	4.7	69
Lead	ND	30	1.7	ND	30	1.7	ND	30	1.7	29
Barium	29	10	0.35	30	10	0.35	29	10	0.35	2000
Cadmium	ND	10	1.5	ND	10	1.5	ND	10	1.5	3.0
Chromium	ND	25	3.3	ND	25	3.3	4	25	3.3	570
Selenium	ND	100	2.0	ND	100	2.0	ND	100	2.0	20
Silver	ND	20	0.85	ND	20	0.85	ND	20	0.85	1.0
Mercury	ND	0.20	0.041	ND	0.20	0.041	ND	0.20	0.041	2.1

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-6: Groundwater Sample Results (cont.)
Groundwater Sample Analytical Results Summary

Analyte	Sample ID (Groundwater Samples)									HDOH GAL (µg/L)
	MW-3 - W04 (Primary Sample)			MW-4 - W05 (Primary Sample)			MW-6 - W06 (Primary Sample)			
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	
<i>Volatile Organic Compounds (EPA 8260B)</i>										
Chloromethane	ND	5.0	0.18	ND	5.0	0.18	ND	5.0	0.18	290
Vinyl Chloride	ND	1.0	0.091	ND	1.0	0.091	ND	1.0	0.091	21
Bromomethane	ND	5.0	0.091	ND	5.0	0.091	ND	5.0	0.091	360
Chloroethane	ND	5.0	0.25	ND	5.0	0.25	ND	5.0	0.25	3.9
Trichlorofluoromethane	ND	1.0	0.069	ND	1.0	0.069	ND	1.0	0.069	NS
1,1-Dichloroethene	ND	1.0	0.066	ND	1.0	0.066	ND	1.0	0.066	3900
Methylene Chloride	ND	1.0	0.10	ND	1.0	0.10	ND	1.0	0.10	3100
trans-1,2-Dichloroethene	ND	1.0	0.051	ND	1.0	0.051	ND	1.0	0.051	2600
1,1-Dichloroethane	ND	1.0	0.049	ND	1.0	0.049	ND	1.0	0.049	47
cis-1,2-Dichloroethene	ND	1.0	0.067	ND	1.0	0.067	ND	1.0	0.067	4300
Chloroform	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057	74
1,1,1-Trichloroethane	ND	1.0	0.041	ND	1.0	0.041	ND	1.0	0.041	6000
Carbon tetrachloride	ND	1.0	0.10	ND	1.0	0.10	ND	1.0	0.10	31
1,2-Dichloroethane	ND	1.0	0.076	ND	1.0	0.076	ND	1.0	0.076	120
Trichloroethene	<i>0.32</i>	1.0	0.056	<i>0.50</i>	1.0	0.056	<i>0.53</i>	1.0	0.056	480
1,2-Dichloropropane	ND	1.0	0.14	ND	1.0	0.14	ND	1.0	0.14	100
Bromodichloromethane	ND	1.0	0.053	ND	1.0	0.053	ND	1.0	0.053	160
cis-1,3-Dichloropropene	ND	1.0	0.051	ND	1.0	0.051	ND	1.0	0.051	260
trans-1,3-Dichloropropene	ND	1.0	0.043	ND	1.0	0.043	ND	1.0	0.043	260
1,1,2-Trichloroethane	ND	1.0	0.062	ND	1.0	0.062	ND	1.0	0.062	300
Tetrachloroethene	ND	1.0	0.063	ND	1.0	0.063	ND	1.0	0.063	140
Dibromochloromethane	ND	1.0	0.32	ND	1.0	0.32	ND	1.0	0.32	270
Chlorobenzene	ND	1.0	0.086	ND	1.0	0.086	ND	1.0	0.086	160
Bromoform	ND	1.0	0.11	ND	1.0	0.11	ND	1.0	0.11	5100
Methyl tert-butyl ether	ND	1.0	0.062	ND	1.0	0.062	ND	1.0	0.062	1800
1,1,2,2-Tetrachloroethane	ND	1.0	0.062	ND	1.0	0.062	ND	1.0	0.062	160
1,3-Dichlorobenzene	ND	1.0	0.091	ND	1.0	0.091	ND	1.0	0.091	370

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-6: Groundwater Sample Results (cont.)
Groundwater Sample Analytical Results Summary

Analyte	Sample ID (Groundwater Samples)									HDOH GAL (µg/L)
	MW-3 - W04 (Primary Sample)			MW-4 - W05 (Primary Sample)			MW-6 - W06 (Primary Sample)			
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	
Volatile Organic Compounds (EPA 8260B)										
1,4-Dichlorobenzene	ND	1.0	0.075	ND	1.0	0.075	ND	1.0	0.075	110
1,2-Dichlorobenzene	ND	1.0	0.061	ND	1.0	0.061	ND	1.0	0.061	100
Benzene	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057	1500
Toluene	ND	1.0	0.076	<i>0.084</i>	1.0	0.076	ND	1.0	0.076	400
Ethylbenzene	ND	1.0	0.061	ND	1.0	0.061	ND	1.0	0.061	300
m-Xylene & p-Xylene	ND	2.0	0.11	ND	2.0	0.11	ND	2.0	0.11	1000
o-Xylene	ND	1.0	0.080	ND	1.0	0.080	ND	1.0	0.080	1000
Semivolatile Compounds (EPA 8270C)										
Naphthalene	ND	2.1	0.076	ND	2.1	0.077	ND	2.1	0.076	210
2-Methylnaphthalene	ND	1.0	0.10	ND	1.0	0.10	ND	1.0	0.10	100
1-Methylnaphthalene	ND	0.31	0.14	ND	0.31	0.15	ND	0.31	0.14	100
Acenaphthylene	ND	0.41	0.038	ND	0.42	0.039	ND	0.41	0.038	300
Acenaphthene	ND	0.52	0.039	ND	0.52	0.040	ND	0.51	0.039	200
Fluorene	ND	0.31	0.038	ND	0.31	0.039	ND	0.31	0.038	300
Phenanthrene	ND	0.41	0.047	ND	0.42	0.048	ND	0.41	0.047	7.7
Anthracene	ND	0.21	0.042	ND	0.21	0.043	ND	0.20	0.042	0.73
Fluoranthene	ND	0.26	0.066	ND	0.26	0.067	ND	0.26	0.065	40
Pyrene	ND	0.31	0.055	ND	0.31	0.055	ND	0.31	0.054	2.0
Benzo[a]anthracene	ND	0.31	0.069	ND	0.31	0.070	ND	0.31	0.068	0.027
Chysene	ND	0.21	0.067	ND	0.21	0.068	ND	0.20	0.066	0.35
Benzo[b]fluoranthene	ND	0.41	0.057	ND	0.42	0.057	ND	0.41	0.056	0.092
Benzo[k]fluoranthene	ND	0.31	0.045	ND	0.31	0.046	ND	0.31	0.045	0.40
Benzo[a]pyrene	ND	0.21	0.074	ND	0.21	0.075	ND	0.20	0.073	0.014
Indeno[1,2,3-cd]pyrene	ND	0.31	0.059	ND	0.31	0.059	ND	0.31	0.058	0.092
Dibenz(a,h)anthracene	ND	0.31	0.054	ND	0.31	0.054	ND	0.31	0.053	0.52
Benzo[g,h,i]perylene	ND	0.31	0.060	ND	0.31	0.060	ND	0.31	0.059	0.10

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-6: Groundwater Sample Results (cont.)
Groundwater Sample Analytical Results Summary

Analyte	Sample ID (Groundwater Samples)									HDOH GAL (µg/L)
	MW-3 - W04 (Primary Sample)			MW-4 - W05 (Primary Sample)			MW-6 - W06 (Primary Sample)			
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	
Gasoline Range Organics (EPA 8015B)										
HI Gasoline Range Organics	200	50	9.2	160	50	9.2	230	50	9.2	5000
Diesel Range Organics (EPA 8015B)										
HI Diesel Range Organics	ND	250	61	ND	250	62	ND	260	64	2500
HI Residual Range Organics	62	500	56	ND	510	57	67	530	59	2500
Polychlorinated Bipheynls (EPA 8082)										
PCB - 1016	ND	0.56	0.050	ND	0.54	0.049	ND	0.58	0.052	2.0
PCB - 1221	ND	0.56	0.069	ND	0.54	0.067	ND	0.58	0.072	2.0
PCB - 1232	ND	0.56	0.046	ND	0.54	0.044	ND	0.58	0.048	2.0
PCB - 1242	ND	0.56	0.046	ND	0.54	0.044	ND	0.58	0.048	2.0
PCB - 1248	ND	0.56	0.079	ND	0.54	0.077	ND	0.58	0.082	2.0
PCB - 1254	ND	0.56	0.049	ND	0.54	0.048	ND	0.58	0.051	2.0
PCB - 1260	ND	0.56	0.043	ND	0.54	0.042	ND	0.58	0.045	2.0
RCRA Metals (EPA 6010B/7471A)										
Arsenic	ND	60	4.7	ND	60	4.7	ND	60	4.7	69
Lead	ND	30	1.7	ND	30	1.7	ND	30	1.7	29
Barium	26	10	0.35	22	10	0.35	15	10	0.35	2000
Cadmium	ND	10	1.5	ND	10	1.5	ND	10	1.5	3.0
Chromium	ND	25	3.3	ND	25	3.3	ND	25	3.3	570
Selenium	ND	100	2.0	ND	100	2.0	ND	100	2.0	20
Silver	ND	20	0.85	ND	20	0.85	ND	20	0.85	1.0
Mercury	ND	0.20	0.041	ND	0.20	0.041	ND	0.20	0.041	2.1

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-6: Groundwater Sample Results (cont.)
Groundwater Sample Analytical Results Summary

Analyte	Sample ID (Groundwater Samples)			HDOH GAL (µg/L)
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	
MW-5 - W07 (Primary Sample)				
<i>Volatile Organic Compounds (EPA 8260B)</i>				
Chloromethane	ND	5.0	0.18	290
Vinyl Chloride	ND	1.0	0.091	21
Bromomethane	ND	5.0	0.091	360
Chloroethane	ND	5.0	0.25	3.9
Trichlorofluoromethane	ND	1.0	0.069	NS
1,1-Dichloroethene	ND	1.0	0.066	3900
Methylene Chloride	ND	1.0	0.10	3100
trans-1,2-Dichloroethene	ND	1.0	0.051	2600
1,1-Dichloroethane	ND	1.0	0.049	47
cis-1,2-Dichloroethene	ND	1.0	0.067	4300
Chloroform	ND	1.0	0.057	74
1,1,1-Trichloroethane	ND	1.0	0.041	6000
Carbon tetrachloride	ND	1.0	0.10	31
1,2-Dichloroethane	ND	1.0	0.076	120
Trichloroethene	0.35	1.0	0.056	480
1,2-Dichloropropane	ND	1.0	0.14	100
Bromodichloromethane	ND	1.0	0.053	160
cis-1,3-Dichloropropene	ND	1.0	0.051	260
trans-1,3-Dichloropropene	ND	1.0	0.043	260
1,1,2-Trichloroethane	ND	1.0	0.062	300
Tetrachloroethene	ND	1.0	0.063	140
Dibromochloromethane	ND	1.0	0.32	270
Chlorobenzene	ND	1.0	0.086	160
Bromoform	ND	1.0	0.11	5100
Methyl tert-butyl ether	ND	1.0	0.062	1800
1,1,2,2-Tetrachloroethane	ND	1.0	0.062	160
1,3-Dichlorobenzene	ND	1.0	0.091	370

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-6: Groundwater Sample Results (cont.)
Groundwater Sample Analytical Results Summary

Analyte	Sample ID (Groundwater Samples)			HDOH EAL (µg/L)
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	
MW-5 - W07 (Primary Sample)				
<i>Volatile Organic Compounds (EPA 8260B)</i>				
1,4-Dichlorobenzene	ND	1.0	0.075	110
1,2-Dichlorobenzene	ND	1.0	0.061	100
Benzene	ND	1.0	0.057	1500
Toluene	ND	1.0	0.076	400
Ethylbenzene	ND	1.0	0.061	300
m-Xylene & p-Xylene	ND	2.0	0.11	1000
o-Xylene	ND	1.0	0.080	1000
<i>Semivolatile Compounds (EPA 8270C)</i>				
Naphthalene	ND	2.1	0.076	210
2-Methylnaphthalene	ND	1.0	0.10	100
1-Methylnaphthalene	ND	0.31	0.14	100
Acenaphthylene	ND	0.41	0.038	300
Acenaphthene	ND	0.51	0.039	200
Fluorene	ND	0.31	0.038	300
Phenanthrene	ND	0.41	0.047	7.7
Anthracene	ND	0.20	0.042	0.73
Fluoranthene	ND	0.26	0.065	40
Pyrene	ND	0.31	0.054	2.0
Benzo[a]anthracene	ND	0.31	0.068	0.027
Chysene	ND	0.20	0.066	0.35
Benzo[b]fluoranthene	ND	0.41	0.056	0.092
Benzo[k]fluoranthene	ND	0.31	0.045	0.40
Benzo[a]pyrene	ND	0.20	0.073	0.014
Indeno[1,2,3-cd]pyrene	ND	0.31	0.058	0.092
Dibenz(a,h)anthracene	ND	0.31	0.053	0.52
Benzo[g,h,i]perylene	ND	0.31	0.059	0.10

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-6: Groundwater Sample Results (cont.)
Groundwater Sample Analytical Results Summary

Sample ID (Groundwater Samples)				
MW-5 - W07				
(Primary Sample)				
Analyte	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	HDOH EAL (µg/L)
<i>Gasoline Range Organics (EPA 8015B)</i>				
HI Gasoline Range Organics	150	50	9.2	5000
<i>Diesel Range Organics (EPA 8015B)</i>				
HI Diesel Range Organics	ND	260	63	2500
HI Residual Range Organics	93	510	58	2500
<i>Polychlorinated Bipheynls (EPA 8082)</i>				
PCB - 1016	ND	0.56	0.050	2.0
PCB - 1221	ND	0.56	0.069	2.0
PCB - 1232	ND	0.56	0.046	2.0
PCB - 1242	ND	0.56	0.046	2.0
PCB - 1248	ND	0.56	0.079	2.0
PCB - 1254	ND	0.56	0.049	2.0
PCB - 1260	ND	0.56	0.043	2.0
<i>RCRA Metals (EPA 6010B/7471A)</i>				
Arsenic	5.6	60	4.7	69
Lead	ND	30	1.7	29
Barium	14	10	0.35	2000
Cadmium	ND	10	1.5	3.0
Chromium	6.9	25	3.3	570
Selenium	ND	100	2.0	20
Silver	ND	20	0.85	1.0
Mercury	ND	0.20	0.041	2.1

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-7: Laboratory Reanalysis of Immunoassay-Analyzed PCB Grid Samples
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S002			S004			S005			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0379	0.0136	ND	0.0478	0.0172	0.202	0.0481	0.0173	3.9	1.1
PCB-1221	ND	0.0758	0.0161	ND	0.0957	0.0204	ND	0.0962	0.0205	0.14	1.1
PCB-1232	ND	0.0379	0.00750	ND	0.0478	0.00947	ND	0.0481	0.00952	0.14	1.1
PCB-1242	ND	0.0379	0.00318	ND	0.0478	0.00402	ND	0.0481	0.00404	0.22	1.1
PCB-1248	ND	0.0379	0.00409	ND	0.0478	0.00417	ND	0.0481	0.00519	0.22	1.1
PCB-1254	ND	0.0379	0.00364	ND	0.0478	0.00459	ND	0.0481	0.00462	0.22	1.1
PCB-1260	17.3	1.89	0.795	5.14	0.478	0.201	706	48.1	20.2	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S006			S007			S022			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0377	0.0136	ND	0.0380	0.0137	ND	0.0340	0.0122	3.9	1.1
PCB-1221	ND	0.0755	0.0161	ND	0.0760	0.0162	ND	0.0680	0.0145	0.14	1.1
PCB-1232	ND	0.0377	0.00747	ND	0.0380	0.00753	ND	0.0340	0.00673	0.14	1.1
PCB-1242	ND	0.0377	0.00317	ND	0.0380	0.00319	ND	0.0340	0.00286	0.22	1.1
PCB-1248	ND	0.0377	0.00408	ND	0.0380	0.00411	ND	0.0340	0.00367	0.22	1.1
PCB-1254	ND	0.0377	0.00362	ND	0.0380	0.00365	ND	0.0340	0.00327	0.22	1.1
PCB-1260	94.5	7.55	3.17	161	19.0	7.98	58.6	6.80	6.80	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-7: Laboratory Reanalysis of Immunoassay-Analyzed PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S027			S028			S032			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0469	0.0169	ND	0.0327	0.0169	ND	0.0391	0.0141	3.9	1.1
PCB-1221	ND	0.0939	0.0200	ND	0.0654	0.0200	ND	0.0781	0.0166	0.14	1.1
PCB-1232	ND	0.0469	0.00930	ND	0.0327	0.00930	ND	0.0391	0.00773	0.14	1.1
PCB-1242	ND	0.0469	0.00394	ND	0.0327	0.00394	ND	0.0391	0.00328	0.22	1.1
PCB-1248	ND	0.0469	0.00507	ND	0.0327	0.00507	ND	0.0391	0.00422	0.22	1.1
PCB-1254	ND	0.0469	0.00451	ND	0.0327	0.00451	ND	0.0391	0.00375	0.22	1.1
PCB-1260	2.88	0.469	0.197	325	32.7	0.197	0.828	0.0781	0.0328	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S042			S049			S051			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0330	0.0119	ND	0.0316	0.0114	ND	0.0341	0.0123	3.9	1.1
PCB-1221	ND	0.0660	0.0141	ND	0.0633	0.0135	ND	0.0683	0.0145	0.14	1.1
PCB-1232	ND	0.0330	0.00653	ND	0.0316	0.00627	ND	0.0341	0.00676	0.14	1.1
PCB-1242	ND	0.0330	0.00277	ND	0.0316	0.00266	ND	0.0341	0.00287	0.22	1.1
PCB-1248	ND	0.0330	0.00356	ND	0.0316	0.00642	ND	0.0341	0.00369	0.22	1.1
PCB-1254	ND	0.0330	0.00317	ND	0.0316	0.00304	ND	0.0341	0.00328	0.22	1.1
PCB-1260	0.229	0.0330	0.0139	0.390	0.0316	0.0133	2.25	0.3410	0.143	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-7: Laboratory Reanalysis of Immunoassay-Analyzed PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S053			S140			S141			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0324	0.0117	ND	0.0306	0.0110	ND	0.0308	0.0111	3.9	1.1
PCB-1221	ND	0.0647	0.0138	ND	0.0612	0.0130	ND	0.0615	0.0131	0.14	1.1
PCB-1232	ND	0.0324	0.00641	ND	0.0306	0.00606	ND	0.0308	0.00609	0.14	1.1
PCB-1242	ND	0.0324	0.00272	ND	0.0306	0.00257	ND	0.0308	0.00258	0.22	1.1
PCB-1248	ND	0.0324	0.00350	ND	0.0306	0.00330	ND	0.0308	0.00332	0.22	1.1
PCB-1254	ND	0.0324	0.00311	ND	0.0306	0.00294	ND	0.0308	0.00295	0.22	1.1
PCB-1260	0.220	0.0324	0.0136	77.8	6.12	2.57	18.0	1.54	0.646	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S142			S143			S144			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0303	0.0109	ND	0.0328	0.0118	0.0598	0.0331	0.0119	3.9	1.1
PCB-1221	ND	0.0606	0.0129	ND	0.0656	0.0140	ND	0.0662	0.0141	0.14	1.1
PCB-1232	ND	0.0303	0.00600	ND	0.0328	0.00656	ND	0.0331	0.00656	0.14	1.1
PCB-1242	ND	0.0303	0.00255	ND	0.0328	0.00278	ND	0.0331	0.00278	0.22	1.1
PCB-1248	ND	0.0303	0.00327	ND	0.0328	0.00358	ND	0.0331	0.00358	0.22	1.1
PCB-1254	ND	0.0303	0.00391	ND	0.0328	0.00318	ND	0.0331	0.00318	0.22	1.1
PCB-1260	169	15.2	6.36	487	32.8	27.8	650	66.2	27.8	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-7: Laboratory Reanalysis of Immunoassay-Analyzed PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S145			S146			S147			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0330	0.0119	ND	0.0331	0.0119	ND	0.0330	0.0119	3.9	1.1
PCB-1221	ND	0.0660	0.0141	ND	0.0662	0.0141	ND	0.0660	0.0141	0.14	1.1
PCB-1232	ND	0.0330	0.00653	ND	0.0331	0.006563	ND	0.0330	0.00653	0.14	1.1
PCB-1242	ND	0.0330	0.00277	ND	0.0331	0.00278	ND	0.0330	0.00277	0.22	1.1
PCB-1248	ND	0.0330	0.00356	ND	0.0331	0.00358	ND	0.0330	0.00356	0.22	1.1
PCB-1254	ND	0.0330	0.00317	ND	0.0331	0.00318	ND	0.0330	0.00317	0.22	1.1
PCB-1260	250	33.0	13.9	250	6.62	2.78	70.9	6.60	2.77	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S151			S152			S154			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0366	0.0132	ND	0.0329	0.0118	ND	0.0331	0.0119	3.9	1.1
PCB-1221	ND	0.0733	0.0156	ND	0.0658	0.0140	ND	0.0662	0.0141	0.14	1.1
PCB-1232	ND	0.0366	0.00725	ND	0.0329	0.00651	ND	0.0331	0.00656	0.14	1.1
PCB-1242	ND	0.0366	0.00308	ND	0.0329	0.00276	ND	0.0331	0.00278	0.22	1.1
PCB-1248	ND	0.0366	0.00396	ND	0.0329	0.00356	ND	0.0331	0.00358	0.22	1.1
PCB-1254	ND	0.0366	0.00352	ND	0.0329	0.00316	ND	0.0331	0.00318	0.22	1.1
PCB-1260	490	36.6	15.4	94.4	6.5800	2.76	2.73	0.0331	0.139	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-7: Laboratory Reanalysis of Immunoassay-Analyzed PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S158			S159			S163			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0326	0.0117	ND	0.0355	0.0128	ND	0.0332	0.0120	3.9	1.1
PCB-1221	ND	0.0651	0.0139	ND	0.0709	0.0151	ND	0.0664	0.0142	0.14	1.1
PCB-1232	ND	0.0326	0.00645	ND	0.0355	0.00702	ND	0.0332	0.00658	0.14	1.1
PCB-1242	ND	0.0326	0.00274	ND	0.0355	0.00298	ND	0.0332	0.00279	0.22	1.1
PCB-1248	ND	0.0326	0.00352	ND	0.0355	0.00383	ND	0.0332	0.00359	0.22	1.1
PCB-1254	ND	0.0326	0.00313	ND	0.0355	0.0034	ND	0.0332	0.00319	0.22	1.1
PCB-1260	8.36	0.651	0.274	493	35.5	14.9	41.3	3.32	1.4	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S165			S170			S197			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0331	0.0119	ND	0.0353	0.0127	ND	0.0331	0.0119	3.9	1.1
PCB-1221	ND	0.0662	0.0141	ND	0.0707	0.0151	ND	0.0662	0.0141	0.14	1.1
PCB-1232	ND	0.0331	0.00656	ND	0.0353	0.00700	ND	0.0331	0.00656	0.14	1.1
PCB-1242	ND	0.0331	0.00278	ND	0.0353	0.00297	ND	0.0331	0.00278	0.22	1.1
PCB-1248	ND	0.0331	0.00358	ND	17.70	1.91	ND	0.0331	0.00358	0.22	1.1
PCB-1254	ND	0.0331	0.00318	ND	0.0353	0.00339	ND	0.0331	0.00318	0.22	1.1
PCB-1260	5.75	0.662	0.662	242	17.70	7.42	28.6	3.31	1.39	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-7: Laboratory Reanalysis of Immunoassay-Analyzed PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S198			S199			S200			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0326	0.0117	ND	0.0321	0.00115	ND	0.0327	0.0118	3.9	1.1
PCB-1221	ND	0.0651	0.0139	ND	0.0641	0.0137	ND	0.0654	0.0139	0.14	1.1
PCB-1232	ND	0.0326	0.00645	ND	0.0321	0.00635	ND	0.0327	0.00647	0.14	1.1
PCB-1242	ND	0.0326	0.00274	ND	0.0321	0.00269	ND	0.0327	0.00275	0.22	1.1
PCB-1248	ND	0.0326	0.00352	ND	0.0321	0.00346	ND	0.0327	0.00353	0.22	1.1
PCB-1254	ND	0.0326	0.00313	ND	0.0321	0.00308	ND	0.0327	0.00314	0.22	1.1
PCB-1260	15.9	1.630	0.684	17.6	1.60	0.673	2.28	0.327	0.137	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S210			S211			S218			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0325	0.0117	ND	0.0332	0.0120	ND	0.0333	0.0120	3.9	1.1
PCB-1221	ND	0.0649	0.0138	ND	0.0664	0.0142	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0325	0.00643	ND	0.0332	0.00658	ND	0.0333	0.00660	0.14	1.1
PCB-1242	ND	0.0325	0.00273	ND	0.0332	0.00279	ND	0.0333	0.00280	0.22	1.1
PCB-1248	ND	0.0325	0.00351	ND	0.0332	0.00359	ND	0.0333	0.00360	0.22	1.1
PCB-1254	ND	0.0325	0.00312	ND	0.0332	0.00319	ND	0.0333	0.00320	0.22	1.1
PCB-1260	1430	162	68.2	33.2	3.32	1.4	6.74	0.667	0.280	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-7: Laboratory Reanalysis of Immunoassay-Analyzed PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S219			S221			S228			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0331	0.0119	ND	0.0331	0.0119	ND	0.0331	0.0119	3.9	1.1
PCB-1221	ND	0.0662	0.0141	ND	0.0662	0.0141	ND	0.0662	0.0141	0.14	1.1
PCB-1232	ND	0.0331	0.00656	ND	0.0331	0.00656	ND	0.0331	0.00656	0.14	1.1
PCB-1242	ND	0.0331	0.00278	ND	0.0331	0.00278	ND	0.0331	0.00278	0.22	1.1
PCB-1248	ND	0.0331	0.00358	ND	0.0331	0.00358	ND	0.0331	0.00358	0.22	1.1
PCB-1254	ND	0.0331	0.00318	ND	0.0331	0.00318	ND	0.0331	0.00318	0.22	1.1
PCB-1260	59.9	6.62	2.78	2.07	0.331	0.139	10.7	1.66	0.695	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S289			S294			S295			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0330	0.0119	ND	0.0327	0.0118	ND	0.152	0.0548	3.9	1.1
PCB-1221	ND	0.0660	0.0141	ND	0.0654	0.0139	ND	0.304	0.0648	0.14	1.1
PCB-1232	ND	0.0330	0.00653	ND	0.0327	0.00647	ND	0.152	0.0301	0.14	1.1
PCB-1242	ND	0.0330	0.00277	ND	0.0327	0.00275	ND	0.152	0.0128	0.22	1.1
PCB-1248	ND	0.0330	0.00356	ND	0.0327	0.00353	ND	0.152	0.0164	0.22	1.1
PCB-1254	ND	0.0330	0.00317	ND	0.0327	0.00314	ND	0.152	0.0146	0.22	1.1
PCB-1260	0.421	0.0330	0.0139	1.37	0.163	0.686	135	15.2	6.39	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

Table C-8: Expanded PCB Grid Sample Results (May 27, 2010)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S329			S330			S331			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0325	0.01170	ND	0.0330	0.01190	ND	0.0331	0.01190	3.9	1.1
PCB-1221	ND	0.0649	0.01380	ND	0.0660	0.01410	ND	0.0662	0.01410	0.14	1.1
PCB-1232	ND	0.0325	0.00643	ND	0.0330	0.00653	ND	0.0331	0.00656	0.14	1.1
PCB-1242	ND	0.0325	0.00273	ND	0.0330	0.00277	ND	0.0331	0.00278	0.22	1.1
PCB-1248	ND	0.0325	0.00351	ND	0.0330	0.00356	ND	0.0331	0.00358	0.22	1.1
PCB-1254	ND	0.0325	0.00312	ND	0.0330	0.00317	ND	0.0331	0.00318	0.22	1.1
PCB-1260	0.422	0.0325	0.01360	1.87	0.1650	0.06930	5.82	0.6620	0.2780	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S332			S333			S334			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
Polychlorinated Biphenyls (EPA 8082)											
PCB-1016	ND	0.0333	0.0120	ND	0.0332	0.0120	ND	0.0332	0.0120	3.9	1.1
PCB-1221	ND	0.0667	0.0142	ND	0.0664	0.0142	ND	0.0664	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	ND	0.0332	0.00658	ND	0.0332	0.00658	0.14	1.1
PCB-1242	ND	0.0333	0.0028	ND	0.0332	0.00279	ND	0.0332	0.00279	0.22	1.1
PCB-1248	ND	0.0333	0.0036	ND	0.0332	0.00359	ND	0.0332	0.00359	0.22	1.1
PCB-1254	ND	0.0333	0.0032	ND	0.0332	0.00319	ND	0.0332	0.00319	0.22	1.1
PCB-1260	19.3	1.6700	0.700	0.168	0.0332	0.0140	2.66	0.3320	0.1400	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S335			S336			S337			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0295	0.01060	ND	0.0331	0.01190	ND	0.0333	0.0120	3.9	1.1
PCB-1221	ND	0.0590	0.01260	ND	0.0662	0.01410	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0295	0.00584	ND	0.0331	0.00656	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0295	0.00248	ND	0.0331	0.00278	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0295	0.00319	ND	0.0331	0.00358	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0295	0.00283	ND	0.0331	0.00318	ND	0.0333	0.0032	0.22	1.1
PCB-1260	0.0679	0.0295	0.01240	0.47	0.0331	0.0139	0.312	0.0333	0.0140	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S339			S340			S341			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0333	0.0120	ND	0.0332	0.012	ND	0.0332	0.012	3.9	1.1
PCB-1221	ND	0.0667	0.0142	ND	0.0664	0.0142	ND	0.0664	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	ND	0.0332	0.00658	ND	0.0332	0.00658	0.14	1.1
PCB-1242	ND	0.0333	0.0028	ND	0.0332	0.00279	ND	0.0332	0.00279	0.22	1.1
PCB-1248	ND	0.0333	0.0036	ND	0.0332	0.00359	ND	0.0332	0.00359	0.22	1.1
PCB-1254	ND	0.0333	0.0032	ND	0.0332	0.00319	ND	0.0332	0.00319	0.22	1.1
PCB-1260	0.387	0.0333	0.014	2.12	0.3320	0.14	0.199	0.0332	0.014	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S342			S343			S344			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0333	0.0120	ND	0.0333	0.012	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.0667	0.0142	ND	0.0667	0.0142	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	ND	0.0333	0.0066	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0333	0.0028	ND	0.0333	0.0028	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0333	0.0036	ND	0.0333	0.00360	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0333	0.0032	ND	0.0333	0.0032	ND	0.0333	0.0032	0.22	1.1
PCB-1260	3.42	0.3330	0.14	11.2	1.6700	0.7	37.2	3.3300	1.4	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S345			S346			S347			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0333	0.0120	ND	0.0330	0.0119	ND	0.0332	0.012	3.9	1.1
PCB-1221	ND	0.0667	0.0142	ND	0.0660	0.0141	ND	0.0664	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	ND	0.0330	0.00653	ND	0.0332	0.00658	0.14	1.1
PCB-1242	ND	0.0333	0.0028	ND	0.0330	0.00277	ND	0.0332	0.00279	0.22	1.1
PCB-1248	ND	0.0333	0.0036	ND	0.0330	0.00356	ND	0.0332	0.00359	0.22	1.1
PCB-1254	ND	0.0333	0.0032	ND	0.0330	0.00317	ND	0.0332	0.00319	0.22	1.1
PCB-1260	22.1	3.3300	1.4	119	16.5000	6.93	5.67	0.6640	0.279	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S348			S349			S350			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0333	0.0120	ND	0.0330	0.0119	ND	0.0332	0.012	3.9	1.1
PCB-1221	ND	0.0667	0.0142	ND	0.0660	0.0141	ND	0.0664	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	ND	0.0330	0.00653	ND	0.0332	0.00658	0.14	1.1
PCB-1242	ND	0.0333	0.0028	ND	0.0330	0.00277	ND	0.0332	0.00279	0.22	1.1
PCB-1248	ND	0.0333	0.0036	ND	0.0330	0.00356	ND	0.0332	0.00359	0.22	1.1
PCB-1254	ND	0.0333	0.0032	ND	0.0330	0.00317	ND	0.0332	0.00319	0.22	1.1
PCB-1260	3.05	0.3330	0.14	19.7	1.6500	0.693	8.97	0.6640	0.279	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S351			S352			S353			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0330	0.0119	ND	0.0532	0.0191	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.0660	0.0141	ND	0.1060	0.0227	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0330	0.00653	ND	0.0532	0.0105	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0330	0.00277	ND	0.0532	0.00447	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0330	0.00356	ND	0.0532	0.00574	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0330	0.00317	ND	0.0532	0.00511	ND	0.0333	0.0032	0.22	1.1
PCB-1260	13.1	1.6500	0.693	723	53.2000	22.3	0.234	0.0333	0.014	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S354			S355			S356			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0333	0.0120	ND	0.0333	0.012	ND	0.0332	0.012	3.9	1.1
PCB-1221	ND	0.0667	0.0142	ND	0.0667	0.0142	ND	0.0664	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	ND	0.0333	0.0066	ND	0.0332	0.00658	0.14	1.1
PCB-1242	ND	0.0333	0.0028	ND	0.0333	0.0028	ND	0.0332	0.00279	0.22	1.1
PCB-1248	ND	0.0333	0.0036	ND	0.0333	0.00360	ND	0.0332	0.00359	0.22	1.1
PCB-1254	ND	0.0333	0.0032	ND	0.0333	0.0032	ND	0.0332	0.00319	0.22	1.1
PCB-1260	3.17	0.3330	0.14	1.01	0.1670	0.07	6.57	0.6640	0.279	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S357			S358			S359			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0333	0.0120	ND	0.0331	0.0119	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.0667	0.0142	ND	0.0662	0.0141	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	ND	0.0331	0.00656	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0333	0.0028	ND	0.0331	0.00278	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0333	0.0036	ND	0.0331	0.00358	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0333	0.0032	ND	0.0331	0.00318	ND	0.0333	0.0032	0.22	1.1
PCB-1260	4.48	0.6670	0.28	19.6	1.6600	0.695	62600	8330	3500	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S360			S361			S362			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0329	0.0118	ND	0.0332	0.012	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.0658	0.014	ND	0.0664	0.0142	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0329	0.00651	ND	0.0332	0.00658	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0329	0.00276	ND	0.0332	0.00279	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0329	0.00355	ND	0.0332	0.00359	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0329	0.00316	ND	0.0332	0.00319	ND	0.0333	0.0032	0.22	1.1
PCB-1260	0.724	0.6580	0.276	0.485	0.3320	0.14	1.37	0.3330	0.14	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S363			S364			S365			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0331	0.0119	ND	0.0333	0.012	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.0662	0.0141	ND	0.0667	0.0142	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0331	0.00656	ND	0.0333	0.0066	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0331	0.00278	ND	0.0333	0.0028	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0331	0.00358	ND	0.0333	0.00360	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0331	0.00318	ND	0.0333	0.0032	ND	0.0333	0.0032	0.22	1.1
PCB-1260	121	16.6000	6.95	13.1	1.6700	0.7	27	3.3300	1.4	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S366			S367			S368			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0332	0.0120	ND	0.0333	0.012	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.0664	0.0142	ND	0.0667	0.0142	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0332	0.00658	ND	0.0333	0.0066	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0332	0.00279	ND	0.0333	0.0028	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0332	0.00359	ND	0.0333	0.00360	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0332	0.00319	ND	0.0333	0.0032	ND	0.0333	0.0032	0.22	1.1
PCB-1260	669	66.4000	27.9	16.9	1.6700	0.7	16.5	1.6700	0.7	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S369			S370			S371			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0332	0.0120	ND	0.0332	0.012	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.0664	0.0142	ND	0.0664	0.0142	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0332	0.00658	ND	0.0332	0.00658	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0332	0.00279	ND	0.0332	0.00279	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0332	0.00359	ND	0.0332	0.00359	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0332	0.00319	ND	0.0332	0.00319	ND	0.0333	0.0032	0.22	1.1
PCB-1260	3.75	0.3320	0.14	1.07	0.1660	0.0698	2.02	0.1670	0.07	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S372			S373			S377			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0330	0.0119	ND	0.0332	0.012	ND	0.0330	0.0119	3.9	1.1
PCB-1221	ND	0.0660	0.0141	ND	0.0664	0.0142	ND	0.0660	0.0141	0.14	1.1
PCB-1232	ND	0.0330	0.00653	ND	0.0332	0.00658	ND	0.0330	0.00653	0.14	1.1
PCB-1242	ND	0.0330	0.00277	ND	0.0332	0.00279	ND	0.0330	0.00277	0.22	1.1
PCB-1248	ND	0.0330	0.00356	ND	0.0332	0.00359	ND	0.0330	0.00356	0.22	1.1
PCB-1254	ND	0.0330	0.00317	ND	0.0332	0.00319	ND	0.0330	0.00317	0.22	1.1
PCB-1260	0.912	0.1650	0.0693	30.7	3.3200	1.4	3.28	0.3300	0.139	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S375			S376			S377			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0333	0.0120	ND	0.0332	0.012	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.0667	0.0142	ND	0.0664	0.0142	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	ND	0.0332	0.00658	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0333	0.0028	ND	0.0332	0.00279	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0333	0.0036	ND	0.0332	0.00359	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0333	0.0032	ND	0.0332	0.00319	ND	0.0333	0.0032	0.22	1.1
PCB-1260	8.53	0.6670	0.28	0.252	0.0332	0.014	1.61	0.1670	0.07	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S378			S379			S380			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0332	0.0120	ND	0.0333	0.012	ND	0.6670	0.24	3.9	1.1
PCB-1221	ND	0.0664	0.0142	ND	0.0667	0.0142	ND	1.3300	0.284	0.14	1.1
PCB-1232	ND	0.0332	0.00658	ND	0.0333	0.0066	ND	0.6670	0.132	0.14	1.1
PCB-1242	ND	0.0332	0.00279	ND	0.0333	0.0028	ND	0.6670	0.056	0.22	1.1
PCB-1248	ND	0.0332	0.00359	ND	0.0333	0.00360	ND	0.6670	0.072	0.22	1.1
PCB-1254	ND	0.0332	0.00319	ND	0.0333	0.0032	ND	0.6670	0.064	0.22	1.1
PCB-1260	7.40	0.6640	0.279	0.843	0.1670	0.07	4.50	0.6670	0.28	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S381			S382			S383			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.3330	0.1200	ND	0.1670	0.06	ND	0.3330	0.12	3.9	1.1
PCB-1221	ND	0.6670	0.142	ND	0.3330	0.071	ND	0.6670	0.142	0.14	1.1
PCB-1232	ND	0.3330	0.066	ND	0.1670	0.033	ND	0.3330	0.066	0.14	1.1
PCB-1242	ND	0.3330	0.028	ND	0.1670	0.014	ND	0.3330	0.028	0.22	1.1
PCB-1248	ND	0.3330	0.036	ND	0.1670	0.01800	ND	0.3330	0.036	0.22	1.1
PCB-1254	ND	0.3330	0.032	ND	0.1670	0.016	ND	0.3330	0.032	0.22	1.1
PCB-1260	2.92	0.3330	0.14	0.996	0.1670	0.07	2.99	0.3330	0.14	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-8: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S384			S385			S386			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0664	0.0239	ND	0.3320	0.12	ND	0.0333	0.012	3.9	1.1
PCB-1221	ND	0.1330	0.0283	ND	0.6640	0.142	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0664	0.0132	ND	0.3320	0.0658	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0664	0.00558	ND	0.3320	0.0279	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0664	0.00718	ND	0.3320	0.03590	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0664	0.00638	ND	0.3320	0.0319	ND	0.0333	0.0032	0.22	1.1
PCB-1260	0.524	0.0664	0.0279	2.64	0.3320	0.14	0.442	0.0333	0.014	0.22	1.1

Analyte	Sample ID (Soil Samples)				
	S388			Regulatory Standard	
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>					
PCB-1016	ND	0.0333	0.0120	3.9	1.1
PCB-1221	ND	0.0667	0.0142	0.14	1.1
PCB-1232	ND	0.0333	0.0066	0.14	1.1
PCB-1242	ND	0.0333	0.0028	0.22	1.1
PCB-1248	ND	0.0333	0.0036	0.22	1.1
PCB-1254	ND	0.0333	0.0032	0.22	1.1
PCB-1260	0.312	0.0333	0.014	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
ND = Not detected

Table C-9: Expanded PCB Grid Sample Results (Sept 1, 2010)
Soil Sample Analytical Results Summary

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S052			S218			S269			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0094	0.0030	ND	0.0097	0.0031	ND	0.0096	0.0031	3.9	1.1
PCB-1221	ND	0.0094	0.0075	ND	0.0097	0.0077	ND	0.0096	0.0077	0.14	1.1
PCB-1232	ND	0.0094	0.0065	ND	0.0097	0.0068	ND	0.0096	0.0067	0.14	1.1
PCB-1242	ND	0.0094	0.002	ND	0.0097	0.002	ND	0.0096	0.002	0.22	1.1
PCB-1248	ND	0.0094	0.0012	ND	0.0097	0.00130	ND	0.0096	0.0012	0.22	1.1
PCB-1254	ND	0.0094	0.002	ND	0.0097	0.002	ND	0.0096	0.002	0.22	1.1
PCB-1260	0.12	0.0094	0.0028	12	0.1900	0.058	19	0.9600	0.29	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S307			S374			S388			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0099	0.0032	ND	0.0098	0.0031	ND	0.0099	0.0032	3.9	1.1
PCB-1221	ND	0.0099	0.0079	ND	0.0098	0.0079	ND	0.0099	0.0079	0.14	1.1
PCB-1232	ND	0.0099	0.0069	ND	0.0098	0.0069	ND	0.0099	0.0069	0.14	1.1
PCB-1242	ND	0.0099	0.0021	ND	0.0098	0.0021	ND	0.0099	0.0021	0.22	1.1
PCB-1248	ND	0.0099	0.0013	ND	0.0098	0.00130	ND	0.0099	0.0013	0.22	1.1
PCB-1254	ND	0.0099	0.0021	ND	0.0098	0.0021	ND	0.0099	0.0021	0.22	1.1
PCB-1260	1	0.0200	0.0059	4.10	0.0980	0.029	0.83	0.0200	0.0059	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-9: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S389			S390			S391			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.9600	0.3100	ND	0.0098	0.0031	ND	0.0095	0.003	3.9	1.1
PCB-1221	ND	0.9600	0.77	ND	0.0098	0.0079	ND	0.0095	0.0076	0.14	1.1
PCB-1232	ND	0.9600	0.67	ND	0.0098	0.0069	ND	0.0095	0.0067	0.14	1.1
PCB-1242	ND	0.9600	0.2	ND	0.0098	0.0021	ND	0.0095	0.002	0.22	1.1
PCB-1248	ND	0.9600	0.12	ND	0.0098	0.00130	ND	0.0095	0.0012	0.22	1.1
PCB-1254	ND	0.9600	0.2	ND	0.0098	0.0021	ND	0.0095	0.002	0.22	1.1
PCB-1260	13	0.9600	0.29	0.52	0.0098	0.003	0.048	0.0095	0.0029	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S392			S393			S394			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0460	0.0150	ND	4.7000	1.5	ND	0.9700	0.31	3.9	1.1
PCB-1221	ND	0.0460	0.037	ND	4.7000	3.8	ND	0.9700	0.78	0.14	1.1
PCB-1232	ND	0.0460	0.032	ND	4.7000	3.3	ND	0.9700	0.68	0.14	1.1
PCB-1242	ND	0.0460	0.0097	ND	4.7000	0.99	ND	0.9700	0.2	0.22	1.1
PCB-1248	ND	0.0460	0.006	ND	4.7000	0.61000	ND	0.9700	0.13	0.22	1.1
PCB-1254	ND	0.0460	0.0097	ND	4.7000	0.99	ND	0.9700	0.2	0.22	1.1
PCB-1260	1.5	0.0460	0.014	74	4.7000	1.4	47	0.9700	0.29	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-9: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S395			S396			S397			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	1.0000	0.3200	ND	0.9700	0.31	ND	0.0950	0.031	3.9	1.1
PCB-1221	ND	1.0000	0.8	ND	0.9700	0.78	ND	0.0950	0.076	0.14	1.1
PCB-1232	ND	1.0000	0.7	ND	0.9700	0.68	ND	0.0950	0.067	0.14	1.1
PCB-1242	ND	1.0000	0.21	ND	0.9700	0.2	ND	0.0950	0.02	0.22	1.1
PCB-1248	ND	1.0000	0.13	ND	0.9700	0.13000	ND	0.0950	0.012	0.22	1.1
PCB-1254	ND	1.0000	0.21	ND	0.9700	0.2	ND	0.0950	0.02	0.22	1.1
PCB-1260	23	1.0000	0.3	19	0.9700	0.29	10	0.1900	0.057	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S398			S399			S400			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0950	0.0310	ND	0.9700	0.31	ND	1.9000	0.61	3.9	1.1
PCB-1221	ND	0.0950	0.076	ND	0.9700	0.78	ND	1.9000	1.5	0.14	1.1
PCB-1232	ND	0.0950	0.067	ND	0.9700	0.68	ND	1.9000	1.3	0.14	1.1
PCB-1242	ND	0.0950	0.02	ND	0.9700	0.2	ND	1.9000	0.4	0.22	1.1
PCB-1248	ND	0.0950	0.012	ND	0.9700	0.13000	ND	1.9000	0.25	0.22	1.1
PCB-1254	ND	0.0950	0.02	ND	0.9700	0.2	ND	1.9000	0.4	0.22	1.1
PCB-1260	4.5	0.0950	0.029	14	0.9700	0.29	74	1.9000	0.57	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-9: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S401			S403			S404			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.9800	0.3100	ND	0.0960	0.031	ND	0.0097	0.0031	3.9	1.1
PCB-1221	ND	0.9800	0.78	ND	0.0960	0.077	ND	0.0097	0.0078	0.14	1.1
PCB-1232	ND	0.9800	0.68	ND	0.0960	0.068	ND	0.0097	0.0068	0.14	1.1
PCB-1242	ND	0.9800	0.21	ND	0.0960	0.02	ND	0.0097	0.002	0.22	1.1
PCB-1248	ND	0.9800	0.13	ND	0.0960	0.01300	ND	0.0097	0.0013	0.22	1.1
PCB-1254	ND	0.9800	0.21	ND	0.0960	0.02	ND	0.0097	0.002	0.22	1.1
PCB-1260	19	0.9800	0.29	7.7	0.0960	0.029	0.27	0.0097	0.0029	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S405			S406			S407			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0094	0.0030	ND	0.0095	0.003	ND	0.0094	0.003	3.9	1.1
PCB-1221	ND	0.0094	0.0075	ND	0.0095	0.0076	ND	0.0094	0.0075	0.14	1.1
PCB-1232	ND	0.0094	0.0066	ND	0.0095	0.0067	ND	0.0094	0.0066	0.14	1.1
PCB-1242	ND	0.0094	0.002	ND	0.0095	0.002	ND	0.0094	0.002	0.22	1.1
PCB-1248	ND	0.0094	0.0012	ND	0.0095	0.00120	ND	0.0094	0.0012	0.22	1.1
PCB-1254	ND	0.0094	0.002	ND	0.0095	0.002	ND	0.0094	0.002	0.22	1.1
PCB-1260	1.5	0.0470	0.014	0.17	0.0095	0.0029	0.29	0.0094	0.0028	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-9: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S408			S410			S412			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0098	0.0031	ND	0.0094	0.003	ND	0.0095	0.003	3.9	1.1
PCB-1221	ND	0.0098	0.0078	ND	0.0094	0.0076	ND	0.0095	0.0076	0.14	1.1
PCB-1232	ND	0.0098	0.0069	ND	0.0094	0.0066	ND	0.0095	0.0066	0.14	1.1
PCB-1242	ND	0.0098	0.0021	ND	0.0094	0.002	ND	0.0095	0.002	0.22	1.1
PCB-1248	ND	0.0098	0.0013	ND	0.0094	0.00120	ND	0.0095	0.0012	0.22	1.1
PCB-1254	ND	0.0098	0.0021	ND	0.0094	0.002	ND	0.0095	0.002	0.22	1.1
PCB-1260	0.15	0.0098	0.0029	0.1	0.0094	0.0028	2.8	0.0470	0.014	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S413			S415			S416			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0097	0.0031	ND	0.0094	0.003	ND	0.0096	0.0031	3.9	1.1
PCB-1221	ND	0.0097	0.0078	ND	0.0094	0.0075	ND	0.0096	0.0077	0.14	1.1
PCB-1232	ND	0.0097	0.0068	ND	0.0094	0.0066	ND	0.0096	0.0067	0.14	1.1
PCB-1242	ND	0.0097	0.002	ND	0.0094	0.002	ND	0.0096	0.002	0.22	1.1
PCB-1248	ND	0.0097	0.0013	ND	0.0094	0.00120	ND	0.0096	0.0012	0.22	1.1
PCB-1254	ND	0.0097	0.002	ND	0.0094	0.002	ND	0.0096	0.002	0.22	1.1
PCB-1260	30	1.9000	0.58	700	19.0000	5.6	1.6	0.0480	0.014	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-9: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S417			S418			S419			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0096	0.0031	ND	0.0093	0.003	ND	0.0098	0.0031	3.9	1.1
PCB-1221	ND	0.0096	0.0077	ND	0.0093	0.0075	ND	0.0098	0.0078	0.14	1.1
PCB-1232	ND	0.0096	0.0067	ND	0.0093	0.0065	ND	0.0098	0.0069	0.14	1.1
PCB-1242	ND	0.0096	0.002	ND	0.0093	0.002	ND	0.0098	0.0021	0.22	1.1
PCB-1248	ND	0.0096	0.0012	ND	0.0093	0.00120	ND	0.0098	0.0013	0.22	1.1
PCB-1254	ND	0.0096	0.002	ND	0.0093	0.002	ND	0.0098	0.0021	0.22	1.1
PCB-1260	1.2	0.0190	0.0058	17	0.9300	0.28	0.37	0.0098	0.0029	0.22	1.1

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S420			S421			S422			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0096	0.0031	ND	0.0096	0.0031	ND	0.0093	0.003	3.9	1.1
PCB-1221	ND	0.0096	0.0077	ND	0.0096	0.0077	ND	0.0093	0.0074	0.14	1.1
PCB-1232	ND	0.0096	0.0067	ND	0.0096	0.0067	ND	0.0093	0.0065	0.14	1.1
PCB-1242	ND	0.0096	0.002	ND	0.0096	0.002	ND	0.0093	0.0019	0.22	1.1
PCB-1248	ND	0.0096	0.0012	ND	0.0096	0.00120	ND	0.0093	0.0012	0.22	1.1
PCB-1254	ND	0.0096	0.002	ND	0.0096	0.002	ND	0.0093	0.0019	0.22	1.1
PCB-1260	ND	0.0096	0.0029	0.5	0.0096	0.0029	3	0.0460	0.014	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
 ND = Not detected

**Table C-9: Expanded PCB Grid Sample Results (Cont.)
Soil Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	S423			S424			S425			EPA RSL	HDOH EAL
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	(mg/kg)	(mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>											
PCB-1016	ND	0.0095	0.0030	ND	0.0098	0.0031	ND	0.0094	0.003	3.9	1.1
PCB-1221	ND	0.0095	0.0076	ND	0.0098	0.0078	ND	0.0094	0.0075	0.14	1.1
PCB-1232	ND	0.0095	0.0067	ND	0.0098	0.0069	ND	0.0094	0.0066	0.14	1.1
PCB-1242	ND	0.0095	0.002	ND	0.0098	0.0021	ND	0.0094	0.002	0.22	1.1
PCB-1248	ND	0.0095	0.0012	ND	0.0098	0.00130	ND	0.0094	0.0012	0.22	1.1
PCB-1254	ND	0.0095	0.002	ND	0.0098	0.0021	ND	0.0094	0.002	0.22	1.1
PCB-1260	2.2	0.0480	0.014	0.36	0.0098	0.0029	2.1	0.0470	0.014	0.22	1.1

Analyte	Sample ID (Soil Samples)				
	S426			Regulatory Standard	
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
<i>Polychlorinated Biphenyls (EPA 8082)</i>					
PCB-1016	ND	0.0096	0.0031	3.9	1.1
PCB-1221	ND	0.0096	0.0077	0.14	1.1
PCB-1232	ND	0.0096	0.0067	0.14	1.1
PCB-1242	ND	0.0096	0.002	0.22	1.1
PCB-1248	ND	0.0096	0.0013	0.22	1.1
PCB-1254	ND	0.0096	0.002	0.22	1.1
PCB-1260	5	0.0960	0.029	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.
ND = Not detected

**Table C-10: Concrete Decision Unit PCB Results
Concrete Sample Analytical Results Summary**

Analyte	Sample ID (Soil Samples)												Regulatory Standard	
	Concrete DU 7 - S427			Concrete DU 6 - S428			Concrete DU 5 - S429			Concrete DU 4 - S430				
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)														
PCB-1016	ND	0.0094	0.003	ND	0.0095	0.0031	ND	0.0094	0.0030	ND	0.0099	0.0032	3.9	1.1
PCB-1221	ND	0.0094	0.0075	ND	0.0095	0.0076	ND	0.0094	0.0075	ND	0.0099	0.0079	0.14	1.1
PCB-1232	ND	0.0094	0.0066	ND	0.0095	0.0067	ND	0.0094	0.0066	ND	0.0099	0.0069	0.14	1.1
PCB-1242	ND	0.0094	0.002	ND	0.0095	0.002	ND	0.0094	0.002	ND	0.0099	0.0021	0.22	1.1
PCB-1248	ND	0.0094	0.00120	ND	0.0095	0.0012	ND	0.0094	0.0012	ND	0.0099	0.00130	0.22	1.1
PCB-1254	ND	0.0094	0.002	ND	0.0095	0.002	ND	0.0094	0.002	ND	0.0099	0.0021	0.22	1.1
PCB-1260	0.1	0.0094	0.0028	0.61	0.0095	0.0029	84	1.9000	0.56	67	2.0000	0.59	0.22	1.1

Analyte	Sample ID (Soil Samples)										Regulatory Standard	
	Concrete DU 3 - S431			Concrete DU 2 - S432			Concrete DU 1 - Concrete 01					
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Method Detection Limit (mg/kg)	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)												
PCB-1016	ND	0.01	0.0032	ND	0.0094	0.0030	0.131	0.0099	0.0032	3.9	1.1	
PCB-1221	ND	0.01	0.008	ND	0.0094	0.0075	ND	0.0099	0.0079	0.14	1.1	
PCB-1232	ND	0.01	0.007	ND	0.0094	0.0066	ND	0.0099	0.0069	0.14	1.1	
PCB-1242	ND	0.01	0.0021	ND	0.0094	0.002	ND	0.0099	0.0021	0.22	1.1	
PCB-1248	ND	0.01	0.0013	ND	0.0094	0.0012	ND	0.0099	0.00130	0.22	1.1	
PCB-1254	ND	0.01	0.0021	ND	0.0094	0.002	ND	0.0099	0.0021	0.22	1.1	
PCB-1260	68	2.00	0.6	0.36	0.0094	0.0028	225	2.0000	0.59	0.22	1.1	

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

Table C-11: Pesticides Sample Results
Soil Sample Analytical Results Summary

Analyte	Sample ID (Soil Samples)									Regulatory Standard	
	PadPest-01			PadPest-02			PadPest-03				
	Sample Result (ug/kg)	Reporting Limit (ug/kg)	Method Detection Limit (ug/kg)	Sample Result (ug/kg)	Reporting Limit (ug/kg)	Method Detection Limit (ug/kg)	Sample Result (ug/kg)	Reporting Limit (ug/kg)	Method Detection Limit (ug/kg)	EPA RSL (ug/kg)	HDOH EAL (ug/kg)
ORGANOCHLORINE PESTICIDES (EPA 8081A)											
4,4'-DDD	ND	1.9	0.14	4.9	2	0.15	ND	1.9	0.14	2000	2000
4,4'-DDE	ND	1.9	0.13	15	2	0.14	<i>0.13</i>	1.9	0.13	1400	1400
4,4'-DDT	ND	1.9	0.15	24	2	0.15	<i>0.86</i>	1.9	0.14	1700	1700
Aldrin	ND	0.96	0.21	ND	0.99	0.22	ND	0.94	0.21	29	2.9
alpha-BHC	ND	0.96	0.26	ND	0.99	0.28	ND	0.94	0.26	77	NS
beta-BHC	ND	0.96	0.31	ND	0.99	0.32	ND	0.94	0.31	270	NS
delta-BHC	ND	0.96	0.14	ND	0.99	0.15	ND	0.94	0.14	NS	NS
Dieldrin	ND	1.9	0.11	ND	2	0.12	ND	1.9	0.11	30	7.4
Endosulfan I	ND	0.96	0.098	ND	0.99	0.1	ND	0.94	0.096	370,000	120
Endosulfan II	ND	1.9	0.16	ND	2	0.17	ND	1.9	0.16	370,000	120
Endosulfan sulfate	ND	1.9	0.18	ND	2	0.18	ND	1.9	0.17	NS	NS
Endrin	ND	1.9	0.16	ND	2	0.16	ND	1.9	0.15	180,000	60
Endrin aldehyde	ND	1.9	0.19	ND	2	0.2	ND	1.9	0.19	NS	NS
Endrin ketone	ND	1.9	0.25	ND	2	0.26	ND	1.9	0.24	NS	NS
gamma-BHC (Lindane)	ND	0.96	0.29	ND	0.99	0.3	ND	0.94	0.28	520	90
Heptachlor	ND	0.96	0.44	ND	0.99	0.46	ND	0.94	0.44	110	110
Heptachlor epoxide	ND	0.96	0.0029	ND	0.99	0.003	ND	0.94	0.0028	53	46
Methoxychlor	ND	9.6	0.25	ND	9.9	0.26	ND	9.4	0.24	9,200,000	26,000
Chlordane (technical)	ND	9.6	1.3	ND	9.9	1.4	ND	9.4	1.3	1,600	16,000
Toxaphene	ND	96	9.6	ND	99	9.9	ND	94	9.4	440	440

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

NS = No standard

Appendix D

Analytical Laboratory Reports

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The analytical laboratory reports have been included in the CD attached to this report.

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Appendix E

RSD Evaluation Tables

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Table E-1: PCB Grid Sampling
RPD Evaluation

Sample ID	Sample Results (Soil Samples)						
	PCBs			Statistical Evaluation of RaPID Assay	Statistical Evaluation Primary Assay and 8082 Results	Regulatory Standard	
	Primary Sample (RaPID Assay)	Field Duplicate Sample (RaPID Assay)	Field Duplicate Sample (EPA 8082)				
Sample Result (mg/kg)	Sample Result (mg/kg)	Sample Result (mg/kg)	Relative Percent Difference	Relative Percent Difference	EPA RSL (mg/kg)	HDOH EAL (mg/kg)	
S001/S002	0.98	2.64	10	92%	164%	0.22	1.1
S012/S013	ND	ND	1.3			0.22	1.1
S023/S024	0.08	0.13	2.3	48%	186%	0.22	1.1
S034/S035	0.06	0.09	0.35	35%	140%	0.22	1.1
S045/S046	ND	ND	2.1			0.22	1.1
S056/S057	0.03	0.06	2.4	45%	194%	0.22	1.1
S067/S068	ND	ND	9.9			0.22	1.1
S078/S079	0.18	0.11	0.18	46%	1%	0.22	1.1
S089/S090	0.05	0.13	0.48	88%	161%	0.22	1.1
S100/S101	0.28	0.09	0.011	100%	185%	0.22	1.1
S138/S139	1.44	na	17	NA	169%	0.22	1.1
S149/S150	28.55 Hi	na	440	NA	176%	0.22	1.1
S160/S161	1.98	na	21	NA	165%	0.22	1.1
S171/S172	2.41	2.01	14	18%	141%	0.22	1.1
S182/S183	0.16	0.04	0.096	115%	48%	0.22	1.1
S193/S194	3.66	2.70	16	30%	125%	0.22	1.1
S204/S205	0.43	0.49	0.87	13%	68%	0.22	1.1
S226/S227	30.85 Hi	31.12 Hi	380	1%	170%	0.22	1.1
S237/S238	3.44	na	6.2	NA	57%	0.22	1.1
S248/S249	4.49	na	68	NA	175%	0.22	1.1
S266	0.4665		6.5	NA	173%	0.22	1.1
S267	0.4603		2.4	NA	136%	0.22	1.1
S268	1.6351		17	NA	165%	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

na = Not applicable; duplicate was not analyzed by RaPID Assay Kit

NA = Not applicable; duplicate was not collected

Hi = Value detected above the calibrated range of the RaPID Assay Kit

Table E-1: PCB Grid Sampling (cont.)
RPD Evaluation

Sample ID	Sample Results (Soil Samples)						
	PCBs			Statistical Evaluation of RaPID Assay	Statistical Evaluation Primary Assay and 8082 Results	Regulatory Standard	
	Primary Sample (RaPID Assay)	Field Duplicate Sample (RaPID Assay)	Field Duplicate Sample (EPA 8082)				
Sample Result (mg/kg)	Sample Result (mg/kg)	Sample Result (mg/kg)	Relative Percent Difference	Relative Percent Difference	EPA RSL (mg/kg)	HDOH EAL (mg/kg)	
S269	1.5745		23	NA	174%	0.22	1.1
S270/S271	3.57	0.80	6.9	127%	64%	0.22	1.1
S273	0.2553		1.4	NA	138%	0.22	1.1
S274	2.0529		27	NA	172%	0.22	1.1
S275	0.8923		4.4	NA	133%	0.22	1.1
S280	0.1625		0.51	NA	103%	0.22	1.1
S281/S282	0.10	0.23	0.60	82%	145%	0.22	1.1
S284	0.7928		6.8	NA	158%	0.22	1.1
S285	0.1918		0.26	NA	30%	0.22	1.1
S286	1.2087		13	NA	166%	0.22	1.1
S287	8.2666		69	NA	157%	0.22	1.1
S291/S292	0.11	0.25	0.63	77%	140%	0.22	1.1
S293	5.8494		32	NA	138%	0.22	1.1
S295	25.3128	Hi	210	NA	157%	0.22	1.1
S299	0.4997		2.2	NA	126%	0.22	1.1
S300	0.8597		5.8	NA	148%	0.22	1.1
S301	3.3954		8.5	NA	86%	0.22	1.1
S302	8.0667		27	NA	108%	0.22	1.1
S303/S304	0.04	0.10	0.34	80%	156%	0.22	1.1
S305	1.3598		5.6	NA	122%	0.22	1.1
S306	1.544		13	NA	158%	0.22	1.1
S315/S316	0.07	0.05	0.045	20%	38%	0.22	1.1
S327/S328	0.21	0.65	3.3	104%	177%	0.22	1.1

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

na = Not applicable; duplicate was not analyzed by RaPID Assay Kit

NA = Not applicable; duplicate was not collected

Hi = Value detected above the calibrated range of the RaPID Assay Kit

Table E-2: Initial Transmitter Buildings Area Decision Unit
RSD Evaluation

Analyte	Sample ID (Soil Samples)									Statistical Evaluation			Regulatory Standard	
	DU TC - S135 (Primary Subsurface Soil)			DU TC - S136 (Replicate Subsurface Soil)			DU TC - S137 (Replicate Subsurface Soil)							
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Average Conc. (mg/kg)	Standard Deviation (mg/kg)	Relative Standard Deviation	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	0.0033	0.0011	ND	0.0032	0.001	ND	0.0033	0.0011	NA	NA	NA	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0032	0.0026	ND	0.0033	0.0026	NA	NA	NA	0.14	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0032	0.0022	ND	0.0033	0.0023	NA	NA	NA	0.14	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0032	0.00067	ND	0.0033	0.00069	NA	NA	NA	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0032	0.00042	ND	0.0033	0.00043	NA	NA	NA	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0032	0.00067	ND	0.0033	0.00069	NA	NA	NA	0.22	1.1
PCB - 1260	5.4	0.33	0.099	15	0.32	0.096	1.8	0.33	0.0099	7.40	6.82	92%	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	9.0	5.8	0.25	11	6.0	0.26	9.9	5.6	0.24	9.97	1.00	10%	0.39	0.43
Lead	110	2.9	0.23	54	3.0	0.24	1900	2.8	0.22	688	1050	153%	400	400
Barium	140	0.97	0.029	94	0.99	0.030	190	0.94	0.028	141	48	34%	15000	3100
Cadmium	<i>0.37</i>	0.97	0.15	1.1	0.99	0.16	<i>0.90</i>	0.94	0.15	0.790	0.377	48%	70	14
Chromium	110	2.5	0.091	110	2.6	0.093	120	2.4	0.088	113	6	5%	280	500
Selenium	59	9.7	0.23	53	9.9	0.24	67	9.4	0.22	60	7	12%	390	78
Silver	ND	1.9	0.087	ND	2.0	0.089	ND	1.9	0.084	NA	NA	NA	390	78
Mercury	ND	0.018	0.0057	<i>0.0073</i>	0.019	0.0059	ND	0.019	0.0061	0.00637	0.00083	13%	5.6	4.7
Total Petroleum Hydrocarbons (EPA 8015M)														
GRO	2.5	8.6	1.4	2.3	7.2	1.2	1.8	6.7	1.1	2.20	0.36	16%	NS	600
DRO	6.5	8.3	1.5	18	8.2	1.4	6.4	8.2	1.4	10.3	6.7	65%	NS	500
RRO	25	17	4.6	92	16	4.6	40	16	4.6	52	35	67%	NS	2300

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL.

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

NS = No standard

NA = Not applicable; average, standard deviation, and RSD not calculated for analytes with all ND.

Note: Average, standard deviation and RSD were calculated with method detection limit for analytes with ND.

Table E-3: Follow-Up Transmitter Buildings Area Decision Unit
RSD Evaluation

Analyte	Sample ID (Soil Samples)									Statistical Evaluation			Regulatory Standard	
	DU TA-1 - T001 (Primary Sample)			DU TA-1 - T002 (Replicate Sample)			DU TA-1 - T003 (Replicate Sample)							
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Average Conc. (mg/kg)	Standard Deviation (mg/kg)	Relative Standard Deviation	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	0.0032	0.00099	ND	0.0031	0.00098	ND	0.0032	0.00097	NA	NA	NA	3.9	1.1
PCB - 1221	ND	0.0032	0.0025	ND	0.0031	0.0025	ND	0.0032	0.0024	NA	NA	NA	0.14	1.1
PCB - 1232	ND	0.0032	0.0022	ND	0.0031	0.0021	ND	0.0032	0.0021	NA	NA	NA	0.14	1.1
PCB - 1242	ND	0.0032	0.00065	ND	0.0031	0.00064	ND	0.0032	0.00064	NA	NA	NA	0.22	1.1
PCB - 1248	ND	0.0032	0.00040	ND	0.0031	0.00040	ND	0.0032	0.00039	NA	NA	NA	0.22	1.1
PCB - 1254	ND	0.0032	0.00065	ND	0.0031	0.00064	ND	0.0032	0.00064	NA	NA	NA	0.22	1.1
PCB - 1260	0.50	0.0032	0.0046	0.71	0.0031	0.0046	0.64	0.0032	0.0045	0.617	0.107	17%	0.22	1.1
Lead (EPA 6010B)														
Lead	15	14	1.1	130	14	1.1	97	13	1.1	80.7	59.2	73%	400	400

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL

ND = Not detected

NA = Not applicable; average, standard deviation, and RSD not calculated for analytes with all ND.

**Table E-4: 80-Acre Area Outside of the Transmitter Buildings Area Decision Units
RSD Evaluation**

Analyte	Sample ID (Soil Samples)									Statistical Evaluation			Regulatory Standard	
	DU1 - S111 (Primary Subsurface Soil)			DU1 - S112 (Replicate Subsurface Soil)			DU1 - S113 (Replicate Subsurface Soil)			Average Conc. (mg/kg)	Standard Deviation (mg/kg)	Relative Standard Deviation	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)					
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	0.0033	0.0011	ND	0.0033	0.0011	ND	0.0033	0.0011	NA	NA	NA	3.9	1.1
PCB - 1221	ND	0.0033	0.0027	ND	0.0033	0.0026	ND	0.0033	0.0027	NA	NA	NA	0.14	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	NA	NA	NA	0.14	1.1
PCB - 1242	ND	0.0033	0.00070	ND	0.0033	0.00069	ND	0.0033	0.00070	NA	NA	NA	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0033	0.00043	ND	0.0033	0.00043	NA	NA	NA	0.22	1.1
PCB - 1254	ND	0.0033	0.00070	ND	0.0033	0.00069	ND	0.0033	0.00070	NA	NA	NA	0.22	1.1
PCB - 1260	<i>0.0024</i>	0.0033	0.00099	<i>0.0025</i>	0.0033	0.00098	<i>0.0024</i>	0.0033	0.00099	0.00243	0.00006	2%	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	3.8	5.7	0.25	4.4	5.7	0.25	2.6	5.7	0.25	3.60	0.92	26%	0.39	0.43
Lead	7.7	2.9	0.23	58	2.8	0.23	9.3	2.9	0.23	25.00	28.59	114%	400	400
Barium	80	0.96	0.029	80	0.95	0.028	84	0.95	0.029	81	2	2%	15000	3100
Cadmium	ND	0.96	0.15	ND	0.95	0.15	ND	0.95	0.15	NA	NA	NA	70	14
Chromium	140	2.5	0.090	140	2.5	0.089	130	2.5	0.090	137	6	4%	280	500
Selenium	78	9.6	0.23	79	9.5	0.23	79	9.5	0.23	79	1	1%	390	78
Silver	ND	1.9	0.086	ND	1.9	0.085	ND	1.9	0.086	NA	NA	NA	390	78
Mercury	ND	0.018	0.0057	ND	0.020	0.0062	0.0080	0.018	0.0057	0.01533	0.00643	42%	5.6	4.7

Analyte	Sample ID (Soil Samples)									Statistical Evaluation			Regulatory Standard	
	DU 12 - S124 (Primary Sample)			DU 12 - S125 (Replicate Sample)			DU 12 - S126 (Replicate Sample)			Average Conc. (mg/kg)	Standard Deviation (mg/kg)	Relative Standard Deviation	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)					
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	0.0033	0.0011	ND	0.0033	0.0011	ND	0.0032	0.0010	NA	NA	NA	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0033	0.0027	ND	0.0032	0.0026	NA	NA	NA	0.14	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0032	0.0023	NA	NA	NA	0.14	1.1
PCB - 1242	ND	0.0033	0.00070	ND	0.0033	0.00070	ND	0.0032	0.00068	NA	NA	NA	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0033	0.00043	ND	0.0032	0.00042	NA	NA	NA	0.22	1.1
PCB - 1254	ND	0.0033	0.00070	ND	0.0033	0.00070	ND	0.0032	0.00068	NA	NA	NA	0.22	1.1
PCB - 1260	<i>0.0019</i>	0.0033	0.0010	ND	0.0033	0.0010	0.0076	0.0032	0.00097	0.00350	0.00358	102%	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	1.8	5.9	0.25	4.4	5.8	0.25	15	5.8	0.25	7.07	6.99	99%	0.39	0.43
Lead	11	2.9	0.23	11	2.9	0.23	46	2.9	0.23	22.67	20.21	89%	400	400
Barium	65	0.98	0.029	67	0.97	0.029	66	0.97	0.029	66	1	2%	15000	3100
Cadmium	ND	0.98	0.16	<i>0.16</i>	0.97	0.16	<i>0.25</i>	0.97	0.15	0.190	0.052	27%	70	14
Chromium	87	2.5	0.092	100	2.5	0.091	98	2.5	0.091	95	7	7%	280	500
Selenium	48	9.8	0.23	51	9.7	0.23	32	9.7	0.23	44	10	23%	390	78
Silver	ND	2.0	0.088	ND	1.9	0.087	ND	1.9	0.087	NA	NA	NA	390	78
Mercury	ND	0.020	0.0062	ND	0.019	0.0058	ND	0.020	0.0062	NA	NA	NA	5.6	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL.

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

NS = No standard

NA = Not applicable; average, standard deviation, and RSD not calculated for analytes with all ND.

Note: Average, standard deviation and RSD were calculated with method detection limit for analytes with ND.

Table E-5: Berm MI Samples
RSD Evaluation

Analyte	Sample ID (Trenched Berm Soil Samples)									Statistical Evaluation			Regulatory Standard	
	Berm 10 - B10 (Primary Sample)			Berm 10 - B11 (Replicate Sample)			Berm 10 - B12 (Replicate Sample)			Average Conc. (mg/kg)	Standard Deviation (mg/kg)	Relative Standard Deviation	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)					
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	0.0033	0.0010	ND	0.0033	0.0010	ND	0.0033	0.0010	NA	NA	NA	3.9	1.1
PCB - 1221	ND	0.0033	0.0026	ND	0.0033	0.0026	ND	0.0033	0.0026	NA	NA	NA	0.14	1.1
PCB - 1232	ND	0.0033	0.0023	ND	0.0033	0.0023	ND	0.0033	0.0023	NA	NA	NA	0.14	1.1
PCB - 1242	ND	0.0033	0.00069	ND	0.0033	0.00069	ND	0.0033	0.00068	NA	NA	NA	0.22	1.1
PCB - 1248	ND	0.0033	0.00043	ND	0.0033	0.00042	ND	0.0033	0.00042	NA	NA	NA	0.22	1.1
PCB - 1254	ND	0.0033	0.00069	ND	0.0033	0.00069	ND	0.0033	0.00068	NA	NA	NA	0.22	1.1
PCB - 1260	0.019	0.0033	0.00098	0.019	0.0033	0.00098	0.017	0.0033	0.00098	0.01833	0.00115	6%	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	13	29	1.2	10	28	1.2	15	28	1.2	12.67	2.52	20%	0.39	0.43
Lead	12	14	1.2	5.6	14	1.1	5.8	14	1.1	7.80	3.64	47%	400	400
Barium	150	4.8	0.14	140	4.6	0.14	150	4.7	0.14	147	6	4%	15000	3100
Cadmium	ND	4.8	0.77	ND	4.6	0.74	ND	4.7	0.75	NA	NA	NA	70	14
Chromium	220	12	0.45	200	12	0.44	220	12	0.44	213	12	6%	280	500
Selenium	ND	48	1.2	ND	46	1.1	ND	47	1.1	NA	NA	NA	390	78
Silver	ND	9.6	0.43	ND	9.3	0.42	ND	9.3	0.42	NA	NA	NA	390	78
Mercury	ND	0.019	0.0061	ND	0.019	0.0058	ND	0.019	0.0059	NA	NA	NA	5.6	4.7

Analyte	Sample ID (Trenched Berm Soil Samples)									Statistical Evaluation			Regulatory Standard	
	Berm 20 - B22 (Primary Sample)			Berm 20 - B23 (Replicate Sample)			Berm 20 - B24 (Replicate Sample)			Average Conc. (mg/kg)	Standard Deviation (mg/kg)	Relative Standard Deviation	EPA RSL (mg/kg)	HDOH EAL (mg/kg)
	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)	Sample Result (mg/kg)	Reporting Limit (mg/kg)	Method Detection Limit (mg/kg)					
Polychlorinated Biphenyls (EPA 8082)														
PCB - 1016	ND	0.0030	0.0010	ND	0.0033	0.0011	ND	0.0033	0.0011	NA	NA	NA	3.9	1.1
PCB - 1221	ND	0.0030	0.0024	ND	0.0033	0.0027	ND	0.0033	0.0027	NA	NA	NA	0.14	1.1
PCB - 1232	ND	0.0030	0.0021	ND	0.0033	0.0023	ND	0.0033	0.0023	NA	NA	NA	0.14	1.1
PCB - 1242	ND	0.0030	0.00064	ND	0.0033	0.00070	ND	0.0033	0.00070	NA	NA	NA	0.22	1.1
PCB - 1248	ND	0.0030	0.00040	ND	0.0033	0.00043	ND	0.0033	0.00043	NA	NA	NA	0.22	1.1
PCB - 1254	ND	0.0030	0.00069	ND	0.0033	0.00070	ND	0.0033	0.00070	NA	NA	NA	0.22	1.1
PCB - 1260	0.0036	0.0030	0.00091	0.0033	0.0033	0.0010	0.0033	0.0033	0.0010	0.00340	0.00017	5%	0.22	1.1
RCRA Metals (EPA 6010B/7471A)														
Arsenic	6.5	28	1.2	6.4	27	1.2	6.5	28	1.2	6.47	0.06	1%	0.39	0.43
Lead	1.6	14	1.1	1.6	14	1.1	1.3	14	1.1	1.50	0.17	11%	400	400
Barium	130	4.7	0.14	130	4.5	0.14	130	4.6	0.14	130	0	0%	15000	3100
Cadmium	ND	4.7	0.75	ND	4.5	0.73	ND	4.6	0.74	NA	NA	NA	70	14
Chromium	220	12	0.44	210	12	0.43	210	12	0.44	213	6	3%	280	500
Selenium	ND	47	1.1	ND	45	1.1	ND	46	1.1	NA	NA	NA	390	78
Silver	ND	9.3	0.42	ND	9.1	0.41	ND	9.3	0.42	NA	NA	NA	390	78
Mercury	ND	0.019	0.0059	ND	0.018	0.0057	ND	0.019	0.0058	NA	NA	NA	5.6	4.7

Bold values indicate that detected concentration exceeds the EPA Residential RSL and/or the HDOH Unrestricted Land Use EAL.

Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

NS = No standard

NA = Not applicable; average, standard deviation, and RSD not calculated for analytes with all ND.

Note: Average, standard deviation and RSD were calculated with method detection limit for analytes with ND.

**Table E-6: Groundwater Sample Results
RPD Evaluation**

Analyte	Sample ID (Groundwater Samples)						Relative Percent Difference	HDOH GAL (µg/L)
	MW-2 - W01 (Primary Sample)			MW-2 - W02 (Duplicate Sample)				
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)		
Volatile Organic Compounds (EPA 8260B)								
Chloromethane	ND	5.0	0.18	ND	5.0	0.18	NA	290
Vinyl Chloride	ND	1.0	0.091	ND	1.0	0.091	NA	21
Bromomethane	ND	5.0	0.091	ND	5.0	0.091	NA	360
Chloroethane	ND	5.0	0.25	ND	5.0	0.25	NA	3.9
Trichlorofluoromethane	ND	1.0	0.069	ND	1.0	0.069	NA	NS
1,1-Dichloroethene	ND	1.0	0.066	ND	1.0	0.066	NA	3900
Methylene Chloride	ND	1.0	0.10	ND	1.0	0.10	NA	3100
trans-1,2-Dichloroethene	ND	1.0	0.051	ND	1.0	0.051	NA	2600
1,1-Dichloroethane	ND	1.0	0.049	ND	1.0	0.049	NA	47
cis-1,2-Dichloroethene	ND	1.0	0.067	ND	1.0	0.067	NA	4300
Chloroform	ND	1.0	0.057	ND	1.0	0.057	NA	74
1,1,1-Trichloroethane	ND	1.0	0.041	ND	1.0	0.041	NA	6000
Carbon tetrachloride	ND	1.0	0.10	ND	1.0	0.10	NA	31
1,2-Dichloroethane	ND	1.0	0.076	ND	1.0	0.076	NA	120
Trichloroethene	<i>0.71</i>	1.0	0.056	<i>0.53</i>	1.0	0.056	29%	480
1,2-Dichloropropane	ND	1.0	0.14	ND	1.0	0.14	NA	100
Bromodichloromethane	ND	1.0	0.053	ND	1.0	0.053	NA	160
cis-1,3-Dichloropropene	ND	1.0	0.051	ND	1.0	0.051	NA	260
trans-1,3-Dichloropropene	ND	1.0	0.043	ND	1.0	0.043	NA	260
1,1,2-Trichloroethane	ND	1.0	0.062	ND	1.0	0.062	NA	300
Tetrachloroethene	ND	1.0	0.063	ND	1.0	0.063	NA	140
Dibromochloromethane	ND	1.0	0.32	ND	1.0	0.32	NA	270
Chlorobenzene	ND	1.0	0.086	ND	1.0	0.086	NA	160
Bromoform	ND	1.0	0.11	ND	1.0	0.11	NA	5100
Methyl tert-butyl ether	ND	1.0	0.062	ND	1.0	0.062	NA	1800
1,1,2,2-Tetrachloroethane	ND	1.0	0.062	ND	1.0	0.062	NA	160
1,3-Dichlorobenzene	ND	1.0	0.091	ND	1.0	0.091	NA	370
1,4-Dichlorobenzene	ND	1.0	0.075	ND	1.0	0.075	NA	110
1,2-Dichlorobenzene	ND	1.0	0.061	ND	1.0	0.061	NA	100
Benzene	ND	1.0	0.057	ND	1.0	0.057	NA	1500
Toluene	ND	1.0	0.076	<i>0.084</i>	1.0	0.076	10%	400
Ethylbenzene	ND	1.0	0.061	ND	1.0	0.061	NA	300
m-Xylene & p-Xylene	ND	2.0	0.11	ND	2.0	0.11	NA	1000
o-Xylene	ND	1.0	0.080	ND	1.0	0.080	NA	1000

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

NA = Not applicable; RPD not calculated for analytes with both ND.

Note: RPD were calculated with method detection limit for analytes with ND.

Table E-6: Groundwater Sample Results (cont.)
RPD Evaluation

Analyte	Sample ID (Groundwater Samples)						Relative Percent Difference	HDOH GAL (µg/L)
	MW-2 - W01 (Primary Sample)			MW-2 - W02 (Duplicate Sample)				
	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)	Sample Result (µg/L)	Reporting Limit (µg/L)	Method Detection Limit (µg/L)		
Volatile Organic Compounds (EPA 8260B)								
Naphthalene	ND	2.1	0.077	ND	2.1	0.076	NA	210
2-Methylnaphthalene	ND	1.0	0.10	ND	1.0	0.10	NA	100
1-Methylnaphthalene	ND	0.31	0.15	ND	0.31	0.14	NA	100
Acenaphthylene	ND	0.42	0.039	ND	0.41	0.038	NA	300
Acenaphthene	ND	0.52	0.040	ND	0.52	0.039	NA	200
Fluorene	ND	0.31	0.039	ND	0.31	0.038	NA	300
Phenanthrene	ND	0.42	0.048	ND	0.41	0.047	NA	7.7
Anthracene	ND	0.21	0.043	ND	0.21	0.042	NA	0.73
Fluoranthene	ND	0.26	0.067	ND	0.26	0.066	NA	40
Pyrene	ND	0.31	0.055	ND	0.31	0.055	NA	2.0
Benzo[a]anthracene	ND	0.31	0.070	ND	0.31	0.069	NA	0.027
Chrysene	ND	0.21	0.068	ND	0.21	0.067	NA	0.35
Benzo[b]fluoranthene	ND	0.42	0.057	ND	0.41	0.057	NA	0.092
Benzo[k]fluoranthene	ND	0.31	0.046	ND	0.31	0.045	NA	0.40
Benzo[a]pyrene	ND	0.21	0.075	ND	0.21	0.074	NA	0.014
Indeno[1,2,3-cd]pyrene	ND	0.31	0.059	ND	0.31	0.059	NA	0.092
Dibenz(a,h)anthracene	ND	0.31	0.054	ND	0.31	0.054	NA	0.52
Benzo[g,h,i]perylene	ND	0.31	0.060	ND	0.31	0.060	NA	0.10
Gasoline Range Organics (EPA 8015B)								
HI Gasoline Range Organics	510	50	9.2	490	50	9.2	4.0%	5000
Diesel Range Organics (EPA 8015B)								
HI Diesel Range Organics	ND	250	62	62	250	62	0.0%	2500
HI Residual Range Organics	93	500	56	150	510	57	47%	2500
Polychlorinated Bipheynls (EPA 8082)								
PCB - 1016	ND	0.59	0.053	ND	0.57	0.051	NA	2.0
PCB - 1221	ND	0.59	0.073	ND	0.57	0.071	NA	2.0
PCB - 1232	ND	0.59	0.049	ND	0.57	0.047	NA	2.0
PCB - 1242	ND	0.59	0.049	ND	0.57	0.047	NA	2.0
PCB - 1248	ND	0.59	0.084	ND	0.57	0.081	NA	2.0
PCB - 1254	ND	0.59	0.052	ND	0.57	0.050	NA	2.0
PCB - 1260	ND	0.59	0.046	ND	0.57	0.044	NA	2.0
RCRA Metals (EPA 6010B/7471A)								
Arsenic	ND	60	4.7	5.1	60	4.7	8.2%	69
Lead	ND	30	1.7	ND	30	1.7	NA	29
Barium	29	10	0.35	30	10	0.35	3.4%	2000
Cadmium	ND	10	1.5	ND	10	1.5	NA	3.0
Chromium	ND	25	3.3	ND	25	3.3	NA	570
Selenium	ND	100	2.0	ND	100	2.0	NA	20
Silver	ND	20	0.85	ND	20	0.85	NA	1.0
Mercury	ND	0.20	0.041	ND	0.20	0.041	NA	2.1

Bold values indicate that detected concentration exceeds the HDOH Groundwater Action Level where groundwater is not a current or potential drinking water
Italics values are estimated as the analyte was detected below the reporting limit but above the method detection limit.

ND = Not detected

NA = Not applicable; RPD not calculated for analytes with both ND.

Note: RPD was calculated with method detection limit for analytes with ND.

**Table E-7: PCB Method Comparison
RPD Evaluation**

Sample ID	Method 8082 Result ¹ (mg/kg)	Method 1668 Result ² (mg/kg)	Method 1668 Result ³ (mg/kg)	Relative Percent Difference
S052	0.12	0.15	0.11	9%
S218	12	9.2	6.0	67%
S269	19	14.6	9.3	69%
S307	1.0	1.4	0.94	6%
S374	4.1	7.8	5.0	20%

¹ Sample result based on sum of Aroclors

² Sample result based on sum of 209 congeners from raw data

³ Sample result corrected for coeluting congeners

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Appendix F

PCB Congener Data

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Table F-1: PCB Congener Data
Soil Sample Analytical Results Summary

Component	S052			S218			S269			S307			S374			Average percent in Aroclor (a)	
	Result	Footnotes	RL	1254	1260												
	pg/g		pg/g														
PCB 1 (BZ)	ND		21	ND		20	29		20	ND		20	ND		21	--	--
PCB 2 (BZ)	ND		21	30		20	30		20	ND		20	ND		21	--	--
PCB 3 (BZ)	ND		21	27		20	27		20	ND		20	ND		21	--	--
PCB 4 (BZ)	ND		21	ND		20	40	C	20	ND		20	ND		21	--	--
PCB 5 (BZ)	ND		21	33	C	20	61	C	20	ND		20	ND		21	--	--
PCB 6 (BZ)	ND		21	24		20	30		20	ND		20	ND		21	--	--
PCB 7 (BZ)	ND		21	ND		20	20	C	20	ND		20	ND		21	--	--
PCB 8 (BZ)	ND		21	33	C	20	61	C	20	ND		20	ND		21	--	--
PCB 9 (BZ)	ND		21	ND		20	20	C	20	ND		20	ND		21	--	--
PCB 10 (BZ)	ND		21	ND		20	40	C	20	ND		20	ND		21	--	--
PCB 11 (BZ)	ND		21	58		20	45		20	22		20	120		21	--	--
PCB 12 (BZ)	ND		21	46	C	20	59	C	20	ND		20	ND		21	--	--
PCB 13 (BZ)	ND		21	46	C	20	59	C	20	ND		20	ND		21	--	--
PCB 14 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	--
PCB 15 (BZ)	ND		21	69		20	110		20	ND		20	42		21	--	--
PCB 16 (BZ)	ND		21	38	C	20	150	C	20	ND		20	ND		21	--(b)	0.04
PCB 17 (BZ)	ND		21	71		20	190		20	ND		20	21		21	0.19	0.05
PCB 18 (BZ)	ND		21	81		20	270		20	ND		20	27		21	0.41	0.12
PCB 19 (BZ)	ND		21	23		20	96		20	ND		20	ND		21	--	--
PCB 20 (BZ)	ND		21	84	C	20	160	C	20	ND		20	33	C	21	--	--
PCB 21 (BZ)	ND		21	84	C	20	160	C	20	ND		20	33	C	21	--	0.01
PCB 22 (BZ)	ND		21	33		20	86		20	ND		20	ND		21	--	0.01
PCB 23 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	--
PCB 24 (BZ)	ND		21	ND		20	63	C	20	ND		20	ND		21	--	0.01
PCB 25 (BZ)	ND		21	31		20	55		20	ND		20	ND		21	--	--
PCB 26 (BZ)	ND		21	71		20	140		20	ND		20	22		21	--	0.02
PCB 27 (BZ)	ND		21	ND		20	63	C	20	ND		20	ND		21	--	--
PCB 28 (BZ)	ND		21	81		20	190		20	ND		20	52		21	0.25	0.045
PCB 29 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	0.02
PCB 30 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	--
PCB 31 (BZ)	ND		21	83		20	230		20	ND		20	60		21	0.22	0.05
PCB 32 (BZ)	ND		21	38	C	20	150	C	20	ND		20	ND		21	--	--
PCB 33 (BZ)	ND		21	84	C	20	160	C	20	ND		20	33	C	21	0.14	0.09
PCB 34 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	--
PCB 35 (BZ)	ND		21	98		20	98		20	ND		20	34		21	--	--
PCB 36 (BZ)	ND		21	23		20	29		20	ND		20	ND		21	--	--
PCB 37 (BZ)	ND		21	150		20	230		20	43		20	78		21	--	0.04

(a) Bush et al. (1985), Safe et al. (1985), Schulz et al. (1989), Smith et al. (1990).

(b) = no data.

C - Co-eluting isomer

Q - Estimated maximum possible concentration (EMPC)

G - Elevated reporting limit. The reporting limit is elevated due to matrix interference

D - Result was obtained from the analysis of a dilution

E - Estimated results. Result concentration exceeds the calibration range

B - Method blank contamination. The associated method blank contains the target analyte at a reportable level

Table F-1: PCB Congener Data (cont.)
Soil Sample Analytical Results Summary

Component	S052			S218			S269			S307			S374			Average percent in Aroclor (a)	
	Result	Footnotes	RL	1254	1260												
	pg/g		pg/g														
PCB 38 (BZ)	ND		21	24		20	27		20	ND		20	ND		21	--	--
PCB 39 (BZ)	ND		21	ND		20	22		20	ND		20	ND		21	--	--
PCB 40 (BZ)	ND		21	75		20	400		20	ND		20	22		21	0.2	0.03
PCB 41 (BZ)	ND		300	330	C	310	1800	C	300	ND		310	360	C	300	0.64	0.2
PCB 42 (BZ)	ND		21	180	C	20	740	C	20	ND		20	55	C	21	--	0.04
PCB 43 (BZ)	36	C	21	710	C	20	3200	C E	20	42	C	20	330	C	21	--	0.02
PCB 44 (BZ)	40		21	690		20	4900	E	20	41		20	380		21	2.03	0.11
PCB 45 (BZ)	ND		21	58		20	300		20	ND		20	ND		21	--	0.07
PCB 46 (BZ)	ND		21	37		20	170		20	ND		20	ND		21	--	0.02
PCB 47 (BZ)	ND		1200	1500	C	1200	2600	C E	1200	ND		1200	ND		1200	0.17	0.11
PCB 48 (BZ)	ND		1200	1500	C	1200	2600	C E	1200	ND		1200	ND		1200	0.14	0.19
PCB 49 (BZ)	36	C	21	710	C	20	3200	C E	20	42	C	20	330	C	21	1.64	0.06
PCB 50 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	--
PCB 51 (BZ)	ND		300	370		310	660		300	ND		310	ND		300	--	--
PCB 52 (BZ)	100	C	21	2800	C E	20	15000	C E	20	140	C	20	1600	C	21	5.18	0.41
PCB 53 (BZ)	ND		21	210		20	820		20	ND		20	36		21	0.09	0.04
PCB 54 (BZ)	ND		21	ND		20	41		20	ND		20	ND		21	--	--
PCB 55 (BZ)	ND		21	26		20	55		20	ND		20	ND		21	--	--
PCB 56 (BZ)	ND		21	610	C	20	1900	C	20	73	C	20	220	C	21	0.56	0.14
PCB 57 (BZ)	ND		21	34		20	67		20	ND		20	ND		21	--	--
PCB 58 (BZ)	ND		21	21		20	49		20	ND		20	ND		21	--	--
PCB 59 (BZ)	ND		21	69	C	20	190	C	20	ND		20	23	C Q	21	--	--
PCB 60 (BZ)	ND		21	610	C	20	1900	C	20	73	C	20	220	C	21	0.56	0.14
PCB 61 (BZ)	ND		21	480	C	20	1500	C	20	35	C	20	150	C	21	--	--
PCB 62 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	--
PCB 63 (BZ)	ND		21	34		20	120		20	ND		20	ND		21	0.05	--
PCB 64 (BZ)	ND		300	330	C	310	1800	C	300	ND		310	360	C	300	0.45	--
PCB 65 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	--
PCB 66 (BZ)	27	C Q	21	1800	C	20	4200	C E	20	89	C	20	820	C Q	21	0.59	--
PCB 67 (BZ)	ND		21	150		20	290		20	ND		20	34		21	0.09	--
PCB 68 (BZ)	ND		300	330	C	310	1800	C	300	ND		310	360	C	300	--	--
PCB 69 (BZ)	ND		21	ND		20	ND		20	ND		20	ND		21	--	--
PCB 70 (BZ)	88		21	2000	E	20	6500	E	20	270		20	450		21	3.21	0.12
PCB 71 (BZ)	ND		21	180		20	780		20	ND		20	61		21	--	--
PCB 72 (BZ)	ND		21	98		20	200		20	ND		20	53		21	--	--
PCB 73 (BZ)	100	C	21	2800	C E	20	15000	C E	20	140	C	20	1600	C	21	--	--

(a) Bush et al. (1985), Safe et al. (1985), Schulz et al. (1989), Smith et al. (1990).

(b) = no data.

C - Co-eluting isomer

Q - Estimated maximum possible concentration (EMPC)

G - Elevated reporting limit. The reporting limit is elevated due to matrix interference

D - Result was obtained from the analysis of a dilution

E - Estimated results. Result concentration exceeds the calibration range

B - Method blank contamination. The associated method blank contains the target analyte at a reportable level

Table F-1: PCB Congener Data (cont.)
Soil Sample Analytical Results Summary

Component	S052			S218			S269			S307			S374			Average percent in Aroclor (a)	
	Result	Footnotes	RL	1254	1260												
	pg/g		pg/g														
PCB 74 (BZ)	ND		21	480	C	20	1500	C	20	35	C	20	150	C	21	0.78	0.03
PCB 75 (BZ)	ND		1200	1500	C	1200	2600	C E	1200	ND		1200	ND		1200	--	--
PCB 76 (BZ)	27	C Q	21	1800	C	20	4200	C E	20	89	C	20	820	C Q	21	--	--
PCB 77 (BZ)	ND	G	50	ND	G	1700	ND	G	2700	ND	G	790	ND	G	1100	--	--
PCB 78 (BZ)	ND		21	67		20	140	Q	20	ND		20	25	Q	21	--	--
PCB 79 (BZ)	ND		21	360		20	210		20	90		20	210	Q	21	--	--
PCB 80 (BZ)	27	C Q	21	1800	C	20	4200	C E	20	89	C	20	820	C Q	21	--	--
PCB 81 (BZ)	ND	G	4.6	ND	G	390	ND	G	860	ND	G	29	ND	G	230	--	--
PCB 82 (BZ)	26		21	7800	D	410	ND	D	790	390	D	200	5900	D	420	0.95	0.112
PCB 83 (BZ)	ND		21	650	C D	410	2500	C D	790	ND	D	200	420	C D	420	0.45	0.04
PCB 84 (BZ)	51		21	2700	D	410	13000	D	790	ND	D	200	1100	D	420	1.95	0.45
PCB 85 (BZ)	68	C	21	2100	C D	410	7700	C D	790	290	C D	200	2100	C D	420	1.66	0.09
PCB 86 (BZ)	260	C	21	18000	C D	410	55000	C D	790	960	C D	200	12000	C D	420		
PCB 87 (BZ)	260	C	21	18000	C D	410	55000	C D	790	960	C D	200	12000	C D	420	3.78	0.61
PCB 88 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 89 (BZ)	800	C	21	86000	C E D	410	200000	C E D	790	4600	C D	200	57000	C E D	420	--	--
PCB 90 (BZ)	800	C	21	86000	C E D	410	200000	C E D	790	4600	C D	200	57000	C E D	420	0.93	0.56
PCB 91 (BZ)	31		21	2000	D	410	7300	D	790	ND	D	200	920	D	420	0.83	0.07
PCB 92 (BZ)	110		21	11000	D	410	25000	D	790	510	D	200	7600	D	420	1.58	0.59
PCB 93 (BZ)	330	C	21	51000	C E D	410	130000	C E D	790	950	C D	200	28000	C D	420	--	--
PCB 94 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 95 (BZ)	330	C	21	51000	C E D	410	130000	C E D	790	950	C D	200	28000	C D	420	6.02	2.87
PCB 96 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	0.08	--
PCB 97 (BZ)	260	C	21	18000	C D	410	55000	C D	790	960	C D	200	12000	C D	420	2.55	0.34
PCB 98 (BZ)	ND		21	ND	D	410	2000	C D	790	ND	D	200	ND	D	420	--	--
PCB 99 (BZ)	150		21	5400	D	410	20000	D	790	380	D	200	4000	D	420	3.6	0.12
PCB 100 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	0.1	0.02
PCB 101 (BZ)	800	C	21	86000	C E D	410	200000	C E D	790	4600	C D	200	57000	C E D	420	7.94	3.82
PCB 102 (BZ)	ND		21	ND	D	410	2000	C D	790	ND	D	200	ND	D	420	--	--
PCB 103 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 104 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 105 (BZ)	280	C	2.1	5300	C D	41	31000	C D	79	2200	C D	20	10000	C D	42	3.83	0.07
PCB 106 (BZ)	990	C	21	38000	C D	410	86000	C E D	790	9800	C D	200	29000	C D	420	--	--
PCB 107 (BZ)/109 (IUPAC)	120	C	21	3400	C D	410	6700	C D	790	990	C D	200	3200	C D	420	0.72	0.03
PCB 108 (BZ)/107 (IUPAC)	120	C	21	3400	C D	410	6700	C D	790	990	C D	200	3200	C D	420	--	--
PCB 109 (BZ)/108 (IUPAC)	ND		21	650	C D	410	2500	C D	790	ND	D	200	420	C D	420	--	--

(a) Bush et al. (1985), Safe et al. (1985), Schulz et al. (1989), Smith et al. (1990).

(b) = no data.

C - Co-eluting isomer

Q - Estimated maximum possible concentration (EMPC)

G - Elevated reporting limit. The reporting limit is elevated due to matrix interference

D - Result was obtained from the analysis of a dilution

E - Estimated results. Result concentration exceeds the calibration range

B - Method blank contamination. The associated method blank contains the target analyte at a reportable level

Table F-1: PCB Congener Data (cont.)
Soil Sample Analytical Results Summary

Component	S052			S218			S269			S307			S374			Average percent in Aroclor (a)	
	Result	Footnotes	RL	1254	1260												
	pg/g		pg/g														
PCB 110 (BZ)	660		21	70000	E D	410	170000	E D	790	3300	D	200	45000	E D	420	5.85	1.8
PCB 111 (BZ)	260	C	21	18000	C D	410	55000	C D	790	960	C D	200	12000	C D	420	--	--
PCB 112 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 113 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 114 (BZ)	12		2.1	410	D	41	860	D	79	69	D	20	360	D	42	--	--
PCB 115 (BZ)	260	C	21	18000	C D	410	55000	C D	790	960	C D	200	12000	C D	420	0.3	0.05
PCB 116 (BZ)	260	C	21	18000	C D	410	55000	C D	790	960	C D	200	12000	C D	420	--	--
PCB 117 (BZ)	260	C	21	18000	C D	410	55000	C D	790	960	C D	200	12000	C D	420	--	--
PCB 118 (BZ)	990	C	2.1	38000	C D	41	86000	C E D	79	9800	C D	20	29000	C D	42	6.39	0.53
PCB 119 (BZ)	ND		21	ND	D	410	890	D	790	ND	D	200	ND	D	420	0.14	--
PCB 120 (BZ)	68	C	21	2100	C D	410	7700	C D	790	290	C D	200	2100	C D	420	--	--
PCB 121 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 122 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	0.5	0.21
PCB 123 (BZ)	ND		2.1	ND	D	41	ND	D	79	ND	D	20	ND	D	42	0.81	--
PCB 124 (BZ)	57		21	4100	D	410	6900	D	790	460	D	200	3300	D	420	--	--
PCB 125 (BZ)	260	C	21	18000	C D	410	55000	C D	790	960	C D	200	12000	C D	420	--	--
PCB 126 (BZ)	140		2.1	3100	D	41	4900	D	79	2000	D	20	3400	D	42	--	--
PCB 127 (BZ)	280	C	21	5300	C D	410	31000	C D	790	2200	C D	200	10000	C D	420	--	--
PCB 128 (BZ)	940		21	46000	E D	410	91000	E D	790	7800	D	200	51000	E D	420	2.07	0.76
PCB 129 (BZ)	140		21	12000	D	410	23000	D	790	1200	D	200	9400	D	420	0.23	0.66
PCB 130 (BZ)	400		21	24000	D	410	42000	D	790	3500	D	200	24000	D	420	0.63	0.08
PCB 131 (BZ)	ND		21	2200	C D	410	4800	C D	790	ND	D	200	1200	C D	420	--	--
PCB 132 (BZ)	690	C	21	130000	C E D	410	230000	C E D	790	6700	C D	200	94000	C E D	420	1.98	3.69
PCB 133 (BZ)	120		21	6600	D	410	9200	D	790	820	D	200	6900	D	420	--	--
PCB 134 (BZ)	110		21	23000	D	410	41000	D	790	800	D	200	18000	D	420	0.49	0.35
PCB 135 (BZ)	540	C	21	94000	C E D	410	150000	C E D	790	3900	C D	200	69000	C E D	420	1.62	2.56
PCB 136 (BZ)	160		21	58000	E D	410	92000	E D	790	920	D	200	28000	D	420	1.12	1.82
PCB 137 (BZ)	55		21	3100	D	410	7200	D	790	400	D	200	2300	D	420	0.25	0.14
PCB 138 (BZ)	9500	C E	21	590000	C E D	410	970000	C E D	790	100000	C E D	200	600000	C E D	420	3.2	6.31
PCB 139 (BZ)	3100	C E	21	500000	C E D	410	790000	C E D	790	23000	C E D	200	410000	C E D	420	--	--
PCB 140 (BZ)	ND		21	770	D	410	1200	D	790	ND	D	200	620	D	420	--	--
PCB 141 (BZ)	1300		21	150000	E D	410	260000	E D	790	13000	D	200	100000	E D	420	1.04	2.53
PCB 142 (BZ)	ND		21	2200	C D	410	4800	C D	790	ND	D	200	1200	C D	420	--	--
PCB 143 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 144 (BZ)	540	C	21	94000	C E D	410	150000	C E D	790	3900	C D	200	69000	C E D	420	--	1.5
PCB 145 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--

(a) Bush et al. (1985), Safe et al. (1985), Schulz et al. (1989), Smith et al. (1990).

(b) = no data.

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Table F-1: PCB Congener Data (cont.)
Soil Sample Analytical Results Summary

Component	S052			S218			S269			S307			S374			Average percent in Aroclor (a)	
	Result	Footnotes	RL	1254	1260												
	pg/g		pg/g														
PCB 146 (BZ)	1600		21	96000	E D	410	150000	E D	790	11000	D	200	94000	E D	420	0.83	1.39
PCB 147 (BZ)	29		21	2000	D	410	3800	D	790	ND	D	200	1800	D	420	--	--
PCB 148 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 149 (BZ)	3100	C E	21	500000	C E D	410	790000	C E D	790	23000	C E D	200	410000	C E D	420	2.21	7.61
PCB 150 (BZ)	ND		21	440	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 151 (BZ)	760		21	150000	E D	410	230000	E D	790	5800	D	200	110000	E D	420	1.17	3.08
PCB 152 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 153 (BZ)	8600	E	21	500000	E D	410	840000	E D	790	79000	E D	200	530000	E D	420	4.26	10.2
PCB 154 (BZ)	23		21	2100	D	410	3300	D	790	ND	D	200	1600	D	420	--	--
PCB 155 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 156 (BZ)	1100		2.1	47000	E D	41	79000	D	79	13000	D	20	40000	D	42	1.62	0.66
PCB 157 (BZ)	170		2.1	5100	D	41	9600	D	79	1800	D	20	5500	D	42	--	0.14
PCB 158 (BZ)	700	C	21	57000	C E D	410	100000	C E D	790	6100	C D	200	44000	C E D	420	0.77	0.7
PCB 159 (BZ)	180		21	9600	D	410	13000	D	790	1800	D	200	9500	D	420	--	--
PCB 160 (BZ)	700	C	21	57000	C E D	410	100000	C E D	790	6100	C D	200	44000	C E D	420	--	0.05
PCB 161 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 162 (BZ)	110		21	6000	D	410	8900	D	790	1100	D	200	4500	D	420	--	--
PCB 163 (BZ)	9500	C E	21	590000	C E D	410	970000	C E D	790	100000	C E D	200	600000	C E D	420	--	--
PCB 164 (BZ)	9500	C E	21	590000	C E D	410	970000	C E D	790	100000	C E D	200	600000	C E D	420	--	--
PCB 165 (BZ)	ND		21	2200	C D	410	4800	C D	790	ND	D	200	1200	C D	420	--	--
PCB 166 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 167 (BZ)	520		2.1	20000	D	41	33000	D	79	7000	D	20	20000	D	42	0.21	0.21
PCB 168 (BZ)	690	C	21	130000	C E D	410	230000	C E D	790	6700	C D	200	94000	C E D	420	--	--
PCB 169 (BZ)	38		2.1	690	D	41	1000	D	79	460	D	20	720	D	42	--	0.05
PCB 170 (BZ)	10000	C E B	2.1	450000	C E D B	41	610000	C E D B	79	110000	C E D	20	370000	C E B D	42	0.31	5.36
PCB 171 (BZ)	1200		21	76000	E D	410	110000	E D	790	11000	D	200	62000	E D	420	0.05	1.65
PCB 172 (BZ)	1100	C	21	51000	C E D	410	68000	C D	790	10000	C D	200	42000	C E D	420	0.05	0.78
PCB 173 (BZ)	92		21	6200	D	410	9500	D	790	970	D	200	5700	D	420	0.09	0.21
PCB 174 (BZ)	3700	E	21	250000	E D	410	340000	E D	790	39000	E D	200	200000	E D	420	0.34	4.68
PCB 175 (BZ)	75		21	4000	Q D	410	7500	D	790	1000	D	200	6100	D	420	0.05	0.36
PCB 176 (BZ)	200		21	29000	D	410	42000	D	790	1600	D	200	15000	D	420	0.32	0.64
PCB 177 (BZ)	3700	E	21	180000	E D	410	250000	E D	790	34000	E D	200	190000	E D	420	0.21	2.06
PCB 178 (BZ)	1200		21	55000	E D	410	70000	D	790	8900	D	200	57000	E D	420	1.35	1.41
PCB 179 (BZ)	980		21	94000	E D	410	120000	E D	790	7200	D	200	75000	E D	420	--	--
PCB 180 (BZ)	15000	E B	2.1	640000	E D B	41	830000	E D B	79	140000	E D	20	490000	E B D	42	0.38	8.11
PCB 181 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--

(a) Bush et al. (1985), Safe et al. (1985), Schulz et al. (1989), Smith et al. (1990).

(b) = no data.

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Table F-1: PCB Congener Data (cont.)
Soil Sample Analytical Results Summary

Component	S052			S218			S269			S307			S374			Average percent in Aroclor (a)	
	Result	Footnotes	RL	Result	Footnotes	RL	Result	Footnotes	RL	Result	Footnotes	RL	Result	Footnotes	RL	1254	1260
	pg/g		pg/g	pg/g		pg/g	pg/g		pg/g	pg/g		pg/g	pg/g		pg/g		
PCB 182 (BZ)	4800	C E	21	220000	C E D	410	280000	C E D	790	51000	C E D	200	230000	C E D	420	--	--
PCB 183 (BZ)	2000		21	150000	E D	410	220000	E D	790	14000	D	200	94000	E D	420	0.17	2.03
PCB 184 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 185 (BZ)	540		21	37000	D	410	52000	D	790	5300	D	200	32000	D	420	--	2.72
PCB 186 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 187 (BZ)	4800	C E	21	220000	C E D	410	280000	C E D	790	51000	C E D	200	230000	C E D	420	0.32	4.24
PCB 188 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 189 (BZ)	390		2.1	16000	D	41	24000	D	79	4500	D	20	13000	D	42	--	0.13
PCB 190 (BZ)	10000	C E	21	450000	C E D	410	610000	C E D	790	110000	C E D	200	370000	C E D	420	0.08	0.79
PCB 191 (BZ)	220		21	13000	D	410	19000	D	790	2100	D	200	8800	D	420	--	0.18
PCB 192 (BZ)	1100	C	21	51000	C E D	410	68000	C D	790	10000	C D	200	42000	C E D	420	--	--
PCB 193 (BZ)	1100		21	37000	D	410	47000	D	790	10000	D	200	39000	D	420	--	0.57
PCB 194 (BZ)	4400	E	21	200000	E D	410	250000	E D	790	50000	E D	200	120000	E D	420	--	1.5
PCB 195 (BZ)	1900		21	77000	E D	410	100000	E D	790	21000	E D	200	60000	E D	420	--	0.38
PCB 196 (BZ)	4000	C E	21	200000	C E D	410	270000	C E D	790	36000	C E D	200	110000	C E D	420	--	1.9
PCB 197 (BZ)	67		21	5800	D	410	8400	D	790	430	D	200	2000	D	420	--	0.12
PCB 198 (BZ)	220		21	8800	D	410	11000	D	790	1900	D	200	6100	D	420	--	0.09
PCB 199 (BZ)/200 (IUPAC)	330		21	19000	D	410	26000	D	790	2800	D	200	12000	D	420	--	0.82
PCB 200 (BZ)/201 (IUPAC)	200		21	15000	D	410	20000	D	790	1400	D	200	6200	D	420	--	0.62
PCB 201 (BZ)/199 (IUPAC)	4000	E	21	170000	E D	410	220000	E D	790	37000	E D	200	120000	E D	420	0.68	1.95
PCB 202 (BZ)	420		21	19000	D	410	24000	D	790	3300	D	200	13000	D	420	0.05	1.65
PCB 203 (BZ)	4000	C E	21	200000	C E D	410	270000	C E D	790	36000	C E D	200	110000	C E D	420	--	2.05
PCB 204 (BZ)	ND		21	ND	D	410	ND	D	790	ND	D	200	ND	D	420	--	--
PCB 205 (BZ)	300		21	10000	D	410	14000	D	790	3300	D	200	7800	D	420	--	0.13
PCB 206 (BZ)	940		21	36000	D	410	48000	D	790	13000	D	200	27000	D	420	--	0.65
PCB 207 (BZ)	63		21	4000	D	410	5500	D	790	650	D	200	1700	D	420	--	0.07
PCB 208 (BZ)	120		21	4600	D	410	6400	D	790	1100	D	200	2900	D	420	--	0.17
PCB 209 (BZ)	80		21	ND	D	410	ND	D	790	ND	D	200	480	D	420	--	0.05
Totals	147926			9235022			14642382			1416612			7760284				

Total (%) 96.25 105.55

Total minus coelutes 114126

Total minus coelutes (mg/kg) 1.14

6034512

6.03

9261882

9.26

943283

0.943

4986864

4.99

(a) Bush et al. (1985), Safe et al. (1985), Schulz et al. (1989), Smith et al. (1990).

(b) = no data.

C - Co-eluting isomer

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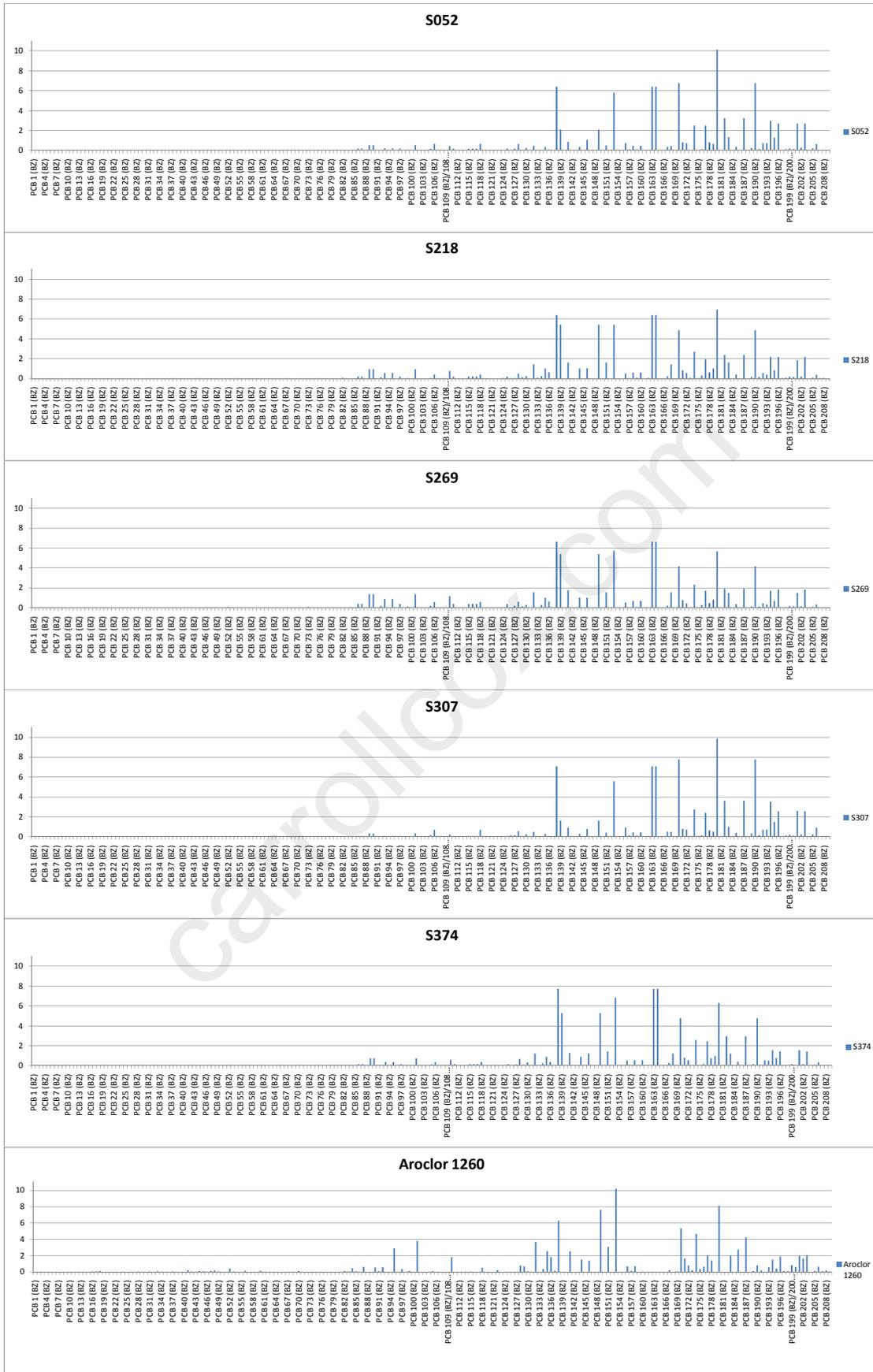
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Percentage of Total
vs.
PCB congener
for 5 Mail samples and Aroclor 1260



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