

September 30, 2016

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Ms. Karel Detterman  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

I, Stephanie Kochan, hereby authorize ERAS Environmental, Inc. to submit the Limited Phase II Subsurface Investigation for 729 45<sup>th</sup> Avenue, Oakland, California, dated September 30, 2016 to the Alameda County Health Care Services Agency.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Signature: Stephanie Kochan

Printed Name: Stephanie Kochan

Ms. Stephanie Kochan  
Equipment Fabricating Corporation  
(510) 261-0343

**ERAS**

**Environmental, Inc.**

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**LIMITED PHASE II SUBSURFACE INVESTIGATION**

AT

**729 45<sup>th</sup> AVENUE  
OAKLAND, CALIFORNIA**

**ERAS PROJECT NUMBER: 14-001-3  
GLOBAL ID: T0000005808**

Prepared for

Ms. Stephanie Kochan  
Equipment Fabricating Corporation  
729 45<sup>th</sup> Avenue  
Oakland, CA 94601

September 30, 2016

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## CERTIFICATION

This **Limited Phase II Subsurface Investigation** at 729 45<sup>th</sup> Avenue in Oakland, California, has been prepared by ERAS Environmental, Inc. (ERAS) under the professional supervision of the Registered Professional Geologist whose signature appears hereon.

This report was prepared in general accordance with the accepted standard of practice that exists in Northern California at the time the investigation was performed. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the conditions present. More extensive studies, including additional environmental investigations, can tend to reduce the inherent uncertainties associated with such studies.

Our firm has prepared this report for the Client's exclusive use for this particular project and in accordance with generally accepted professional practices within the area at the time of our investigation. No other representations, expressed or implied, and no warranty or guarantee is included or intended.

This report may be used only by the client and only for the purposes stated within a reasonable time from its issuance. Land use, site conditions (both on-site and off-site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify ERAS of such intended use. Based on the intended use of report, ERAS may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release ERAS from any liability resulting from the use of this report by any unauthorized party.

Sincerely,  
ERAS Environmental, Inc.



Andrew Savage  
Project Geologist



Curtis Payton  
California Registered Professional Geologist 5608



September 30, 2016

## 1.0 INTRODUCTION

The following report presents the results of the collection of soil and groundwater samples at a commercial site located at 729 45<sup>th</sup> Avenue in Oakland, California (the "Property"). The Property is an open fuel leak case and a subsurface investigation previously conducted at the site has identified contamination originating from a gasoline underground storage tank (UST). The work conducted as part of this investigation was proposed by ERAS in a work plan dated June 26, 2014 which was approved by the Alameda County Health Care Services Agency (ACHCSA) in correspondence dated December 23, 2014.

## 1.1 BACKGROUND

The location of the Property is shown on **Figure 1**. The locations of the former USTs and AST on the Property are shown on **Figure 2**.

### Phase 1 Investigation

A Phase 1 Environmental Site Assessment (ESA) was conducted by Tom Edwards & Associates (TEA) and the results were presented in a report dated August 27, 2013. TEA identified the following potential environmental issues at the Property.

- The former uses of the Property as an oil refining, storage and sales company from 1928-1964.
- Three aboveground storage tanks (ASTs) including a 20,000 gallon and two 15,000-gallon gasoline ASTs were present from at least 1928 to 1949 (ERAS has since identified that the ASTs were actually present to at least 1952) which were operated by Norwalk Oil Sales Company. The three ASTs were shown on a 1952 Sanborn Fire Insurance map to be mounted on two concrete pads that were each an estimated 35 feet long. The tanks and pads were located in the area that is now beneath the current rectangular manufacturing building located along the southwest side of the Property.
- The possible former use of hazardous materials on the Property by past occupants United Freight Ways and Arrow Steel Company
- The former use of three 500-gallon underground storage tanks (USTs) on the Property by Equipment Fabrication Company (the current tenant). The USTs were removed in approximately 1991. TEA indicated there were three USTs present in 1986, the two in use at that time were used to store gasoline and paint thinner.

The locations of the former ASTs and USTs are shown on **Figure 2**.

Former occupants of the Property were determined to have been the following:

-1912	undeveloped
-1928	Panama Refining Co.
-1929	Mileage Gasoline Co.

-1946-1949	Golden Gate Oil Co.
-1951-1952	Norwalk Oil Sales Co.
-1964	McClaren Oil Co.
-1967	United Freight Ways
-1969-1972	Arrow Steel Co. (Sign Company). Building constructed in 1969.
-1972 to present	Equipment Fabrication

Soil and Groundwater Investigation

TEA performed a Phase 2 soil and groundwater investigation at the Property in October of 2013. Six soil borings were drilled in the yard area and along the southeast edge of the Property. The locations of the borings are shown on **Figure 2**. Soil samples were collected for laboratory analysis from all six borings. Groundwater was only sampled from two of the borings. The results of this investigation are discussed in **Section 4.2**.

Results of the laboratory analyses are tabulated on **Tables 1** through **7**.

File Review Information

On January 28, 2014 ERAS reviewed file information at the City of Oakland Fire Department. The only hazardous materials permit information was issued to the current tenant Equipment Fabricating Corporation dated in 2001. Inspections for the facility for hazardous materials were dated in 1999 and 2003. There were no records that were old enough to have listed or documented the proper permitting or removal of the former USTs.

An ACHCSA hazardous waste inspection report dated June 20, 1986 indicated the presence of three USTs, two of which were in use for gasoline and one for paint thinner dispensing. A certified letter dated September 25, 1989 requested that the USTs be removed or permits be applied for to operate the USTs. A receipt for \$855 dated July 31, 1991 appeared to be for payment for oversight for the UST removal/closure.

It appears that the USTs were operated by the current owner of the Property from approximately 1972 until they were removed in 1991.

Note that naphthalene was detected in groundwater samples located down-gradient of the former UST which may indicate a leak of a non-petroleum fuel. It is considered likely that the large ASTs operated by Norwalk Oil Sales Company were used to store oils but may have also been used to store diesel fuel.

Historical information indicates that certain metals and other constituents of explosives may have been scattered on the Property and nearby area by the 1898 explosive demolition of the Western Fuse and Explosive Company and 40 nearby buildings.

Circumstantial evidence indicates the underground tanks were removed in 1991 with the knowledge of and with permits from the Alameda County Health Care Services Agency. All available sources of historical information including the City of Oakland Fire Department and ACHCSA files were searched and no UST removal report or other additional information could be found.

## **2.0 REGIONAL GEOLOGY/HYDROLOGY**

The Property is in the southern part of the City of Oakland in the San Francisco Bay area. The San Francisco Bay area occupies a broad alluvial valley that slopes gently northward toward Oakland Bay and is flanked by alluvial fans deposited at the foot of the Diablo Range to the east and the Santa Cruz Mountains to the west. Surface topography in the immediate vicinity of the Property is gently sloping down to the south west towards tidally influenced Brooklyn Basin Tidal Canal.

The Property is at an elevation of approximately 15 feet above Mean Sea Level according to the United States Geological Survey (USGS) Oakland East Quadrangle California 7.5 Minute Series topographic map.

Materials underlying the site are unconsolidated deposits of near shore and beach sediments, deposited in Oakland Bay at higher sea level stands. At shallow depths beneath these sediments are chert, greywacke, serpentine and shale bedrock that are a part of the Cretaceous to Jurassic-aged Franciscan Formation. Bedrock is exposed to the west and north on the upland surfaces.

The subject site is located on the San Francisco Bay Plain in the northernmost part of the Santa Clara Valley Groundwater Basin, (DWR, 1967), the surface of which slopes gently down toward the Brooklyn Basin Tidal Canal.

The regional groundwater flow follows the topography, moving from areas of higher elevation to areas of lower elevation. The regional groundwater flow direction in the area of the Property is estimated to be toward the southwest toward the Brooklyn Basin Tidal Canal. Groundwater monitoring at nearby leak sites (720 High Street, approximately 200 feet west-northwest and 833 47<sup>th</sup> Avenue, approximately 700 feet east), indicated that the flow direction has been determined to be to the southwest.

### 3.0 WORK PERFORMED

#### 3.1 SCOPE OF INVESTIGATION

Scope of work conducted by ERAS for this investigation was as follows.

- Obtained a permit for drilling from the Alameda County Public Works Department (ACPWD).
- Cleared the boring location for the presence of utilities by notifying Underground Service Alert and employed a private underground locating/clearance service.
- Advanced three borings using a direct push sample rig in the vicinity of the former AST's (B-3, B-4, and B-5). Advanced one boring in the vicinity of the oil warehouse (B-6). Advance two borings (B-1, and B-2) in the vicinity of the former gas/paint thinner USTs. Six borings in total. These borings were continuously logged.
- Collected soil samples from the borings for laboratory analysis from depths of 0-5 feet and 5-10 feet.
- Groundwater samples were collected from each boring.
- Analyzed the soil and groundwater samples from the vicinity of the former USTs for TPH-gro and TPH-dro by EPA Method 8015C, MTBE and oxygenates by EPA Method 8260, VOCs by EPA 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and total lead by EPA Method E200.8.
- Analyzed the soil and groundwater samples collected from the vicinity of the oil warehouse and ASTs for TPH-gro, TPH-dro, and total petroleum hydrocarbons quantified as oil (TPH-oro) by EPA Method 8015C, MTBE and oxygenates by EPA Method 8260, VOCs by EPA 8260, polychlorinated biphenyls (PCBs) by EPA Method 8082, SVOCs by EPA Method 8270, and CAM 17 metals.
- Conducted a well survey for all active, inactive, standby, decommissioned (sealed with concrete), unrecorded, and abandoned (improperly decommissioned or lost) wells including monitoring, remediation, irrigation, water supply, industrial, livestock, dewatering, and cathodic protection wells within a ¼-mile wells using data from both the ACPWD and the California Department of Water Resources (DWR).

#### 3.2 BORING LOCATIONS AND SAMPLING

The locations of the borings are shown on **Figure 2**. The Standard Operating Procedures for direct-push sampling are included in **Appendix B**.

Three borings were advanced using a direct push sample rig inside the current manufacturing building in the vicinity of the former AST's (borings B-3, B-4, and B-5). One boring was advanced near the down-gradient corner of the former oil warehouse (boring B-6). Two borings were



advanced adjacent to the down-gradient side of the gas/paint thinner USTs (boring B-1 and B-2. These borings were continuously logged.

Refusal was encountered in borings B-3 and B-4 due to large pieces of concrete and brick rubble along with what may be a concrete footing for the former ASTs. Numerous attempts were made to advance these borings in the areas surrounding the previously proposed borings. This rubble may be associated with the historic 1898 explosive demolition of the Western Fuse and Explosive Company and 40 nearby buildings.

Soil samples from the borings were collected for laboratory analysis from depths of 0-5 feet and 5-10 feet with the exception of the borings which encountered refusal and borings B-1 and B-2 which encountered groundwater at 5 feet bgs. In borings B-1 and B-2 only the 5-foot soil sample was submitted for analysis.

Groundwater samples were collected from each boring. The groundwater samples were kept refrigerated pending transport under chain-of-custody procedures to a California certified environmental analytical laboratory.

The soil and groundwater samples collected from the vicinity of the former USTs were analyzed for TPH-gro and TPH-dro by EPA Method 8015C, MTBE and oxygenates by EPA Method 8260, VOCs by EPA 8260, SVOCs by EPA Method 8270, and total lead by EPA Method E200.8.

The soil and groundwater samples collected from the vicinity of the oil warehouse and ASTs were analyzed for TPH-gro, TPH-dro, and TPH-oro by EPA Method 8015C, MTBE and oxygenates by EPA Method 8260, VOCs by EPA 8260, PCBs by EPA Method 8082, SVOCs by EPA Method 8270, and CAM 17 metals.

The subsurface vadose zone lithology encountered consisted of silty clay. The groundwater bearing zone observed during drilling activities did not appear to be continuous. The encountered conditions are discussed below for each boring.

The groundwater bearing zone in borings B-1 and B-2 consisted of silt and small stingers in the silty clay. Abundant rotting organics were observed in borings B-1 and B-2 typical of an old tidal slew. Borings B-1 and B-2 were advanced to 12 feet bgs.

Boring B-3 and B-4 encountered refusal.

Boring B-5 was advanced to a depth of 18 feet bgs. The groundwater bearing zone was encountered at a depth of 14 feet bgs and consisted of a gravely sand.

Boring B-6 was advanced to a depth of 26 feet bgs and no groundwater bearing zone was identified. Silty clay extended to the base of the boring.

Signs of contamination such as odor and elevated OVM readings were observed during the drilling of borings B-1, B-2, and B5. No odor, discoloration, or elevated OVM readings were observed in boring B-6.

### 3.3 ANALYTICAL RESULTS

#### 3.3.1 Results in Soil

The laboratory report and chain of custody form are included as **Appendix D**. The results of the analyses are included on **Tables 1** through **3**.

No concentrations of TPH-gro, TPH-dro, or TPH-oro were detected above their respective ESLs in the soil samples collected as part of this investigation. The concentrations of hydrocarbons detected are compiled on **Table 1**.

VOCs detected above their respective ESLs included the following.

- 1,2-dibromo-3-chloropropane, 0.030 mg/Kg (ESL 0.0045 mg/Kg)
- ethylbenzene, 3.0 mg/Kg (ESL 1.4 mg/Kg)
- naphthalene, 0.15 mg/Kg (ESL 0.033 mg/Kg)
- xylenes, 6.5 mg/Kg (ESL 2.3 mg/Kg)

All concentrations detected which exceeded the ESL were collected from a depth of 4 feet bgs in boring B-2. All other samples collected contained concentrations below their respective ESLs. The concentrations of VOCs detected are compiled on **Table 2**. All VOCs not listed on the table were either below the method detection limit (MDL) or the ESL.

Metals detected above their respective ESLs included arsenic and nickel in borings B-5 and B-6. No concentrations of lead were detected above the ESL in borings B-1 and B-2.

Arsenic was detected above the ESL of 0.067 mg/Kg in all samples collected from borings B-5 and B-6 and ranged from 2.7 to 6.6 mg/Kg.

Concentrations of nickel were detected in the deeper sample (9.5-10') from boring B-5 and both the shallower and deeper depth from boring B-6. Nickel was detected at concentrations ranging from 63 to 150 mg/Kg where the ESL is 86 mg/Kg.

The concentrations of metals detected are compiled on **Table 3**. All metals not listed on the table were either below the MDL or the ESL.

No concentrations of PCBs or SVOCs were detected in the soil samples collected above the MDLs.

#### 3.3.2 Results in Groundwater

The laboratory report and chain of custody form are included as **Appendix D**. The results of the analyses are included on **Tables 4** through **7**.

TPH-gro was detected at concentrations ranging from 2,800 to 22,000 µg/L in borings B-1 and B-2 which exceed the ESL of 100 µg/L.

TPH-dro was detected at concentrations ranging from 3,800 µg/L to 18,000 µg/L which exceeded the ESL of 100 µg/L.

TPH-oro was detected at concentrations of 3,600 to 6,600 µg/L which exceeded the ESL of 100 mg/Kg. The concentrations of hydrocarbons detected are compiled on **Table 4**.

VOCs detected above their respective ESLs in Borings B-1 and B-2 included the following.

- benzene, 5.7 µg/L (ESL 1.0 µg/L)
- bromomethane, 47 µg/L (ESL 7.5 µg/L)
- tert butyl alcohol (TBA), 33 µg/L (ESL 12 µg/L)
- ethylbenzene, 85 and 1,900 µg/L (ESL 13 µg/L)
- hexachloroethane, 28 µg/L (ESL 0.33 µg/L)
- naphthalene, 6.0 and 82 µg/L (ESL 0.17 µg/L)
- styrene, 0.59 µg/L and 14 µg/L (ESL 10 µg/L)
- 1,1,2-trichloroethane (1,1,2-TCA), 30 µg/L (ESL 5 µg/L)
- xylenes, 73 and 3,400 µg/L (ESL 20 µg/L)

The concentrations of VOCs detected are compiled on **Table 5**. All VOCs not listed on the table were either below the MDL or the ESL.

SVOCs detected above their respective ESLs in Borings B-1 and B-2 included the following.

- bis(2-chloroisopropyl) ether, 3.1 µg/L (ESL 0.36 µg/L)
- 2-methylnaphthalene, 5.2 to 7.7 µg/L (ESL 2.1 µg/L)
- naphthalene, 4.9 to 58 µg/L (ESL 0.17 µg/L)

The concentrations of SVOCs detected are compiled on **Table 6**. All SVOCs not listed on the table were either below the MDL or the ESL.

No concentrations of lead were detected above the ESL in borings B-1 and B-2. Metals detected above their respective ESLs in Boring B-5 included the following.

- arsenic, 13 µg/L (ESL 0.10 µg/L)
- cobalt, 3.0 µg/L (ESL 3.0 µg/L)
- nickel, 10 µg/L (ESL 10 µg/L)

The concentrations of metals detected are compiled on **Table 7**. All metals not listed on the table were either below the MDL or the ESL.

No concentrations of PCBs were detected in the groundwater above the MDLs.

## 4.0 UPDATED SITE CONCEPTUAL MODEL

A Site Conceptual Model Table and Data Gap Summary are included in **Tables 8 and 9**, respectively.

### 4.1 HYDROGEOLOGIC SETTING

Shallow groundwater is variable at the Property and is found at depths of approximately 5-16 feet bgs but is not present in some locations. No groundwater monitoring has been conducted on the Property but based on nearby leak cases with active groundwater monitoring the groundwater in the vicinity has been determined to flow toward the southwest at a gradient of about 0.015 foot/foot. The groundwater bearing zone does not appear to be continuous.

The shallow water-bearing zone is found in silty/sandy units (clayey silt, sandy silty gravel, clayey silt with gravel, gravely sand, and sandy gravel) interbedded with clay. Groundwater is generally under water-table conditions, but may be locally confined by clay in the upper portion of the water-bearing zone.

The base of the shallow water bearing zone has not been determined.

### 4.2 EXTENT OF CONTAMINATION

#### *4.2.1 Results in Soil*

Concentrations of petroleum hydrocarbons above their respective ESLs were detected in soil sampled from boring EFC04 at 5 feet and EFC05 at 1.75 feet. These borings were drilled in low areas in asphalt at the edge of the 45<sup>th</sup> Avenue roadway and it is possible these hydrocarbons are the result of surface runoff from the outside storage yard or the next door topographically higher lumber storage yard.

Concentrations of VOCs were detected above their respective ESLs in borings EFC03 at 3 feet, EFC05 at 1.75 feet, EFC05 at 10 feet, and B-2 at 4 feet. VOCs detected included benzene, 1,2-dibromo-3-chloropropane, ethylbenzene, naphthalene, and xylenes. These three borings were located adjacent to the former USTs on the Property and in a low spot adjacent to the edge of the Property. These concentrations may be related to a release from the former USTs, runoff from the outside storage yard, or the next door topographically higher, up-gradient lumber storage yard.

Concentration of arsenic, nickel, and lead were detected in the soil samples collected from the Property above their respective ESLs. Arsenic was detected above the ESL in all samples collected since concentrations of arsenic in the San Francisco Bay Area are naturally elevated and these concentrations are considered to be within background the background range for Oakland of 4 to 17 mg/Kg. It is possible that the presence of other metals detected may be the result of surface runoff from metals released into the air by the galvanizing plant directly across the street from the Property or are a remnant of the 1898 explosion.

No concentrations of PCBs or SVOCs were detected in the soil samples collected above the MDLs.

#### *4.2.2 Results in Groundwater*

Concentrations of petroleum hydrocarbons were detected in the groundwater samples from borings EFC04, EFC05, B-1, B-2, and B-5, located down-gradient from the former USTs. Boring B-5 was located 160 feet the west of the former USTs in a cross-gradient direction. These concentrations may be related to a release from the former USTs and/or the former oil warehouse and/or the adjacent up-gradient leak site, Southern Pacific Transportation Company at 744 High Street.

The original samples collected by TEA (EFC04 and EFC05) do not appear to have had the laboratory run silica gel cleanup on the samples prior to analysis to remove biogenic hydrocarbon interferences. The samples collected by TEA contained concentrations up to 105,000 µg/L of TPH-dro. Samples collected in the vicinity by ERAS when analyzed with silica gel cleanup contained a concentration of 15,000 µg/L. Note that during drilling activities, substantial amounts of degrading organics were observed in the borings.

The concentrations of petroleum hydrocarbons in the groundwater beneath the Property in the vicinity of the former USTs and cross gradient on the other end of the Property contained concentrations within the same order of magnitude suggesting a regional plume possibly originating from the northeast.

Concentrations of VOCs detected above their respective ESLs were found to be present and included benzene up to 5.7 µg/L, bromomethane up to 47 µg/L, TBA up to 33 µg/L, ethylbenzene up to 2,400 µg/L, hexachloroethane up to 28 µg/L, naphthalene up to 878 µg/L, styrene up to 14 µg/L, 1,1,2-trichloroethane up to 30 µg/L, and xylenes up to 3,400 µg/L.

All detected VOCs above the ESLs were in borings EF04, EP05, B-1, and B-2 located down-gradient of the former USTs. No concentrations above their respective ESLs were detected in boring B-5. These contaminants appear to be related to a release from the former USTs on the Property but may also be related to the up-gradient site located at 744 High Street. Some of the contaminants found are not typical for a release from the known uses of the former USTs which were for storing gasoline and paint thinner.

SVOCs detected in the borings above their respective ESLs included bis(2-chloroisopropyl) ether, 2-methylnaphthalene, and naphthalene. Bis(2-chloroisopropyl) ether was detected at a concentrations of 3.1 µg/L in boring B-1, 2-methylnaphthalene was detected at concentrations of 5.2 and 7.7 µg/L in borings B-1, and B-2 respectively, and naphthalene was detected at concentrations of 4.9 and 58 µg/L in borings B-1 and B-2 respectively. No concentrations of SVOCs were detected above their ESLs in boring B-5. These contaminants appear to be related to a release from the former USTs on the Property but may also be related to the up-gradient site located at 744 High Street.

Metals detected in the borings above their respective ESLs included arsenic, cobalt, nickel, lead, and zinc. All elevated metals were detected in borings EFC04, EFC05, and B-5. The concentrations in EFC04 and EFC05 appear to be the result of the previous consultant placing sediment laden groundwater into nitric acid preserved sample containers without field filtering. When field filtering was properly conducted arsenic was detected at a concentration of 13 µg/L, cobalt at 3.0 µg/L, and nickel at 10 µg/L. The concentrations of lead and zinc were found to be below their respective ESLs when properly field filtered. No concentrations of lead were detected in the vicinity of the former

USTs. The concentrations of metals detected in the groundwater may be from an unknown on site source and/or the former oil warehouse and/or the up-gradient site located at 744 High Street which has documented metals in the groundwater.

No concentrations of PCBs were detected in the groundwater samples collected.

#### **4.3 WELL SURVEY**

ERAS requested all well data for a ¼ mile radius from the Alameda County Public Works Department and the California Department of Water Resources. Three sites were identified which contained a well for commercial or residential water supply. These sites were 499 High Street, 500 High Street, and 1100 29<sup>th</sup> Avenue in Oakland. These sites were located 1,000 feet or more from the Property in an area with low topography. Contamination in this setting is unlikely to migrate a great distance from the source area. Based on the distance contamination associated with the Property is unlikely to impact these wells.

A table of identified wells within the ¼ mile radius and a map displaying the location of 499 High Street, 500 High Street, and 1100 29<sup>th</sup> Avenue in relation to the Property is included in **Appendix E**.

#### **4.4 RECOMMENDATIONS**

An updated Site Conceptual Model is presented in **Table 8**. Based on the findings of this investigation, some of the data gaps have been completed as summarized in **Table 9**. Additional borings are recommended to complete the data gap analyses.

## 5.0 REFERENCES

California Department of Water Resources, Evaluation of Ground Water Resources South Bay, Appendix A: Geology, Bulletin 118-1, August 1967.

California Regional Water Quality Control Board, Water Quality Control Plan, San Francisco Bay Basin Region (2), December 1986.

ERAS Environmental Inc., Work Plan For Limited Phase II Subsurface Investigation, 729 45<sup>th</sup> Avenue, Oakland, California, June 26, 2014.

Goldman, Harold B., Geology of San Francisco Bay prepared for San Francisco Bay Conservation and Development Commission, February 1967.

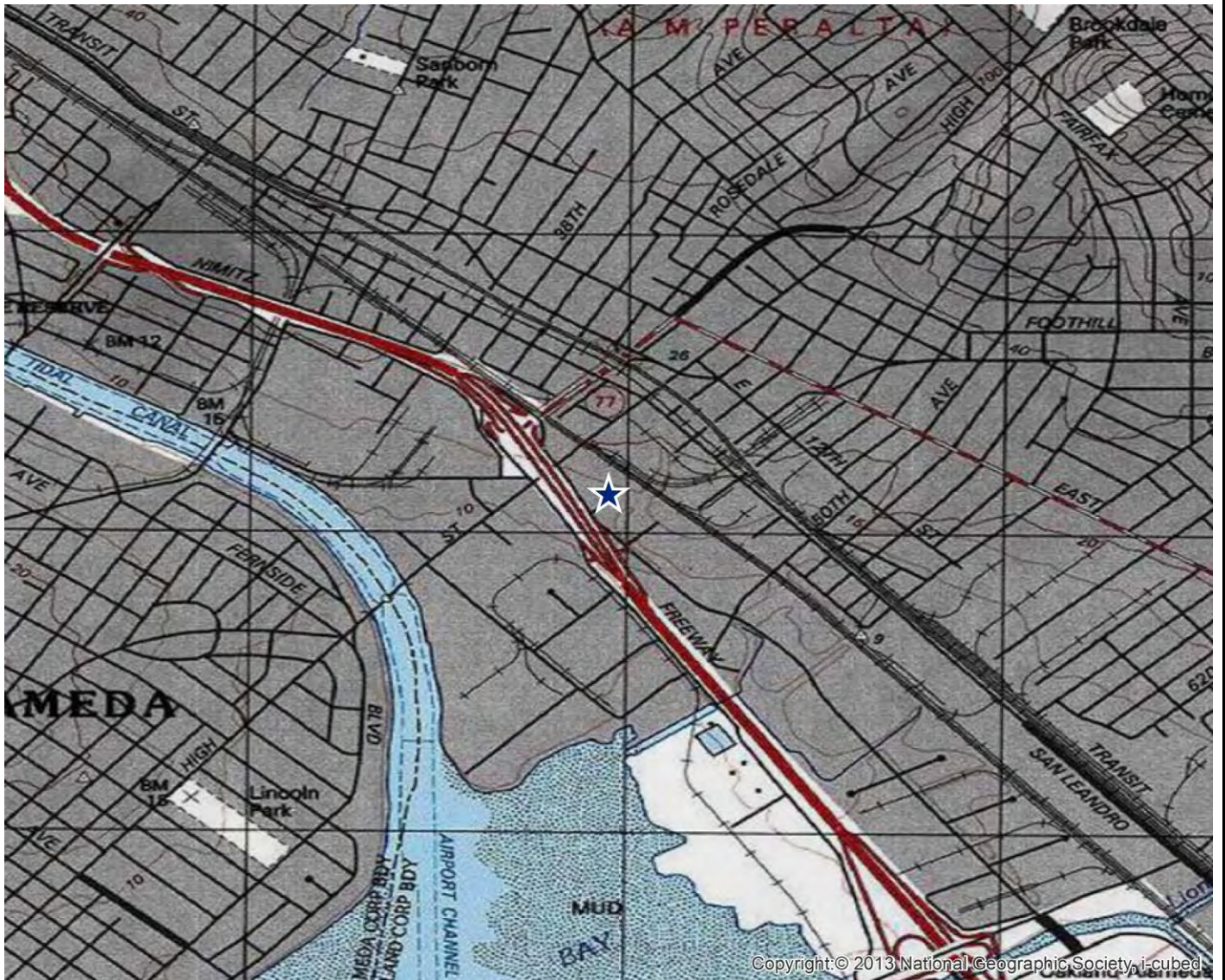
Helley, E.J., La Joie, K.R., Spangle, W.E., and Blair, M.L., Flatland Deposits of the San Francisco Bay Region, California - their geology and engineering properties and their importance to comprehensive planning, U.S. Geological Survey Professional Paper 943, 1974.

Tom Edwards & Associates LLC, Limited Phase II Investigation, 729 45<sup>th</sup> Avenue, Oakland, California, November 13, 2013.

Tom Edwards & Associates LLC, Phase I Environmental Site Assessment, 729 45<sup>th</sup> Avenue, Oakland, California, August 27, 2013.

## FIGURES





**SITE LOCATION TOPOGRAPHIC MAP**

U.S. Geological Survey. Oakland East Quadrangle, 7.5 Minute Series



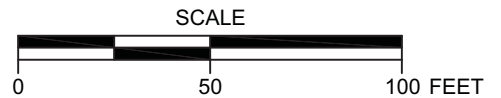
729 45Th Ave,  
Oakland, CA

FIGURE: 1



**LEGEND**

- BOREHOLES BY TEA
- ▭ BUILDINGS (FORMER) - APPROXIMATE BASED ON OLD FIRE INSURANCE MAP AND AERIAL PHOTOGRAPHS
- BORING LOCATIONS



Project Number: 14-001-02  
 Project Address: 729 45th Avenue, Oakland, CA

Figure 2  
 Boring Location  
 Map

## **TABLES**

**TABLE 1. ANALYTICAL RESULTS - SOIL - HYDROCARBONS**

**729 45th Avenue, Oakland**

Sample ID	Date	TPH-gro	TPH-dro	TPH-dro*	TPH-oro	TPH-oro*
		(mg/Kg)				
EFC02-1'	4-Oct-13	<1.0	NA	<10	NA	<50
EFC03-3'	4-Oct-13	2.2	NA	110	NA	75
EFC03-8'	4-Oct-13	<1.0	NA	<10	NA	<50
EFC04-1.5'	4-Oct-13	<1.0	NA	<10	NA	150
EFC04-5'	4-Oct-13	4.3	NA	<b>1,500</b>	NA	<b>2,700</b>
EFC05-1.75'	4-Oct-13	<b>156</b>	NA	<10	NA	165
EFC05-10'	4-Oct-13	<1.0	NA	<10	NA	<50
B-1, 3.5'-4'	30-Aug-16	0.75 J	46	NA	490	NA
B-2, 3.5'-4'	30-Aug-16	70 J	4.3	NA	22	NA
B-5, 3.5'-4'	30-Aug-16	NA	0.85 J	NA	<2.1	NA
B-5, 9.5'-10'	30-Aug-16	NA	0.77	NA	4.4	NA
B-6, 4.5'-5'	30-Aug-16	NA	<0.74	NA	2.9 J	NA
B-6, 7.5'-8'	30-Aug-16	NA	<0.74	NA	4.9 J	NA
ESL		100	230	230	5,100	5,100

Notes

NA = Not Analyzed

(mg/Kg) = Milligrams per Kilogram

TPH-gro = Total petroleum hydrocarbons quantified as gasoline range organics

TPH-dro = Total petroleum hydrocarbons quantified as diesel range organics

TPH-oro = Total petroleum hydrocarbons quantified as oil range organics

TPH-dro\* = Total petroleum hydrocarbons quantified as diesel range organics run without silica gel cleanup

TPH-oro\* = Total petroleum hydrocarbons quantified as oil range organics run without silica gel cleanup

ESL = environmental screening limits set forth by the RWQCC for soil on a commercial Property where groundwater is considered a potential source of drinking water

Bold Type Indicates Reported Value Above the ESL.

J indicates an estimated value between the reporting limit and the method detection limit

**TABLE 2. ANALYTICAL RESULTS - SOIL - VOC**

**729 45th Avenue, Oakland**

Sample ID	Date	Benzene	1,2-Dibromo-3-chloropropane	Ethylbenzene	Napthalene	Xylenes
		(mg/Kg)				
EFC02-1'	4-Oct-13	<0.001	<0.005	<0.001	<0.005	<0.002
EFC03-3'	4-Oct-13	0.002	<0.005	0.04	<b>0.13</b>	0.004
EFC03-8'	4-Oct-13	<0.001	<0.005	<0.001	<0.005	<0.002
EFC04-1.5'	4-Oct-13	<0.001	<0.005	<0.001	<0.005	<0.002
EFC04-5'	4-Oct-13	<0.001	<0.005	<0.001	<0.005	<0.002
EFC05-1.75'	4-Oct-13	<b>1.6</b>	<0.005	0.26	<b>0.51</b>	1.1
EFC05-10'	4-Oct-13	<0.001	<0.005	<b>3.8</b>	<b>0.35</b>	<b>5.2</b>
B-1, 4'	30-Aug-16	<0.0025	<0.0019	0.024	<0.00095	0.089
B-2, 4'	30-Aug-16	<0.027	<b>0.030</b>	<b>3.0</b>	<b>0.15</b>	<b>6.5</b>
B-5, 4'	30-Aug-16	<0.0026	<0.0019	<0.0032	<0.00097	<0.0041
B-5, 10'	30-Aug-16	<0.0025	<0.0019	<0.0032	<0.00095	<0.0039
B-6, 5'	30-Aug-16	<0.0024	<0.0018	<0.0030	<0.00091	<0.0038
B-6, 8'	30-Aug-16	<0.0025	<0.0019	<0.0031	<0.00093	<0.0039
ESL		0.044	0.0045	1.4	0.033	2.3

Notes

NA = Not Analyzed

(mg/Kg) = Miligrams per Kilogram

ESL = environmental screening limits set forth by the RWQCQ for soil on a commercial Property where groundwater is considered a potential source of drinking water

Bold Type Indicates Reported Value Above the ESL.

J indicates an estimated value between the reporting limit and the method detection limit

## TABLE 3. ANALYTICAL RESULTS - SOIL - METALS

### 729 45th Avenue, Oakland

Sample ID	Date	Arsenic	Cobalt	Nickel	Lead	Zinc
		(mg/Kg)				
EFC02-1'	4-Oct-13	<b>2.6</b>	6.3	41.2	6.8	46.7
EFC03-3'	4-Oct-13	<b>2.5</b>	6.4	18.8	25.9	20.4
EFC03-8'	4-Oct-13	<b>1.6</b>	4	16.9	4.3	10.2
EFC04-1.5'	4-Oct-13	<b>4.5</b>	7.3	35.8	116	828
EFC04-5'	4-Oct-13	<b>2.8</b>	3.9	20.7	5.5	34.5
EFC05-1.75'	4-Oct-13	<b>1.5</b>	3.5	20	<b>210</b>	237
EFC05-10'	4-Oct-13	<b>8.4</b>	9	60.6	<b>848</b>	1,160
B-1, 3.5'-4'	30-Aug-16	NA	NA	NA	48	NA
B-2, 3.5'-4'	30-Aug-16	NA	NA	NA	45	NA
B-5, 3.5'-4'	30-Aug-16	<b>2.7</b>	9.6	63	5.8	31
B-5, 9.5'-10'	30-Aug-16	<b>3.5</b>	15	<b>130</b>	6.5	48
B-6, 4.5'-5'	30-Aug-16	<b>6.7</b>	9.0	<b>150</b>	7.9	54
B-6, 7.5'-8'	30-Aug-16	<b>6.6</b>	20	<b>150</b>	8.9	53
ESL		0.067	23	86	80	2,300

Notes

NA = Not Analyzed

(mg/Kg) = Milligrams per Kilogram

ESL = environmental screening limits set forth by the RWCCQ for soil on a commercial Property where groundwater is considered a potential source of drinking water

Bold Type Indicates Reported Value Above the ESL.

J indicates an estimated value between the reporting limit and the method detection limit

**TABLE 4. ANALYTICAL RESULTS - GROUNDWATER - HYDROCARBONS**

**739 45th Avenue, Oakland**

Sample ID	Date	TPH-gro	TPH-dro	TPH-dro*	TPH-oro	TPH-oro*
		(µg/L)				
EFC04	4-Oct-13	<b>137,000</b>	NA	<500	NA	<2
EFC05	4-Oct-13	<b>4,400</b>	NA	<b>105,000</b>	NA	<2
B-1	30-Aug-16	<b>2,800</b>	<b>18,000</b>	NA	<b>3,600</b>	NA
B-2	30-Aug-16	<b>22,000</b>	<b>3,800</b>	NA	<b>6,600</b>	NA
B-5	30-Aug-16	NA	<b>9,000</b>	NA	<b>4,500</b>	NA
ESL		100	100	100	100	100

**Notes**

NA = Not Analyzed

(µg/L) = Micrograms per liter

TPH-gro = Total petroleum hydrocarbons quantified as gasoline range organics

TPH-dro = Total petroleum hydrocarbons quantified as diesel range organics

TPH-oro = Total petroleum hydrocarbons quantified as oil range organics

TPH-dro\* = Total petroleum hydrocarbons quantified as diesel range organics run without silica gel cleanup

TPH-oro\* = Total petroleum hydrocarbons quantified as oil range organics run without silica gel cleanup

ESL = environmental screening limits set forth by the RWQCC for drinking water

Bold Type Indicates Reported Value Above the ESL.

J indicates an estimated value between the reporting limit and the method detection limit

**TABLE 5. ANALYTICAL RESULTS - GROUNDWATER - VOC**

**729 45th Avenue, Oakland**

Sample ID	Date	Benzene	Bromomethane	TBA	Ethylbenzene	Hexachloroethane	Naphth	Styrene	1,1,2-TCA	Xylenes
		(µg/L)								
EFC04	4-Oct-13	<0.5	<0.5	NA	<b>2100</b>	NA	<b>878</b>	<0.5	<0.5	<b>2240</b>
EFC05	4-Oct-13	<0.5	<0.5	NA	<b>2400</b>	NA	<b>64</b>	<0.5	<0.5	<b>2910</b>
B-1	30-Aug-16	<b>5.7</b>	2.1	<b>33</b>	<b>85</b>	<0.300	<b>6.0</b>	0.59	1.2	<b>73</b>
B-2	30-Aug-16	<5.01	<b>47 J</b>	<0.94	<b>1,900</b>	<b>28</b>	<b>82</b>	<b>14</b>	<b>30</b>	<b>3,400</b>
B-5	30-Aug-16	0.10 J	0.42 J	<0.940	0.44 J	0.082 J	<0.160	<0.0600	<0.0800	<0.250
ESL		1.0	7.5	12	13	0.33	0.17	10	5	20

**Notes**

NA = Not Analyzed

(µg/L) = Micrograms per liter

TBA = Tert butyl alcohol

Naphth = Naphthalene

1,1,2-TCA = 1,1,2-trichloroethane

ESL = environmental screening limits set forth by the RWOCQ for drinking water

Bold Type Indicates Reported Value Above the ESL.

J indicates an estimated value between the reporting limit and the method detection limit



## TABLE 6. ANALYTICAL RESULTS - SVOC

### 729 45th Avenue, Oakland

Sample ID	Date	Bis (2-chloroisopropyl) Ether	2-Methylnaphthalene	Naphthalene
		(µg/L)		
EFC04	4-Oct-13	NA	NA	NA
EFC05	4-Oct-13	NA	NA	NA
B-1	30-Aug-16	<b>3.1</b>	<b>5.2</b>	<b>4.9</b>
B-2	30-Aug-16	<0.28	<b>7.7</b>	<b>58</b>
B-5	30-Aug-16	<1.5	<1.6	<1.3
ESL		0.36	2.1	0.17

#### Notes

NA = Not Analyzed

ND = Below laboratory detection limits

(µg/L) = Micrograms per liter

ESL = environmental screening limits set forth by the RWOCQ for drinking water

Bold Type Indicates Reported Value Above the ESL.

J indicates an estimated value between the reporting limit and the method detection limit

# TABLE 7. ANALYTICAL RESULTS - GROUNDWATER - METALS

## 729 45th Avenue, Oakland

Sample ID	Date	Arsenic	Cobalt	Nickel	Lead	Zinc
		(µg/L)				
EFC04	4-Oct-13	<b>40</b>	<b>150</b>	<b>1300</b>	<b>200</b>	<b>870</b>
EFC05	4-Oct-13	<20	<b>25</b>	<b>130</b>	<b>110</b>	<b>260</b>
B-1	30-Aug-16	NA	NA	NA	0.30	NA
B-2	30-Aug-16	NA	NA	NA	1.1	NA
B-5	30-Aug-16	<b>13</b>	<b>3.0</b>	<b>10</b>	0.12	<5.0
ESL		10	3.0	8.2	2.5	81

Notes

NA = Not Analyzed

ND = Below laboratory detection limits

(µg/L) = Micrograms per liter

ESL = environmental screening limits set forth by the RWOCQ for drinking water

Bold Type Indicates Reported Value Above the ESL.

J indicates an estimated value between the reporting limit and the method detection limit

**TABLE 8 - Site Conceptual Model**

<b>CSM Element</b>	<b>CSM Sub-Element</b>	<b>Description</b>	<b>Data Gap Item #</b>	<b>Resolution</b>
Geology and Hydrogeology	Regional	<p>The Property is in the southern part of the City of Oakland in the San Francisco Bay area. The San Francisco Bay area occupies a broad alluvial valley that slopes gently northward toward Oakland Bay and is flanked by alluvial fans deposited at the foot of the Diablo Range to the east and the Santa Cruz Mountains to the west. The northern part of the valley is called the Santa Clara Valley. Surface topography in the immediate vicinity of the Property is gently sloping down to the south west towards tidally influenced Brooklyn Basin Tidal Canal.</p> <p>The Property is at an elevation of approximately 15 feet above Mean Sea Level according to the USGS Oakland East Quadrangle California 7.5 Minute Series topographic map.</p> <p>Materials underlying the site are unconsolidated deposits of near shore and beach sediments, deposited in Oakland Bay at higher sea level stands. At shallow depths beneath these sediments are chert, greywacke, serpentine and shale bedrock that are a part of the Cretaceous to Jurassic-aged Franciscan Formation. Bedrock is exposed to the west and north on the upland surfaces.</p> <p>The subject site is located on the San Francisco Bay Plain in the northernmost part of the Santa Clara Valley Groundwater Basin, (DWR, 1967), the surface of which slopes gently down toward the Brooklyn Basin Tidal Canal.</p> <p>The regional groundwater flow follows the topography, moving from areas of higher elevation to areas of lower elevation.</p>	None	NA

**TABLE 8 - Site Conceptual Model (Continued)**

<b>CSM Element</b>	<b>CSM Sub-Element</b>	<b>Description</b>	<b>Data Gap Item #</b>	<b>Resolution</b>
Geology and Hydrogeology	Site	<p>The regional groundwater flow direction in the area of the Property is estimated to be toward the southwest toward the Brooklyn Basin Tidal Canal. Groundwater monitoring at nearby leak sites (720 High Street, approximately 200 feet west-northwest and 833 47<sup>th</sup> Avenue, approximately 700 feet east), has reported the groundwater flow direction to be to the southwest.</p> <p>Shallow groundwater beneath the Property has been determined to be roughly 14-16 feet bgs based on lithologic logging conducted by TEA. No groundwater monitoring has been conducted on the Property but based on nearby leak cases with active groundwater monitoring the groundwater has been determined to flow toward the southwest at a gradient of about 0.015 feet/foot.</p> <p>The subsurface vadose zone lithology encountered by ERAS consisted of silty clay. The groundwater bearing zone observed during drilling activities did not appear to be continuous. The encountered conditions are discussed below for each boring.</p> <p>The groundwater bearing zone in borings B-1 and B-2 consisted of silt and small stringers in the silty clay. Abundant rotting organics were observed in borings B-1 and B-2 typical of an old tidal slew. Borings B-1 and B-2 were advanced to 12 feet bgs.</p> <p>The base of the shallow water bearing zone has not been determined</p>	1. There are no monitoring wells on Property to establish site specific groundwater depth, flow direction, and gradient.	N/A
Surface Water Bodies		The closest surface water body is Peralta Creek which is located 315 feet east and up-gradient of the Property..		N/A
Nearby Wells		A well survey has been conducted for the Property. ERAS requested all well data for a ¼ mile radius from the Alameda County Public Works Department and the California Department of Water Resources. Three sites were identified which contained a well for commercial or residential water supply. These sites were 499 High Street, 500 High Street, and 1100 29 <sup>th</sup> Avenue in Oakland. These sites were located 1,000 feet or more from the Property in an area with low topography. Contamination in this setting is unlikely to migrate a great distance from the source area. Based on the		N/A

**TABLE 8 - Site Conceptual Model (Continued)**

CSM Element	CSM Sub-Element	Description	Data Gap Item #	Resolution
		distance contamination associated with the Property is unlikely to impact this well.		
Release Source and Volume		<p>Three ASTs including a 20,000 gallon and two 15,000 gallon gasoline ASTs were present from at least 1928 to 1949. The three ASTs were shown on Sanborn Fire Insurance maps to be mounted on two concrete pads that were each an estimated 35 feet long. The tanks and pads were located in the area that is now beneath the current rectangular manufacturing building located along the southwest side of the Property.</p> <p>Three former 500-gallon USTs were located on the Property and used by Equipment Fabrication Company (the current tenant). The USTs were removed in approximately 1991. TEA indicated there were three USTs present in 1986, the two in use at that time were used to store gasoline and paint thinner.</p> <p>A third area was formerly indicated to have been an oil warehouse and maybe a potential source of impact to the subsurface environmental conditions beneath the Property.</p>		N/A
LNAPL		There are currently no groundwater monitoring wells located on the Property. Although light non-aqueous phase liquids were not observed during grab groundwater sampling activities, concentrations of TPH-gro were detected up to 137,000 µg/L in EFC04, and located further away from EFC05 contained TPH-dro at a concentration of 105,000 µg/L. It is likely that the TPH-dro is artificially high due to rotting organic matter since silica gel cleanup was not utilized on the sample collected from EFC05. The source of the high concentration of TPH could be from onsite sources including the oil warehouse, USTs, or an up-gradient source at 744 High Street.		N/A
Source Removal Activities		On January 28, 2014 ERAS reviewed file information at the City of Oakland Fire Department. There were no records that were old enough to have listed or documented the proper permitting or removal of the former USTs.		N/A

**TABLE 8 - Site Conceptual Model (Continued)**

CSM Element	CSM Sub-Element	Description	Data Gap Item #	Resolution
		<p>An ACHCSA hazardous waste inspection report dated June 20, 1986 indicated the presence of three USTs, two of which were in use for gasoline and one for paint thinner dispensing. A certified letter dated September 25, 1989 requested that the USTs be removed or permit be applied for to operate the USTs. A receipt for \$855 dated July 31, 1991 appeared to be for payment for oversight for the UST removal/closure. It appears that the USTs were operated by the current owner of the Property from approximately 1972 until they were removed in 1991.</p> <p>The primary sources of contamination (ASTs and USTs) have been removed. The secondary source has not been sufficiently characterized to perform removal</p>		
Contaminants of Concern		<p>Based on the historical investigations and the records reviewed ERAS has determined that the contaminants of concern are as follows:</p> <p>For soil and groundwater the contaminants of concern are TPH-gro, TPH-dro, TPH-oro, VOCs, SVOCs, PCBs, and CAM 17 Metals.</p>		N/A
Petroleum Hydrocarbons in Soil		<p>High concentrations of petroleum hydrocarbons detected were detected in soil sampled from boring EFC05 at 1.75 feet. This boring was in a low spot in asphalt at the edge of the roadway and it is possible these hydrocarbons are the result of surface runoff from the outside storage yard or the next door topographically higher lumber storage yard.</p>	<p>2. The area of the ASTs was not addressed in the sampling conducted by TEA or ERAS. ERAS encountered refusal in all proposed boring locations in the vicinity of the former ASTs. The extent of the impacted soil is unknown.</p>	<p>Additional soil borings are needed in the vicinity of the former ASTs for the collection of soil and/or groundwater samples.</p>
VOCs in Soil		<p>Concentrations of VOCs were detected above their respective ESLs in borings EFC03 at 3 feet, EFC05 at 1.75 feet, EFC05 at 10</p>	<p>2. The area of the ASTs was not</p>	<p>Additional soil borings will be</p>

**TABLE 8 - Site Conceptual Model (Continued)**

CSM Element	CSM Sub-Element	Description	Data Gap Item #	Resolution
		feet, and B-2 at 4 feet. VOCs detected included benzene, 1,2-dibromo-3-chloropropane, ethylbenzene, naphthalene, and xylenes. These three borings were located adjacent to the former USTs on the Property and in a low spot adjacent to the edge of the Property. These concentrations may be related to a release from the former USTs, runoff from the outside storage yard, or the next door topographically higher lumber storage yard.	addressed in the sampling conducted by TEA or ERAS. ERAS encountered refusal in all proposed boring locations in the vicinity of the former ASTs. The extent of the impacted soil is unknown.	needed to determine the extent and potential impact in the vicinity of the former ASTs.
SVOCs in Soil		No concentrations of SVOCs were detected in the soil samples collected above the MDLs.		
PCBs in Soil		No concentrations of PCBs were detected in the soil samples collected above the MDLs.		
CAM 17 Metals in Soil		Concentration of arsenic, nickel, and lead were detected in the soil samples collected from the Property above their respective ESLs. Arsenic was detected above the ESL in all samples collected since concentrations of arsenic in the San Francisco Bay Area are naturally elevated and these concentrations are considered to be within background the background range for Oakland of 4 to 17 mg/Kg. Boring EFC04 and EFC05 are in a low spot adjacent to the edge of the Property. It is postulated that this metals may be the result of surface runoff from metals released into the air by the galvanizing plant directly across the street from the Property. It is also possible elevated metals are a remnant of the 1989 explosive demolition.	2. The area of the ASTs was not addressed in the sampling conducted by TEA or ERAS. ERAS encountered refusal in all proposed boring locations in the vicinity of the former ASTs. The extent of the impacted soil is unknown.	Additional soil borings will be needed to determine the extent and potential impact in the vicinity of the former ASTs.
Petroleum Hydrocarbons in Groundwater		Concentrations of petroleum hydrocarbons were detected in the groundwater samples from borings EFC04, EFC05, B-1, B-2, and B-5. Borings EFC04, EFC05, B-1, and B-2 were located down-gradient from the former USTs. Boring B-5 was located 160 feet the west of the former USTs in a cross-grading direction. These concentrations	3. The area of the ASTs was not addressed in the sampling conducted by TEA	Additional soil borings will be needed to determine the extent and potential

**TABLE 8 - Site Conceptual Model (Continued)**

CSM Element	CSM Sub-Element	Description	Data Gap Item #	Resolution
		<p>may be related to a release from the former USTs and/or the former oil warehouse and/or the adjacent up gradient leak site, Southern Pacific Transportation Company at 744 High Street.</p> <p>The original samples collected by TEA (EFC04 and EFC05) do not appear to have had the laboratory run silica gel cleanup on the samples prior to analysis to remove biogenic hydrocarbon interferences. The samples collected by Tea contained concentrations up to 105,000 µg/L of TPH-dro. Samples collected in the vicinity by ERAS when analyzed with silica gel cleanup contained a concentration of 15,000 µg/L. A substantial amount of degrading organics were observed in the boring at the time of sample collection.</p> <p>When run with silica gel cleanup the concentrations of petroleum hydrocarbons in the groundwater beneath the Property in the vicinity of the former USTs or cross gradient all contained concentrations with in the same order of magnitude suggesting a regional plume possibly originating from the northeast.</p>	<p>or ERAS. ERAS encountered refusal in all proposed boring locations in the vicinity of the former ASTs. The extent of the impacted groundwater is unknown.</p>	<p>impact in the vicinity of the former ASTs.</p>
VOCs in Groundwater		<p>Concentrations of VOCs detected above their respective ESLs were found to be present and included Benzene up to 5.7 µg/L, bromomethane up to 47 µg/L, TBA up to 33 µg/L, ethylbenzene up to 2,400 µg/L, hexachloroethane up to 28 µg/L, naphthalene up to 878 µg/L, styrene up to 14 µg/L, 1,1,2-trichloroethane up to 30 µg/L, and xylenes up to 3,400 µg/L. All detected concentrations of VOCs above the ESLs were in borings EF04, EP05, B-1, and B-2. No concentrations above their respective ESLs were detected in boring B-5. These contaminants appear to be related to a release from the former USTs on the Property but may also be related to the up-gradient site located at 744 High Street. Some of the contaminants found are not typical for a release from the known uses of the former USTs, gasoline and paint thinner.</p>	<p>3. The area of the ASTs was not addressed in the sampling conducted by TEA or ERAS. ERAS encountered refusal in all proposed boring locations in the vicinity of the former ASTs. The extent of the impacted groundwater is unknown.</p>	<p>Additional soil borings will be needed to determine the extent and potential impact in the vicinity of the former ASTs.</p>
SVOCs in Groundwater		<p>SVOCs detected in the borings above their respective ESLs included bis(2-chloroisopropyl) ether, 2-methylnaphthalene, and naphthalene. Bis(2-chloroisopropyl) ether was detected at a</p>	<p>3. The area of the ASTs was not addressed in the</p>	<p>Additional soil borings will be needed to</p>



**TABLE 8 - Site Conceptual Model (Continued)**

CSM Element	CSM Sub-Element	Description	Data Gap Item #	Resolution
		<p>concentrations of 3.1 µg/L in boring B-1, 2-methylnaphthalene was detected at concentrations of 5.2 and 7.7 µg/L in borings B-1, and B-2 respectively, and naphthalene was detected at concentrations of 4.9 and 58 µg/L in borings B-1 and B-2 respectively. No concentrations of SVOCs were detected above their ESLs in boring B-5. These contaminants appear to be related to a release from the former USTs on the Property but may also be related to the up-gradient site located at 744 High Street.</p>	<p>sampling conducted by TEA or ERAS. ERAS encountered refusal in all proposed boring locations in the vicinity of the former ASTs. The extent of the impacted groundwater is unknown.</p>	<p>determine the extent and potential impact in the vicinity of the former ASTs.</p>
PCBs in Groundwater		<p>No concentrations of PCBs were detected in the groundwater samples collected.</p>		
CAM 17 Metals in Groundwater		<p>Metals detected in the borings above their respective ESLs included arsenic, cobalt, nickel, lead, and zinc. All elevated metals were detected in borings EFC04, EFC05, and B-5. The concentrations in EFC04 and 05 appear to be the result of the previous consultant placing sediment laden groundwater into nitric acid preserved sample containers without field filtering. When field filtering was properly conducted arsenic was detected at a concentration of 13 µg/L, cobalt at 3.0 µg/L, and nickel at µg/L. The concentrations of lead and zinc were found to be below their respective ESLs when properly field filtered. No concentrations of lead were detected in the vicinity of the former USTs. The concentrations of metals detected in the groundwater may be from an unknown on site source and/or the former oil warehouse and/or the up-gradient site located at 744 High Street which has documented metals in the groundwater.</p>	<p>3. The area of the ASTs was not addressed in the sampling conducted by TEA or ERAS. ERAS encountered refusal in all proposed boring locations in the vicinity of the former ASTs. The extent of the impacted groundwater is unknown.</p>	<p>Additional soil borings will be needed to determine the extent and potential impact in the vicinity of the former ASTs.</p>
Risk Evaluation		<p>The Property was a former oil refining, storage, and/or sales company from at least 1928 to 1964, United Freight at least in 1967, Arrow Steel Company from 1969 to 1972, followed by Equipment Fabrication Corporation from at least 1972 to the present. The Site is zoned for commercial land use. The data available at this point is not sufficient to prepare a risk</p>	<p>4. The area of the ASTs was not sampled due to encountering refusal in the proposed drilling</p>	<p>Additional soil borings are needed to address the former ASTs and to determine the extent of the</p>

**TABLE 8 - Site Conceptual Model (Continued)**

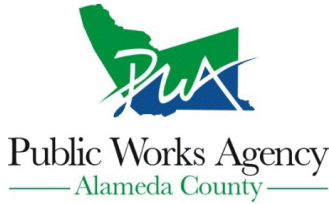
<b>CSM Element</b>	<b>CSM Sub-Element</b>	<b>Description</b>	<b>Data Gap Item #</b>	<b>Resolution</b>
		evaluation.  Further evaluation of direct contact, vapor intrusion and outdoor air exposure risks will be evaluated once sufficient data is obtained.	locations. The samples by the USTs and oil warehouse indicated a potential impact to the subsurface however the extent is unknown.	detected contaminants.

**TABLE 9 - Data Gaps Summary and Proposed Investigation**

<b>Item</b>	<b>Data Gap Item #</b>	<b>Proposed Investigation</b>	<b>Rationale</b>	<b>Analyses</b>
1	There are no monitoring wells on Property to establish site specific groundwater depth, flow direction, and gradient.	None at this time	The local groundwater depth, flow direction, and gradient are well known based on nearby leak sites	N/A
2/3	The area of the ASTs was not addressed in the sampling conducted by TEA or ERAS. ERAS encountered refusal in all proposed boring locations in the vicinity of the proposed boring locations in the vicinity of the former ASTs. The extent of the impacted soil is unknown	<p>Advance three borings using a direct push sample rig utilizing a dual wall sampler and a concrete coring contractor to about 20 feet in the vicinity of the former AST's. These borings will be continuously logged.</p> <p>Collect soil samples from the borings for laboratory analysis from depths of 0-5 feet bgs and 5-10 feet bgs.</p> <p>Collect groundwater samples from each boring.</p>	These samples are needed to determine potential impact to the subsurface by the AST's.	Analyze the samples for TPH-gro, TPH-dro, and TPH-oro by EPA Method 8015C, MTBE and oxygenates by EPA Method 8260, VOCs by EPA 8260, PCBs by EPA Method 8082, SVOCs by EPA Method 8270, and CAM 17 metals.
4	The area of the ASTs was not sampled due to encountering refusal in the proposed drilling locations. The samples by the USTs and oil warehouse indicated a potential impact to the subsurface however the extent is unknown.	The area of the ASTs is discussed above as items 2/3. In an attempt to delineate the extent of the detected contamination ERAS proposes advancing four borings along the up-gradient side of the Property along with four borings along the down-gradient side of the Property (the three borings for the ASTs would be along the down-gradient side of the Property. (8 borings total). Collect soil samples from 0-5 feet bgs, 5-10 feet bgs, and a groundwater sample from each boring.	This investigation is designed to determine if an offsite source is contributing to the contaminant concentrations detected. This investigation is also designed to determine what concentrations are advancing off the down-gradient side of the Property. This will aid in determining the overall extent of impact.	Analyze the samples for TPH-gro, TPH-dro, and TPH-oro by EPA Method 8015C, MTBE and oxygenates by EPA Method 8260, VOCs by EPA 8260, PCBs by EPA Method 8082, SVOCs by EPA Method 8270, and CAM 17 metals.

**APPENDIX A**  
**PERMIT**

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 08/18/2016 By jamesy**

**Permit Numbers: W2016-0608**  
**Permits Valid from 08/30/2016 to 08/30/2016**

**Application Id:** 1470952400078  
**Site Location:** 729 45th Avenue, Oakland

**City of Project Site:**Oakland

**Project Start Date:** 08/30/2016  
**Assigned Inspector:** Contact Minh Ngo at (510) 670-5759 or Minh@acpwa.org

**Completion Date:**08/30/2016

**Applicant:** ERAS Environmental, Inc. - Andrew Savage  
1533 B Street, Hayward, CA 94541

**Phone:** 510-247-9885 x302

**Property Owner:** Stephanie Kochan  
729 45th Avenue, Oakland, CA 94601

**Phone:** --

**Client:** Stephanie Kochan  
729 45th Avenue, Oakland, CA 94601

**Phone:** --

**Contact:** Andrew Savage

**Phone:** 510-247-9885 x302  
**Cell:** 925-330-8926

<b>Receipt Number: WR2016-0409</b>	<b>Total Due:</b>	\$265.00
<b>Payer Name : Andrew Savage</b>	<b>Total Amount Paid:</b>	\$265.00
	Paid By: MC	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Borehole(s) for Investigation-Environmental/Monitorinig Study - 6 Boreholes  
Driller: Environmental Control Associates (ECA) - Lic #: 695970 - Method: DP

**Work Total: \$265.00**

**Specifications**

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2016-0608	08/18/2016	11/28/2016	6	2.75 in.	24.00 ft

**Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

## Alameda County Public Works Agency - Water Resources Well Permit

6. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

7. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

9. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

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**APPENDIX B**

**STANDARD OPERATING PROCEDURES**

## **STANDARD OPERATING PROCEDURE – DIRECT PUSH BORINGS**

### **SOIL CORING AND SAMPLING PROCEDURES**

Prior to drilling, all boreholes will be hand dug to a depth of 4-5 feet below ground surface (bgs) to check for underground utilities.

Soil and groundwater samples are collected for lithologic and chemical analyses using a direct driven soil coring system. A hydraulic hammer drives sampling rods into the ground to collect continuous soil cores. As the rods are advanced, soil is driven into an approximately 2.5-inch-diameter sample barrel that is attached to the end of the rods. Soil samples are collected in sleeves inside the sample barrel as the rods are advanced. After being driven 4 to 5 feet into the ground, the rods are removed from the borehole. The sleeve containing the soil core is removed from the sample barrel, and can then be preserved for chemical analyses, or used for lithologic description. This process is repeated until the desired depth or instrument refusal is reached.

A soil core interval selected for analyses is cut from the sleeve using a pre-cleaned hacksaw. The ends of the tube are covered with aluminum foil or Teflon liner and sealed with plastic caps. The soil-filled liner is labeled with the bore number, sample depth, site location, date, and time. The samples are placed in bags and stored in a cooler containing ice. Soil from the core adjacent to the interval selected for analyses is placed in a plastic zip-top bag. The soil is allowed to volatilize for a period of time, depending on the ambient temperature. The soil is scanned with a flame-ionization detector (FID) or photo-ionization detector (PID).

All sample barrels, rods, and tools (e.g. hacksaw) are cleaned with Alconox or equivalent detergent and de-ionized water. All rinsate from the cleaning is contained in 55-gallon drums at the project site.

### **GROUNDWATER SAMPLING FROM DIRECT PUSH BORINGS**

After the targeted water-bearing zone has been penetrated, the soil-sample barrel is removed from the borehole. Small-diameter well casing with 0.010-inch slotted well screen may be installed in the borehole to facilitate the collection of groundwater samples. Threaded sections of PVC are lowered into the borehole. Groundwater samples may then be collected with a bailer, peristaltic pump, submersible or other appropriate pump until adequate sample volume is obtained. Peristaltic pumps are not used in applications requiring a lift of greater than 1 foot of net head.

Groundwater samples are preserved, stored in an ice-filled cooler, and are delivered, under chain-of-custody, to a laboratory certified by the California Department of Health Services (DHS) for hazardous materials analysis.

### **BOREHOLE GROUTING FOR DIRECT PUSH BORINGS**

Upon completion of soil and water sampling, boreholes will be abandoned with neat cement grout to the surface. If the borehole was advanced into groundwater, the grout is pumped through a grouting tube positioned at the bottom of the borehole.



**APPENDIX C**  
**LITHOLOGIC LOGS**

PROJECT: 14-002-03

ADDRESS: 729 45th Street

JOB NUMBER: 14-002-03

LOCATION: At Gate

DATE STARTED: 08-30-2016

First Water (ft. bgs.): 5.00 DATE: 08-30-2016

DATE FINISHED: 08-30-2016

TOTAL DEPTH: 12 feet

DRILLING METHOD: Hydraulic Push

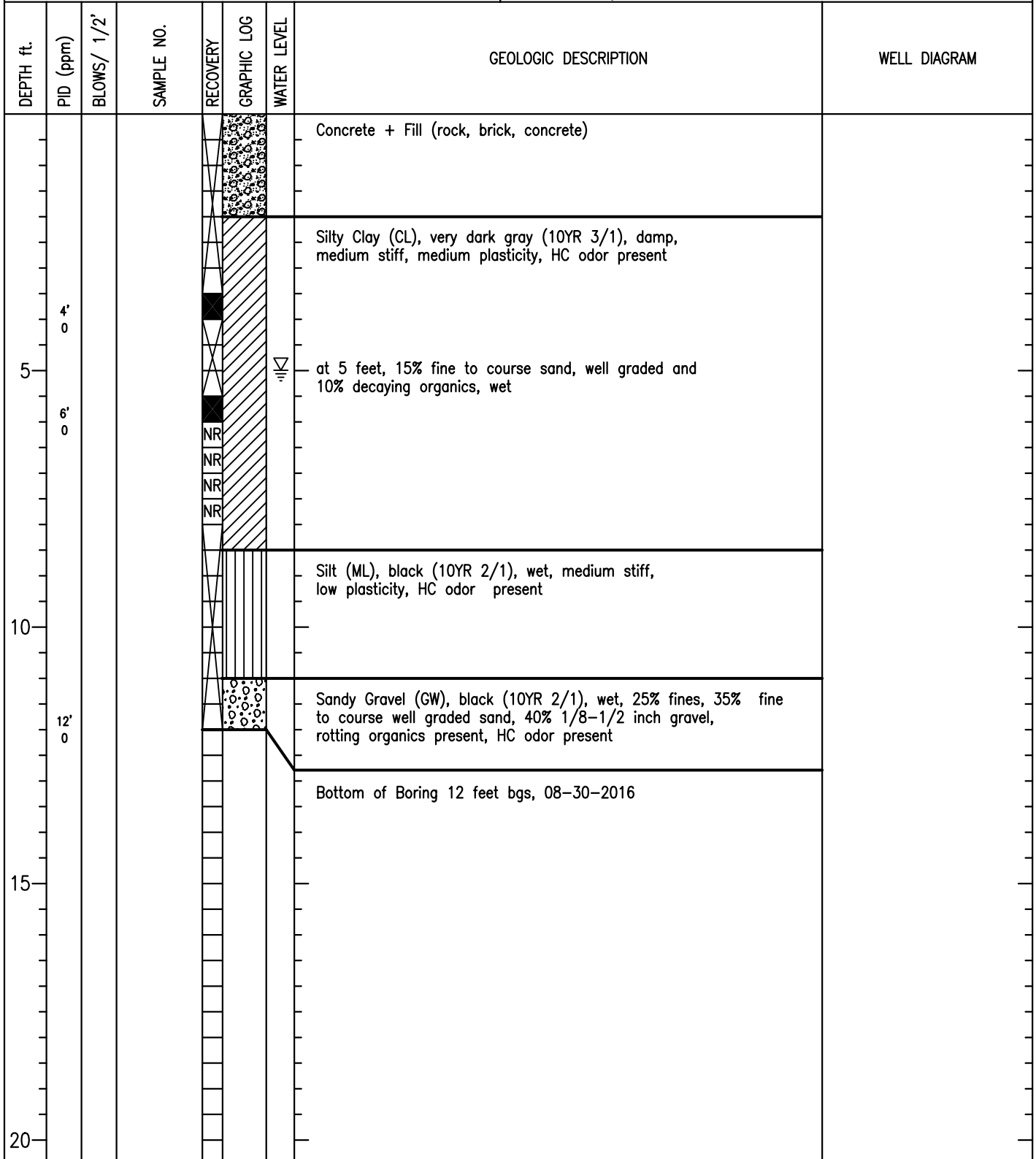
GEOLOGIST: Andrew Savage

DRILLING COMPANY: ECA

Reviewed By: ---

DEPTH ft.	PID (ppm)	BLOWS/ 1/2'	SAMPLE NO.	RECOVERY	GRAPHIC LOG	WATER LEVEL	GEOLOGIC DESCRIPTION	WELL DIAGRAM
0							Concrete + Fill (rock, brick, concrete)	
4							Silty Clay (CL), very dark gray (10YR 3/1), damp, medium stiff, medium plasticity, no hydrocarbon (HC) odor	
5								
6							Clayey Silt (ML), very dark gray (10YR 3/1), wet, medium stiff, low plasticity, 50% fines, 25% fine to course well graded sand, 10% organics (rocks, leaves, branches) rotting, 15% 1/8-1/2 inch rock, strong rotting organic odor	
10				NR				
15				NR				
20				NR				
							Bottom of Boring 12 feet bgs, 08-30-2016	

PROJECT: 14-002-03	ADDRESS: 729 45th Street
JOB NUMBER: 14-002-03	LOCATION: near UST away from Gate
DATE STARTED: 08-30-2016	First Water (ft. bgs.): 5.00 DATE: 08-30-2016
DATE FINISHED: 08-30-2016	TOTAL DEPTH: 12 feet
DRILLING METHOD: Hydraulic Push	GEOLOGIST: Andrew Savage
DRILLING COMPANY: ECA	Reviewed By: ---



PROJECT: 14-002-03

ADDRESS: 729 45th Street

JOB NUMBER: 14-002-03

LOCATION: Front of Warehouse

DATE STARTED: 08-30-2016

First Water (ft. bgs.): NA DATE: 08-30-2016

DATE FINISHED: 08-30-2016

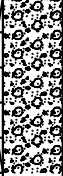
TOTAL DEPTH: 2.5 feet

DRILLING METHOD: Hydraulic Push

GEOLOGIST: Andrew Savage

DRILLING COMPANY: ECA

Reviewed By: ---

DEPTH ft.	PID (ppm)	BLOWS/ 1/2'	SAMPLE NO.	RECOVERY	GRAPHIC LOG	WATER LEVEL	GEOLOGIC DESCRIPTION	WELL DIAGRAM
0							Concrete + Fill (rock, brick, concrete)	
2.5							Refusal at 2.5 feet	
5								
10								
15								
20								

PROJECT: 14-002-03

ADDRESS: 729 45th Street

JOB NUMBER: 14-002-03

LOCATION: Middle of Warehouse

DATE STARTED: 08-30-2016

First Water (ft. bgs.): NA DATE: 08-30-2016

DATE FINISHED: 08-30-2016

TOTAL DEPTH: 1.5 feet

DRILLING METHOD: Hydraulic Push

GEOLOGIST: Andrew Savage

DRILLING COMPANY: ECA

Reviewed By: ---

DEPTH ft.	PID (ppm)	BLOWS/ 1/2'	SAMPLE NO.	RECOVERY	GRAPHIC LOG	WATER LEVEL	GEOLOGIC DESCRIPTION	WELL DIAGRAM
				X	[Pattern]		Concrete + Fill (rock, brick, concrete)	
							Refusal at 1.5 feet	
5								
10								
15								
20								

PROJECT: 14-002-03

ADDRESS: 729 45th Street

JOB NUMBER: 14-002-03

LOCATION: Back of Warehouse

DATE STARTED: 08-30-2016

First Water (ft. bgs.): 14.00 DATE: 08-30-2016

DATE FINISHED: 08-30-2016

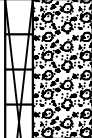
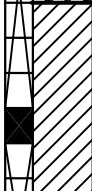
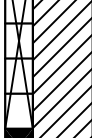
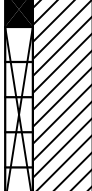
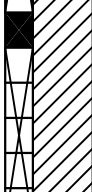
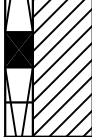
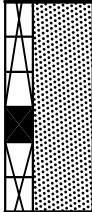



TOTAL DEPTH: 18 feet

DRILLING METHOD: Hydraulic Push

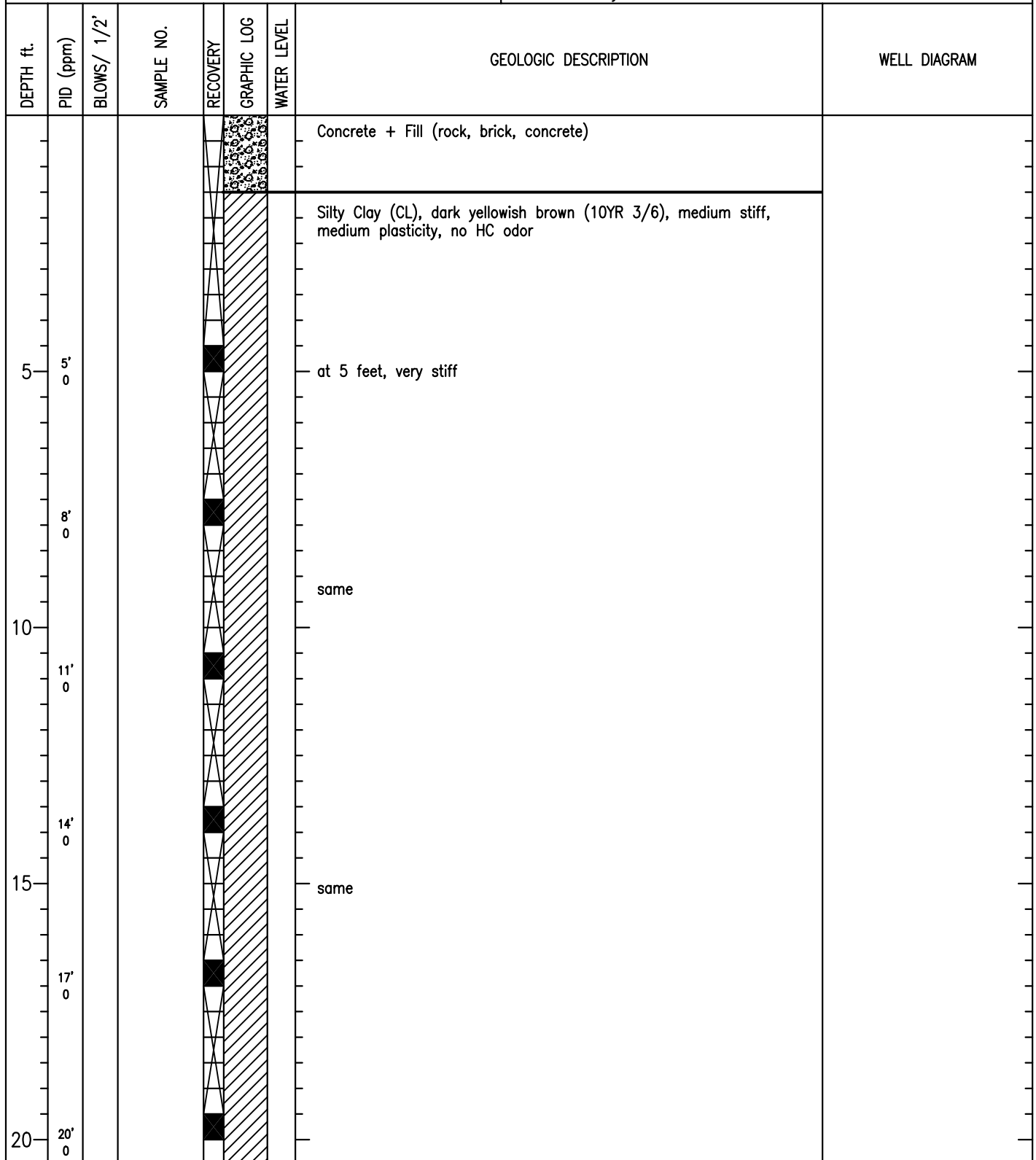
GEOLOGIST: Andrew Savage

DRILLING COMPANY: ECA

Reviewed By: ---

DEPTH ft.	PID (ppm)	BLOWS/ 1/2'	SAMPLE NO.	RECOVERY	GRAPHIC LOG	WATER LEVEL	GEOLOGIC DESCRIPTION	WELL DIAGRAM
							Concrete + Fill (rock, brick, concrete)	
4' 0							Silty Clay (CL), very dark gray (10YR 2/1), damp, medium stiff, medium plasticity, decaying organic odor	
5							at 5 feet, color change to dark yellowish brown (10YR 3/6, no odor	
7' 0								
10' 0								
13' 0								
15							Gravelly Sand (SW), dark gray (10YR 4/1), wet, dense, 70% fine to course well graded sand, 30% 1/8-1/2 inch gravel, HC odor present	
16' 0							Silty Clay (CL), dark gray (10YR 4/1), damp, stiff, medium plasticity, no HC odor	
18' 0								
20							Bottom of Boring 18 feet bgs, 08-30-2016	

PROJECT: 14-002-03	ADDRESS: 729 45th Street
JOB NUMBER: 14-002-03	LOCATION: Outside back of Warehouse
DATE STARTED: 08-30-2016	First Water (ft. bgs.): NA DATE: 08-30-2016
DATE FINISHED: 08-30-2016	TOTAL DEPTH: 26 feet
DRILLING METHOD: Hydraulic Push	GEOLOGIST: Andrew Savage
DRILLING COMPANY: ECA	Reviewed By: ---



PROJECT: 14-002-03

ADDRESS: 729 45th Street

JOB NUMBER: 14-002-03

LOCATION: Outside back of Warehouse

DATE STARTED: 08-30-2016

First Water (ft. bgs.): NA DATE: 08-30-2016

DATE FINISHED: 08-30-2016

TOTAL DEPTH: 26 feet

DRILLING METHOD: Hydraulic Push

GEOLOGIST: Andrew Savage

DRILLING COMPANY: ECA

Reviewed By: ---

DEPTH ft.	PID (ppm)	BLOWS/ 1/2'	SAMPLE NO.	RECOVERY	GRAPHIC LOG	WATER LEVEL	GEOLOGIC DESCRIPTION	WELL DIAGRAM
23' 0							same	
25								
26' 0							Bottom of Boring 26 feet bgs, 08-30-2016	
30								
35								
40								



**APPENDIX D**  
**ANALYTICAL RESULTS**



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1608F84

**Report Created for:** ERAS Environmental, Inc.

1533 B Street  
Hayward, CA 94541

**Project Contact:** Andrew Savage

**Project P.O.:**

**Project Name:** 14-002-03

**Project Received:** 08/31/2016

Analytical Report reviewed & approved for release on 09/08/2016 by:

Angela Rydelius,  
Laboratory Manager

*The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.*





## Glossary of Terms & Qualifier Definitions

**Client:** ERAS Environmental, Inc.  
**Project:** 14-002-03  
**WorkOrder:** 1608F84

### Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



## Glossary of Terms & Qualifier Definitions

**Client:** ERAS Environmental, Inc.  
**Project:** 14-002-03  
**WorkOrder:** 1608F84

### Analytical Qualifiers

J	Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.
S	Surrogate spike recovery outside accepted recovery limits
a1	sample diluted due to matrix interference
a3	sample diluted due to high organic content.
a4	reporting limits raised due to the sample's matrix prohibiting a full volume extraction.
a9	reporting limit near, but not identical to, our standard reporting limit due to variable Encore/Solid sample weight
a19	reporting limit near, but not identical to our standard reporting limit due to variable water sample volume
b6	lighter than water immiscible sheen/product is present
c2	surrogate recovery outside of the control limits due to matrix interference.
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
c7	Surrogate value diluted out of range
c8	sample pH is greater than 2
d1	weakly modified or unmodified gasoline is significant
d2	heavier gasoline range compounds are significant (aged gasoline?)
d9	no recognizable pattern
d17	Reporting limit for MTBE raised due to co-elution with non-target peaks.
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant
e8	kerosene/kerosene range/jet fuel range
e11	stoddard solvent/mineral spirit (?)
h4	sulfuric acid permanganate (EPA 3665) cleanup

### Quality Control Qualifiers

F10	MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix.
-----	---



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 3.5-4'	1608F84-002A	Soil	08/30/2016 11:53	GC23	125993

Analytes	Result	MDL	RL	DF	Date Analyzed
Aroclor1016	ND	0.0051	0.050	1	09/01/2016 19:28
Aroclor1221	ND	0.033	0.050	1	09/01/2016 19:28
Aroclor1232	ND	0.0032	0.050	1	09/01/2016 19:28
Aroclor1242	ND	0.0035	0.050	1	09/01/2016 19:28
Aroclor1248	ND	0.0036	0.050	1	09/01/2016 19:28
Aroclor1254	ND	0.0022	0.050	1	09/01/2016 19:28
Aroclor1260	ND	0.0085	0.050	1	09/01/2016 19:28
PCBs, total	ND	0.033	0.050	1	09/01/2016 19:28

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	98	70-130	09/01/2016 19:28

Analyst(s): SS Analytical Comments: h4

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 9.5-10'	1608F84-003A	Soil	08/30/2016 12:08	GC23	125993

Analytes	Result	MDL	RL	DF	Date Analyzed
Aroclor1016	ND	0.0051	0.050	1	09/01/2016 19:42
Aroclor1221	ND	0.033	0.050	1	09/01/2016 19:42
Aroclor1232	ND	0.0032	0.050	1	09/01/2016 19:42
Aroclor1242	ND	0.0035	0.050	1	09/01/2016 19:42
Aroclor1248	ND	0.0036	0.050	1	09/01/2016 19:42
Aroclor1254	ND	0.0022	0.050	1	09/01/2016 19:42
Aroclor1260	ND	0.0085	0.050	1	09/01/2016 19:42
PCBs, total	ND	0.033	0.050	1	09/01/2016 19:42

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	86	70-130	09/01/2016 19:42

Analyst(s): SS



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 4.5-5'	1608F84-004A	Soil	08/30/2016 14:00	GC23	125993

Analytes	Result	MDL	RL	DF	Date Analyzed
Aroclor1016	ND	0.0051	0.050	1	09/01/2016 19:58
Aroclor1221	ND	0.033	0.050	1	09/01/2016 19:58
Aroclor1232	ND	0.0032	0.050	1	09/01/2016 19:58
Aroclor1242	ND	0.0035	0.050	1	09/01/2016 19:58
Aroclor1248	ND	0.0036	0.050	1	09/01/2016 19:58
Aroclor1254	ND	0.0022	0.050	1	09/01/2016 19:58
Aroclor1260	ND	0.0085	0.050	1	09/01/2016 19:58
PCBs, total	ND	0.033	0.050	1	09/01/2016 19:58

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	89	70-130	09/01/2016 19:58

Analyst(s): SS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 7.5-8'	1608F84-005A	Soil	08/30/2016 14:06	GC23	125993

Analytes	Result	MDL	RL	DF	Date Analyzed
Aroclor1016	ND	0.0051	0.050	1	09/01/2016 20:13
Aroclor1221	ND	0.033	0.050	1	09/01/2016 20:13
Aroclor1232	ND	0.0032	0.050	1	09/01/2016 20:13
Aroclor1242	ND	0.0035	0.050	1	09/01/2016 20:13
Aroclor1248	ND	0.0036	0.050	1	09/01/2016 20:13
Aroclor1254	ND	0.0022	0.050	1	09/01/2016 20:13
Aroclor1260	ND	0.0085	0.050	1	09/01/2016 20:13
PCBs, total	ND	0.033	0.050	1	09/01/2016 20:13

Surrogates	REC (%)	Limits	Date Analyzed
Decachlorobiphenyl	89	70-130	09/01/2016 20:13

Analyst(s): SS



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3510C  
**Analytical Method:** SW8082  
**Unit:** µg/L

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5	1608F84-001D	Water	08/30/2016 13:05	GC20	125996

Analytes	Result	MDL	RL	DF	Date Analyzed
Aroclor1016	ND	12	50	100	09/06/2016 12:49
Aroclor1221	ND	18	50	100	09/06/2016 12:49
Aroclor1232	ND	13	50	100	09/06/2016 12:49
Aroclor1242	ND	8.0	50	100	09/06/2016 12:49
Aroclor1248	ND	28	50	100	09/06/2016 12:49
Aroclor1254	ND	16	50	100	09/06/2016 12:49
Aroclor1260	ND	11	50	100	09/06/2016 12:49
PCBs, total	ND	50	50	100	09/06/2016 12:49

Surrogates	REC (%)	Qualifiers	Limits	Date Analyzed
Decachlorobiphenyl	222	S	70-130	09/06/2016 12:49

Analyst(s): CK

Analytical Comments: c7,b6



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5,4'	1608F84-002B	Soil	08/30/2016 11:53	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acetone	0.066	J	0.063	0.16	1	09/01/2016 10:41
tert-Amyl methyl ether (TAME)	ND		0.0016	0.0081	1	09/01/2016 10:41
Benzene	ND		0.0026	0.0081	1	09/01/2016 10:41
Bromobenzene	ND		0.0028	0.0081	1	09/01/2016 10:41
Bromochloromethane	ND		0.0024	0.0081	1	09/01/2016 10:41
Bromodichloromethane	ND		0.0019	0.0081	1	09/01/2016 10:41
Bromoform	ND		0.0013	0.0081	1	09/01/2016 10:41
Bromomethane	ND		0.0032	0.0081	1	09/01/2016 10:41
2-Butanone (MEK)	0.012	J	0.0088	0.032	1	09/01/2016 10:41
t-Butyl alcohol (TBA)	ND		0.0086	0.081	1	09/01/2016 10:41
n-Butyl benzene	ND		0.0057	0.0081	1	09/01/2016 10:41
sec-Butyl benzene	ND		0.0055	0.0081	1	09/01/2016 10:41
tert-Butyl benzene	ND		0.0049	0.0081	1	09/01/2016 10:41
Carbon Disulfide	ND		0.0028	0.0081	1	09/01/2016 10:41
Carbon Tetrachloride	ND		0.0028	0.0081	1	09/01/2016 10:41
Chlorobenzene	ND		0.0029	0.0081	1	09/01/2016 10:41
Chloroethane	ND		0.0026	0.0081	1	09/01/2016 10:41
Chloroform	ND		0.0026	0.0081	1	09/01/2016 10:41
Chloromethane	ND		0.0028	0.0081	1	09/01/2016 10:41
2-Chlorotoluene	ND		0.0036	0.0081	1	09/01/2016 10:41
4-Chlorotoluene	ND		0.0034	0.0081	1	09/01/2016 10:41
Dibromochloromethane	ND		0.0018	0.0081	1	09/01/2016 10:41
1,2-Dibromo-3-chloropropane	ND		0.0019	0.0065	1	09/01/2016 10:41
1,2-Dibromoethane (EDB)	ND		0.0021	0.0065	1	09/01/2016 10:41
Dibromomethane	ND		0.0023	0.0081	1	09/01/2016 10:41
1,2-Dichlorobenzene	ND		0.0023	0.0081	1	09/01/2016 10:41
1,3-Dichlorobenzene	ND		0.0029	0.0081	1	09/01/2016 10:41
1,4-Dichlorobenzene	ND		0.0029	0.0081	1	09/01/2016 10:41
Dichlorodifluoromethane	ND		0.0018	0.0081	1	09/01/2016 10:41
1,1-Dichloroethane	ND		0.0028	0.0081	1	09/01/2016 10:41
1,2-Dichloroethane (1,2-DCA)	ND		0.0023	0.0081	1	09/01/2016 10:41
1,1-Dichloroethene	ND		0.0028	0.0081	1	09/01/2016 10:41
cis-1,2-Dichloroethene	ND		0.0024	0.0081	1	09/01/2016 10:41
trans-1,2-Dichloroethene	ND		0.0026	0.0081	1	09/01/2016 10:41
1,2-Dichloropropane	ND		0.0023	0.0081	1	09/01/2016 10:41
1,3-Dichloropropane	ND		0.0026	0.0081	1	09/01/2016 10:41
2,2-Dichloropropane	ND		0.0021	0.0081	1	09/01/2016 10:41

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5,4'	1608F84-002B	Soil	08/30/2016 11:53	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND		0.0029	0.0081	1	09/01/2016 10:41
cis-1,3-Dichloropropene	ND		0.0024	0.0081	1	09/01/2016 10:41
trans-1,3-Dichloropropene	ND		0.0023	0.0081	1	09/01/2016 10:41
Diisopropyl ether (DIPE)	ND		0.0023	0.0081	1	09/01/2016 10:41
Ethylbenzene	ND		0.0032	0.0081	1	09/01/2016 10:41
Ethyl tert-butyl ether (ETBE)	ND		0.0021	0.0081	1	09/01/2016 10:41
Freon 113	ND		0.0026	0.0081	1	09/01/2016 10:41
Hexachlorobutadiene	ND		0.0081	0.0081	1	09/01/2016 10:41
Hexachloroethane	ND		0.0041	0.0081	1	09/01/2016 10:41
2-Hexanone	ND		0.0041	0.0081	1	09/01/2016 10:41
Isopropylbenzene	ND		0.0036	0.0081	1	09/01/2016 10:41
4-Isopropyl toluene	ND		0.0050	0.0081	1	09/01/2016 10:41
Methyl-t-butyl ether (MTBE)	ND		0.0021	0.0081	1	09/01/2016 10:41
Methylene chloride	<b>0.0059</b>	J	0.0058	0.0081	1	09/01/2016 10:41
4-Methyl-2-pentanone (MIBK)	ND		0.0013	0.0081	1	09/01/2016 10:41
Naphthalene	ND		0.00097	0.0081	1	09/01/2016 10:41
n-Propyl benzene	ND		0.0047	0.0081	1	09/01/2016 10:41
Styrene	ND		0.0023	0.0081	1	09/01/2016 10:41
1,1,1,2-Tetrachloroethane	ND		0.0026	0.0081	1	09/01/2016 10:41
1,1,2,2-Tetrachloroethane	ND		0.0021	0.0081	1	09/01/2016 10:41
Tetrachloroethene	ND		0.0037	0.0081	1	09/01/2016 10:41
Toluene	ND		0.0036	0.0081	1	09/01/2016 10:41
1,2,3-Trichlorobenzene	ND		0.0011	0.0081	1	09/01/2016 10:41
1,2,4-Trichlorobenzene	ND		0.0018	0.0081	1	09/01/2016 10:41
1,1,1-Trichloroethane	ND		0.0029	0.0081	1	09/01/2016 10:41
1,1,2-Trichloroethane	ND		0.0026	0.0081	1	09/01/2016 10:41
Trichloroethene	ND		0.0028	0.0081	1	09/01/2016 10:41
Trichlorofluoromethane	ND		0.0026	0.0081	1	09/01/2016 10:41
1,2,3-Trichloropropane	ND		0.0031	0.0081	1	09/01/2016 10:41
1,2,4-Trimethylbenzene	ND		0.0039	0.0081	1	09/01/2016 10:41
1,3,5-Trimethylbenzene	ND		0.0044	0.0081	1	09/01/2016 10:41
Vinyl Chloride	ND		0.0024	0.0081	1	09/01/2016 10:41
Xylenes, Total	ND		0.0041	0.0081	1	09/01/2016 10:41

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5,4'	1608F84-002B	Soil	08/30/2016 11:53	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
Dibromofluoromethane	100			70-130		09/01/2016 10:41
Toluene-d8	105			70-130		09/01/2016 10:41
4-BFB	99			70-130		09/01/2016 10:41
Benzene-d6	90			60-140		09/01/2016 10:41
Ethylbenzene-d10	114			60-140		09/01/2016 10:41
1,2-DCB-d4	91			60-140		09/01/2016 10:41

**Analyst(s):** MW

**Analytical Comments:** a9



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 10'	1608F84-003B	Soil	08/30/2016 12:08	GC10	126007

Analytes	Result	MDL	RL	DF	Date Analyzed
Acetone	ND	0.062	0.16	1	09/01/2016 11:21
tert-Amyl methyl ether (TAME)	ND	0.0016	0.0079	1	09/01/2016 11:21
Benzene	ND	0.0025	0.0079	1	09/01/2016 11:21
Bromobenzene	ND	0.0027	0.0079	1	09/01/2016 11:21
Bromochloromethane	ND	0.0024	0.0079	1	09/01/2016 11:21
Bromodichloromethane	ND	0.0019	0.0079	1	09/01/2016 11:21
Bromoform	ND	0.0013	0.0079	1	09/01/2016 11:21
Bromomethane	ND	0.0032	0.0079	1	09/01/2016 11:21
2-Butanone (MEK)	ND	0.0085	0.032	1	09/01/2016 11:21
t-Butyl alcohol (TBA)	ND	0.0084	0.079	1	09/01/2016 11:21
n-Butyl benzene	ND	0.0055	0.0079	1	09/01/2016 11:21
sec-Butyl benzene	ND	0.0054	0.0079	1	09/01/2016 11:21
tert-Butyl benzene	ND	0.0047	0.0079	1	09/01/2016 11:21
Carbon Disulfide	ND	0.0027	0.0079	1	09/01/2016 11:21
Carbon Tetrachloride	ND	0.0027	0.0079	1	09/01/2016 11:21
Chlorobenzene	ND	0.0028	0.0079	1	09/01/2016 11:21
Chloroethane	ND	0.0025	0.0079	1	09/01/2016 11:21
Chloroform	ND	0.0025	0.0079	1	09/01/2016 11:21
Chloromethane	ND	0.0027	0.0079	1	09/01/2016 11:21
2-Chlorotoluene	ND	0.0035	0.0079	1	09/01/2016 11:21
4-Chlorotoluene	ND	0.0033	0.0079	1	09/01/2016 11:21
Dibromochloromethane	ND	0.0017	0.0079	1	09/01/2016 11:21
1,2-Dibromo-3-chloropropane	ND	0.0019	0.0063	1	09/01/2016 11:21
1,2-Dibromoethane (EDB)	ND	0.0021	0.0063	1	09/01/2016 11:21
Dibromomethane	ND	0.0022	0.0079	1	09/01/2016 11:21
1,2-Dichlorobenzene	ND	0.0022	0.0079	1	09/01/2016 11:21
1,3-Dichlorobenzene	ND	0.0028	0.0079	1	09/01/2016 11:21
1,4-Dichlorobenzene	ND	0.0028	0.0079	1	09/01/2016 11:21
Dichlorodifluoromethane	ND	0.0017	0.0079	1	09/01/2016 11:21
1,1-Dichloroethane	ND	0.0027	0.0079	1	09/01/2016 11:21
1,2-Dichloroethane (1,2-DCA)	ND	0.0022	0.0079	1	09/01/2016 11:21
1,1-Dichloroethene	ND	0.0027	0.0079	1	09/01/2016 11:21
cis-1,2-Dichloroethene	ND	0.0024	0.0079	1	09/01/2016 11:21
trans-1,2-Dichloroethene	ND	0.0025	0.0079	1	09/01/2016 11:21
1,2-Dichloropropane	ND	0.0022	0.0079	1	09/01/2016 11:21
1,3-Dichloropropane	ND	0.0025	0.0079	1	09/01/2016 11:21
2,2-Dichloropropane	ND	0.0021	0.0079	1	09/01/2016 11:21

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 10'	1608F84-003B	Soil	08/30/2016 12:08	GC10	126007

Analytes	Result	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0028	0.0079	1	09/01/2016 11:21
cis-1,3-Dichloropropene	ND	0.0024	0.0079	1	09/01/2016 11:21
trans-1,3-Dichloropropene	ND	0.0022	0.0079	1	09/01/2016 11:21
Diisopropyl ether (DIPE)	ND	0.0022	0.0079	1	09/01/2016 11:21
Ethylbenzene	ND	0.0032	0.0079	1	09/01/2016 11:21
Ethyl tert-butyl ether (ETBE)	ND	0.0021	0.0079	1	09/01/2016 11:21
Freon 113	ND	0.0025	0.0079	1	09/01/2016 11:21
Hexachlorobutadiene	ND	0.0079	0.0079	1	09/01/2016 11:21
Hexachloroethane	ND	0.0039	0.0079	1	09/01/2016 11:21
2-Hexanone	ND	0.0039	0.0079	1	09/01/2016 11:21
Isopropylbenzene	ND	0.0035	0.0079	1	09/01/2016 11:21
4-Isopropyl toluene	ND	0.0049	0.0079	1	09/01/2016 11:21
Methyl-t-butyl ether (MTBE)	ND	0.0021	0.0079	1	09/01/2016 11:21
Methylene chloride	ND	0.0057	0.0079	1	09/01/2016 11:21
4-Methyl-2-pentanone (MIBK)	ND	0.0013	0.0079	1	09/01/2016 11:21
Naphthalene	ND	0.00095	0.0079	1	09/01/2016 11:21
n-Propyl benzene	ND	0.0046	0.0079	1	09/01/2016 11:21
Styrene	ND	0.0022	0.0079	1	09/01/2016 11:21
1,1,1,2-Tetrachloroethane	ND	0.0025	0.0079	1	09/01/2016 11:21
1,1,2,2-Tetrachloroethane	ND	0.0021	0.0079	1	09/01/2016 11:21
Tetrachloroethene	ND	0.0036	0.0079	1	09/01/2016 11:21
Toluene	ND	0.0035	0.0079	1	09/01/2016 11:21
1,2,3-Trichlorobenzene	ND	0.0011	0.0079	1	09/01/2016 11:21
1,2,4-Trichlorobenzene	ND	0.0017	0.0079	1	09/01/2016 11:21
1,1,1-Trichloroethane	ND	0.0028	0.0079	1	09/01/2016 11:21
1,1,2-Trichloroethane	ND	0.0025	0.0079	1	09/01/2016 11:21
Trichloroethene	ND	0.0027	0.0079	1	09/01/2016 11:21
Trichlorofluoromethane	ND	0.0025	0.0079	1	09/01/2016 11:21
1,2,3-Trichloropropane	ND	0.0030	0.0079	1	09/01/2016 11:21
1,2,4-Trimethylbenzene	ND	0.0038	0.0079	1	09/01/2016 11:21
1,3,5-Trimethylbenzene	ND	0.0043	0.0079	1	09/01/2016 11:21
Vinyl Chloride	ND	0.0024	0.0079	1	09/01/2016 11:21
Xylenes, Total	ND	0.0039	0.0079	1	09/01/2016 11:21

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 10'	1608F84-003B	Soil	08/30/2016 12:08	GC10	126007

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	101		70-130		09/01/2016 11:21
Toluene-d8	104		70-130		09/01/2016 11:21
4-BFB	94		70-130		09/01/2016 11:21
Benzene-d6	94		60-140		09/01/2016 11:21
Ethylbenzene-d10	118		60-140		09/01/2016 11:21
1,2-DCB-d4	93		60-140		09/01/2016 11:21

Analyst(s): MW

Analytical Comments: a9



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 5'	1608F84-004B	Soil	08/30/2016 14:00	GC10	126007
Analytes	Result	MDL	RL	DF	Date Analyzed
Acetone	ND	0.059	0.15	1	09/01/2016 12:01
tert-Amyl methyl ether (TAME)	ND	0.0015	0.0076	1	09/01/2016 12:01
Benzene	ND	0.0024	0.0076	1	09/01/2016 12:01
Bromobenzene	ND	0.0026	0.0076	1	09/01/2016 12:01
Bromochloromethane	ND	0.0023	0.0076	1	09/01/2016 12:01
Bromodichloromethane	ND	0.0018	0.0076	1	09/01/2016 12:01
Bromoform	ND	0.0012	0.0076	1	09/01/2016 12:01
Bromomethane	ND	0.0030	0.0076	1	09/01/2016 12:01
2-Butanone (MEK)	ND	0.0082	0.030	1	09/01/2016 12:01
t-Butyl alcohol (TBA)	ND	0.0081	0.076	1	09/01/2016 12:01
n-Butyl benzene	ND	0.0053	0.0076	1	09/01/2016 12:01
sec-Butyl benzene	ND	0.0052	0.0076	1	09/01/2016 12:01
tert-Butyl benzene	ND	0.0046	0.0076	1	09/01/2016 12:01
Carbon Disulfide	ND	0.0026	0.0076	1	09/01/2016 12:01
Carbon Tetrachloride	ND	0.0026	0.0076	1	09/01/2016 12:01
Chlorobenzene	ND	0.0027	0.0076	1	09/01/2016 12:01
Chloroethane	ND	0.0024	0.0076	1	09/01/2016 12:01
Chloroform	ND	0.0024	0.0076	1	09/01/2016 12:01
Chloromethane	ND	0.0026	0.0076	1	09/01/2016 12:01
2-Chlorotoluene	ND	0.0033	0.0076	1	09/01/2016 12:01
4-Chlorotoluene	ND	0.0032	0.0076	1	09/01/2016 12:01
Dibromochloromethane	ND	0.0017	0.0076	1	09/01/2016 12:01
1,2-Dibromo-3-chloropropane	ND	0.0018	0.0061	1	09/01/2016 12:01
1,2-Dibromoethane (EDB)	ND	0.0020	0.0061	1	09/01/2016 12:01
Dibromomethane	ND	0.0021	0.0076	1	09/01/2016 12:01
1,2-Dichlorobenzene	ND	0.0021	0.0076	1	09/01/2016 12:01
1,3-Dichlorobenzene	ND	0.0027	0.0076	1	09/01/2016 12:01
1,4-Dichlorobenzene	ND	0.0027	0.0076	1	09/01/2016 12:01
Dichlorodifluoromethane	ND	0.0017	0.0076	1	09/01/2016 12:01
1,1-Dichloroethane	ND	0.0026	0.0076	1	09/01/2016 12:01
1,2-Dichloroethane (1,2-DCA)	ND	0.0021	0.0076	1	09/01/2016 12:01
1,1-Dichloroethene	ND	0.0026	0.0076	1	09/01/2016 12:01
cis-1,2-Dichloroethene	ND	0.0023	0.0076	1	09/01/2016 12:01
trans-1,2-Dichloroethene	ND	0.0024	0.0076	1	09/01/2016 12:01
1,2-Dichloropropane	ND	0.0021	0.0076	1	09/01/2016 12:01
1,3-Dichloropropane	ND	0.0024	0.0076	1	09/01/2016 12:01
2,2-Dichloropropane	ND	0.0020	0.0076	1	09/01/2016 12:01

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 5'	1608F84-004B	Soil	08/30/2016 14:00	GC10	126007

Analytes	Result	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.0027	0.0076	1	09/01/2016 12:01
cis-1,3-Dichloropropene	ND	0.0023	0.0076	1	09/01/2016 12:01
trans-1,3-Dichloropropene	ND	0.0021	0.0076	1	09/01/2016 12:01
Diisopropyl ether (DIPE)	ND	0.0021	0.0076	1	09/01/2016 12:01
Ethylbenzene	ND	0.0030	0.0076	1	09/01/2016 12:01
Ethyl tert-butyl ether (ETBE)	ND	0.0020	0.0076	1	09/01/2016 12:01
Freon 113	ND	0.0024	0.0076	1	09/01/2016 12:01
Hexachlorobutadiene	ND	0.0076	0.0076	1	09/01/2016 12:01
Hexachloroethane	ND	0.0038	0.0076	1	09/01/2016 12:01
2-Hexanone	ND	0.0038	0.0076	1	09/01/2016 12:01
Isopropylbenzene	ND	0.0033	0.0076	1	09/01/2016 12:01
4-Isopropyl toluene	ND	0.0047	0.0076	1	09/01/2016 12:01
Methyl-t-butyl ether (MTBE)	ND	0.0020	0.0076	1	09/01/2016 12:01
Methylene chloride	ND	0.0055	0.0076	1	09/01/2016 12:01
4-Methyl-2-pentanone (MIBK)	ND	0.0012	0.0076	1	09/01/2016 12:01
Naphthalene	ND	0.00091	0.0076	1	09/01/2016 12:01
n-Propyl benzene	ND	0.0044	0.0076	1	09/01/2016 12:01
Styrene	ND	0.0021	0.0076	1	09/01/2016 12:01
1,1,1,2-Tetrachloroethane	ND	0.0024	0.0076	1	09/01/2016 12:01
1,1,2,2-Tetrachloroethane	ND	0.0020	0.0076	1	09/01/2016 12:01
Tetrachloroethene	ND	0.0035	0.0076	1	09/01/2016 12:01
Toluene	ND	0.0033	0.0076	1	09/01/2016 12:01
1,2,3-Trichlorobenzene	ND	0.0011	0.0076	1	09/01/2016 12:01
1,2,4-Trichlorobenzene	ND	0.0017	0.0076	1	09/01/2016 12:01
1,1,1-Trichloroethane	ND	0.0027	0.0076	1	09/01/2016 12:01
1,1,2-Trichloroethane	ND	0.0024	0.0076	1	09/01/2016 12:01
Trichloroethene	ND	0.0026	0.0076	1	09/01/2016 12:01
Trichlorofluoromethane	ND	0.0024	0.0076	1	09/01/2016 12:01
1,2,3-Trichloropropane	ND	0.0029	0.0076	1	09/01/2016 12:01
1,2,4-Trimethylbenzene	ND	0.0036	0.0076	1	09/01/2016 12:01
1,3,5-Trimethylbenzene	ND	0.0041	0.0076	1	09/01/2016 12:01
Vinyl Chloride	ND	0.0023	0.0076	1	09/01/2016 12:01
Xylenes, Total	ND	0.0038	0.0076	1	09/01/2016 12:01

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 5'	1608F84-004B	Soil	08/30/2016 14:00	GC10	126007

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	101		70-130		09/01/2016 12:01
Toluene-d8	103		70-130		09/01/2016 12:01
4-BFB	96		70-130		09/01/2016 12:01
Benzene-d6	92		60-140		09/01/2016 12:01
Ethylbenzene-d10	115		60-140		09/01/2016 12:01
1,2-DCB-d4	90		60-140		09/01/2016 12:01

**Analyst(s):** MW

**Analytical Comments:** a9





## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-6, 8'	1608F84-005B	Soil	08/30/2016 14:06	GC10	126007	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acetone	ND		0.061	0.16	1	09/01/2016 12:41
tert-Amyl methyl ether (TAME)	ND		0.0016	0.0078	1	09/01/2016 12:41
Benzene	ND		0.0025	0.0078	1	09/01/2016 12:41
Bromobenzene	ND		0.0026	0.0078	1	09/01/2016 12:41
Bromochloromethane	ND		0.0023	0.0078	1	09/01/2016 12:41
Bromodichloromethane	ND		0.0019	0.0078	1	09/01/2016 12:41
Bromoform	ND		0.0012	0.0078	1	09/01/2016 12:41
Bromomethane	ND		0.0031	0.0078	1	09/01/2016 12:41
2-Butanone (MEK)	<b>0.0089</b>	J	0.0084	0.031	1	09/01/2016 12:41
t-Butyl alcohol (TBA)	ND		0.0082	0.078	1	09/01/2016 12:41
n-Butyl benzene	ND		0.0054	0.0078	1	09/01/2016 12:41
sec-Butyl benzene	ND		0.0053	0.0078	1	09/01/2016 12:41
tert-Butyl benzene	ND		0.0047	0.0078	1	09/01/2016 12:41
Carbon Disulfide	ND		0.0026	0.0078	1	09/01/2016 12:41
Carbon Tetrachloride	ND		0.0026	0.0078	1	09/01/2016 12:41
Chlorobenzene	ND		0.0028	0.0078	1	09/01/2016 12:41
Chloroethane	ND		0.0025	0.0078	1	09/01/2016 12:41
Chloroform	ND		0.0025	0.0078	1	09/01/2016 12:41
Chloromethane	ND		0.0026	0.0078	1	09/01/2016 12:41
2-Chlorotoluene	ND		0.0034	0.0078	1	09/01/2016 12:41
4-Chlorotoluene	ND		0.0033	0.0078	1	09/01/2016 12:41
Dibromochloromethane	ND		0.0017	0.0078	1	09/01/2016 12:41
1,2-Dibromo-3-chloropropane	ND		0.0019	0.0062	1	09/01/2016 12:41
1,2-Dibromoethane (EDB)	ND		0.0020	0.0062	1	09/01/2016 12:41
Dibromomethane	ND		0.0022	0.0078	1	09/01/2016 12:41
1,2-Dichlorobenzene	ND		0.0022	0.0078	1	09/01/2016 12:41
1,3-Dichlorobenzene	ND		0.0028	0.0078	1	09/01/2016 12:41
1,4-Dichlorobenzene	ND		0.0028	0.0078	1	09/01/2016 12:41
Dichlorodifluoromethane	ND		0.0017	0.0078	1	09/01/2016 12:41
1,1-Dichloroethane	ND		0.0026	0.0078	1	09/01/2016 12:41
1,2-Dichloroethane (1,2-DCA)	ND		0.0022	0.0078	1	09/01/2016 12:41
1,1-Dichloroethene	ND		0.0026	0.0078	1	09/01/2016 12:41
cis-1,2-Dichloroethene	ND		0.0023	0.0078	1	09/01/2016 12:41
trans-1,2-Dichloroethene	ND		0.0025	0.0078	1	09/01/2016 12:41
1,2-Dichloropropane	ND		0.0022	0.0078	1	09/01/2016 12:41
1,3-Dichloropropane	ND		0.0025	0.0078	1	09/01/2016 12:41
2,2-Dichloropropane	ND		0.0020	0.0078	1	09/01/2016 12:41

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 8'	1608F84-005B	Soil	08/30/2016 14:06	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND		0.0028	0.0078	1	09/01/2016 12:41
cis-1,3-Dichloropropene	ND		0.0023	0.0078	1	09/01/2016 12:41
trans-1,3-Dichloropropene	ND		0.0022	0.0078	1	09/01/2016 12:41
Diisopropyl ether (DIPE)	ND		0.0022	0.0078	1	09/01/2016 12:41
Ethylbenzene	ND		0.0031	0.0078	1	09/01/2016 12:41
Ethyl tert-butyl ether (ETBE)	ND		0.0020	0.0078	1	09/01/2016 12:41
Freon 113	ND		0.0025	0.0078	1	09/01/2016 12:41
Hexachlorobutadiene	ND		0.0078	0.0078	1	09/01/2016 12:41
Hexachloroethane	ND		0.0039	0.0078	1	09/01/2016 12:41
2-Hexanone	ND		0.0039	0.0078	1	09/01/2016 12:41
Isopropylbenzene	ND		0.0034	0.0078	1	09/01/2016 12:41
4-Isopropyl toluene	ND		0.0048	0.0078	1	09/01/2016 12:41
Methyl-t-butyl ether (MTBE)	ND		0.0020	0.0078	1	09/01/2016 12:41
Methylene chloride	ND		0.0056	0.0078	1	09/01/2016 12:41
4-Methyl-2-pentanone (MIBK)	ND		0.0012	0.0078	1	09/01/2016 12:41
Naphthalene	ND		0.00093	0.0078	1	09/01/2016 12:41
n-Propyl benzene	ND		0.0045	0.0078	1	09/01/2016 12:41
Styrene	ND		0.0022	0.0078	1	09/01/2016 12:41
1,1,1,2-Tetrachloroethane	ND		0.0025	0.0078	1	09/01/2016 12:41
1,1,2,2-Tetrachloroethane	ND		0.0020	0.0078	1	09/01/2016 12:41
Tetrachloroethene	ND		0.0036	0.0078	1	09/01/2016 12:41
Toluene	ND		0.0034	0.0078	1	09/01/2016 12:41
1,2,3-Trichlorobenzene	ND		0.0011	0.0078	1	09/01/2016 12:41
1,2,4-Trichlorobenzene	ND		0.0017	0.0078	1	09/01/2016 12:41
1,1,1-Trichloroethane	ND		0.0028	0.0078	1	09/01/2016 12:41
1,1,2-Trichloroethane	ND		0.0025	0.0078	1	09/01/2016 12:41
Trichloroethene	ND		0.0026	0.0078	1	09/01/2016 12:41
Trichlorofluoromethane	ND		0.0025	0.0078	1	09/01/2016 12:41
1,2,3-Trichloropropane	ND		0.0030	0.0078	1	09/01/2016 12:41
1,2,4-Trimethylbenzene	ND		0.0037	0.0078	1	09/01/2016 12:41
1,3,5-Trimethylbenzene	ND		0.0042	0.0078	1	09/01/2016 12:41
Vinyl Chloride	ND		0.0023	0.0078	1	09/01/2016 12:41
Xylenes, Total	ND		0.0039	0.0078	1	09/01/2016 12:41

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 8'	1608F84-005B	Soil	08/30/2016 14:06	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
Dibromofluoromethane	101			70-130		09/01/2016 12:41
Toluene-d8	104			70-130		09/01/2016 12:41
4-BFB	93			70-130		09/01/2016 12:41
Benzene-d6	91			60-140		09/01/2016 12:41
Ethylbenzene-d10	115			60-140		09/01/2016 12:41
1,2-DCB-d4	90			60-140		09/01/2016 12:41

Analyst(s): MW

Analytical Comments: a9



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-1, 4'	1608F84-007B	Soil	08/30/2016 09:16	GC10	126007	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acetone	ND		0.062	0.16	1	09/01/2016 13:21
tert-Amyl methyl ether (TAME)	ND		0.0016	0.0079	1	09/01/2016 13:21
Benzene	ND		0.0025	0.0079	1	09/01/2016 13:21
Bromobenzene	ND		0.0027	0.0079	1	09/01/2016 13:21
Bromochloromethane	ND		0.0024	0.0079	1	09/01/2016 13:21
Bromodichloromethane	<b>0.0071</b>	J	0.0019	0.0079	1	09/01/2016 13:21
Bromoform	ND		0.0013	0.0079	1	09/01/2016 13:21
Bromomethane	ND		0.0032	0.0079	1	09/01/2016 13:21
2-Butanone (MEK)	<b>0.018</b>	J	0.0086	0.032	1	09/01/2016 13:21
t-Butyl alcohol (TBA)	<b>0.0099</b>	J	0.0084	0.079	1	09/01/2016 13:21
n-Butyl benzene	<b>0.034</b>		0.0056	0.0079	1	09/01/2016 13:21
sec-Butyl benzene	<b>0.0080</b>		0.0054	0.0079	1	09/01/2016 13:21
tert-Butyl benzene	ND		0.0048	0.0079	1	09/01/2016 13:21
Carbon Disulfide	ND		0.0027	0.0079	1	09/01/2016 13:21
Carbon Tetrachloride	ND		0.0027	0.0079	1	09/01/2016 13:21
Chlorobenzene	ND		0.0029	0.0079	1	09/01/2016 13:21
Chloroethane	ND		0.0025	0.0079	1	09/01/2016 13:21
Chloroform	ND		0.0025	0.0079	1	09/01/2016 13:21
Chloromethane	ND		0.0027	0.0079	1	09/01/2016 13:21
2-Chlorotoluene	ND		0.0035	0.0079	1	09/01/2016 13:21
4-Chlorotoluene	ND		0.0033	0.0079	1	09/01/2016 13:21
Dibromochloromethane	ND		0.0017	0.0079	1	09/01/2016 13:21
1,2-Dibromo-3-chloropropane	ND		0.0019	0.0064	1	09/01/2016 13:21
1,2-Dibromoethane (EDB)	ND		0.0021	0.0064	1	09/01/2016 13:21
Dibromomethane	ND		0.0022	0.0079	1	09/01/2016 13:21
1,2-Dichlorobenzene	ND		0.0022	0.0079	1	09/01/2016 13:21
1,3-Dichlorobenzene	ND		0.0029	0.0079	1	09/01/2016 13:21
1,4-Dichlorobenzene	ND		0.0029	0.0079	1	09/01/2016 13:21
Dichlorodifluoromethane	ND		0.0017	0.0079	1	09/01/2016 13:21
1,1-Dichloroethane	ND		0.0027	0.0079	1	09/01/2016 13:21
1,2-Dichloroethane (1,2-DCA)	ND		0.0022	0.0079	1	09/01/2016 13:21
1,1-Dichloroethene	ND		0.0027	0.0079	1	09/01/2016 13:21
cis-1,2-Dichloroethene	ND		0.0024	0.0079	1	09/01/2016 13:21
trans-1,2-Dichloroethene	ND		0.0025	0.0079	1	09/01/2016 13:21
1,2-Dichloropropane	ND		0.0022	0.0079	1	09/01/2016 13:21
1,3-Dichloropropane	ND		0.0025	0.0079	1	09/01/2016 13:21
2,2-Dichloropropane	ND		0.0021	0.0079	1	09/01/2016 13:21

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1, 4'	1608F84-007B	Soil	08/30/2016 09:16	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND		0.0029	0.0079	1	09/01/2016 13:21
cis-1,3-Dichloropropene	ND		0.0024	0.0079	1	09/01/2016 13:21
trans-1,3-Dichloropropene	ND		0.0022	0.0079	1	09/01/2016 13:21
Diisopropyl ether (DIPE)	ND		0.0022	0.0079	1	09/01/2016 13:21
Ethylbenzene	<b>0.024</b>		0.0032	0.0079	1	09/01/2016 13:21
Ethyl tert-butyl ether (ETBE)	ND		0.0021	0.0079	1	09/01/2016 13:21
Freon 113	ND		0.0025	0.0079	1	09/01/2016 13:21
Hexachlorobutadiene	ND		0.0079	0.0079	1	09/01/2016 13:21
Hexachloroethane	ND		0.0040	0.0079	1	09/01/2016 13:21
2-Hexanone	ND		0.0040	0.0079	1	09/01/2016 13:21
Isopropylbenzene	<b>0.019</b>		0.0035	0.0079	1	09/01/2016 13:21
4-Isopropyl toluene	ND		0.0049	0.0079	1	09/01/2016 13:21
Methyl-t-butyl ether (MTBE)	ND		0.0021	0.0079	1	09/01/2016 13:21
Methylene chloride	ND		0.0057	0.0079	1	09/01/2016 13:21
4-Methyl-2-pentanone (MIBK)	ND		0.0013	0.0079	1	09/01/2016 13:21
Naphthalene	ND		0.00095	0.0079	1	09/01/2016 13:21
n-Propyl benzene	<b>0.013</b>		0.0046	0.0079	1	09/01/2016 13:21
Styrene	ND		0.0022	0.0079	1	09/01/2016 13:21
1,1,1,2-Tetrachloroethane	ND		0.0025	0.0079	1	09/01/2016 13:21
1,1,2,2-Tetrachloroethane	ND		0.0021	0.0079	1	09/01/2016 13:21
Tetrachloroethene	ND		0.0037	0.0079	1	09/01/2016 13:21
Toluene	ND		0.0035	0.0079	1	09/01/2016 13:21
1,2,3-Trichlorobenzene	ND		0.0011	0.0079	1	09/01/2016 13:21
1,2,4-Trichlorobenzene	ND		0.0017	0.0079	1	09/01/2016 13:21
1,1,1-Trichloroethane	ND		0.0029	0.0079	1	09/01/2016 13:21
1,1,2-Trichloroethane	ND		0.0025	0.0079	1	09/01/2016 13:21
Trichloroethene	ND		0.0027	0.0079	1	09/01/2016 13:21
Trichlorofluoromethane	ND		0.0025	0.0079	1	09/01/2016 13:21
1,2,3-Trichloropropane	ND		0.0030	0.0079	1	09/01/2016 13:21
1,2,4-Trimethylbenzene	<b>0.021</b>		0.0038	0.0079	1	09/01/2016 13:21
1,3,5-Trimethylbenzene	<b>0.0070</b>	J	0.0043	0.0079	1	09/01/2016 13:21
Vinyl Chloride	ND		0.0024	0.0079	1	09/01/2016 13:21
Xylenes, Total	<b>0.089</b>		0.0040	0.0079	1	09/01/2016 13:21

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1, 4'	1608F84-007B	Soil	08/30/2016 09:16	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>		<u>Limits</u>		
Dibromofluoromethane	101			70-130		09/01/2016 13:21
Toluene-d8	105			70-130		09/01/2016 13:21
4-BFB	300	S		70-130		09/01/2016 13:21
Benzene-d6	89			60-140		09/01/2016 13:21
Ethylbenzene-d10	111			60-140		09/01/2016 13:21
1,2-DCB-d4	90			60-140		09/01/2016 13:21

**Analyst(s):** MW

**Analytical Comments:** c2,a9



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-2, 4'	1608F84-009B	Soil	08/30/2016 08:29	GC10	126007	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acetone	ND		0.65	1.7	10	09/02/2016 16:23
tert-Amyl methyl ether (TAME)	ND		0.017	0.083	10	09/02/2016 16:23
Benzene	ND		0.027	0.083	10	09/02/2016 16:23
Bromobenzene	ND		0.028	0.083	10	09/02/2016 16:23
Bromochloromethane	ND		0.025	0.083	10	09/02/2016 16:23
Bromodichloromethane	ND		0.020	0.083	10	09/02/2016 16:23
Bromoform	ND		0.013	0.083	10	09/02/2016 16:23
Bromomethane	ND		0.033	0.083	10	09/02/2016 16:23
2-Butanone (MEK)	ND		0.090	0.33	10	09/02/2016 16:23
t-Butyl alcohol (TBA)	ND		0.088	0.83	10	09/02/2016 16:23
n-Butyl benzene	ND		0.058	0.083	10	09/02/2016 16:23
sec-Butyl benzene	ND		0.056	0.083	10	09/02/2016 16:23
tert-Butyl benzene	<b>0.053</b>	J	0.050	0.083	10	09/02/2016 16:23
Carbon Disulfide	ND		0.028	0.083	10	09/02/2016 16:23
Carbon Tetrachloride	ND		0.028	0.083	10	09/02/2016 16:23
Chlorobenzene	ND		0.030	0.083	10	09/02/2016 16:23
Chloroethane	ND		0.027	0.083	10	09/02/2016 16:23
Chloroform	ND		0.027	0.083	10	09/02/2016 16:23
Chloromethane	ND		0.028	0.083	10	09/02/2016 16:23
2-Chlorotoluene	ND		0.037	0.083	10	09/02/2016 16:23
4-Chlorotoluene	ND		0.035	0.083	10	09/02/2016 16:23
Dibromochloromethane	ND		0.018	0.083	10	09/02/2016 16:23
1,2-Dibromo-3-chloropropane	<b>0.030</b>	J	0.020	0.066	10	09/02/2016 16:23
1,2-Dibromoethane (EDB)	ND		0.022	0.066	10	09/02/2016 16:23
Dibromomethane	ND		0.023	0.083	10	09/02/2016 16:23
1,2-Dichlorobenzene	ND		0.023	0.083	10	09/02/2016 16:23
1,3-Dichlorobenzene	ND		0.030	0.083	10	09/02/2016 16:23
1,4-Dichlorobenzene	ND		0.030	0.083	10	09/02/2016 16:23
Dichlorodifluoromethane	ND		0.018	0.083	10	09/02/2016 16:23
1,1-Dichloroethane	ND		0.028	0.083	10	09/02/2016 16:23
1,2-Dichloroethane (1,2-DCA)	ND		0.023	0.083	10	09/02/2016 16:23
1,1-Dichloroethene	ND		0.028	0.083	10	09/02/2016 16:23
cis-1,2-Dichloroethene	ND		0.025	0.083	10	09/02/2016 16:23
trans-1,2-Dichloroethene	ND		0.027	0.083	10	09/02/2016 16:23
1,2-Dichloropropane	ND		0.023	0.083	10	09/02/2016 16:23
1,3-Dichloropropane	ND		0.027	0.083	10	09/02/2016 16:23
2,2-Dichloropropane	ND		0.022	0.083	10	09/02/2016 16:23

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2, 4'	1608F84-009B	Soil	08/30/2016 08:29	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND		0.030	0.083	10	09/02/2016 16:23
cis-1,3-Dichloropropene	ND		0.025	0.083	10	09/02/2016 16:23
trans-1,3-Dichloropropene	ND		0.023	0.083	10	09/02/2016 16:23
Diisopropyl ether (DIPE)	ND		0.023	0.083	10	09/02/2016 16:23
Ethylbenzene	<b>3.0</b>		0.033	0.083	10	09/02/2016 16:23
Ethyl tert-butyl ether (ETBE)	ND		0.022	0.083	10	09/02/2016 16:23
Freon 113	ND		0.027	0.083	10	09/02/2016 16:23
Hexachlorobutadiene	ND		0.083	0.083	10	09/02/2016 16:23
Hexachloroethane	<b>0.078</b>	J	0.042	0.083	10	09/02/2016 16:23
2-Hexanone	ND		0.042	0.083	10	09/02/2016 16:23
Isopropylbenzene	<b>0.070</b>	J	0.037	0.083	10	09/02/2016 16:23
4-Isopropyl toluene	ND		0.051	0.083	10	09/02/2016 16:23
Methyl-t-butyl ether (MTBE)	ND		0.022	0.083	10	09/02/2016 16:23
Methylene chloride	ND		0.060	0.083	10	09/02/2016 16:23
4-Methyl-2-pentanone (MIBK)	ND		0.013	0.083	10	09/02/2016 16:23
Naphthalene	<b>0.15</b>		0.010	0.083	10	09/02/2016 16:23
n-Propyl benzene	<b>0.12</b>		0.048	0.083	10	09/02/2016 16:23
Styrene	ND		0.023	0.083	10	09/02/2016 16:23
1,1,1,2-Tetrachloroethane	ND		0.027	0.083	10	09/02/2016 16:23
1,1,2,2-Tetrachloroethane	ND		0.022	0.083	10	09/02/2016 16:23
Tetrachloroethene	ND		0.038	0.083	10	09/02/2016 16:23
Toluene	ND		0.037	0.083	10	09/02/2016 16:23
1,2,3-Trichlorobenzene	ND		0.012	0.083	10	09/02/2016 16:23
1,2,4-Trichlorobenzene	ND		0.018	0.083	10	09/02/2016 16:23
1,1,1-Trichloroethane	ND		0.030	0.083	10	09/02/2016 16:23
1,1,2-Trichloroethane	ND		0.027	0.083	10	09/02/2016 16:23
Trichloroethene	ND		0.028	0.083	10	09/02/2016 16:23
Trichlorofluoromethane	ND		0.027	0.083	10	09/02/2016 16:23
1,2,3-Trichloropropane	ND		0.032	0.083	10	09/02/2016 16:23
1,2,4-Trimethylbenzene	<b>0.43</b>		0.040	0.083	10	09/02/2016 16:23
1,3,5-Trimethylbenzene	<b>0.12</b>		0.045	0.083	10	09/02/2016 16:23
Vinyl Chloride	ND		0.025	0.083	10	09/02/2016 16:23
Xylenes, Total	<b>6.5</b>		0.042	0.083	10	09/02/2016 16:23

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg

### Volatile Organics [Encore Sampling]

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2, 4'	1608F84-009B	Soil	08/30/2016 08:29	GC10	126007

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
Dibromofluoromethane	103			70-130		09/02/2016 16:23
Toluene-d8	98			70-130		09/02/2016 16:23
4-BFB	97			70-130		09/02/2016 16:23
Benzene-d6	85			60-140		09/02/2016 16:23
Ethylbenzene-d10	84			60-140		09/02/2016 16:23
1,2-DCB-d4	102			60-140		09/02/2016 16:23

**Analyst(s):** KF

**Analytical Comments:** a9



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-5	1608F84-001A	Water	08/30/2016 13:05	GC16	126049	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acetone	ND		1.70	10	1	09/01/2016 21:14
tert-Amyl methyl ether (TAME)	ND		0.220	0.50	1	09/01/2016 21:14
Benzene	<b>0.10</b>	J	0.0510	0.50	1	09/01/2016 21:14
Bromobenzene	ND		0.0600	0.50	1	09/01/2016 21:14
Bromochloromethane	ND		0.0900	0.50	1	09/01/2016 21:14
Bromodichloromethane	ND		0.200	0.50	1	09/01/2016 21:14
Bromoform	ND		0.0660	0.50	1	09/01/2016 21:14
Bromomethane	<b>0.42</b>	J	0.160	0.50	1	09/01/2016 21:14
2-Butanone (MEK)	ND		0.490	2.0	1	09/01/2016 21:14
t-Butyl alcohol (TBA)	ND		0.940	2.0	1	09/01/2016 21:14
n-Butyl benzene	<b>1.2</b>		0.0840	0.50	1	09/01/2016 21:14
sec-Butyl benzene	<b>6.9</b>		0.0600	0.50	1	09/01/2016 21:14
tert-Butyl benzene	<b>1.0</b>		0.0500	0.50	1	09/01/2016 21:14
Carbon Disulfide	<b>0.088</b>	J	0.0660	0.50	1	09/01/2016 21:14
Carbon Tetrachloride	ND		0.0690	0.50	1	09/01/2016 21:14
Chlorobenzene	ND		0.0500	0.50	1	09/01/2016 21:14
Chloroethane	ND		0.310	0.50	1	09/01/2016 21:14
Chloroform	<b>0.14</b>	J	0.0640	0.50	1	09/01/2016 21:14
Chloromethane	ND		0.130	0.50	1	09/01/2016 21:14
2-Chlorotoluene	<b>0.15</b>	J	0.0700	0.50	1	09/01/2016 21:14
4-Chlorotoluene	ND		0.0700	0.50	1	09/01/2016 21:14
Dibromochloromethane	ND		0.0800	0.50	1	09/01/2016 21:14
1,2-Dibromo-3-chloropropane	ND		0.120	0.20	1	09/01/2016 21:14
1,2-Dibromoethane (EDB)	ND		0.120	0.50	1	09/01/2016 21:14
Dibromomethane	ND		0.0800	0.50	1	09/01/2016 21:14
1,2-Dichlorobenzene	ND		0.0800	0.50	1	09/01/2016 21:14
1,3-Dichlorobenzene	ND		0.0710	0.50	1	09/01/2016 21:14
1,4-Dichlorobenzene	ND		0.0720	0.50	1	09/01/2016 21:14
Dichlorodifluoromethane	ND		0.0630	0.50	1	09/01/2016 21:14
1,1-Dichloroethane	ND		0.0600	0.50	1	09/01/2016 21:14
1,2-Dichloroethane (1,2-DCA)	ND		0.0900	0.50	1	09/01/2016 21:14
1,1-Dichloroethene	ND		0.0860	0.50	1	09/01/2016 21:14
cis-1,2-Dichloroethene	ND		0.0500	0.50	1	09/01/2016 21:14
trans-1,2-Dichloroethene	ND		0.0600	0.50	1	09/01/2016 21:14
1,2-Dichloropropane	ND		0.0550	0.50	1	09/01/2016 21:14
1,3-Dichloropropane	ND		0.100	0.50	1	09/01/2016 21:14
2,2-Dichloropropane	ND		0.100	0.50	1	09/01/2016 21:14

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-5	1608F84-001A	Water	08/30/2016 13:05	GC16	126049	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND		0.0600	0.50	1	09/01/2016 21:14
cis-1,3-Dichloropropene	ND		0.0900	0.50	1	09/01/2016 21:14
trans-1,3-Dichloropropene	ND		0.0700	0.50	1	09/01/2016 21:14
Diisopropyl ether (DIPE)	ND		0.0700	0.50	1	09/01/2016 21:14
Ethylbenzene	<b>0.44</b>	J	0.0500	0.50	1	09/01/2016 21:14
Ethyl tert-butyl ether (ETBE)	ND		0.0700	0.50	1	09/01/2016 21:14
Freon 113	ND		0.0660	0.50	1	09/01/2016 21:14
Hexachlorobutadiene	ND		0.0850	0.50	1	09/01/2016 21:14
Hexachloroethane	<b>0.082</b>	J	0.0600	0.50	1	09/01/2016 21:14
2-Hexanone	ND		0.440	0.50	1	09/01/2016 21:14
Isopropylbenzene	<b>1.6</b>		0.0700	0.50	1	09/01/2016 21:14
4-Isopropyl toluene	<b>0.51</b>		0.0500	0.50	1	09/01/2016 21:14
Methyl-t-butyl ether (MTBE)	ND		0.100	0.50	1	09/01/2016 21:14
Methylene chloride	ND		0.0520	0.50	1	09/01/2016 21:14
4-Methyl-2-pentanone (MIBK)	ND		0.240	0.50	1	09/01/2016 21:14
Naphthalene	ND		0.160	0.50	1	09/01/2016 21:14
n-Propyl benzene	<b>0.39</b>	J	0.0600	0.50	1	09/01/2016 21:14
Styrene	ND		0.0600	0.50	1	09/01/2016 21:14
1,1,1,2-Tetrachloroethane	ND		0.0700	0.50	1	09/01/2016 21:14
1,1,2,2-Tetrachloroethane	ND		0.110	0.50	1	09/01/2016 21:14
Tetrachloroethene	ND		0.0820	0.50	1	09/01/2016 21:14
Toluene	<b>0.096</b>	J	0.0400	0.50	1	09/01/2016 21:14
1,2,3-Trichlorobenzene	ND		0.110	0.50	1	09/01/2016 21:14
1,2,4-Trichlorobenzene	ND		0.0860	0.50	1	09/01/2016 21:14
1,1,1-Trichloroethane	ND		0.0500	0.50	1	09/01/2016 21:14
1,1,2-Trichloroethane	ND		0.0800	0.50	1	09/01/2016 21:14
Trichloroethene	ND		0.0600	0.50	1	09/01/2016 21:14
Trichlorofluoromethane	ND		0.0470	0.50	1	09/01/2016 21:14
1,2,3-Trichloropropane	ND		0.140	0.50	1	09/01/2016 21:14
1,2,4-Trimethylbenzene	ND		0.0650	0.50	1	09/01/2016 21:14
1,3,5-Trimethylbenzene	<b>0.16</b>	J	0.0700	0.50	1	09/01/2016 21:14
Vinyl Chloride	ND		0.0700	0.50	1	09/01/2016 21:14
Xylenes, Total	ND		0.250	0.50	1	09/01/2016 21:14

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



# Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

## Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5	1608F84-001A	Water	08/30/2016 13:05	GC16	126049

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Surrogates	REC (%)			Limits		
Dibromofluoromethane	107			70-130		09/01/2016 21:14
Toluene-d8	106			70-130		09/01/2016 21:14
4-BFB	78			70-130		09/01/2016 21:14

Analyst(s): HK

Analytical Comments: c8,b6



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-1	1608F84-006B	Water	08/30/2016 10:19	GC16	126049	
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		8.50	50	5	09/01/2016 20:34
tert-Amyl methyl ether (TAME)	ND		1.10	2.5	5	09/01/2016 20:34
Benzene	<b>5.7</b>		0.255	2.5	5	09/01/2016 20:34
Bromobenzene	ND		0.300	2.5	5	09/01/2016 20:34
Bromochloromethane	ND		0.450	2.5	5	09/01/2016 20:34
Bromodichloromethane	ND		1.00	2.5	5	09/01/2016 20:34
Bromoform	ND		0.330	2.5	5	09/01/2016 20:34
Bromomethane	<b>2.1</b>	J	0.800	2.5	5	09/01/2016 20:34
2-Butanone (MEK)	ND		2.45	10	5	09/01/2016 20:34
t-Butyl alcohol (TBA)	<b>33</b>		4.70	10	5	09/01/2016 20:34
n-Butyl benzene	<b>6.7</b>		0.420	2.5	5	09/01/2016 20:34
sec-Butyl benzene	<b>2.9</b>		0.300	2.5	5	09/01/2016 20:34
tert-Butyl benzene	<b>1.5</b>	J	0.250	2.5	5	09/01/2016 20:34
Carbon Disulfide	ND		0.330	2.5	5	09/01/2016 20:34
Carbon Tetrachloride	ND		0.345	2.5	5	09/01/2016 20:34
Chlorobenzene	ND		0.250	2.5	5	09/01/2016 20:34
Chloroethane	ND		1.55	2.5	5	09/01/2016 20:34
Chloroform	<b>0.78</b>	J	0.320	2.5	5	09/01/2016 20:34
Chloromethane	ND		0.650	2.5	5	09/01/2016 20:34
2-Chlorotoluene	ND		0.350	2.5	5	09/01/2016 20:34
4-Chlorotoluene	ND		0.350	2.5	5	09/01/2016 20:34
Dibromochloromethane	ND		0.400	2.5	5	09/01/2016 20:34
1,2-Dibromo-3-chloropropane	ND		0.600	1.0	5	09/01/2016 20:34
1,2-Dibromoethane (EDB)	ND		0.600	2.5	5	09/01/2016 20:34
Dibromomethane	ND		0.400	2.5	5	09/01/2016 20:34
1,2-Dichlorobenzene	ND		0.400	2.5	5	09/01/2016 20:34
1,3-Dichlorobenzene	ND		0.355	2.5	5	09/01/2016 20:34
1,4-Dichlorobenzene	ND		0.360	2.5	5	09/01/2016 20:34
Dichlorodifluoromethane	ND		0.315	2.5	5	09/01/2016 20:34
1,1-Dichloroethane	ND		0.300	2.5	5	09/01/2016 20:34
1,2-Dichloroethane (1,2-DCA)	ND		0.450	2.5	5	09/01/2016 20:34
1,1-Dichloroethene	ND		0.430	2.5	5	09/01/2016 20:34
cis-1,2-Dichloroethene	ND		0.250	2.5	5	09/01/2016 20:34
trans-1,2-Dichloroethene	ND		0.300	2.5	5	09/01/2016 20:34
1,2-Dichloropropane	<b>1.4</b>	J	0.275	2.5	5	09/01/2016 20:34
1,3-Dichloropropane	ND		0.500	2.5	5	09/01/2016 20:34
2,2-Dichloropropane	ND		0.500	2.5	5	09/01/2016 20:34

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-1	1608F84-006B	Water	08/30/2016 10:19	GC16	126049	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND		0.300	2.5	5	09/01/2016 20:34
cis-1,3-Dichloropropene	ND		0.450	2.5	5	09/01/2016 20:34
trans-1,3-Dichloropropene	ND		0.350	2.5	5	09/01/2016 20:34
Diisopropyl ether (DIPE)	ND		0.350	2.5	5	09/01/2016 20:34
Ethylbenzene	<b>85</b>		0.250	2.5	5	09/01/2016 20:34
Ethyl tert-butyl ether (ETBE)	ND		0.350	2.5	5	09/01/2016 20:34
Freon 113	ND		0.330	2.5	5	09/01/2016 20:34
Hexachlorobutadiene	ND		0.425	2.5	5	09/01/2016 20:34
Hexachloroethane	ND		0.300	2.5	5	09/01/2016 20:34
2-Hexanone	ND		2.20	2.5	5	09/01/2016 20:34
Isopropylbenzene	<b>27</b>		0.350	2.5	5	09/01/2016 20:34
4-Isopropyl toluene	<b>0.67</b>	J	0.250	2.5	5	09/01/2016 20:34
Methyl-t-butyl ether (MTBE)	ND		0.500	2.5	5	09/01/2016 20:34
Methylene chloride	ND		0.260	2.5	5	09/01/2016 20:34
4-Methyl-2-pentanone (MIBK)	ND		1.20	2.5	5	09/01/2016 20:34
Naphthalene	<b>6.0</b>		0.800	2.5	5	09/01/2016 20:34
n-Propyl benzene	<b>13</b>		0.300	2.5	5	09/01/2016 20:34
Styrene	<b>0.59</b>	J	0.300	2.5	5	09/01/2016 20:34
1,1,1,2-Tetrachloroethane	ND		0.350	2.5	5	09/01/2016 20:34
1,1,2,2-Tetrachloroethane	ND		0.550	2.5	5	09/01/2016 20:34
Tetrachloroethene	ND		0.410	2.5	5	09/01/2016 20:34
Toluene	<b>4.5</b>		0.200	2.5	5	09/01/2016 20:34
1,2,3-Trichlorobenzene	ND		0.550	2.5	5	09/01/2016 20:34
1,2,4-Trichlorobenzene	ND		0.430	2.5	5	09/01/2016 20:34
1,1,1-Trichloroethane	ND		0.250	2.5	5	09/01/2016 20:34
1,1,2-Trichloroethane	<b>1.2</b>	J	0.400	2.5	5	09/01/2016 20:34
Trichloroethene	ND		0.300	2.5	5	09/01/2016 20:34
Trichlorofluoromethane	ND		0.235	2.5	5	09/01/2016 20:34
1,2,3-Trichloropropane	ND		0.700	2.5	5	09/01/2016 20:34
1,2,4-Trimethylbenzene	<b>11</b>		0.325	2.5	5	09/01/2016 20:34
1,3,5-Trimethylbenzene	<b>1.2</b>	J	0.350	2.5	5	09/01/2016 20:34
Vinyl Chloride	ND		0.350	2.5	5	09/01/2016 20:34
Xylenes, Total	<b>73</b>		1.25	2.5	5	09/01/2016 20:34

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1608F84-006B	Water	08/30/2016 10:19	GC16	126049

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
Dibromofluoromethane	104			70-130		09/01/2016 20:34
Toluene-d8	105			70-130		09/01/2016 20:34
4-BFB	111			70-130		09/01/2016 20:34
<u>Analyst(s):</u> HK				<u>Analytical Comments:</u> c8		



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-2	1608F84-008B	Water	08/30/2016 09:10	GC16	126049	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acetone	ND		170	1000	100	09/01/2016 19:53
tert-Amyl methyl ether (TAME)	ND		22.0	50	100	09/01/2016 19:53
Benzene	ND		5.10	50	100	09/01/2016 19:53
Bromobenzene	ND		6.00	50	100	09/01/2016 19:53
Bromochloromethane	ND		9.00	50	100	09/01/2016 19:53
Bromodichloromethane	ND		20.0	50	100	09/01/2016 19:53
Bromoform	ND		6.60	50	100	09/01/2016 19:53
Bromomethane	47	J	16.0	50	100	09/01/2016 19:53
2-Butanone (MEK)	ND		49.0	200	100	09/01/2016 19:53
t-Butyl alcohol (TBA)	ND		94.0	200	100	09/01/2016 19:53
n-Butyl benzene	25	J	8.40	50	100	09/01/2016 19:53
sec-Butyl benzene	7.7	J	6.00	50	100	09/01/2016 19:53
tert-Butyl benzene	ND		5.00	50	100	09/01/2016 19:53
Carbon Disulfide	ND		6.60	50	100	09/01/2016 19:53
Carbon Tetrachloride	ND		6.90	50	100	09/01/2016 19:53
Chlorobenzene	ND		5.00	50	100	09/01/2016 19:53
Chloroethane	ND		31.0	50	100	09/01/2016 19:53
Chloroform	ND		6.40	50	100	09/01/2016 19:53
Chloromethane	ND		13.0	50	100	09/01/2016 19:53
2-Chlorotoluene	ND		7.00	50	100	09/01/2016 19:53
4-Chlorotoluene	ND		7.00	50	100	09/01/2016 19:53
Dibromochloromethane	ND		8.00	50	100	09/01/2016 19:53
1,2-Dibromo-3-chloropropane	ND		12.0	20	100	09/01/2016 19:53
1,2-Dibromoethane (EDB)	ND		12.0	50	100	09/01/2016 19:53
Dibromomethane	ND		8.00	50	100	09/01/2016 19:53
1,2-Dichlorobenzene	ND		8.00	50	100	09/01/2016 19:53
1,3-Dichlorobenzene	ND		7.10	50	100	09/01/2016 19:53
1,4-Dichlorobenzene	ND		7.20	50	100	09/01/2016 19:53
Dichlorodifluoromethane	ND		6.30	50	100	09/01/2016 19:53
1,1-Dichloroethane	ND		6.00	50	100	09/01/2016 19:53
1,2-Dichloroethane (1,2-DCA)	ND		9.00	50	100	09/01/2016 19:53
1,1-Dichloroethene	ND		8.60	50	100	09/01/2016 19:53
cis-1,2-Dichloroethene	ND		5.00	50	100	09/01/2016 19:53
trans-1,2-Dichloroethene	ND		6.00	50	100	09/01/2016 19:53
1,2-Dichloropropane	ND		5.50	50	100	09/01/2016 19:53
1,3-Dichloropropane	ND		10.0	50	100	09/01/2016 19:53
2,2-Dichloropropane	ND		10.0	50	100	09/01/2016 19:53

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

### Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-2	1608F84-008B	Water	08/30/2016 09:10	GC16	126049	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
1,1-Dichloropropene	ND		6.00	50	100	09/01/2016 19:53
cis-1,3-Dichloropropene	ND		9.00	50	100	09/01/2016 19:53
trans-1,3-Dichloropropene	ND		7.00	50	100	09/01/2016 19:53
Diisopropyl ether (DIPE)	ND		7.00	50	100	09/01/2016 19:53
Ethylbenzene	<b>1900</b>		5.00	50	100	09/01/2016 19:53
Ethyl tert-butyl ether (ETBE)	ND		7.00	50	100	09/01/2016 19:53
Freon 113	ND		6.60	50	100	09/01/2016 19:53
Hexachlorobutadiene	ND		8.50	50	100	09/01/2016 19:53
Hexachloroethane	<b>28</b>	J	6.00	50	100	09/01/2016 19:53
2-Hexanone	ND		44.0	50	100	09/01/2016 19:53
Isopropylbenzene	<b>52</b>		7.00	50	100	09/01/2016 19:53
4-Isopropyl toluene	<b>8.8</b>	J	5.00	50	100	09/01/2016 19:53
Methyl-t-butyl ether (MTBE)	ND		10.0	50	100	09/01/2016 19:53
Methylene chloride	ND		5.20	50	100	09/01/2016 19:53
4-Methyl-2-pentanone (MIBK)	ND		24.0	50	100	09/01/2016 19:53
Naphthalene	<b>82</b>		16.0	50	100	09/01/2016 19:53
n-Propyl benzene	<b>83</b>		6.00	50	100	09/01/2016 19:53
Styrene	<b>14</b>	J	6.00	50	100	09/01/2016 19:53
1,1,1,2-Tetrachloroethane	ND		7.00	50	100	09/01/2016 19:53
1,1,2,2-Tetrachloroethane	ND		11.0	50	100	09/01/2016 19:53
Tetrachloroethene	ND		8.20	50	100	09/01/2016 19:53
Toluene	<b>6.7</b>	J	4.00	50	100	09/01/2016 19:53
1,2,3-Trichlorobenzene	ND		11.0	50	100	09/01/2016 19:53
1,2,4-Trichlorobenzene	ND		8.60	50	100	09/01/2016 19:53
1,1,1-Trichloroethane	ND		5.00	50	100	09/01/2016 19:53
1,1,2-Trichloroethane	<b>30</b>	J	8.00	50	100	09/01/2016 19:53
Trichloroethene	ND		6.00	50	100	09/01/2016 19:53
Trichlorofluoromethane	ND		4.70	50	100	09/01/2016 19:53
1,2,3-Trichloropropane	ND		14.0	50	100	09/01/2016 19:53
1,2,4-Trimethylbenzene	<b>480</b>		6.50	50	100	09/01/2016 19:53
1,3,5-Trimethylbenzene	<b>100</b>		7.00	50	100	09/01/2016 19:53
Vinyl Chloride	ND		7.00	50	100	09/01/2016 19:53
Xylenes, Total	<b>3400</b>		25.0	50	100	09/01/2016 19:53

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



# Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L

## Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1608F84-008B	Water	08/30/2016 09:10	GC16	126049

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
Dibromofluoromethane	104			70-130		09/01/2016 19:53
Toluene-d8	107			70-130		09/01/2016 19:53
4-BFB	107			70-130		09/01/2016 19:53

Analyst(s): HK

Analytical Comments: c8



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 3.5-4'	1608F84-002A	Soil	08/30/2016 11:53	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
Acenaphthene	ND	0.14	0.25	1	09/02/2016 13:28
Acenaphthylene	ND	0.14	0.25	1	09/02/2016 13:28
Acetochlor	ND	0.25	0.25	1	09/02/2016 13:28
Anthracene	ND	0.14	0.25	1	09/02/2016 13:28
Benzidine	ND	0.23	1.3	1	09/02/2016 13:28
Benzo (a) anthracene	ND	0.14	0.25	1	09/02/2016 13:28
Benzo (a) pyrene	ND	0.14	0.25	1	09/02/2016 13:28
Benzo (b) fluoranthene	ND	0.14	0.25	1	09/02/2016 13:28
Benzo (g,h,i) perylene	ND	0.15	0.25	1	09/02/2016 13:28
Benzo (k) fluoranthene	ND	0.16	0.25	1	09/02/2016 13:28
Benzyl Alcohol	ND	0.51	1.3	1	09/02/2016 13:28
1,1-Biphenyl	ND	0.15	0.25	1	09/02/2016 13:28
Bis (2-chloroethoxy) Methane	ND	0.14	0.25	1	09/02/2016 13:28
Bis (2-chloroethyl) Ether	ND	0.13	0.25	1	09/02/2016 13:28
Bis (2-chloroisopropyl) Ether	ND	0.12	0.25	1	09/02/2016 13:28
Bis (2-ethylhexyl) Adipate	ND	0.25	0.25	1	09/02/2016 13:28
Bis (2-ethylhexyl) Phthalate	ND	0.13	0.25	1	09/02/2016 13:28
4-Bromophenyl Phenyl Ether	ND	0.16	0.25	1	09/02/2016 13:28
Butylbenzyl Phthalate	ND	0.13	0.25	1	09/02/2016 13:28
4-Chloroaniline	ND	0.13	0.50	1	09/02/2016 13:28
4-Chloro-3-methylphenol	ND	0.12	0.25	1	09/02/2016 13:28
2-Chloronaphthalene	ND	0.16	0.25	1	09/02/2016 13:28
2-Chlorophenol	ND	0.14	0.25	1	09/02/2016 13:28
4-Chlorophenyl Phenyl Ether	ND	0.15	0.25	1	09/02/2016 13:28
Chrysene	ND	0.14	0.25	1	09/02/2016 13:28
Dibenzo (a,h) anthracene	ND	0.16	0.25	1	09/02/2016 13:28
Dibenzofuran	ND	0.13	0.25	1	09/02/2016 13:28
Di-n-butyl Phthalate	ND	0.13	0.25	1	09/02/2016 13:28
1,2-Dichlorobenzene	ND	0.12	0.25	1	09/02/2016 13:28
1,3-Dichlorobenzene	ND	0.14	0.25	1	09/02/2016 13:28
1,4-Dichlorobenzene	ND	0.13	0.25	1	09/02/2016 13:28
3,3-Dichlorobenzidine	ND	0.12	0.50	1	09/02/2016 13:28
2,4-Dichlorophenol	ND	0.13	0.25	1	09/02/2016 13:28
Diethyl Phthalate	ND	0.14	0.25	1	09/02/2016 13:28
2,4-Dimethylphenol	ND	0.13	0.25	1	09/02/2016 13:28
Dimethyl Phthalate	ND	0.14	0.25	1	09/02/2016 13:28
4,6-Dinitro-2-methylphenol	ND	0.13	1.3	1	09/02/2016 13:28

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 3.5-4'	1608F84-002A	Soil	08/30/2016 11:53	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	1.3	6.3	1	09/02/2016 13:28
2,4-Dinitrotoluene	ND	0.13	0.25	1	09/02/2016 13:28
2,6-Dinitrotoluene	ND	0.14	0.25	1	09/02/2016 13:28
Di-n-octyl Phthalate	ND	0.14	0.50	1	09/02/2016 13:28
1,2-Diphenylhydrazine	ND	0.16	0.25	1	09/02/2016 13:28
Fluoranthene	ND	0.13	0.25	1	09/02/2016 13:28
Fluorene	ND	0.14	0.25	1	09/02/2016 13:28
Hexachlorobenzene	ND	0.17	0.25	1	09/02/2016 13:28
Hexachlorobutadiene	ND	0.15	0.25	1	09/02/2016 13:28
Hexachlorocyclopentadiene	ND	0.73	1.3	1	09/02/2016 13:28
Hexachloroethane	ND	0.14	0.25	1	09/02/2016 13:28
Indeno (1,2,3-cd) pyrene	ND	0.14	0.25	1	09/02/2016 13:28
Isophorone	ND	0.12	0.25	1	09/02/2016 13:28
2-Methylnaphthalene	ND	0.14	0.25	1	09/02/2016 13:28
2-Methylphenol (o-Cresol)	ND	0.14	0.25	1	09/02/2016 13:28
3 & 4-Methylphenol (m,p-Cresol)	ND	0.12	0.25	1	09/02/2016 13:28
Naphthalene	ND	0.13	0.25	1	09/02/2016 13:28
2-Nitroaniline	ND	0.62	1.3	1	09/02/2016 13:28
3-Nitroaniline	ND	0.59	1.3	1	09/02/2016 13:28
4-Nitroaniline	ND	0.55	1.3	1	09/02/2016 13:28
Nitrobenzene	ND	0.14	0.25	1	09/02/2016 13:28
2-Nitrophenol	ND	0.64	1.3	1	09/02/2016 13:28
4-Nitrophenol	ND	0.41	1.3	1	09/02/2016 13:28
N-Nitrosodiphenylamine	ND	0.16	0.25	1	09/02/2016 13:28
N-Nitrosodi-n-propylamine	ND	0.13	0.25	1	09/02/2016 13:28
Pentachlorophenol	ND	0.32	1.3	1	09/02/2016 13:28
Phenanthrene	ND	0.14	0.25	1	09/02/2016 13:28
Phenol	ND	0.12	0.25	1	09/02/2016 13:28
Pyrene	ND	0.13	0.25	1	09/02/2016 13:28
1,2,4-Trichlorobenzene	ND	0.14	0.25	1	09/02/2016 13:28
2,4,5-Trichlorophenol	ND	0.12	0.25	1	09/02/2016 13:28
2,4,6-Trichlorophenol	ND	0.14	0.25	1	09/02/2016 13:28

(Cont.)



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 3.5-4'	1608F84-002A	Soil	08/30/2016 11:53	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorophenol	74		30-130		09/02/2016 13:28
Phenol-d5	68		30-130		09/02/2016 13:28
Nitrobenzene-d5	63		30-130		09/02/2016 13:28
2-Fluorobiphenyl	63		30-130		09/02/2016 13:28
2,4,6-Tribromophenol	57		16-130		09/02/2016 13:28
4-Terphenyl-d14	64		30-130		09/02/2016 13:28

**Analyst(s):** REB



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 9.5-10'	1608F84-003A	Soil	08/30/2016 12:08	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
Acenaphthene	ND	0.14	0.25	1	09/02/2016 13:56
Acenaphthylene	ND	0.14	0.25	1	09/02/2016 13:56
Acetochlor	ND	0.25	0.25	1	09/02/2016 13:56
Anthracene	ND	0.14	0.25	1	09/02/2016 13:56
Benzidine	ND	0.23	1.3	1	09/02/2016 13:56
Benzo (a) anthracene	ND	0.14	0.25	1	09/02/2016 13:56
Benzo (a) pyrene	ND	0.14	0.25	1	09/02/2016 13:56
Benzo (b) fluoranthene	ND	0.14	0.25	1	09/02/2016 13:56
Benzo (g,h,i) perylene	ND	0.15	0.25	1	09/02/2016 13:56
Benzo (k) fluoranthene	ND	0.16	0.25	1	09/02/2016 13:56
Benzyl Alcohol	ND	0.51	1.3	1	09/02/2016 13:56
1,1-Biphenyl	ND	0.15	0.25	1	09/02/2016 13:56
Bis (2-chloroethoxy) Methane	ND	0.14	0.25	1	09/02/2016 13:56
Bis (2-chloroethyl) Ether	ND	0.13	0.25	1	09/02/2016 13:56
Bis (2-chloroisopropyl) Ether	ND	0.12	0.25	1	09/02/2016 13:56
Bis (2-ethylhexyl) Adipate	ND	0.25	0.25	1	09/02/2016 13:56
Bis (2-ethylhexyl) Phthalate	ND	0.13	0.25	1	09/02/2016 13:56
4-Bromophenyl Phenyl Ether	ND	0.16	0.25	1	09/02/2016 13:56
Butylbenzyl Phthalate	ND	0.13	0.25	1	09/02/2016 13:56
4-Chloroaniline	ND	0.13	0.50	1	09/02/2016 13:56
4-Chloro-3-methylphenol	ND	0.12	0.25	1	09/02/2016 13:56
2-Chloronaphthalene	ND	0.16	0.25	1	09/02/2016 13:56
2-Chlorophenol	ND	0.14	0.25	1	09/02/2016 13:56
4-Chlorophenyl Phenyl Ether	ND	0.15	0.25	1	09/02/2016 13:56
Chrysene	ND	0.14	0.25	1	09/02/2016 13:56
Dibenzo (a,h) anthracene	ND	0.16	0.25	1	09/02/2016 13:56
Dibenzofuran	ND	0.13	0.25	1	09/02/2016 13:56
Di-n-butyl Phthalate	ND	0.13	0.25	1	09/02/2016 13:56
1,2-Dichlorobenzene	ND	0.12	0.25	1	09/02/2016 13:56
1,3-Dichlorobenzene	ND	0.14	0.25	1	09/02/2016 13:56
1,4-Dichlorobenzene	ND	0.13	0.25	1	09/02/2016 13:56
3,3-Dichlorobenzidine	ND	0.12	0.50	1	09/02/2016 13:56
2,4-Dichlorophenol	ND	0.13	0.25	1	09/02/2016 13:56
Diethyl Phthalate	ND	0.14	0.25	1	09/02/2016 13:56
2,4-Dimethylphenol	ND	0.13	0.25	1	09/02/2016 13:56
Dimethyl Phthalate	ND	0.14	0.25	1	09/02/2016 13:56
4,6-Dinitro-2-methylphenol	ND	0.13	1.3	1	09/02/2016 13:56

(Cont.)



# Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 9.5-10'	1608F84-003A	Soil	08/30/2016 12:08	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	1.3	6.3	1	09/02/2016 13:56
2,4-Dinitrotoluene	ND	0.13	0.25	1	09/02/2016 13:56
2,6-Dinitrotoluene	ND	0.14	0.25	1	09/02/2016 13:56
Di-n-octyl Phthalate	ND	0.14	0.50	1	09/02/2016 13:56
1,2-Diphenylhydrazine	ND	0.16	0.25	1	09/02/2016 13:56
Fluoranthene	ND	0.13	0.25	1	09/02/2016 13:56
Fluorene	ND	0.14	0.25	1	09/02/2016 13:56
Hexachlorobenzene	ND	0.17	0.25	1	09/02/2016 13:56
Hexachlorobutadiene	ND	0.15	0.25	1	09/02/2016 13:56
Hexachlorocyclopentadiene	ND	0.73	1.3	1	09/02/2016 13:56
Hexachloroethane	ND	0.14	0.25	1	09/02/2016 13:56
Indeno (1,2,3-cd) pyrene	ND	0.14	0.25	1	09/02/2016 13:56
Isophorone	ND	0.12	0.25	1	09/02/2016 13:56
2-Methylnaphthalene	ND	0.14	0.25	1	09/02/2016 13:56
2-Methylphenol (o-Cresol)	ND	0.14	0.25	1	09/02/2016 13:56
3 & 4-Methylphenol (m,p-Cresol)	ND	0.12	0.25	1	09/02/2016 13:56
Naphthalene	ND	0.13	0.25	1	09/02/2016 13:56
2-Nitroaniline	ND	0.62	1.3	1	09/02/2016 13:56
3-Nitroaniline	ND	0.59	1.3	1	09/02/2016 13:56
4-Nitroaniline	ND	0.55	1.3	1	09/02/2016 13:56
Nitrobenzene	ND	0.14	0.25	1	09/02/2016 13:56
2-Nitrophenol	ND	0.64	1.3	1	09/02/2016 13:56
4-Nitrophenol	ND	0.41	1.3	1	09/02/2016 13:56
N-Nitrosodiphenylamine	ND	0.16	0.25	1	09/02/2016 13:56
N-Nitrosodi-n-propylamine	ND	0.13	0.25	1	09/02/2016 13:56
Pentachlorophenol	ND	0.32	1.3	1	09/02/2016 13:56
Phenanthrene	ND	0.14	0.25	1	09/02/2016 13:56
Phenol	ND	0.12	0.25	1	09/02/2016 13:56
Pyrene	ND	0.13	0.25	1	09/02/2016 13:56
1,2,4-Trichlorobenzene	ND	0.14	0.25	1	09/02/2016 13:56
2,4,5-Trichlorophenol	ND	0.12	0.25	1	09/02/2016 13:56
2,4,6-Trichlorophenol	ND	0.14	0.25	1	09/02/2016 13:56

(Cont.)



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 9.5-10'	1608F84-003A	Soil	08/30/2016 12:08	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorophenol	76		30-130		09/02/2016 13:56
Phenol-d5	72		30-130		09/02/2016 13:56
Nitrobenzene-d5	64		30-130		09/02/2016 13:56
2-Fluorobiphenyl	66		30-130		09/02/2016 13:56
2,4,6-Tribromophenol	59		16-130		09/02/2016 13:56
4-Terphenyl-d14	69		30-130		09/02/2016 13:56

**Analyst(s):** REB





## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 4.5-5'	1608F84-004A	Soil	08/30/2016 14:00	GC21	126010
Analytes	Result	MDL	RL	DF	Date Analyzed
Acenaphthene	ND	0.14	0.25	1	09/02/2016 14:24
Acenaphthylene	ND	0.14	0.25	1	09/02/2016 14:24
Acetochlor	ND	0.25	0.25	1	09/02/2016 14:24
Anthracene	ND	0.14	0.25	1	09/02/2016 14:24
Benzidine	ND	0.23	1.3	1	09/02/2016 14:24
Benzo (a) anthracene	ND	0.14	0.25	1	09/02/2016 14:24
Benzo (a) pyrene	ND	0.14	0.25	1	09/02/2016 14:24
Benzo (b) fluoranthene	ND	0.14	0.25	1	09/02/2016 14:24
Benzo (g,h,i) perylene	ND	0.15	0.25	1	09/02/2016 14:24
Benzo (k) fluoranthene	ND	0.16	0.25	1	09/02/2016 14:24
Benzyl Alcohol	ND	0.51	1.3	1	09/02/2016 14:24
1,1-Biphenyl	ND	0.15	0.25	1	09/02/2016 14:24
Bis (2-chloroethoxy) Methane	ND	0.14	0.25	1	09/02/2016 14:24
Bis (2-chloroethyl) Ether	ND	0.13	0.25	1	09/02/2016 14:24
Bis (2-chloroisopropyl) Ether	ND	0.12	0.25	1	09/02/2016 14:24
Bis (2-ethylhexyl) Adipate	ND	0.25	0.25	1	09/02/2016 14:24
Bis (2-ethylhexyl) Phthalate	ND	0.13	0.25	1	09/02/2016 14:24
4-Bromophenyl Phenyl Ether	ND	0.16	0.25	1	09/02/2016 14:24
Butylbenzyl Phthalate	ND	0.13	0.25	1	09/02/2016 14:24
4-Chloroaniline	ND	0.13	0.50	1	09/02/2016 14:24
4-Chloro-3-methylphenol	ND	0.12	0.25	1	09/02/2016 14:24
2-Chloronaphthalene	ND	0.16	0.25	1	09/02/2016 14:24
2-Chlorophenol	ND	0.14	0.25	1	09/02/2016 14:24
4-Chlorophenyl Phenyl Ether	ND	0.15	0.25	1	09/02/2016 14:24
Chrysene	ND	0.14	0.25	1	09/02/2016 14:24
Dibenzo (a,h) anthracene	ND	0.16	0.25	1	09/02/2016 14:24
Dibenzofuran	ND	0.13	0.25	1	09/02/2016 14:24
Di-n-butyl Phthalate	ND	0.13	0.25	1	09/02/2016 14:24
1,2-Dichlorobenzene	ND	0.12	0.25	1	09/02/2016 14:24
1,3-Dichlorobenzene	ND	0.14	0.25	1	09/02/2016 14:24
1,4-Dichlorobenzene	ND	0.13	0.25	1	09/02/2016 14:24
3,3-Dichlorobenzidine	ND	0.12	0.50	1	09/02/2016 14:24
2,4-Dichlorophenol	ND	0.13	0.25	1	09/02/2016 14:24
Diethyl Phthalate	ND	0.14	0.25	1	09/02/2016 14:24
2,4-Dimethylphenol	ND	0.13	0.25	1	09/02/2016 14:24
Dimethyl Phthalate	ND	0.14	0.25	1	09/02/2016 14:24
4,6-Dinitro-2-methylphenol	ND	0.13	1.3	1	09/02/2016 14:24

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 4.5-5'	1608F84-004A	Soil	08/30/2016 14:00	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	1.3	6.3	1	09/02/2016 14:24
2,4-Dinitrotoluene	ND	0.13	0.25	1	09/02/2016 14:24
2,6-Dinitrotoluene	ND	0.14	0.25	1	09/02/2016 14:24
Di-n-octyl Phthalate	ND	0.14	0.50	1	09/02/2016 14:24
1,2-Diphenylhydrazine	ND	0.16	0.25	1	09/02/2016 14:24
Fluoranthene	ND	0.13	0.25	1	09/02/2016 14:24
Fluorene	ND	0.14	0.25	1	09/02/2016 14:24
Hexachlorobenzene	ND	0.17	0.25	1	09/02/2016 14:24
Hexachlorobutadiene	ND	0.15	0.25	1	09/02/2016 14:24
Hexachlorocyclopentadiene	ND	0.73	1.3	1	09/02/2016 14:24
Hexachloroethane	ND	0.14	0.25	1	09/02/2016 14:24
Indeno (1,2,3-cd) pyrene	ND	0.14	0.25	1	09/02/2016 14:24
Isophorone	ND	0.12	0.25	1	09/02/2016 14:24
2-Methylnaphthalene	ND	0.14	0.25	1	09/02/2016 14:24
2-Methylphenol (o-Cresol)	ND	0.14	0.25	1	09/02/2016 14:24
3 & 4-Methylphenol (m,p-Cresol)	ND	0.12	0.25	1	09/02/2016 14:24
Naphthalene	ND	0.13	0.25	1	09/02/2016 14:24
2-Nitroaniline	ND	0.62	1.3	1	09/02/2016 14:24
3-Nitroaniline	ND	0.59	1.3	1	09/02/2016 14:24
4-Nitroaniline	ND	0.55	1.3	1	09/02/2016 14:24
Nitrobenzene	ND	0.14	0.25	1	09/02/2016 14:24
2-Nitrophenol	ND	0.64	1.3	1	09/02/2016 14:24
4-Nitrophenol	ND	0.41	1.3	1	09/02/2016 14:24
N-Nitrosodiphenylamine	ND	0.16	0.25	1	09/02/2016 14:24
N-Nitrosodi-n-propylamine	ND	0.13	0.25	1	09/02/2016 14:24
Pentachlorophenol	ND	0.32	1.3	1	09/02/2016 14:24
Phenanthrene	ND	0.14	0.25	1	09/02/2016 14:24
Phenol	ND	0.12	0.25	1	09/02/2016 14:24
Pyrene	ND	0.13	0.25	1	09/02/2016 14:24
1,2,4-Trichlorobenzene	ND	0.14	0.25	1	09/02/2016 14:24
2,4,5-Trichlorophenol	ND	0.12	0.25	1	09/02/2016 14:24
2,4,6-Trichlorophenol	ND	0.14	0.25	1	09/02/2016 14:24

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 4.5-5'	1608F84-004A	Soil	08/30/2016 14:00	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorophenol	89		30-130		09/02/2016 14:24
Phenol-d5	80		30-130		09/02/2016 14:24
Nitrobenzene-d5	70		30-130		09/02/2016 14:24
2-Fluorobiphenyl	69		30-130		09/02/2016 14:24
2,4,6-Tribromophenol	64		16-130		09/02/2016 14:24
4-Terphenyl-d14	76		30-130		09/02/2016 14:24

Analyst(s): REB



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 7.5-8'	1608F84-005A	Soil	08/30/2016 14:06	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
Acenaphthene	ND	0.14	0.25	1	09/02/2016 14:52
Acenaphthylene	ND	0.14	0.25	1	09/02/2016 14:52
Acetochlor	ND	0.25	0.25	1	09/02/2016 14:52
Anthracene	ND	0.14	0.25	1	09/02/2016 14:52
Benzidine	ND	0.23	1.3	1	09/02/2016 14:52
Benzo (a) anthracene	ND	0.14	0.25	1	09/02/2016 14:52
Benzo (a) pyrene	ND	0.14	0.25	1	09/02/2016 14:52
Benzo (b) fluoranthene	ND	0.14	0.25	1	09/02/2016 14:52
Benzo (g,h,i) perylene	ND	0.15	0.25	1	09/02/2016 14:52
Benzo (k) fluoranthene	ND	0.16	0.25	1	09/02/2016 14:52
Benzyl Alcohol	ND	0.51	1.3	1	09/02/2016 14:52
1,1-Biphenyl	ND	0.15	0.25	1	09/02/2016 14:52
Bis (2-chloroethoxy) Methane	ND	0.14	0.25	1	09/02/2016 14:52
Bis (2-chloroethyl) Ether	ND	0.13	0.25	1	09/02/2016 14:52
Bis (2-chloroisopropyl) Ether	ND	0.12	0.25	1	09/02/2016 14:52
Bis (2-ethylhexyl) Adipate	ND	0.25	0.25	1	09/02/2016 14:52
Bis (2-ethylhexyl) Phthalate	ND	0.13	0.25	1	09/02/2016 14:52
4-Bromophenyl Phenyl Ether	ND	0.16	0.25	1	09/02/2016 14:52
Butylbenzyl Phthalate	ND	0.13	0.25	1	09/02/2016 14:52
4-Chloroaniline	ND	0.13	0.50	1	09/02/2016 14:52
4-Chloro-3-methylphenol	ND	0.12	0.25	1	09/02/2016 14:52
2-Chloronaphthalene	ND	0.16	0.25	1	09/02/2016 14:52
2-Chlorophenol	ND	0.14	0.25	1	09/02/2016 14:52
4-Chlorophenyl Phenyl Ether	ND	0.15	0.25	1	09/02/2016 14:52
Chrysene	ND	0.14	0.25	1	09/02/2016 14:52
Dibenzo (a,h) anthracene	ND	0.16	0.25	1	09/02/2016 14:52
Dibenzofuran	ND	0.13	0.25	1	09/02/2016 14:52
Di-n-butyl Phthalate	ND	0.13	0.25	1	09/02/2016 14:52
1,2-Dichlorobenzene	ND	0.12	0.25	1	09/02/2016 14:52
1,3-Dichlorobenzene	ND	0.14	0.25	1	09/02/2016 14:52
1,4-Dichlorobenzene	ND	0.13	0.25	1	09/02/2016 14:52
3,3-Dichlorobenzidine	ND	0.12	0.50	1	09/02/2016 14:52
2,4-Dichlorophenol	ND	0.13	0.25	1	09/02/2016 14:52
Diethyl Phthalate	ND	0.14	0.25	1	09/02/2016 14:52
2,4-Dimethylphenol	ND	0.13	0.25	1	09/02/2016 14:52
Dimethyl Phthalate	ND	0.14	0.25	1	09/02/2016 14:52
4,6-Dinitro-2-methylphenol	ND	0.13	1.3	1	09/02/2016 14:52

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 7.5-8'	1608F84-005A	Soil	08/30/2016 14:06	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	1.3	6.3	1	09/02/2016 14:52
2,4-Dinitrotoluene	ND	0.13	0.25	1	09/02/2016 14:52
2,6-Dinitrotoluene	ND	0.14	0.25	1	09/02/2016 14:52
Di-n-octyl Phthalate	ND	0.14	0.50	1	09/02/2016 14:52
1,2-Diphenylhydrazine	ND	0.16	0.25	1	09/02/2016 14:52
Fluoranthene	ND	0.13	0.25	1	09/02/2016 14:52
Fluorene	ND	0.14	0.25	1	09/02/2016 14:52
Hexachlorobenzene	ND	0.17	0.25	1	09/02/2016 14:52
Hexachlorobutadiene	ND	0.15	0.25	1	09/02/2016 14:52
Hexachlorocyclopentadiene	ND	0.73	1.3	1	09/02/2016 14:52
Hexachloroethane	ND	0.14	0.25	1	09/02/2016 14:52
Indeno (1,2,3-cd) pyrene	ND	0.14	0.25	1	09/02/2016 14:52
Isophorone	ND	0.12	0.25	1	09/02/2016 14:52
2-Methylnaphthalene	ND	0.14	0.25	1	09/02/2016 14:52
2-Methylphenol (o-Cresol)	ND	0.14	0.25	1	09/02/2016 14:52
3 & 4-Methylphenol (m,p-Cresol)	ND	0.12	0.25	1	09/02/2016 14:52
Naphthalene	ND	0.13	0.25	1	09/02/2016 14:52
2-Nitroaniline	ND	0.62	1.3	1	09/02/2016 14:52
3-Nitroaniline	ND	0.59	1.3	1	09/02/2016 14:52
4-Nitroaniline	ND	0.55	1.3	1	09/02/2016 14:52
Nitrobenzene	ND	0.14	0.25	1	09/02/2016 14:52
2-Nitrophenol	ND	0.64	1.3	1	09/02/2016 14:52
4-Nitrophenol	ND	0.41	1.3	1	09/02/2016 14:52
N-Nitrosodiphenylamine	ND	0.16	0.25	1	09/02/2016 14:52
N-Nitrosodi-n-propylamine	ND	0.13	0.25	1	09/02/2016 14:52
Pentachlorophenol	ND	0.32	1.3	1	09/02/2016 14:52
Phenanthrene	ND	0.14	0.25	1	09/02/2016 14:52
Phenol	ND	0.12	0.25	1	09/02/2016 14:52
Pyrene	ND	0.13	0.25	1	09/02/2016 14:52
1,2,4-Trichlorobenzene	ND	0.14	0.25	1	09/02/2016 14:52
2,4,5-Trichlorophenol	ND	0.12	0.25	1	09/02/2016 14:52
2,4,6-Trichlorophenol	ND	0.14	0.25	1	09/02/2016 14:52

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# Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 7.5-8'	1608F84-005A	Soil	08/30/2016 14:06	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>	
2-Fluorophenol	86			30-130	09/02/2016 14:52
Phenol-d5	79			30-130	09/02/2016 14:52
Nitrobenzene-d5	71			30-130	09/02/2016 14:52
2-Fluorobiphenyl	72			30-130	09/02/2016 14:52
2,4,6-Tribromophenol	62			16-130	09/02/2016 14:52
4-Terphenyl-d14	74			30-130	09/02/2016 14:52

Analyst(s): REB



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1, 3.5-4'	1608F84-007A	Soil	08/30/2016 09:16	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
Acenaphthene	ND	1.1	2.0	1	09/06/2016 11:25
Acenaphthylene	ND	1.1	2.0	1	09/06/2016 11:25
Acetochlor	ND	2.0	2.0	1	09/06/2016 11:25
Anthracene	ND	1.1	2.0	1	09/06/2016 11:25
Benzidine	ND	1.8	10	1	09/06/2016 11:25
Benzo (a) anthracene	ND	1.1	2.0	1	09/06/2016 11:25
Benzo (a) pyrene	ND	1.1	2.0	1	09/06/2016 11:25
Benzo (b) fluoranthene	ND	1.1	2.0	1	09/06/2016 11:25
Benzo (g,h,i) perylene	ND	1.2	2.0	1	09/06/2016 11:25
Benzo (k) fluoranthene	ND	1.3	2.0	1	09/06/2016 11:25
Benzyl Alcohol	ND	4.1	10	1	09/06/2016 11:25
1,1-Biphenyl	ND	1.2	2.0	1	09/06/2016 11:25
Bis (2-chloroethoxy) Methane	ND	1.1	2.0	1	09/06/2016 11:25
Bis (2-chloroethyl) Ether	ND	1.0	2.0	1	09/06/2016 11:25
Bis (2-chloroisopropyl) Ether	ND	0.96	2.0	1	09/06/2016 11:25
Bis (2-ethylhexyl) Adipate	ND	2.0	2.0	1	09/06/2016 11:25
Bis (2-ethylhexyl) Phthalate	ND	1.0	2.0	1	09/06/2016 11:25
4-Bromophenyl Phenyl Ether	ND	1.3	2.0	1	09/06/2016 11:25
Butylbenzyl Phthalate	ND	1.0	2.0	1	09/06/2016 11:25
4-Chloroaniline	ND	1.0	4.0	1	09/06/2016 11:25
4-Chloro-3-methylphenol	ND	0.96	2.0	1	09/06/2016 11:25
2-Chloronaphthalene	ND	1.3	2.0	1	09/06/2016 11:25
2-Chlorophenol	ND	1.1	2.0	1	09/06/2016 11:25
4-Chlorophenyl Phenyl Ether	ND	1.2	2.0	1	09/06/2016 11:25
Chrysene	ND	1.1	2.0	1	09/06/2016 11:25
Dibenzo (a,h) anthracene	ND	1.3	2.0	1	09/06/2016 11:25
Dibenzofuran	ND	1.0	2.0	1	09/06/2016 11:25
Di-n-butyl Phthalate	ND	1.0	2.0	1	09/06/2016 11:25
1,2-Dichlorobenzene	ND	0.96	2.0	1	09/06/2016 11:25
1,3-Dichlorobenzene	ND	1.1	2.0	1	09/06/2016 11:25
1,4-Dichlorobenzene	ND	1.0	2.0	1	09/06/2016 11:25
3,3-Dichlorobenzidine	ND	0.96	4.0	1	09/06/2016 11:25
2,4-Dichlorophenol	ND	1.0	2.0	1	09/06/2016 11:25
Diethyl Phthalate	ND	1.1	2.0	1	09/06/2016 11:25
2,4-Dimethylphenol	ND	1.0	2.0	1	09/06/2016 11:25
Dimethyl Phthalate	ND	1.1	2.0	1	09/06/2016 11:25
4,6-Dinitro-2-methylphenol	ND	1.0	10	1	09/06/2016 11:25

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1, 3.5-4'	1608F84-007A	Soil	08/30/2016 09:16	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	10	50	1	09/06/2016 11:25
2,4-Dinitrotoluene	ND	1.0	2.0	1	09/06/2016 11:25
2,6-Dinitrotoluene	ND	1.1	2.0	1	09/06/2016 11:25
Di-n-octyl Phthalate	ND	1.1	4.0	1	09/06/2016 11:25
1,2-Diphenylhydrazine	ND	1.3	2.0	1	09/06/2016 11:25
Fluoranthene	ND	1.0	2.0	1	09/06/2016 11:25
Fluorene	ND	1.1	2.0	1	09/06/2016 11:25
Hexachlorobenzene	ND	1.4	2.0	1	09/06/2016 11:25
Hexachlorobutadiene	ND	1.2	2.0	1	09/06/2016 11:25
Hexachlorocyclopentadiene	ND	5.8	10	1	09/06/2016 11:25
Hexachloroethane	ND	1.1	2.0	1	09/06/2016 11:25
Indeno (1,2,3-cd) pyrene	ND	1.1	2.0	1	09/06/2016 11:25
Isophorone	ND	0.96	2.0	1	09/06/2016 11:25
2-Methylnaphthalene	ND	1.1	2.0	1	09/06/2016 11:25
2-Methylphenol (o-Cresol)	ND	1.1	2.0	1	09/06/2016 11:25
3 & 4-Methylphenol (m,p-Cresol)	ND	0.96	2.0	1	09/06/2016 11:25
Naphthalene	ND	1.0	2.0	1	09/06/2016 11:25
2-Nitroaniline	ND	5.0	10	1	09/06/2016 11:25
3-Nitroaniline	ND	4.7	10	1	09/06/2016 11:25
4-Nitroaniline	ND	4.4	10	1	09/06/2016 11:25
Nitrobenzene	ND	1.1	2.0	1	09/06/2016 11:25
2-Nitrophenol	ND	5.1	10	1	09/06/2016 11:25
4-Nitrophenol	ND	3.3	10	1	09/06/2016 11:25
N-Nitrosodiphenylamine	ND	1.3	2.0	1	09/06/2016 11:25
N-Nitrosodi-n-propylamine	ND	1.0	2.0	1	09/06/2016 11:25
Pentachlorophenol	ND	2.6	10	1	09/06/2016 11:25
Phenanthrene	ND	1.1	2.0	1	09/06/2016 11:25
Phenol	ND	0.96	2.0	1	09/06/2016 11:25
Pyrene	ND	1.0	2.0	1	09/06/2016 11:25
1,2,4-Trichlorobenzene	ND	1.1	2.0	1	09/06/2016 11:25
2,4,5-Trichlorophenol	ND	0.96	2.0	1	09/06/2016 11:25
2,4,6-Trichlorophenol	ND	1.1	2.0	1	09/06/2016 11:25

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1, 3.5-4'	1608F84-007A	Soil	08/30/2016 09:16	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorophenol	72		30-130		09/06/2016 11:25
Phenol-d5	61		30-130		09/06/2016 11:25
Nitrobenzene-d5	73		30-130		09/06/2016 11:25
2-Fluorobiphenyl	83		30-130		09/06/2016 11:25
2,4,6-Tribromophenol	58		16-130		09/06/2016 11:25
4-Terphenyl-d14	97		30-130		09/06/2016 11:25

**Analyst(s):** REB

**Analytical Comments:** a4



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2, 3.5-4'	1608F84-009A	Soil	08/30/2016 08:29	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
Acenaphthene	ND	1.1	2.0	1	09/06/2016 11:53
Acenaphthylene	ND	1.1	2.0	1	09/06/2016 11:53
Acetochlor	ND	2.0	2.0	1	09/06/2016 11:53
Anthracene	ND	1.1	2.0	1	09/06/2016 11:53
Benzidine	ND	1.8	10	1	09/06/2016 11:53
Benzo (a) anthracene	ND	1.1	2.0	1	09/06/2016 11:53
Benzo (a) pyrene	ND	1.1	2.0	1	09/06/2016 11:53
Benzo (b) fluoranthene	ND	1.1	2.0	1	09/06/2016 11:53
Benzo (g,h,i) perylene	ND	1.2	2.0	1	09/06/2016 11:53
Benzo (k) fluoranthene	ND	1.3	2.0	1	09/06/2016 11:53
Benzyl Alcohol	ND	4.1	10	1	09/06/2016 11:53
1,1-Biphenyl	ND	1.2	2.0	1	09/06/2016 11:53
Bis (2-chloroethoxy) Methane	ND	1.1	2.0	1	09/06/2016 11:53
Bis (2-chloroethyl) Ether	ND	1.0	2.0	1	09/06/2016 11:53
Bis (2-chloroisopropyl) Ether	ND	0.96	2.0	1	09/06/2016 11:53
Bis (2-ethylhexyl) Adipate	ND	2.0	2.0	1	09/06/2016 11:53
Bis (2-ethylhexyl) Phthalate	ND	1.0	2.0	1	09/06/2016 11:53
4-Bromophenyl Phenyl Ether	ND	1.3	2.0	1	09/06/2016 11:53
Butylbenzyl Phthalate	ND	1.0	2.0	1	09/06/2016 11:53
4-Chloroaniline	ND	1.0	4.0	1	09/06/2016 11:53
4-Chloro-3-methylphenol	ND	0.96	2.0	1	09/06/2016 11:53
2-Chloronaphthalene	ND	1.3	2.0	1	09/06/2016 11:53
2-Chlorophenol	ND	1.1	2.0	1	09/06/2016 11:53
4-Chlorophenyl Phenyl Ether	ND	1.2	2.0	1	09/06/2016 11:53
Chrysene	ND	1.1	2.0	1	09/06/2016 11:53
Dibenzo (a,h) anthracene	ND	1.3	2.0	1	09/06/2016 11:53
Dibenzofuran	ND	1.0	2.0	1	09/06/2016 11:53
Di-n-butyl Phthalate	ND	1.0	2.0	1	09/06/2016 11:53
1,2-Dichlorobenzene	ND	0.96	2.0	1	09/06/2016 11:53
1,3-Dichlorobenzene	ND	1.1	2.0	1	09/06/2016 11:53
1,4-Dichlorobenzene	ND	1.0	2.0	1	09/06/2016 11:53
3,3-Dichlorobenzidine	ND	0.96	4.0	1	09/06/2016 11:53
2,4-Dichlorophenol	ND	1.0	2.0	1	09/06/2016 11:53
Diethyl Phthalate	ND	1.1	2.0	1	09/06/2016 11:53
2,4-Dimethylphenol	ND	1.0	2.0	1	09/06/2016 11:53
Dimethyl Phthalate	ND	1.1	2.0	1	09/06/2016 11:53
4,6-Dinitro-2-methylphenol	ND	1.0	10	1	09/06/2016 11:53

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# Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2, 3.5-4'	1608F84-009A	Soil	08/30/2016 08:29	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND	10	50	1	09/06/2016 11:53
2,4-Dinitrotoluene	ND	1.0	2.0	1	09/06/2016 11:53
2,6-Dinitrotoluene	ND	1.1	2.0	1	09/06/2016 11:53
Di-n-octyl Phthalate	ND	1.1	4.0	1	09/06/2016 11:53
1,2-Diphenylhydrazine	ND	1.3	2.0	1	09/06/2016 11:53
Fluoranthene	ND	1.0	2.0	1	09/06/2016 11:53
Fluorene	ND	1.1	2.0	1	09/06/2016 11:53
Hexachlorobenzene	ND	1.4	2.0	1	09/06/2016 11:53
Hexachlorobutadiene	ND	1.2	2.0	1	09/06/2016 11:53
Hexachlorocyclopentadiene	ND	5.8	10	1	09/06/2016 11:53
Hexachloroethane	ND	1.1	2.0	1	09/06/2016 11:53
Indeno (1,2,3-cd) pyrene	ND	1.1	2.0	1	09/06/2016 11:53
Isophorone	ND	0.96	2.0	1	09/06/2016 11:53
2-Methylnaphthalene	ND	1.1	2.0	1	09/06/2016 11:53
2-Methylphenol (o-Cresol)	ND	1.1	2.0	1	09/06/2016 11:53
3 & 4-Methylphenol (m,p-Cresol)	ND	0.96	2.0	1	09/06/2016 11:53
Naphthalene	ND	1.0	2.0	1	09/06/2016 11:53
2-Nitroaniline	ND	5.0	10	1	09/06/2016 11:53
3-Nitroaniline	ND	4.7	10	1	09/06/2016 11:53
4-Nitroaniline	ND	4.4	10	1	09/06/2016 11:53
Nitrobenzene	ND	1.1	2.0	1	09/06/2016 11:53
2-Nitrophenol	ND	5.1	10	1	09/06/2016 11:53
4-Nitrophenol	ND	3.3	10	1	09/06/2016 11:53
N-Nitrosodiphenylamine	ND	1.3	2.0	1	09/06/2016 11:53
N-Nitrosodi-n-propylamine	ND	1.0	2.0	1	09/06/2016 11:53
Pentachlorophenol	ND	2.6	10	1	09/06/2016 11:53
Phenanthrene	ND	1.1	2.0	1	09/06/2016 11:53
Phenol	ND	0.96	2.0	1	09/06/2016 11:53
Pyrene	ND	1.0	2.0	1	09/06/2016 11:53
1,2,4-Trichlorobenzene	ND	1.1	2.0	1	09/06/2016 11:53
2,4,5-Trichlorophenol	ND	0.96	2.0	1	09/06/2016 11:53
2,4,6-Trichlorophenol	ND	1.1	2.0	1	09/06/2016 11:53

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# Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2, 3.5-4'	1608F84-009A	Soil	08/30/2016 08:29	GC21	126010

Analytes	Result	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorophenol	68		30-130		09/06/2016 11:53
Phenol-d5	53		30-130		09/06/2016 11:53
Nitrobenzene-d5	65		30-130		09/06/2016 11:53
2-Fluorobiphenyl	79		30-130		09/06/2016 11:53
2,4,6-Tribromophenol	57		16-130		09/06/2016 11:53
4-Terphenyl-d14	89		30-130		09/06/2016 11:53

Analyst(s): REB

Analytical Comments: a4



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-5	1608F84-001B	Water	08/30/2016 13:05	GC21	125960	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acenaphthene	ND		1.3	11	5	09/01/2016 20:34
Acenaphthylene	ND		1.4	11	5	09/01/2016 20:34
Acetochlor	ND		5.5	11	5	09/01/2016 20:34
Anthracene	ND		0.82	11	5	09/01/2016 20:34
Benzidine	ND		1.6	55	5	09/01/2016 20:34
Benzo (a) anthracene	ND		0.88	11	5	09/01/2016 20:34
Benzo (a) pyrene	ND		0.93	11	5	09/01/2016 20:34
Benzo (b) fluoranthene	ND		0.88	11	5	09/01/2016 20:34
Benzo (g,h,i) perylene	ND		0.99	11	5	09/01/2016 20:34
Benzo (k) fluoranthene	ND		1.1	11	5	09/01/2016 20:34
Benzyl Alcohol	ND		8.2	55	5	09/01/2016 20:34
1,1-Biphenyl	ND		1.4	11	5	09/01/2016 20:34
Bis (2-chloroethoxy) Methane	ND		1.6	11	5	09/01/2016 20:34
Bis (2-chloroethyl) Ether	ND		1.3	11	5	09/01/2016 20:34
Bis (2-chloroisopropyl) Ether	ND		1.5	11	5	09/01/2016 20:34
Bis (2-ethylhexyl) Adipate	ND		11	11	5	09/01/2016 20:34
Bis (2-ethylhexyl) Phthalate	ND		1.9	22	5	09/01/2016 20:34
4-Bromophenyl Phenyl Ether	ND		0.93	55	5	09/01/2016 20:34
Butylbenzyl Phthalate	ND		1.6	11	5	09/01/2016 20:34
4-Chloroaniline	ND		1.8	22	5	09/01/2016 20:34
4-Chloro-3-methylphenol	ND		1.5	55	5	09/01/2016 20:34
2-Chloronaphthalene	ND		1.4	11	5	09/01/2016 20:34
2-Chlorophenol	ND		1.4	11	5	09/01/2016 20:34
4-Chlorophenyl Phenyl Ether	ND		1.1	11	5	09/01/2016 20:34
Chrysene	ND		0.99	11	5	09/01/2016 20:34
Dibenzo (a,h) anthracene	ND		1.0	11	5	09/01/2016 20:34
Dibenzofuran	ND		1.2	11	5	09/01/2016 20:34
Di-n-butyl Phthalate	ND		1.6	11	5	09/01/2016 20:34
1,2-Dichlorobenzene	ND		1.3	11	5	09/01/2016 20:34
1,3-Dichlorobenzene	ND		1.2	11	5	09/01/2016 20:34
1,4-Dichlorobenzene	ND		1.2	11	5	09/01/2016 20:34
3,3-Dichlorobenzidine	ND		0.77	22	5	09/01/2016 20:34
2,4-Dichlorophenol	ND		1.5	11	5	09/01/2016 20:34
Diethyl Phthalate	ND		0.82	11	5	09/01/2016 20:34
2,4-Dimethylphenol	ND		0.54	11	5	09/01/2016 20:34
Dimethyl Phthalate	ND		0.99	11	5	09/01/2016 20:34
4,6-Dinitro-2-methylphenol	ND		5.4	55	5	09/01/2016 20:34

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-5	1608F84-001B	Water	08/30/2016 13:05	GC21	125960	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND		4.8	140	5	09/01/2016 20:34
2,4-Dinitrotoluene	ND		0.93	11	5	09/01/2016 20:34
2,6-Dinitrotoluene	ND		1.1	11	5	09/01/2016 20:34
Di-n-octyl Phthalate	3.1	J	1.5	11	5	09/01/2016 20:34
1,2-Diphenylhydrazine	ND		0.88	11	5	09/01/2016 20:34
Fluoranthene	ND		0.99	11	5	09/01/2016 20:34
Fluorene	ND		1.1	11	5	09/01/2016 20:34
Hexachlorobenzene	ND		0.99	11	5	09/01/2016 20:34
Hexachlorobutadiene	ND		1.3	11	5	09/01/2016 20:34
Hexachlorocyclopentadiene	ND		6.6	55	5	09/01/2016 20:34
Hexachloroethane	ND		1.6	11	5	09/01/2016 20:34
Indeno (1,2,3-cd) pyrene	ND		1.0	11	5	09/01/2016 20:34
Isophorone	ND		1.8	11	5	09/01/2016 20:34
2-Methylnaphthalene	ND		1.6	11	5	09/01/2016 20:34
2-Methylphenol (o-Cresol)	ND		1.0	11	5	09/01/2016 20:34
3 & 4-Methylphenol (m,p-Cresol)	ND		1.0	11	5	09/01/2016 20:34
Naphthalene	ND		1.3	11	5	09/01/2016 20:34
2-Nitroaniline	ND		7.1	55	5	09/01/2016 20:34
3-Nitroaniline	ND		6.6	55	5	09/01/2016 20:34
4-Nitroaniline	ND		6.6	55	5	09/01/2016 20:34
Nitrobenzene	ND		1.8	11	5	09/01/2016 20:34
2-Nitrophenol	ND		7.7	55	5	09/01/2016 20:34
4-Nitrophenol	ND		9.3	55	5	09/01/2016 20:34
N-Nitrosodiphenylamine	ND		0.99	11	5	09/01/2016 20:34
N-Nitrosodi-n-propylamine	ND		1.9	11	5	09/01/2016 20:34
Pentachlorophenol	ND		2.7	55	5	09/01/2016 20:34
Phenanthrene	ND		1.2	11	5	09/01/2016 20:34
Phenol	ND		1.9	11	5	09/01/2016 20:34
Pyrene	ND		1.3	11	5	09/01/2016 20:34
1,2,4-Trichlorobenzene	ND		1.2	11	5	09/01/2016 20:34
2,4,5-Trichlorophenol	ND		1.2	11	5	09/01/2016 20:34
2,4,6-Trichlorophenol	ND		1.3	11	5	09/01/2016 20:34

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5	1608F84-001B	Water	08/30/2016 13:05	GC21	125960

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>		<u>Limits</u>		
2-Fluorophenol	14			8-130		09/01/2016 20:34
Phenol-d5	10			5-130		09/01/2016 20:34
Nitrobenzene-d5	27			20-140		09/01/2016 20:34
2-Fluorobiphenyl	38	S		40-140		09/01/2016 20:34
2,4,6-Tribromophenol	17			16-180		09/01/2016 20:34
4-Terphenyl-d14	74			40-170		09/01/2016 20:34

**Analyst(s):** REB

**Analytical Comments:** a3,a19,c2,b6



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-1	1608F84-006C	Water	08/30/2016 10:19	GC21	125960	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acenaphthene	ND		1.2	10	5	09/01/2016 21:02
Acenaphthylene	ND		1.3	10	5	09/01/2016 21:02
Acetochlor	ND		5.0	10	5	09/01/2016 21:02
Anthracene	ND		0.75	10	5	09/01/2016 21:02
Benzidine	ND		1.5	50	5	09/01/2016 21:02
Benzo (a) anthracene	ND		0.80	10	5	09/01/2016 21:02
Benzo (a) pyrene	ND		0.85	10	5	09/01/2016 21:02
Benzo (b) fluoranthene	ND		0.80	10	5	09/01/2016 21:02
Benzo (g,h,i) perylene	ND		0.90	10	5	09/01/2016 21:02
Benzo (k) fluoranthene	ND		1.0	10	5	09/01/2016 21:02
Benzyl Alcohol	ND		7.5	50	5	09/01/2016 21:02
1,1-Biphenyl	ND		1.3	10	5	09/01/2016 21:02
Bis (2-chloroethoxy) Methane	ND		1.5	10	5	09/01/2016 21:02
Bis (2-chloroethyl) Ether	ND		1.2	10	5	09/01/2016 21:02
Bis (2-chloroisopropyl) Ether	3.1	J	1.4	10	5	09/01/2016 21:02
Bis (2-ethylhexyl) Adipate	ND		10	10	5	09/01/2016 21:02
Bis (2-ethylhexyl) Phthalate	ND		1.7	20	5	09/01/2016 21:02
4-Bromophenyl Phenyl Ether	ND		0.85	50	5	09/01/2016 21:02
Butylbenzyl Phthalate	ND		1.5	10	5	09/01/2016 21:02
4-Chloroaniline	ND		1.7	20	5	09/01/2016 21:02
4-Chloro-3-methylphenol	ND		1.4	50	5	09/01/2016 21:02
2-Chloronaphthalene	ND		1.3	10	5	09/01/2016 21:02
2-Chlorophenol	ND		1.3	10	5	09/01/2016 21:02
4-Chlorophenyl Phenyl Ether	ND		1.0	10	5	09/01/2016 21:02
Chrysene	ND		0.90	10	5	09/01/2016 21:02
Dibenzo (a,h) anthracene	ND		0.95	10	5	09/01/2016 21:02
Dibenzofuran	ND		1.1	10	5	09/01/2016 21:02
Di-n-butyl Phthalate	ND		1.5	10	5	09/01/2016 21:02
1,2-Dichlorobenzene	ND		1.2	10	5	09/01/2016 21:02
1,3-Dichlorobenzene	ND		1.1	10	5	09/01/2016 21:02
1,4-Dichlorobenzene	ND		1.1	10	5	09/01/2016 21:02
3,3-Dichlorobenzidine	ND		0.70	20	5	09/01/2016 21:02
2,4-Dichlorophenol	ND		1.4	10	5	09/01/2016 21:02
Diethyl Phthalate	ND		0.75	10	5	09/01/2016 21:02
2,4-Dimethylphenol	ND		0.49	10	5	09/01/2016 21:02
Dimethyl Phthalate	ND		0.90	10	5	09/01/2016 21:02
4,6-Dinitro-2-methylphenol	ND		4.9	50	5	09/01/2016 21:02

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-1	1608F84-006C	Water	08/30/2016 10:19	GC21	125960	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND		4.4	130	5	09/01/2016 21:02
2,4-Dinitrotoluene	ND		0.85	10	5	09/01/2016 21:02
2,6-Dinitrotoluene	ND		1.0	10	5	09/01/2016 21:02
Di-n-octyl Phthalate	<b>2.8</b>	J	1.4	10	5	09/01/2016 21:02
1,2-Diphenylhydrazine	ND		0.80	10	5	09/01/2016 21:02
Fluoranthene	ND		0.90	10	5	09/01/2016 21:02
Fluorene	ND		1.0	10	5	09/01/2016 21:02
Hexachlorobenzene	ND		0.90	10	5	09/01/2016 21:02
Hexachlorobutadiene	ND		1.2	10	5	09/01/2016 21:02
Hexachlorocyclopentadiene	ND		6.0	50	5	09/01/2016 21:02
Hexachloroethane	ND		1.5	10	5	09/01/2016 21:02
Indeno (1,2,3-cd) pyrene	ND		0.95	10	5	09/01/2016 21:02
Isophorone	ND		1.6	10	5	09/01/2016 21:02
2-Methylnaphthalene	<b>5.2</b>	J	1.5	10	5	09/01/2016 21:02
2-Methylphenol (o-Cresol)	ND		0.95	10	5	09/01/2016 21:02
3 & 4-Methylphenol (m,p-Cresol)	ND		0.95	10	5	09/01/2016 21:02
Naphthalene	<b>4.9</b>	J	1.2	10	5	09/01/2016 21:02
2-Nitroaniline	ND		6.5	50	5	09/01/2016 21:02
3-Nitroaniline	ND		6.0	50	5	09/01/2016 21:02
4-Nitroaniline	ND		6.0	50	5	09/01/2016 21:02
Nitrobenzene	ND		1.6	10	5	09/01/2016 21:02
2-Nitrophenol	ND		7.0	50	5	09/01/2016 21:02
4-Nitrophenol	ND		8.5	50	5	09/01/2016 21:02
N-Nitrosodiphenylamine	ND		0.90	10	5	09/01/2016 21:02
N-Nitrosodi-n-propylamine	ND		1.8	10	5	09/01/2016 21:02
Pentachlorophenol	ND		2.5	50	5	09/01/2016 21:02
Phenanthrene	ND		1.1	10	5	09/01/2016 21:02
Phenol	ND		1.7	10	5	09/01/2016 21:02
Pyrene	ND		1.2	10	5	09/01/2016 21:02
1,2,4-Trichlorobenzene	ND		1.1	10	5	09/01/2016 21:02
2,4,5-Trichlorophenol	ND		1.1	10	5	09/01/2016 21:02
2,4,6-Trichlorophenol	ND		1.2	10	5	09/01/2016 21:02

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1608F84-006C	Water	08/30/2016 10:19	GC21	125960

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
2-Fluorophenol	68			8-130		09/01/2016 21:02
Phenol-d5	52			5-130		09/01/2016 21:02
Nitrobenzene-d5	53			20-140		09/01/2016 21:02
2-Fluorobiphenyl	111			40-140		09/01/2016 21:02
2,4,6-Tribromophenol	112			16-180		09/01/2016 21:02
4-Terphenyl-d14	103			40-170		09/01/2016 21:02

**Analyst(s):** REB

**Analytical Comments:** a3



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-2	1608F84-008C	Water	08/30/2016 09:10	GC21	125960	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Acenaphthene	0.42	J	0.24	2.0	1	09/01/2016 21:30
Acenaphthylene	ND		0.26	2.0	1	09/01/2016 21:30
Acetochlor	ND		1.0	2.0	1	09/01/2016 21:30
Anthracene	ND		0.15	2.0	1	09/01/2016 21:30
Benzidine	ND		0.29	10	1	09/01/2016 21:30
Benzo (a) anthracene	ND		0.16	2.0	1	09/01/2016 21:30
Benzo (a) pyrene	ND		0.17	2.0	1	09/01/2016 21:30
Benzo (b) fluoranthene	ND		0.16	2.0	1	09/01/2016 21:30
Benzo (g,h,i) perylene	ND		0.18	2.0	1	09/01/2016 21:30
Benzo (k) fluoranthene	ND		0.20	2.0	1	09/01/2016 21:30
Benzyl Alcohol	ND		1.5	10	1	09/01/2016 21:30
1,1-Biphenyl	ND		0.26	2.0	1	09/01/2016 21:30
Bis (2-chloroethoxy) Methane	ND		0.30	2.0	1	09/01/2016 21:30
Bis (2-chloroethyl) Ether	0.31	J	0.24	2.0	1	09/01/2016 21:30
Bis (2-chloroisopropyl) Ether	ND		0.28	2.0	1	09/01/2016 21:30
Bis (2-ethylhexyl) Adipate	ND		2.0	2.0	1	09/01/2016 21:30
Bis (2-ethylhexyl) Phthalate	ND		0.34	4.0	1	09/01/2016 21:30
4-Bromophenyl Phenyl Ether	ND		0.17	10	1	09/01/2016 21:30
Butylbenzyl Phthalate	ND		0.29	2.0	1	09/01/2016 21:30
4-Chloroaniline	ND		0.33	4.0	1	09/01/2016 21:30
4-Chloro-3-methylphenol	ND		0.27	10	1	09/01/2016 21:30
2-Chloronaphthalene	ND		0.25	2.0	1	09/01/2016 21:30
2-Chlorophenol	ND		0.26	2.0	1	09/01/2016 21:30
4-Chlorophenyl Phenyl Ether	ND		0.20	2.0	1	09/01/2016 21:30
Chrysene	ND		0.18	2.0	1	09/01/2016 21:30
Dibenzo (a,h) anthracene	ND		0.19	2.0	1	09/01/2016 21:30
Dibenzofuran	ND		0.21	2.0	1	09/01/2016 21:30
Di-n-butyl Phthalate	ND		0.30	2.0	1	09/01/2016 21:30
1,2-Dichlorobenzene	ND		0.23	2.0	1	09/01/2016 21:30
1,3-Dichlorobenzene	ND		0.22	2.0	1	09/01/2016 21:30
1,4-Dichlorobenzene	ND		0.22	2.0	1	09/01/2016 21:30
3,3-Dichlorobenzidine	ND		0.14	4.0	1	09/01/2016 21:30
2,4-Dichlorophenol	ND		0.28	2.0	1	09/01/2016 21:30
Diethyl Phthalate	ND		0.15	2.0	1	09/01/2016 21:30
2,4-Dimethylphenol	24		0.098	2.0	1	09/01/2016 21:30
Dimethyl Phthalate	ND		0.18	2.0	1	09/01/2016 21:30
4,6-Dinitro-2-methylphenol	ND		0.98	10	1	09/01/2016 21:30

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## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-2	1608F84-008C	Water	08/30/2016 09:10	GC21	125960	
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
2,4-Dinitrophenol	ND		0.87	25	1	09/01/2016 21:30
2,4-Dinitrotoluene	ND		0.17	2.0	1	09/01/2016 21:30
2,6-Dinitrotoluene	ND		0.20	2.0	1	09/01/2016 21:30
Di-n-octyl Phthalate	<b>0.57</b>	J	0.27	2.0	1	09/01/2016 21:30
1,2-Diphenylhydrazine	ND		0.16	2.0	1	09/01/2016 21:30
Fluoranthene	ND		0.18	2.0	1	09/01/2016 21:30
Fluorene	<b>0.20</b>	J	0.20	2.0	1	09/01/2016 21:30
Hexachlorobenzene	ND		0.18	2.0	1	09/01/2016 21:30
Hexachlorobutadiene	ND		0.24	2.0	1	09/01/2016 21:30
Hexachlorocyclopentadiene	ND		1.2	10	1	09/01/2016 21:30
Hexachloroethane	ND		0.29	2.0	1	09/01/2016 21:30
Indeno (1,2,3-cd) pyrene	ND		0.19	2.0	1	09/01/2016 21:30
Isophorone	ND		0.32	2.0	1	09/01/2016 21:30
2-Methylnaphthalene	<b>7.7</b>		0.29	2.0	1	09/01/2016 21:30
2-Methylphenol (o-Cresol)	<b>3.7</b>		0.19	2.0	1	09/01/2016 21:30
3 & 4-Methylphenol (m,p-Cresol)	<b>1.8</b>	J	0.19	2.0	1	09/01/2016 21:30
Naphthalene	<b>58</b>		0.59	4.9	2	09/02/2016 13:00
2-Nitroaniline	ND		1.3	10	1	09/01/2016 21:30
3-Nitroaniline	ND		1.2	10	1	09/01/2016 21:30
4-Nitroaniline	ND		1.2	10	1	09/01/2016 21:30
Nitrobenzene	ND		0.32	2.0	1	09/01/2016 21:30
2-Nitrophenol	ND		1.4	10	1	09/01/2016 21:30
4-Nitrophenol	ND		1.7	10	1	09/01/2016 21:30
N-Nitrosodiphenylamine	ND		0.18	2.0	1	09/01/2016 21:30
N-Nitrosodi-n-propylamine	ND		0.35	2.0	1	09/01/2016 21:30
Pentachlorophenol	ND		0.50	10	1	09/01/2016 21:30
Phenanthrene	<b>0.80</b>	J	0.22	2.0	1	09/01/2016 21:30
Phenol	ND		0.34	2.0	1	09/01/2016 21:30
Pyrene	ND		0.24	2.0	1	09/01/2016 21:30
1,2,4-Trichlorobenzene	ND		0.22	2.0	1	09/01/2016 21:30
2,4,5-Trichlorophenol	ND		0.21	2.0	1	09/01/2016 21:30
2,4,6-Trichlorophenol	ND		0.23	2.0	1	09/01/2016 21:30

(Cont.)

NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/1/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L

### Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1608F84-008C	Water	08/30/2016 09:10	GC21	125960

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
2-Fluorophenol	50			8-130		09/01/2016 21:30
Phenol-d5	41			5-130		09/01/2016 21:30
Nitrobenzene-d5	36			20-140		09/01/2016 21:30
2-Fluorobiphenyl	86			40-140		09/01/2016 21:30
2,4,6-Tribromophenol	121			16-180		09/01/2016 21:30
4-Terphenyl-d14	123			40-170		09/01/2016 21:30

**Analyst(s):** REB

**Analytical Comments:** a19



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### Dissolved CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5	1608F84-001E	Water	08/30/2016 13:05	ICP-MS1	125951

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Antimony	0.97		0.061	0.50	1	09/02/2016 02:25
Arsenic	13		0.19	0.50	1	09/02/2016 02:25
Barium	310		1.1	5.0	1	09/02/2016 02:25
Beryllium	ND		0.051	0.50	1	09/02/2016 02:25
Cadmium	ND		0.040	0.25	1	09/02/2016 02:25
Chromium	0.35	J	0.14	0.50	1	09/02/2016 02:25
Cobalt	3.0		0.048	0.50	1	09/02/2016 02:25
Copper	0.29	J	0.10	2.0	1	09/02/2016 02:25
Lead	0.12	J	0.078	0.50	1	09/02/2016 02:25
Mercury	ND		0.010	0.050	1	09/02/2016 02:25
Molybdenum	15		0.26	0.50	1	09/02/2016 02:25
Nickel	10		0.18	0.50	1	09/02/2016 02:25
Selenium	ND		0.15	0.50	1	09/02/2016 02:25
Silver	ND		0.025	0.19	1	09/02/2016 02:25
Thallium	ND		0.026	0.50	1	09/02/2016 02:25
Vanadium	1.4		0.059	0.50	1	09/02/2016 02:25
Zinc	ND		5.0	15	1	09/02/2016 02:25

Analyst(s): DB

Analytical Comments: b6



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 3.5-4'	1608F84-002A	Soil	08/30/2016 11:53	ICP-MS3	126006

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Antimony	0.32	J	0.094	0.50	1	09/01/2016 22:29
Arsenic	2.7		0.14	0.50	1	09/01/2016 22:29
Barium	170		0.97	5.0	1	09/01/2016 22:29
Beryllium	0.39	J	0.072	0.50	1	09/01/2016 22:29
Cadmium	ND		0.058	0.25	1	09/01/2016 22:29
Chromium	60		0.092	0.50	1	09/01/2016 22:29
Cobalt	9.6		0.056	0.50	1	09/01/2016 22:29
Copper	17		0.069	0.50	1	09/01/2016 22:29
Lead	5.8		0.094	0.50	1	09/01/2016 22:29
Mercury	0.086		0.0050	0.050	1	09/01/2016 22:29
Molybdenum	ND		0.23	0.50	1	09/01/2016 22:29
Nickel	63		0.072	0.50	1	09/01/2016 22:29
Selenium	0.22	J	0.13	0.50	1	09/01/2016 22:29
Silver	0.062	J	0.055	0.50	1	09/01/2016 22:29
Thallium	ND		0.10	0.50	1	09/01/2016 22:29
Vanadium	38		0.064	0.50	1	09/01/2016 22:29
Zinc	31		1.4	5.0	1	09/01/2016 22:29

Surrogates	REC (%)	Limits
Terbium	107	70-130

Analyst(s): BBO



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-5, 9.5-10'	1608F84-003A	Soil	08/30/2016 12:08	ICP-MS1	126006

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Antimony	0.22	J	0.094	0.50	1	09/02/2016 11:31
Arsenic	3.5		0.14	0.50	1	09/02/2016 11:31
Barium	80		0.97	5.0	1	09/02/2016 11:31
Beryllium	0.44	J	0.072	0.50	1	09/02/2016 11:31
Cadmium	0.11	J	0.058	0.25	1	09/02/2016 11:31
Chromium	89		0.092	0.50	1	09/02/2016 11:31
Cobalt	15		0.056	0.50	1	09/02/2016 11:31
Copper	20		0.069	0.50	1	09/02/2016 11:31
Lead	6.5		0.094	0.50	1	09/02/2016 11:31
Mercury	0.19		0.0050	0.050	1	09/02/2016 11:31
Molybdenum	0.26	J	0.23	0.50	1	09/02/2016 11:31
Nickel	130		0.072	0.50	1	09/02/2016 11:31
Selenium	ND		0.13	0.50	1	09/02/2016 11:31
Silver	ND		0.055	0.50	1	09/02/2016 11:31
Thallium	0.11	J	0.10	0.50	1	09/02/2016 11:31
Vanadium	34		0.064	0.50	1	09/02/2016 11:31
Zinc	48		1.4	5.0	1	09/02/2016 11:31

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	116	70-130	09/02/2016 11:31

**Analyst(s):** DB





## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-6, 4.5-5'	1608F84-004A	Soil	08/30/2016 14:00	ICP-MS3	126006	
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Antimony	0.48	J	0.094	0.50	1	09/01/2016 23:19
Arsenic	6.7		0.14	0.50	1	09/01/2016 23:19
Barium	220		0.97	5.0	1	09/01/2016 23:19
Beryllium	0.69		0.072	0.50	1	09/01/2016 23:19
Cadmium	ND		0.058	0.25	1	09/01/2016 23:19
Chromium	90		0.092	0.50	1	09/01/2016 23:19
Cobalt	9.0		0.056	0.50	1	09/01/2016 23:19
Copper	26		0.069	0.50	1	09/01/2016 23:19
Lead	7.9		0.094	0.50	1	09/01/2016 23:19
Mercury	0.20		0.0050	0.050	1	09/01/2016 23:19
Molybdenum	0.24	J	0.23	0.50	1	09/01/2016 23:19
Nickel	150		0.072	0.50	1	09/01/2016 23:19
Selenium	0.25	J	0.13	0.50	1	09/01/2016 23:19
Silver	0.15	J	0.055	0.50	1	09/01/2016 23:19
Thallium	0.14	J	0.10	0.50	1	09/01/2016 23:19
Vanadium	55		0.064	0.50	1	09/01/2016 23:19
Zinc	54		1.4	5.0	1	09/01/2016 23:19
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
Terbium	106			70-130		09/01/2016 23:19
<u>Analyst(s):</u> BBO						



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 7.5-8'	1608F84-005A	Soil	08/30/2016 14:06	ICP-MS3	126006

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Antimony	0.33	J	0.094	0.50	1	09/01/2016 23:56
Arsenic	6.6		0.14	0.50	1	09/01/2016 23:56
Barium	160		0.97	5.0	1	09/01/2016 23:56
Beryllium	0.47	J	0.072	0.50	1	09/01/2016 23:56
Cadmium	0.14	J	0.058	0.25	1	09/01/2016 23:56
Chromium	59		0.092	0.50	1	09/01/2016 23:56
Cobalt	20		0.056	0.50	1	09/01/2016 23:56
Copper	22		0.069	0.50	1	09/01/2016 23:56
Lead	8.9		0.094	0.50	1	09/01/2016 23:56
Mercury	0.085		0.0050	0.050	1	09/01/2016 23:56
Molybdenum	0.47	J	0.23	0.50	1	09/01/2016 23:56
Nickel	150		0.072	0.50	1	09/01/2016 23:56
Selenium	0.14	J	0.13	0.50	1	09/01/2016 23:56
Silver	ND		0.055	0.50	1	09/01/2016 23:56
Thallium	0.13	J	0.10	0.50	1	09/01/2016 23:56
Vanadium	46		0.064	0.50	1	09/01/2016 23:56
Zinc	53		1.4	5.0	1	09/01/2016 23:56

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	107	70-130	09/01/2016 23:56

**Analyst(s):** BBO



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1, 3.5-4'	1608F84-007A	Soil	08/30/2016 09:16	GC19	125991

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
TPH(g)	0.75	J	0.090	1.0	1	09/03/2016 17:26
MTBE	---		0.0023	0.050	1	09/03/2016 17:26
Benzene	---		0.0010	0.0050	1	09/03/2016 17:26
Toluene	---		0.0012	0.0050	1	09/03/2016 17:26
Ethylbenzene	---		0.0020	0.0050	1	09/03/2016 17:26
Xylenes	---		0.0025	0.015	1	09/03/2016 17:26

Surrogates	REC (%)	Limits
2-Fluorotoluene	71	70-130

Analyst(s): LT

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2, 3.5-4'	1608F84-009A	Soil	08/30/2016 08:29	GC19	126009

Analytes	Result	MDL	RL	DF	Date Analyzed
TPH(g)	70	1.8	20	20	09/03/2016 21:01
MTBE	---	0.046	1.0	20	09/03/2016 21:01
Benzene	---	0.020	0.10	20	09/03/2016 21:01
Toluene	---	0.024	0.10	20	09/03/2016 21:01
Ethylbenzene	---	0.040	0.10	20	09/03/2016 21:01
Xylenes	---	0.050	0.30	20	09/03/2016 21:01

Surrogates	REC (%)	Limits
2-Fluorotoluene	106	70-130

Analyst(s): LT

Analytical Comments: d2,d9



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 9/4/16-9/7/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1608F84-006A	Water	08/30/2016 10:19	GC3	126154
<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	<b>2800</b>	11	50	1	09/04/2016 17:16
MTBE	---	0.36	60	1	09/04/2016 17:16
Benzene	---	0.070	0.50	1	09/04/2016 17:16
Toluene	---	0.14	0.50	1	09/04/2016 17:16
Ethylbenzene	---	0.070	0.50	1	09/04/2016 17:16
Xylenes	---	0.14	1.5	1	09/04/2016 17:16
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
aaa-TFT	348	S	70-130		09/04/2016 17:16
<u>Analyst(s):</u> IA			<u>Analytical Comments:</u> d1,d17,c4		

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1608F84-008A	Water	08/30/2016 09:10	GC3	126154
<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	<b>22,000</b>	370	1700	33	09/07/2016 18:40
MTBE	---	12	170	33	09/07/2016 18:40
Benzene	---	2.3	17	33	09/07/2016 18:40
Toluene	---	4.7	17	33	09/07/2016 18:40
Ethylbenzene	---	2.3	17	33	09/07/2016 18:40
Xylenes	---	4.7	50	33	09/07/2016 18:40
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>			
aaa-TFT	108	70-130			09/07/2016 18:40
<u>Analyst(s):</u> IA			<u>Analytical Comments:</u> d2		



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L

### Dissolved Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1	1608F84-006D	Water	08/30/2016 10:19	ICP-MS1	125951

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Lead	0.30	J	0.078	0.50	1	09/02/2016 01:54

Analyst(s): DB

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2	1608F84-008D	Water	08/30/2016 09:10	ICP-MS2	125951

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Lead	1.1	J	0.78	5.0	10	09/06/2016 15:38

Analyst(s): DVH

Analytical Comments: a1



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1, 3.5-4'	1608F84-007A	Soil	08/30/2016 09:16	ICP-MS3	126006

Analytes	Result	MDL	RL	DF	Date Analyzed
Lead	48	0.094	0.50	1	09/01/2016 23:43

Surrogates	REC (%)	Limits
Terbium	106	70-130

Analyst(s): BBO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2, 3.5-4'	1608F84-009A	Soil	08/30/2016 08:29	ICP-MS3	126006

Analytes	Result	MDL	RL	DF	Date Analyzed
Lead	45	0.094	0.50	1	09/01/2016 23:50

Surrogates	REC (%)	Limits
Terbium	101	70-130

Analyst(s): BBO



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-5, 3.5-4'	1608F84-002A	Soil	08/30/2016 11:53	GC11B	126008	
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	0.85	J	0.74	1.0	1	09/06/2016 13:56
TPH-Motor Oil (C18-C36)	ND		2.1	5.0	1	09/06/2016 13:56
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
C9	109			70-130		09/06/2016 13:56
<u>Analyst(s):</u> TK						

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-5, 9.5-10'	1608F84-003A	Soil	08/30/2016 12:08	GC11B	126008	
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	0.77	J	0.74	1.0	1	09/03/2016 13:52
TPH-Motor Oil (C18-C36)	4.4	J	2.1	5.0	1	09/03/2016 13:52
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
C9	94			70-130		09/03/2016 13:52
<u>Analyst(s):</u> TK						

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-6, 4.5-5'	1608F84-004A	Soil	08/30/2016 14:00	GC11B	126008	
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		0.74	1.0	1	09/03/2016 15:09
TPH-Motor Oil (C18-C36)	2.9	J	2.1	5.0	1	09/03/2016 15:09
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>		
C9	92			70-130		09/03/2016 15:09
<u>Analyst(s):</u> TK						

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NELAP 4033ORELAP

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-6, 7.5-8'	1608F84-005A	Soil	08/30/2016 14:06	GC11B	126008

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND		0.74	1.0	1	09/05/2016 05:06
TPH-Motor Oil (C18-C36)	4.9	J	2.1	5.0	1	09/05/2016 05:06

Surrogates	REC (%)	Limits
C9	93	70-130

Analyst(s): TK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-1, 3.5-4'	1608F84-007A	Soil	08/30/2016 09:16	GC11B	126008

Analytes	Result	MDL	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	46	15	20	20	09/04/2016 21:19
TPH-Motor Oil (C18-C36)	490	42	100	20	09/04/2016 21:19

Surrogates	REC (%)	Limits
C9	95	70-130

Analyst(s): TK

Analytical Comments: e7,e2

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
B-2, 3.5-4'	1608F84-009A	Soil	08/30/2016 08:29	GC11B	126008

Analytes	Result	MDL	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	4.3	1.5	2.0	2	09/04/2016 22:37
TPH-Motor Oil (C18-C36)	22	4.2	10	2	09/04/2016 22:37

Surrogates	REC (%)	Limits
C9	86	70-130

Analyst(s): TK

Analytical Comments: e7,e2,e4





## Analytical Report

**Client:** ERAS Environmental, Inc.  
**Date Received:** 8/31/16 17:15  
**Date Prepared:** 8/31/16  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons w/ Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-5	1608F84-001C	Water	08/30/2016 13:05	GC11A	125973	
<u>Analytes</u>		<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		9000	240	500	10	09/07/2016 00:10
TPH-Motor Oil (C18-C36)		4500	650	2500	10	09/07/2016 00:10
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>			
C26		99	70-130			09/07/2016 00:10
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e11,e7,e2,b6			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-1	1608F84-006A	Water	08/30/2016 10:19	GC6A	125973	
<u>Analytes</u>		<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		18,000	240	500	10	09/07/2016 12:24
TPH-Motor Oil (C18-C36)		3600	650	2500	10	09/07/2016 12:24
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>			
C9		117	70-130			09/07/2016 12:24
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e8,e7,e2,e11			

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID	
B-2	1608F84-008A	Water	08/30/2016 09:10	GC11A	125973	
<u>Analytes</u>		<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)		3800	470	1000	20	09/02/2016 19:37
TPH-Motor Oil (C18-C36)		6600	1300	5000	20	09/02/2016 19:37
<u>Surrogates</u>		<u>REC (%)</u>	<u>Limits</u>			
C9		93	70-130			09/02/2016 19:37
<u>Analyst(s):</u> TK			<u>Analytical Comments:</u> e7,e4			



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC22  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125993  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-125993  
 1608F69-001AMS/MSD

### QC Summary Report for SW8082

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.0051	0.050	-	-	-	-
Aroclor1221	ND	-	0.033	0.050	-	-	-	-
Aroclor1232	ND	-	0.0032	0.050	-	-	-	-
Aroclor1242	ND	-	0.0035	0.050	-	-	-	-
Aroclor1248	ND	-	0.0036	0.050	-	-	-	-
Aroclor1254	ND	-	0.0022	0.050	-	-	-	-
Aroclor1260	ND	0.144	0.0085	0.050	0.15	-	96	70-130
PCBs, total	ND	-	0.033	0.050	-	-	-	-
<b>Surrogate Recovery</b>								
Decachlorobiphenyl	0.0567	0.0553			0.050	113	111	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	NR	NR		ND<0.1	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
Decachlorobiphenyl	NR	NR			NR	NR	-	NR	



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC20  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125996  
**Extraction Method:** SW3510C  
**Analytical Method:** SW8082  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-125996

### QC Summary Report for SW8082

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aroclor1016	ND	0.12	0.50	-	-	-
Aroclor1221	ND	0.18	0.50	-	-	-
Aroclor1232	ND	0.13	0.50	-	-	-
Aroclor1242	ND	0.080	0.50	-	-	-
Aroclor1248	ND	0.28	0.50	-	-	-
Aroclor1254	ND	0.16	0.50	-	-	-
Aroclor1260	ND	0.11	0.50	-	-	-
PCBs, total	ND	0.50	0.50	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	1.32			1.25	105	70-130
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aroclor1260	3.85	3.86	3.75	103	103	70-130	0	20

**Surrogate Recovery**

Decachlorobiphenyl	1.32	1.32	1.25	106	106	70-130	0	20
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## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** 14-002-03


**WorkOrder:** 1608F84  
**BatchID:** 126007  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS/LCSD-126007

### QC Summary Report for SW8260B (Encore)

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	0.078	0.20	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0020	0.010	-	-	-
Benzene	ND	0.0032	0.010	-	-	-
Bromobenzene	ND	0.0034	0.010	-	-	-
Bromochloromethane	ND	0.0030	0.010	-	-	-
Bromodichloromethane	ND	0.0024	0.010	-	-	-
Bromoform	ND	0.0016	0.010	-	-	-
Bromomethane	ND	0.0040	0.010	-	-	-
2-Butanone (MEK)	ND	0.011	0.040	-	-	-
t-Butyl alcohol (TBA)	ND	0.011	0.10	-	-	-
n-Butyl benzene	ND	0.0070	0.010	-	-	-
sec-Butyl benzene	ND	0.0068	0.010	-	-	-
tert-Butyl benzene	ND	0.0060	0.010	-	-	-
Carbon Disulfide	ND	0.0034	0.010	-	-	-
Carbon Tetrachloride	ND	0.0034	0.010	-	-	-
Chlorobenzene	ND	0.0036	0.010	-	-	-
Chloroethane	ND	0.0032	0.010	-	-	-
Chloroform	ND	0.0032	0.010	-	-	-
Chloromethane	ND	0.0034	0.010	-	-	-
2-Chlorotoluene	ND	0.0044	0.010	-	-	-
4-Chlorotoluene	ND	0.0042	0.010	-	-	-
Dibromochloromethane	ND	0.0022	0.010	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.0024	0.0080	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0026	0.0080	-	-	-
Dibromomethane	ND	0.0028	0.010	-	-	-
1,2-Dichlorobenzene	ND	0.0028	0.010	-	-	-
1,3-Dichlorobenzene	ND	0.0036	0.010	-	-	-
1,4-Dichlorobenzene	ND	0.0036	0.010	-	-	-
Dichlorodifluoromethane	ND	0.0022	0.010	-	-	-
1,1-Dichloroethane	ND	0.0034	0.010	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0028	0.010	-	-	-
1,1-Dichloroethene	ND	0.0034	0.010	-	-	-
cis-1,2-Dichloroethene	ND	0.0030	0.010	-	-	-
trans-1,2-Dichloroethene	ND	0.0032	0.010	-	-	-
1,2-Dichloropropane	ND	0.0028	0.010	-	-	-
1,3-Dichloropropane	ND	0.0032	0.010	-	-	-
2,2-Dichloropropane	ND	0.0026	0.010	-	-	-
1,1-Dichloropropene	ND	0.0036	0.010	-	-	-
cis-1,3-Dichloropropene	ND	0.0030	0.010	-	-	-

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NELAP 4033ORELAP

 QA/QC Officer



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** 14-002-03


**WorkOrder:** 1608F84  
**BatchID:** 126007  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS/LCSD-126007

### QC Summary Report for SW8260B (Encore)

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.0028	0.010	-	-	-
Diisopropyl ether (DIPE)	ND	0.0028	0.010	-	-	-
Ethylbenzene	ND	0.0040	0.010	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0026	0.010	-	-	-
Freon 113	ND	0.0032	0.010	-	-	-
Hexachlorobutadiene	ND	0.010	0.010	-	-	-
Hexachloroethane	ND	0.0050	0.010	-	-	-
2-Hexanone	ND	0.0050	0.010	-	-	-
Isopropylbenzene	ND	0.0044	0.010	-	-	-
4-Isopropyl toluene	ND	0.0062	0.010	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0026	0.010	-	-	-
Methylene chloride	0.00748,J	0.0072	0.010	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.0016	0.010	-	-	-
Naphthalene	ND	0.0012	0.010	-	-	-
n-Propyl benzene	ND	0.0058	0.010	-	-	-
Styrene	ND	0.0028	0.010	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.0032	0.010	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.0026	0.010	-	-	-
Tetrachloroethene	ND	0.0046	0.010	-	-	-
Toluene	ND	0.0044	0.010	-	-	-
1,2,3-Trichlorobenzene	ND	0.0014	0.010	-	-	-
1,2,4-Trichlorobenzene	ND	0.0022	0.010	-	-	-
1,1,1-Trichloroethane	ND	0.0036	0.010	-	-	-
1,1,2-Trichloroethane	ND	0.0032	0.010	-	-	-
Trichloroethene	ND	0.0034	0.010	-	-	-
Trichlorofluoromethane	ND	0.0032	0.010	-	-	-
1,2,3-Trichloropropane	ND	0.0038	0.010	-	-	-
1,2,4-Trimethylbenzene	ND	0.0048	0.010	-	-	-
1,3,5-Trimethylbenzene	ND	0.0054	0.010	-	-	-
Vinyl Chloride	ND	0.0030	0.010	-	-	-
Xylenes, Total	ND	0.0050	0.010	-	-	-

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 QA/QC Officer



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126007  
**Extraction Method:** SW5035  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS/LCSD-126007

### QC Summary Report for SW8260B (Encore)

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
<b>Surrogate Recovery</b>						
Dibromofluoromethane	0.249			0.25	100	70-130
Toluene-d8	0.263			0.25	105	70-130
4-BFB	0.0244			0.025	98	70-130
Benzene-d6	0.180			0.20	90	60-140
Ethylbenzene-d10	0.219			0.20	109	60-140
1,2-DCB-d4	0.168			0.20	84	60-140

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0876	0.0826	0.10	88	83	53-116	5.84	20
Benzene	0.0954	0.0895	0.10	95	89	63-137	6.44	20
t-Butyl alcohol (TBA)	0.388	0.337	0.40	97	84	41-135	14.1	20
Chlorobenzene	0.0992	0.0934	0.10	99	93	77-121	6.01	20
1,2-Dibromoethane (EDB)	0.0971	0.0911	0.10	97	91	67-119	6.34	20
1,2-Dichloroethane (1,2-DCA)	0.0937	0.0877	0.10	94	88	58-135	6.62	20
1,1-Dichloroethene	0.0945	0.0835	0.10	94	84	42-145	12.3	20
Diisopropyl ether (DIPE)	0.0894	0.0838	0.10	89	84	52-129	6.53	20
Ethyl tert-butyl ether (ETBE)	0.0908	0.0854	0.10	91	85	53-125	6.10	20
Methyl-t-butyl ether (MTBE)	0.0908	0.0845	0.10	91	84	58-122	7.19	20
Toluene	0.106	0.101	0.10	106	101	76-130	4.01	20
Trichloroethene	0.102	0.0953	0.10	102	95	72-132	6.51	20
<b>Surrogate Recovery</b>								
Dibromofluoromethane	0.253	0.254	0.25	101	102	70-130	0.513	20
Toluene-d8	0.265	0.260	0.25	106	104	70-130	1.74	20
4-BFB	0.0251	0.0254	0.025	100	102	70-130	1.33	20
Benzene-d6	0.198	0.186	0.20	99	93	60-140	5.98	20
Ethylbenzene-d10	0.235	0.220	0.20	117	110	60-140	6.51	20
1,2-DCB-d4	0.174	0.166	0.20	87	83	60-140	4.63	20



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 9/1/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126049  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-126049

### QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	1.7	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.22	0.50	-	-	-
Benzene	ND	0.051	0.50	-	-	-
Bromobenzene	ND	0.060	0.50	-	-	-
Bromochloromethane	ND	0.090	0.50	-	-	-
Bromodichloromethane	ND	0.20	0.50	-	-	-
Bromoform	ND	0.066	0.50	-	-	-
Bromomethane	ND	0.16	0.50	-	-	-
2-Butanone (MEK)	ND	0.49	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	0.94	2.0	-	-	-
n-Butyl benzene	ND	0.084	0.50	-	-	-
sec-Butyl benzene	ND	0.060	0.50	-	-	-
tert-Butyl benzene	ND	0.050	0.50	-	-	-
Carbon Disulfide	ND	0.066	0.50	-	-	-
Carbon Tetrachloride	ND	0.069	0.50	-	-	-
Chlorobenzene	ND	0.050	0.50	-	-	-
Chloroethane	ND	0.31	0.50	-	-	-
Chloroform	ND	0.064	0.50	-	-	-
Chloromethane	ND	0.13	0.50	-	-	-
2-Chlorotoluene	ND	0.070	0.50	-	-	-
4-Chlorotoluene	ND	0.070	0.50	-	-	-
Dibromochloromethane	ND	0.080	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.12	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.12	0.50	-	-	-
Dibromomethane	ND	0.080	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.080	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.071	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.072	0.50	-	-	-
Dichlorodifluoromethane	ND	0.063	0.50	-	-	-
1,1-Dichloroethane	ND	0.060	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.090	0.50	-	-	-
1,1-Dichloroethene	ND	0.086	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.050	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.060	0.50	-	-	-
1,2-Dichloropropane	ND	0.055	0.50	-	-	-
1,3-Dichloropropane	ND	0.10	0.50	-	-	-
2,2-Dichloropropane	ND	0.10	0.50	-	-	-
1,1-Dichloropropene	ND	0.060	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.090	0.50	-	-	-

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QA/QC Officer



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 9/1/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126049  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-126049

### QC Summary Report for SW8260B

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	0.221,J	0.070	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.070	0.50	-	-	-
Ethylbenzene	ND	0.050	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.070	0.50	-	-	-
Freon 113	ND	0.066	0.50	-	-	-
Hexachlorobutadiene	ND	0.085	0.50	-	-	-
Hexachloroethane	ND	0.060	0.50	-	-	-
2-Hexanone	ND	0.44	0.50	-	-	-
Isopropylbenzene	ND	0.070	0.50	-	-	-
4-Isopropyl toluene	ND	0.050	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.10	0.50	-	-	-
Methylene chloride	0.212,J	0.052	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.24	0.50	-	-	-
Naphthalene	0.211,J	0.16	0.50	-	-	-
n-Propyl benzene	ND	0.060	0.50	-	-	-
Styrene	0.256,J	0.060	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.070	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.11	0.50	-	-	-
Tetrachloroethene	ND	0.082	0.50	-	-	-
Toluene	ND	0.040	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.11	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.086	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.050	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.080	0.50	-	-	-
Trichloroethene	ND	0.060	0.50	-	-	-
Trichlorofluoromethane	ND	0.047	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.14	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.065	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.070	0.50	-	-	-
Vinyl Chloride	ND	0.070	0.50	-	-	-
Xylenes, Total	ND	0.25	0.50	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	22.6		25	90	70-130
Toluene-d8	23.3		25	93	70-130
4-BFB	1.93		2.5	77	70-130





## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 9/1/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126049  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-126049

### QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.21	9.74	10	92	97	54-140	5.59	20
Benzene	9.21	9.01	10	92	90	47-158	2.17	20
t-Butyl alcohol (TBA)	30.7	32.3	40	77	81	42-140	4.89	20
Chlorobenzene	9.27	9.42	10	93	94	43-157	1.58	20
1,2-Dibromoethane (EDB)	8.66	9.08	10	87	91	44-155	4.73	20
1,2-Dichloroethane (1,2-DCA)	8.92	8.98	10	89	90	66-125	0.704	20
1,1-Dichloroethene	9.50	8.98	10	95	90	47-149	5.60	20
Diisopropyl ether (DIPE)	9.43	9.74	10	94	97	57-136	3.27	20
Ethyl tert-butyl ether (ETBE)	9.36	9.82	10	94	98	55-137	4.83	20
Methyl-t-butyl ether (MTBE)	8.50	8.70	10	85	87	53-139	2.36	20
Toluene	9.21	9.14	10	92	91	52-137	0.735	20
Trichloroethene	9.47	9.34	10	95	93	43-157	1.34	20
<b>Surrogate Recovery</b>								
Dibromofluoromethane	23.6	23.0	25	94	92	70-130	2.37	20
Toluene-d8	22.9	22.8	25	91	91	70-130	0	20
4-BFB	2.17	2.22	2.5	87	89	70-130	2.23	20



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 8/31/16  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126010  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126010

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	3.94	0.14	0.25	5	-	79	46-118
Acenaphthylene	ND	-	0.14	0.25	-	-	-	-
Acetochlor	ND	-	0.25	0.25	-	-	-	-
Anthracene	ND	-	0.14	0.25	-	-	-	-
Benzidine	ND	-	0.23	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.14	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.14	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.14	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.15	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.16	0.25	-	-	-	-
Benzyl Alcohol	ND	-	0.51	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.15	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.14	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.13	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.12	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.13	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.16	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.13	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.13	0.50	-	-	-	-
4-Chloro-3-methylphenol	ND	3.95	0.12	0.25	5	-	79	49-123
2-Chloronaphthalene	ND	-	0.16	0.25	-	-	-	-
2-Chlorophenol	ND	4.28	0.14	0.25	5	-	86	55-116
4-Chlorophenyl Phenyl Ether	ND	-	0.15	0.25	-	-	-	-
Chrysene	ND	-	0.14	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.16	0.25	-	-	-	-
Dibenzofuran	ND	-	0.13	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.13	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.12	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.14	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.63	0.13	0.25	5	-	73	50-102
3,3-Dichlorobenzidine	ND	-	0.12	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.13	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.14	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.13	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.14	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	0.13	1.3	-	-	-	-

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QA/QC Officer



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 8/31/16  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** 14-002-03


**WorkOrder:** 1608F84  
**BatchID:** 126010  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126010

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
2,4-Dinitrophenol	ND	-	1.3	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.30	0.13	0.25	5	-	86	47-117
2,6-Dinitrotoluene	ND	-	0.14	0.25	-	-	-	-
Di-n-octyl Phthalate	ND	-	0.14	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.16	0.25	-	-	-	-
Fluoranthene	ND	-	0.13	0.25	-	-	-	-
Fluorene	ND	-	0.14	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.17	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.15	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.73	1.3	-	-	-	-
Hexachloroethane	ND	-	0.14	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.14	0.25	-	-	-	-
Isophorone	ND	-	0.12	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.14	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.14	0.25	-	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	-	0.12	0.25	-	-	-	-
Naphthalene	ND	-	0.13	0.25	-	-	-	-
2-Nitroaniline	ND	-	0.62	1.3	-	-	-	-
3-Nitroaniline	ND	-	0.59	1.3	-	-	-	-
4-Nitroaniline	ND	-	0.55	1.3	-	-	-	-
Nitrobenzene	ND	-	0.14	0.25	-	-	-	-
2-Nitrophenol	ND	-	0.64	1.3	-	-	-	-
4-Nitrophenol	ND	3.68	0.41	1.3	5	-	74	40-102
N-Nitrosodiphenylamine	ND	-	0.16	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.64	0.13	0.25	5	-	73	47-108
Pentachlorophenol	ND	3.49	0.32	1.3	5	-	70	39-134
Phenanthrene	ND	-	0.14	0.25	-	-	-	-
Phenol	ND	3.52	0.12	0.25	5	-	70	49-107
Pyrene	ND	4.03	0.13	0.25	5	-	81	55-124
1,2,4-Trichlorobenzene	ND	4.26	0.14	0.25	5	-	85	51-121
2,4,5-Trichlorophenol	ND	-	0.12	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.14	0.25	-	-	-	-

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 QA/QC Officer



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 8/31/16  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126010  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126010

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
<b>Surrogate Recovery</b>								
2-Fluorophenol	4.92	4.62			5	98	92	47-125
Phenol-d5	4.54	4.38			5	91	88	45-117
Nitrobenzene-d5	4.22	4.25			5	84	85	39-121
2-Fluorobiphenyl	4.25	4.15			5	85	83	35-120
2,4,6-Tribromophenol	4.00	3.64			5	80	73	32-111
4-Terphenyl-d14	3.87	4.07			5	77	81	32-128



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 8/31/16  
**Instrument:** GC21  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125960  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-125960

### QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acenaphthene	ND	0.24	2.0	-	-	-
Acenaphthylene	ND	0.26	2.0	-	-	-
Acetochlor	ND	1.0	2.0	-	-	-
Anthracene	ND	0.15	2.0	-	-	-
Benzidine	ND	0.29	10	-	-	-
Benzo (a) anthracene	ND	0.16	2.0	-	-	-
Benzo (a) pyrene	ND	0.17	2.0	-	-	-
Benzo (b) fluoranthene	ND	0.16	2.0	-	-	-
Benzo (g,h,i) perylene	ND	0.18	2.0	-	-	-
Benzo (k) fluoranthene	ND	0.20	2.0	-	-	-
Benzyl Alcohol	ND	1.5	10	-	-	-
1,1-Biphenyl	ND	0.26	2.0	-	-	-
Bis (2-chloroethoxy) Methane	ND	0.30	2.0	-	-	-
Bis (2-chloroethyl) Ether	ND	0.24	2.0	-	-	-
Bis (2-chloroisopropyl) Ether	ND	0.28	2.0	-	-	-
Bis (2-ethylhexyl) Adipate	ND	2.0	2.0	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	0.34	4.0	-	-	-
4-Bromophenyl Phenyl Ether	ND	0.17	10	-	-	-
Butylbenzyl Phthalate	ND	0.29	2.0	-	-	-
4-Chloroaniline	ND	0.33	4.0	-	-	-
4-Chloro-3-methylphenol	ND	0.27	10	-	-	-
2-Chloronaphthalene	ND	0.25	2.0	-	-	-
2-Chlorophenol	ND	0.26	2.0	-	-	-
4-Chlorophenyl Phenyl Ether	ND	0.20	2.0	-	-	-
Chrysene	ND	0.18	2.0	-	-	-
Dibenzo (a,h) anthracene	ND	0.19	2.0	-	-	-
Dibenzofuran	ND	0.21	2.0	-	-	-
Di-n-butyl Phthalate	ND	0.30	2.0	-	-	-
1,2-Dichlorobenzene	ND	0.23	2.0	-	-	-
1,3-Dichlorobenzene	ND	0.22	2.0	-	-	-
1,4-Dichlorobenzene	ND	0.22	2.0	-	-	-
3,3-Dichlorobenzidine	ND	0.14	4.0	-	-	-
2,4-Dichlorophenol	ND	0.28	2.0	-	-	-
Diethyl Phthalate	ND	0.15	2.0	-	-	-
2,4-Dimethylphenol	ND	0.098	2.0	-	-	-
Dimethyl Phthalate	ND	0.18	2.0	-	-	-
4,6-Dinitro-2-methylphenol	ND	0.98	10	-	-	-
2,4-Dinitrophenol	ND	0.87	25	-	-	-
2,4-Dinitrotoluene	ND	0.17	2.0	-	-	-

(Cont.)

NELAP 4033ORELAP

QA/QC Officer



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 8/31/16  
**Instrument:** GC21  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125960  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-125960

### QC Summary Report for SW8270C

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
2,6-Dinitrotoluene	ND	0.20	2.0	-	-	-
Di-n-octyl Phthalate	ND	0.27	2.0	-	-	-
1,2-Diphenylhydrazine	ND	0.16	2.0	-	-	-
Fluoranthene	ND	0.18	2.0	-	-	-
Fluorene	ND	0.20	2.0	-	-	-
Hexachlorobenzene	ND	0.18	2.0	-	-	-
Hexachlorobutadiene	ND	0.24	2.0	-	-	-
Hexachlorocyclopentadiene	ND	1.2	10	-	-	-
Hexachloroethane	ND	0.29	2.0	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.19	2.0	-	-	-
Isophorone	ND	0.32	2.0	-	-	-
2-Methylnaphthalene	ND	0.29	2.0	-	-	-
2-Methylphenol (o-Cresol)	ND	0.19	2.0	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	0.19	2.0	-	-	-
Naphthalene	ND	0.24	2.0	-	-	-
2-Nitroaniline	ND	1.3	10	-	-	-
3-Nitroaniline	ND	1.2	10	-	-	-
4-Nitroaniline	ND	1.2	10	-	-	-
Nitrobenzene	ND	0.32	2.0	-	-	-
2-Nitrophenol	ND	1.4	10	-	-	-
4-Nitrophenol	ND	1.7	10	-	-	-
N-Nitrosodiphenylamine	ND	0.18	2.0	-	-	-
N-Nitrosodi-n-propylamine	ND	0.35	2.0	-	-	-
Pentachlorophenol	ND	0.50	10	-	-	-
Phenanthrene	ND	0.22	2.0	-	-	-
Phenol	ND	0.34	2.0	-	-	-
Pyrene	ND	0.24	2.0	-	-	-
1,2,4-Trichlorobenzene	ND	0.22	2.0	-	-	-
2,4,5-Trichlorophenol	ND	0.21	2.0	-	-	-
2,4,6-Trichlorophenol	ND	0.23	2.0	-	-	-

#### Surrogate Recovery

2-Fluorophenol	20.5		20	103	8-130
Phenol-d5	19.5		20	97	5-130
Nitrobenzene-d5	19.4		20	97	20-140
2-Fluorobiphenyl	19.4		20	97	40-140
2,4,6-Tribromophenol	16.2		20	81	16-180
4-Terphenyl-d14	20.0		20	100	40-170

(Cont.)

NELAP 4033ORELAP

QA/QC Officer



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 8/31/16  
**Instrument:** GC21  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125960  
**Extraction Method:** E625  
**Analytical Method:** SW8270C  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-125960

### QC Summary Report for SW8270C

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acenaphthene	9.82	9.06	10	98	91	63-119	8.13	25
4-Chloro-3-methylphenol	9.28,J	8.52	10	93	85	69-127	8.45	25
2-Chlorophenol	9.38	9.08	10	94	91	49-119	3.25	25
1,4-Dichlorobenzene	8.58	8.53	10	86	85	43-114	0.602	25
2,4-Dinitrotoluene	10.1	9.42	10	101	94	68-125	6.81	25
4-Nitrophenol	44.3	41.1	50	89	82	60-126	7.64	25
N-Nitrosodi-n-propylamine	8.92	8.59	10	89	86	61-120	3.87	25
Pentachlorophenol	16.5	14.9	20	83	74	50-146	10.4	25
Phenol	8.28	7.76	10	83	78	52-119	6.49	25
Pyrene	9.61	8.91	10	96	89	67-132	7.58	25
1,2,4-Trichlorobenzene	9.95	9.17	10	99	92	50-121	8.16	25
<b>Surrogate Recovery</b>								
2-Fluorophenol	19.4	18.5	20	97	92	8-130	4.61	25
Phenol-d5	20.2	19.3	20	101	96	5-130	4.41	25
Nitrobenzene-d5	20.4	18.7	20	102	94	20-140	8.66	25
2-Fluorobiphenyl	20.6	19.7	20	103	98	40-140	4.77	25
2,4,6-Tribromophenol	17.5	17.3	20	87	86	16-180	1.06	25
4-Terphenyl-d14	20.2	18.8	20	101	94	40-170	7.44	25



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/30/16  
**Date Analyzed:** 8/30/16  
**Instrument:** ICP-MS2  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125951  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L  
**Sample ID:** MB/LCS-125951  
 1608E59-001AMS/MSD

### QC Summary Report for Dissolved Metals

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	46.3	0.061	0.50	50	-	93	85-115
Arsenic	ND	49.6	0.19	0.50	50	-	99	85-115
Barium	ND	490	1.1	5.0	500	-	98	85-115
Beryllium	ND	47.2	0.051	0.50	50	-	94	85-115
Cadmium	ND	48.2	0.040	0.25	50	-	96	85-115
Chromium	ND	48.4	0.14	0.50	50	-	97	85-115
Cobalt	ND	44.2	0.048	0.50	50	-	88	85-115
Copper	ND	48.0	0.10	2.0	50	-	96	85-115
Iron	ND	5040	4.4	20	5000	-	101	85-115
Lead	ND	44.5	0.078	0.50	50	-	89	85-115
Mercury	0.0186,J	1.25	0.010	0.050	1.25	-	100	85-115
Molybdenum	ND	48.4	0.26	0.50	50	-	97	85-115
Nickel	ND	47.9	0.18	0.50	50	-	96	85-115
Selenium	ND	47.6	0.15	0.50	50	-	95	85-115
Silver	ND	44.7	0.025	0.19	50	-	89	85-115
Thallium	ND	43.0	0.026	0.50	50	-	86	85-115
Vanadium	ND	48.8	0.059	0.50	50	-	98	85-115
Zinc	ND	486	5.0	15	500	-	97	85-115





## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/30/16  
**Date Analyzed:** 8/30/16  
**Instrument:** ICP-MS2  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125951  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L  
**Sample ID:** MB/LCS-125951  
 1608E59-001AMS/MSD

### QC Summary Report for Dissolved Metals

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	50.3	50.4	50	ND	97	97	70-130	0	20
Arsenic	62.2	60.9	50	12	101	98	70-130	2.16	20
Barium	493	495	500	ND	94	94	70-130	0	20
Beryllium	48.9	49.9	50	ND	98	100	70-130	2.01	20
Cadmium	54.4	53.9	50	4.4	100	99	70-130	0.886	20
Chromium	49.9	49.9	50	ND	100	100	70-130	0	20
Cobalt	51.6	51.6	50	5.8	92	92	70-130	0	20
Copper	NR	NR	50	7800	NR	NR	70-130	NR	20
Iron	5380	5330	5000	ND	106	105	70-130	0.822	20
Lead	50.2	49.7	50	ND	97	96	70-130	0.941	20
Mercury	1.44	1.54	1.25	ND	115	124	70-130	7.25	20
Molybdenum	56.3	56.6	50	ND	103	104	70-130	0.673	20
Nickel	57.7	59.8	50	9.5	97	101	70-130	3.56	20
Selenium	52.6	51.4	50	ND	102	99	70-130	2.23	20
Silver	45.0	45.3	50	ND	90	91	70-130	0.731	20
Thallium	46.9	46.3	50	ND	94	93	70-130	1.33	20
Vanadium	57.9	56.9	50	6.5	103	101	70-130	1.74	20
Zinc	2730	2740	500	2300	86	87	70-130	0.110	20



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** ICP-MS3  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126006  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126006  
 1608F84-002AMS/MSD  
 1608F84-002APDS

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	51.0	0.094	0.50	50	-	102	75-125
Arsenic	ND	52.7	0.14	0.50	50	-	105	75-125
Barium	ND	534	0.97	5.0	500	-	107	75-125
Beryllium	ND	46.4	0.072	0.50	50	-	93	75-125
Cadmium	ND	52.4	0.058	0.25	50	-	105	75-125
Chromium	ND	50.4	0.092	0.50	50	-	101	75-125
Cobalt	ND	47.9	0.056	0.50	50	-	96	75-125
Copper	0.167,J	50.9	0.069	0.50	50	-	102	75-125
Lead	ND	50.3	0.094	0.50	50	-	101	75-125
Mercury	ND	1.28	0.0050	0.050	1.25	-	103	75-125
Molybdenum	ND	48.0	0.23	0.50	50	-	96	75-125
Nickel	ND	50.6	0.072	0.50	50	-	101	75-125
Selenium	ND	52.0	0.13	0.50	50	-	104	75-125
Silver	ND	49.9	0.055	0.50	50	-	100	75-125
Thallium	ND	51.2	0.10	0.50	50	-	102	75-125
Vanadium	ND	50.7	0.064	0.50	50	-	101	75-125
Zinc	ND	512	1.4	5.0	500	-	102	75-125
<b>Surrogate Recovery</b>								
Terbium	497	530			500	99	106	70-130



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** ICP-MS3  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126006  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126006  
 1608F84-002AMS/MSD  
 1608F84-002APDS

### QC Summary Report for Metals

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	50.6	54.1	50	ND	101	108	75-125	6.65	20
Arsenic	59.1	58.0	50	2.674	113	111	75-125	1.84	20
Barium	703	796	500	174.0	106	124	75-125	12.3	20
Beryllium	44.3	47.2	50	ND	88	94	75-125	6.32	20
Cadmium	51.3	54.7	50	ND	103	109	75-125	6.47	20
Chromium	116	129	50	60.03	112	138,F10	75-125	10.5	20
Cobalt	56.9	63.4	50	9.559	95	108	75-125	10.9	20
Copper	65.7	71.1	50	16.79	98	109	75-125	7.90	20
Lead	69.5	98.5	50	5.771	127,F10	185,F10	75-125	34.5,F10	20
Mercury	1.34	1.39	1.25	0.08570	100	104	75-125	4.11	20
Molybdenum	48.1	51.7	50	ND	96	103	75-125	7.36	20
Nickel	120	137	50	63.47	114	147,F10	75-125	12.9	20
Selenium	50.4	52.7	50	ND	100	105	75-125	4.44	20
Silver	49.4	52.3	50	ND	99	104	75-125	5.60	20
Thallium	51.4	54.4	50	ND	103	109	75-125	5.57	20
Vanadium	101	105	50	38.24	126,F10	134,F10	75-125	3.97	20
Zinc	532	564	500	31.00	100	107	75-125	5.85	20

**Surrogate Recovery**

Terbium	521	571	500		104	114	70-130	9.22	20
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Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Lead	57.5	50	5.771	103	75-125
Vanadium	95.1	50	38.24	114	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Antimony	ND<2.5	ND	-	-
Arsenic	ND<2.5	2.674	-	-
Barium	175	174.0	0.575	20
Beryllium	ND<2.5	ND	-	-
Cadmium	ND<1.2	ND	-	-
Chromium	63.2	60.03	5.28	20
Cobalt	10.3	9.559	7.75	-

(Cont.)



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** ICP-MS3  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126006  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126006  
 1608F84-002AMS/MSD  
 1608F84-002APDS

### QC Summary Report for Metals

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Copper	18.0	16.79	7.21	20
Lead	5.90	5.771	2.24	-
Mercury	ND<0.25	0.08570	-	-
Molybdenum	ND<2.5	ND	-	-
Nickel	65.0	63.47	2.41	20
Selenium	ND<2.5	ND	-	-
Silver	ND<2.5	ND	-	-
Thallium	ND<2.5	ND	-	-
Vanadium	39.6	38.24	3.56	20
Zinc	38.6	31.00	24.5	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC6B  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126008  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126008  
 1608F84-009AMS/MSD

### QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	42.2	0.74	1.0	40	-	106	70-130
TPH-Motor Oil (C18-C36)	ND	-	2.1	5.0	-	-	-	-
<b>Surrogate Recovery</b>								
C9	21.6	21.7			25	86	87	62-139

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		4.3	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
C9	NR	NR			NR	NR	-	NR	



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 8/31/16 - 9/1/16  
**Instrument:** GC19  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125991  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-125991  
 1608F61-001AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.604	0.40	0.40	0.60	-	101	70-130
MTBE	0.00375,J	0.0908	0.0023	0.050	0.10	-	91	70-130
Benzene	ND	0.104	0.0010	0.0050	0.10	-	104	70-130
Toluene	ND	0.106	0.0012	0.0050	0.10	-	106	70-130
Ethylbenzene	ND	0.108	0.0020	0.0050	0.10	-	108	70-130
Xylenes	ND	0.325	0.0025	0.015	0.30	-	108	70-130
<b>Surrogate Recovery</b>								
2-Fluorotoluene	0.106	0.106			0.10	106	106	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.600	0.613	0.60	ND	100	102	70-130	2.12	20
MTBE	0.0975	0.0968	0.10	ND	97	97	70-130	0	20
Benzene	0.0996	0.100	0.10	ND	100	101	70-130	0.907	20
Toluene	0.102	0.103	0.10	ND	99	101	70-130	1.78	20
Ethylbenzene	0.102	0.106	0.10	ND	102	106	70-130	3.25	20
Xylenes	0.310	0.319	0.30	ND	103	106	70-130	3.03	20
<b>Surrogate Recovery</b>									
2-Fluorotoluene	0.101	0.102	0.10		101	102	70-130	1.27	20



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** GC19  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126009  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126009  
 1608F84-009AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.604	0.40	0.40	0.60	-	101	70-130
MTBE	ND	0.102	0.0023	0.050	0.10	-	102	70-130
Benzene	ND	0.101	0.0010	0.0050	0.10	-	101	70-130
Toluene	ND	0.103	0.0012	0.0050	0.10	-	103	70-130
Ethylbenzene	ND	0.104	0.0020	0.0050	0.10	-	104	70-130
Xylenes	ND	0.316	0.0025	0.015	0.30	-	105	70-130
<b>Surrogate Recovery</b>								
2-Fluorotoluene	0.103	0.104			0.10	103	104	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR		27	NR	NR	-	NR	
MTBE	NR	NR		ND<1	NR	NR	-	NR	
Benzene	NR	NR		ND<0.1	NR	NR	-	NR	
Toluene	NR	NR		ND<0.1	NR	NR	-	NR	
Ethylbenzene	NR	NR		7	NR	NR	-	NR	
Xylenes	NR	NR		17	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
2-Fluorotoluene	NR	NR			NR	NR	-	NR	



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 9/4/16  
**Date Analyzed:** 9/4/16  
**Instrument:** GC3  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126154  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L  
**Sample ID:** MB/LCS-126154  
 1609133-006AMS/MSD

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	62.1	40	40	60	-	104	70-130
MTBE	ND	9.56	0.36	5.0	10	-	96	70-130
Benzene	ND	10.0	0.070	0.50	10	-	100	70-130
Toluene	ND	10.5	0.14	0.50	10	-	105	70-130
Ethylbenzene	ND	11.0	0.070	0.50	10	-	110	70-130
Xylenes	ND	34.4	0.14	1.5	30	-	115	70-130
<b>Surrogate Recovery</b>								
aaa-TFT	9.92	9.92			10	99	99	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	76.6	63.3	60	ND	128	105	70-130	19.0	20
MTBE	11.5	9.81	10	ND	115	98	70-130	15.8	20
Benzene	11.0	10.0	10	ND	109	99	70-130	9.32	20
Toluene	11.0	10.5	10	ND	110	105	70-130	4.57	20
Ethylbenzene	10.8	10.7	10	ND	105	105	70-130	0	20
Xylenes	33.5	33.4	30	ND	112	111	70-130	0.135	20
<b>Surrogate Recovery</b>									
aaa-TFT	9.69	10.0	10		97	100	70-130	3.59	20





## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/30/16  
**Date Analyzed:** 8/30/16  
**Instrument:** ICP-MS2  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125951  
**Extraction Method:** E200.8  
**Analytical Method:** E200.8  
**Unit:** µg/L  
**Sample ID:** MB/LCS-125951  
 1608E59-001AMS/MSD

### QC Summary Report for Dissolved Metals

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	44.5	0.078	0.50	50	-	89	85-115

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	50.2	49.7	50	ND	97	96	70-130	0.941	20



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 9/1/16  
**Instrument:** ICP-MS3  
**Matrix:** Soil  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 126006  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-126006  
 1608F84-002AMS/MSD  
 1608F84-002APDS

### QC Summary Report for Metals

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Lead	ND	50.3	0.094	0.50	50	-	101	75-125

**Surrogate Recovery**

Terbium	497	530			500	99	106	70-130
---------	-----	-----	--	--	-----	----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	69.5	98.5	50	5.771	127,F10	185,F10	75-125	34.5,F10	20

**Surrogate Recovery**

Terbium	521	571	500		104	114	70-130	9.22	20
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Analyte	PDS Result	SPK Val	SPKRef Val	PDS %REC	PDS Limits
Lead	57.5	50	5.771	103	75-125

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Lead	5.90	5.771	2.24	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.



## Quality Control Report

**Client:** ERAS Environmental, Inc.  
**Date Prepared:** 8/31/16  
**Date Analyzed:** 8/31/16  
**Instrument:** GC39B  
**Matrix:** Water  
**Project:** 14-002-03

**WorkOrder:** 1608F84  
**BatchID:** 125973  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L  
**Sample ID:** MB/LCS/LCSD-125973

### QC Report for SW8015B w/ Silica Gel Clean-Up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
TPH-Diesel (C10-C23)	ND	24	50	-	-	-
TPH-Motor Oil (C18-C36)	ND	65	250	-	-	-
<b>Surrogate Recovery</b>						
C9	627			625	100	65-122

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	1160	1140	1000	116	114	61-157	2.01	30
<b>Surrogate Recovery</b>								
C9	627	622	625	100	100	65-122	0	30



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1608F84

ClientCode: ERAS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Andrew Savage  
ERAS Environmental, Inc.  
1533 B Street  
Hayward, CA 94541  
(510) 247-9885    FAX: (510) 886-5399

Email: info@eras.biz; andrew@eras.biz  
cc/3rd Party:  
PO:  
ProjectNo: 14-002-03

**Bill to:**

Kasey Cordoza  
ERAS Environmental, Inc.  
1533 B Street  
Hayward, CA 94541

**Requested TAT: 5 days;**

**Date Received: 08/31/2016**  
**Date Logged: 08/31/2016**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1608F84-001	B-5	Water	8/30/2016 13:05	<input type="checkbox"/>		D		A		B	E					
1608F84-002	B-5, 3.5-4'	Soil	8/30/2016 11:53	<input type="checkbox"/>	A				A			A				
1608F84-002	B-5,4'	Soil	8/30/2016 11:53	<input type="checkbox"/>			B									
1608F84-003	B-5, 10'	Soil	8/30/2016 12:08	<input type="checkbox"/>			B									
1608F84-003	B-5, 9.5-10'	Soil	8/30/2016 12:08	<input type="checkbox"/>	A				A			A				
1608F84-004	B-6, 4.5-5'	Soil	8/30/2016 14:00	<input type="checkbox"/>	A				A			A				
1608F84-004	B-6, 5'	Soil	8/30/2016 14:00	<input type="checkbox"/>			B									
1608F84-005	B-6, 7.5-8'	Soil	8/30/2016 14:06	<input type="checkbox"/>	A				A			A				
1608F84-005	B-6, 8'	Soil	8/30/2016 14:06	<input type="checkbox"/>			B									
1608F84-006	B-1	Water	8/30/2016 10:19	<input type="checkbox"/>				B		C				A	D	
1608F84-007	B-1, 3.5-4'	Soil	8/30/2016 9:16	<input type="checkbox"/>					A				A			A
1608F84-007	B-1, 4'	Soil	8/30/2016 9:16	<input type="checkbox"/>			B									
1608F84-008	B-2	Water	8/30/2016 9:10	<input type="checkbox"/>				B		C				A	D	
1608F84-009	B-2, 3.5-4'	Soil	8/30/2016 8:29	<input type="checkbox"/>					A				A			A
1608F84-009	B-2, 4'	Soil	8/30/2016 8:29	<input type="checkbox"/>			B									

**Test Legend:**

1	8082_PCB_S	2	8082_PCB_W	3	8260B_E	4	8260B_W
5	8270_S	6	8270_W	7	CAM17MS_FF DISS	8	CAM17MS_TTLC_S
9	G-MBTEX_S	10	G-MBTEX_W	11	PBMS_FF DISS	12	PBMS_TTLC_S

Prepared by: Briana Cutino

The following SampIDs: 007A, 009A contain testgroup Multi RangeWSG\_S.; The following SampIDs: 006A, 008A contain testgroup Multi RangeWSG\_W.

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1608F84

ClientCode: ERAS

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Andrew Savage  
ERAS Environmental, Inc.  
1533 B Street  
Hayward, CA 94541  
(510) 247-9885    FAX: (510) 886-5399

Email: info@eras.biz; andrew@eras.biz  
cc/3rd Party:  
PO:  
ProjectNo: 14-002-03

**Bill to:**

Kasey Cordoza  
ERAS Environmental, Inc.  
1533 B Street  
Hayward, CA 94541

**Requested TAT: 5 days;**

**Date Received: 08/31/2016**  
**Date Logged: 08/31/2016**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					13	14	15	16	17	18	19	20	21	22	23	24	
1608F84-001	B-5	Water	8/30/2016 13:05	<input type="checkbox"/>	A		C										
1608F84-002	B-5, 3.5-4'	Soil	8/30/2016 11:53	<input type="checkbox"/>		A											
1608F84-002	B-5, 4'	Soil	8/30/2016 11:53	<input type="checkbox"/>													
1608F84-003	B-5, 10'	Soil	8/30/2016 12:08	<input type="checkbox"/>													
1608F84-003	B-5, 9.5-10'	Soil	8/30/2016 12:08	<input type="checkbox"/>		A											
1608F84-004	B-6, 4.5-5'	Soil	8/30/2016 14:00	<input type="checkbox"/>		A											
1608F84-004	B-6, 5'	Soil	8/30/2016 14:00	<input type="checkbox"/>													
1608F84-005	B-6, 7.5-8'	Soil	8/30/2016 14:06	<input type="checkbox"/>		A											
1608F84-005	B-6, 8'	Soil	8/30/2016 14:06	<input type="checkbox"/>													
1608F84-006	B-1	Water	8/30/2016 10:19	<input type="checkbox"/>			A										
1608F84-007	B-1, 3.5-4'	Soil	8/30/2016 9:16	<input type="checkbox"/>		A											
1608F84-007	B-1, 4'	Soil	8/30/2016 9:16	<input type="checkbox"/>													
1608F84-008	B-2	Water	8/30/2016 9:10	<input type="checkbox"/>			A										
1608F84-009	B-2, 3.5-4'	Soil	8/30/2016 8:29	<input type="checkbox"/>		A											
1608F84-009	B-2, 4'	Soil	8/30/2016 8:29	<input type="checkbox"/>													

**Test Legend:**

13	PREFD REPORT	14	TPH(DMO)WSG_S	15	TPH(DMO)WSG_W	16	
17		18		19		20	
21		22		23		24	

**Prepared by: Briana Cutino**

The following SampIDs: 007A, 009A contain testgroup Multi RangeWSG\_S.; The following SampIDs: 006A, 008A contain testgroup Multi RangeWSG\_W.

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** ERAS ENVIRONMENTAL, INC.

**QC Level:** LEVEL 2

**Work Order:** 1608F84

**Project:** 14-002-03

**Client Contact:** Andrew Savage

**Date Logged:** 8/31/2016

**Comments:**

**Contact's Email:** info@eras.biz; andrew@eras.biz

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1608F84-001A	B-5	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	8/30/2016 13:05	5 days	Present	<input type="checkbox"/>	
1608F84-001B	B-5	Water	SW8270C (SVOCs)	1	ILA	<input type="checkbox"/>	8/30/2016 13:05	5 days	Present	<input type="checkbox"/>	
1608F84-001C	B-5	Water	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	2	VOA	<input type="checkbox"/>	8/30/2016 13:05	5 days	Present	<input type="checkbox"/>	
1608F84-001D	B-5	Water	SW8082 (PCBs Only)	2	VOA	<input type="checkbox"/>	8/30/2016 13:05	5 days	Present	<input type="checkbox"/>	
1608F84-001E	B-5	Water	E200.8 (CAM 17) (Dissolved-Field Filtered)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	8/30/2016 13:05	5 days	Present	<input type="checkbox"/>	
1608F84-002A	B-5, 3.5-4'	Soil	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	1	Acetate Liner	<input type="checkbox"/>	8/30/2016 11:53	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8082 (PCBs Only)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1608F84-002B	B-5,4'	Soil	SW8260B (VOCs) (Encore)	1	Encore	<input type="checkbox"/>	8/30/2016 11:53	5 days		<input type="checkbox"/>	
1608F84-003A	B-5, 9.5-10'	Soil	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	1	Acetate Liner	<input type="checkbox"/>	8/30/2016 12:08	5 days		<input type="checkbox"/>	
			SW6020 (CAM 17)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8082 (PCBs Only)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1608F84-003B	B-5, 10'	Soil	SW8260B (VOCs) (Encore)	1	Encore	<input type="checkbox"/>	8/30/2016 12:08	5 days		<input type="checkbox"/>	
1608F84-004A	B-6, 4.5-5'	Soil	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	1	Acetate Liner	<input type="checkbox"/>	8/30/2016 14:00	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



## WORK ORDER SUMMARY

**Client Name:** ERAS ENVIRONMENTAL, INC.

**QC Level:** LEVEL 2

**Work Order:** 1608F84

**Project:** 14-002-03

**Client Contact:** Andrew Savage

**Date Logged:** 8/31/2016

**Comments:**

**Contact's Email:** info@eras.biz; andrew@eras.biz

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut		
1608F84-004A	B-6, 4.5-5'	Soil	SW6020 (CAM 17)	1	Acetate Liner	<input type="checkbox"/>	8/30/2016 14:00	5 days		<input type="checkbox"/>			
			SW8270C (SVOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8082 (PCBs Only)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1608F84-004B	B-6, 5'	Soil	SW8260B (VOCs) (Encore)	1	Encore	<input type="checkbox"/>	8/30/2016 14:00	5 days		<input type="checkbox"/>			
1608F84-005A	B-6, 7.5-8'	Soil	SW8015B (TPH-d,mo w/ S.G. Clean-Up)	1	Acetate Liner	<input type="checkbox"/>	8/30/2016 14:06	5 days		<input type="checkbox"/>			
			SW6020 (CAM 17)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>						5 days	<input type="checkbox"/>
1608F84-005B	B-6, 8'	Soil	SW8260B (VOCs) (Encore)	1	Encore	<input type="checkbox"/>	8/30/2016 14:06	5 days		<input type="checkbox"/>			
1608F84-006A	B-1	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	8/30/2016 10:19	5 days	Present	<input type="checkbox"/>			
1608F84-006B	B-1	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	8/30/2016 10:19	5 days	Present	<input type="checkbox"/>			
1608F84-006C	B-1	Water	SW8270C (SVOCs)	1	1LA	<input type="checkbox"/>	8/30/2016 10:19	5 days	Present	<input type="checkbox"/>			
1608F84-006D	B-1	Water	SW6020 (Lead) (Dissolved-Field Filtered)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	8/30/2016 10:19	5 days	Present	<input type="checkbox"/>			
1608F84-007A	B-1, 3.5-4'	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	8/30/2016 9:16	5 days		<input type="checkbox"/>			
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>						5 days	<input type="checkbox"/>

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).  
 - MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



## WORK ORDER SUMMARY

**Client Name:** ERAS ENVIRONMENTAL, INC.

**QC Level:** LEVEL 2

**Work Order:** 1608F84

**Project:** 14-002-03

**Client Contact:** Andrew Savage

**Date Logged:** 8/31/2016

**Comments:**

**Contact's Email:** info@eras.biz; andrew@eras.biz

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1608F84-007A	B-1, 3.5-4'	Soil	SW8270C (SVOCs)	1	Acetate Liner	<input type="checkbox"/>	8/30/2016 9:16	5 days		<input type="checkbox"/>	
1608F84-007B	B-1, 4'	Soil	SW8260B (VOCs) (Encore)	1	Encore	<input type="checkbox"/>	8/30/2016 9:16	5 days		<input type="checkbox"/>	
1608F84-008A	B-2	Water	Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up	4	2 VOAs w/HCL + 2-aVOAs (multi-range)	<input type="checkbox"/>	8/30/2016 9:10	5 days	Present	<input type="checkbox"/>	
1608F84-008B	B-2	Water	SW8260B (VOCs)	2	VOA w/ HCl	<input type="checkbox"/>	8/30/2016 9:10	5 days	Present	<input type="checkbox"/>	
1608F84-008C	B-2	Water	SW8270C (SVOCs)	1	ILA	<input type="checkbox"/>	8/30/2016 9:10	5 days	Present	<input type="checkbox"/>	
1608F84-008D	B-2	Water	SW6020 (Lead) (Dissolved-Field Filtered)	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	8/30/2016 9:10	5 days	Present	<input type="checkbox"/>	
1608F84-009A	B-2, 3.5-4'	Soil	SW6020 (Lead)	1	Acetate Liner	<input type="checkbox"/>	8/30/2016 8:29	5 days		<input type="checkbox"/>	
			Multi-Range TPH(g,d,mo) w/ S.G. Clean-Up			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		5 days		<input type="checkbox"/>	
1608F84-009B	B-2, 4'	Soil	SW8260B (VOCs) (Encore)	1	Encore	<input type="checkbox"/>	8/30/2016 8:29	5 days		<input type="checkbox"/>	

**NOTES:** - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).  
 - MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



**McC Campbell Analytical, Inc**  
**1534 Willow Pass Rd.**  
**Pittsburg, CA 94565**  
**877.252.9262**  
**925.252.9269 - fax**

Report To: ERAS Bill To: ERAS  
 Company: ERAS Environmental, Inc.  
 Email: info@eras.biz  
 Telephone: 510-247-9885 Fax: 510-886-5399  
 Project # 14-002-03  
 Project location 729 45th Avenue  
 Sampler: Andrew Savage

Turnaround Time:  Rush  24Hr  48 Hr  72 Hr  5 Day  
 Geotracker:  EDF  Excel  Write On (DW)

Sample ID	Location/Field Point Name	Sampling		# of Containers	Container Type	Matrix			Preservative						
		Date	Time			Soil	Water	Waste	HCL	H2SO4	HNO3	ICE	None		
B-5		8/30/2016	13:05	6	VOA	X									X
B-5		8/30/2016	13:05	1	1-L	X									X
B-5		8/30/2016	13:05	1	1-L	X									X
B-5		8/30/2016	13:05	1	1-L	X									X
B-5		8/30/2016	13:05	1	Poly	X					X				
B-5, 3.5-4'		8/30/2016	11:53	1	Tube	X							X		
B-5, 4'		8/30/2016	11:53	1	EC	X							X		
B-5, 9.5-10'		8/30/2016	12:08	1	Tube	X							X		
B-5, 10'		8/30/2016	12:08	1	EC	X							X		
B-6, 4.5-5'		8/30/2016	14:00	1	Tube	X							X		
B-6, 5'		8/30/2016	14:00	1	EC	X							X		
B-6, 7.5-8'		8/30/2016	14:06	1	Tube	X							X		
B-6, 8'		8/30/2016	14:06	1	EC	X							X		

Analysis Requested										Other	Comments	
TPH-GRO by EPA Method 8015	TPH-DRO by EPA Method 8015 with silica gel cleanup	VOC's, MTBE, and Oxygenates by EPA Method 8260	SVOC's by EPA Method 8270	Total Lead	TPH-DRO and ORO by EPA Method 8015 with Silica Gel Cleanup	PCB's By EPA Method 8082	CAM 17 Metals					
	X											
	X											
				X								
					X							FIELD FILTERED
					X	X	X	X				
	X				X	X	X					
	X				X	X	X					
	X				X	X	X					
	X				X	X	X					

RELINQUISHED BY:		RECEIVED BY:	
Relinquished by:	Date: <u>8/31/16</u>	Time: <u>1031</u>	Received by:
Relinquished by:	Date: <u>8/31</u>	Time: <u>1715</u>	Received by:
Relinquished by:	Date: _____	Time: _____	Received by: _____

ICE/t+ \_\_\_\_\_  
 Condition \_\_\_\_\_  
 Head space absent \_\_\_\_\_  
 Dechlorinated in lab \_\_\_\_\_  
 Appropriate containers \_\_\_\_\_  
 Preserved in Lab \_\_\_\_\_

VOA's   O&G   Metals   Other  
 pH<2

Comments: REPORT All J Flags

# CHAIN OF CUSTODY FORM

**McC Campbell Analytical, Inc**  
**1534 Willow Pass Rd.**  
**Pittsburg, CA 94565**  
**877.252.9262**  
**925.252.9269 - fax**

Turnaround Time:  Rush  24Hr  48 Hr  72 Hr  5 Day  
 Geotracker:  EDF  Excel  Write On (DW)

Report To: ERAS Bill To: ERAS  
 Company: ERAS Environmental, Inc.  
 Email: info@eras.biz  
 Telephone: 510-247-9885 Fax: 510-886-5399  
 Project # 14-002-03  
 Project location 729 45th Avenue  
 Sampler: Andrew Savage

Analysis Requested										Other	Comments	
TPH-GRO by EPA Method 8015	TPH-DRO by EPA Method 8015 with silica gel cleanup	VOC's, MTBE, and Oxygenates by EPA Method 8260	SVOC's by EPA Method 8270	Total Lead	TPH-DRO and ORO by EPA Method 8015 with Silica Gel Cleanup	PCB's By EPA Method 8082	CAM 17 Metals					
X	X											
	X											
		X										
				X								FIELD FILTERED
X	X	X	X									
		X										
X	X											
	X											
		X										FIELD FILTERED
X	X	X	X									
		X										

Sample ID	Location/Field Point Name	Sampling		# of Containers	Container Type	Matrix			Preservative					
		Date	Time			Soil	Water	Waste	HCL	H2SO4	HNO3	ICE	None	
B-1		8/30/2016	10:19	6	VOA	X							X	
B-1		8/30/2016	10:19	1	1-L	X								X
B-1		8/30/2016	10:19	1	1-L	X								X
B-1		8/30/2016	10:19	1	Poly	X						X		
B-1, 3.5-4'		8/30/2016	9:16	1	Tube	X							X	
B-1, 4'		8/30/2016	9:16	1	EC	X							X	
B-2		8/30/2016	9:10	6	VOA	X								X
B-2		8/30/2016	9:10	1	1-L	X								X
B-2		8/30/2016	9:10	1	1-L	X								X
B-2		8/30/2016	9:10	1	Poly	X					X			
B-2, 3.5-4'		8/30/2016	8:29	1	Tube	X							X	
B-2, 4'		8/30/2016	8:29	1	EC	X							X	

RELINQUISHED BY:			RECEIVED BY:		
Relinquished by:	Date: <u>8/31/16</u>	Time: <u>1031</u>	Received by:	Date: <u>8/31</u>	Time: <u>1715</u>
Relinquished by:	Date: <u>8/31</u>	Time: <u>1715</u>	Received by:		
Relinquished by:	Date:	Time:	Received by:		

ICE/t- Condition _____ Head space absent _____ Dechlorinated in lab _____ Appropriate containers _____ Preserved in Lab _____ Preservation _____	Comments: REPORT All J Flags     VOA's O&G Metals Other pH<2
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### Sample Receipt Checklist

Client Name:	<b>ERAS Environmental, Inc.</b>	Date and Time Received:	<b>8/31/2016 17:15</b>
Project Name:	<b>14-002-03</b>	Date Logged:	<b>8/31/2016</b>
WorkOrder №:	<b>1608F84</b>	Matrix:	<u>Soil/Water</u>
Carrier:	<u>Benjamin Yslas (MAI Courier)</u>	Received by:	Briana Cutino
		Logged by:	Briana Cutino

#### Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

#### Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample/Temp Blank temperature		Temp: 3°C	NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE )

#### UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments:

**APPENDIX E**  
**WELL SURVEY**

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

<b>Address</b>	<b>Longcity</b>	<b>Tsrqq</b>	<b>Totaldeptl</b>	<b>Use</b>
2744 East 11th St.	Oakland	2S/3W 7B		DES
2744 East 11th St.	Oakland	2S/3W 7B		DES
2744 East 11th St.	Oakland	2S/3W 7B		DES
2744 East 11th St.	Oakland	2S/3W 7B		DES
2744 East 11th St.	Oakland	2S/3W 7B		DES
2744 East 11th St.	Oakland	2S/3W 7B		DES
2744 East 11th St.	Oakland	2S/3W 7B		DES
2744 East 11th St.	Oakland	2S/3W 7B		DES
1100 29TH AVE	Oakland	2S/3W 7B	875	DES
1100 29TH AVE	Oakland	2S/3W 7B	873	IND
1100 29TH Ave	Oakland	2S/3W 7B	704	IND
1100 29TH Ave	Oakland	2S/3W 7B	385	IND
955 Kennedy Street	Oakland	2S/3W 7C	28.1	DES
955 Kennedy Street	Oakland	2S/3W 7C	28.4	DES
955 Kennedy Street	Oakland	2S/3W 7C	25	DES
955 Kennedy Street	Oakland	2S/3W 7C	25.1	DES
955 Kennedy St.	Oakland	2S/3W 7C	25	MON
955 Kennedy St.	Oakland	2S/3W 7C	30	MON
955 Kennedy St.	Oakland	2S/3W 7C	27	MON
955 Kennedy St.	Oakland	2S/3W 7C	34	MON
955 Kennedy St.	Oakland	2S/3W 7C	34	MON
646 Kennedy St	Oakland	2S/3W 7C	16	MON
646 Kennedy St	Oakland	2S/3W 7C	17	MON
800 Kennedy St	Oakland	2S/3W 7C	20	MON
727 Kennedy St	Oakland	2S/3W 7C	17	MON
18950 Embarcadero St	Oakland	2S/3W 7D	48	MON
18950 Embarcadero St	Oakland	2S/3W 7D	47.5	MON
1033 44TH AVE.	Oakland	2S/3W 8K	27	MON
1066 47TH AVE.	Oakland	2S/3W 8K	25	MON
1066 47TH AVE.	Oakland	2S/3W 8K	27	MON

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

1066 47TH AVE.	Oakland	2S/3W 8K	25	MON
4301 SAN LEANDRO ST	Oakland	2S/3W 8L	37	BOR
1007 41ST AVENUE	Oakland	2S/3W 8L	17	BOR
720 High St.	Oakland	2S/3W 8L	10	BOR
350 42ND AVE	Oakland	2S/3W 8L		DES
4901 E 12TH ST	Oakland	2S/3W 8L	300	ABN
860 42ND AVE	Oakland	2S/3W 8L	235	DES
860 42ND AVE	Oakland	2S/3W 8L	244	DES
860 42ND AVE	Oakland	2S/3W 8L	20	DES
860 42ND AVE	Oakland	2S/3W 8L	25	DES
860 42ND AVE	Oakland	2S/3W 8L	22	MON
860 42ND AVE	Oakland	2S/3W 8L	22	DES
860 42ND AVE	Oakland	2S/3W 8L	22	DES
860 42ND AVE	Oakland	2S/3W 8L	87	DES
860 42ND AVE	Oakland	2S/3W 8L	87	DES
860 42ND AVE	Oakland	2S/3W 8L	77	DES
860 42ND AVE	Oakland	2S/3W 8L	40	DES
HIGH & WATTLING STREETS	Oakland	2S/3W 8L	77	DES
860 42ND AVE	Oakland	2S/3W 8L	87	DES
860 42ND AVE	Oakland	2S/3W 8L	32	MON
860 42ND AVE	Oakland	2S/3W 8L	31	DES
860 42ND AVE	Oakland	2S/3W 8L	32	DES
860 42ND AVE	Oakland	2S/3W 8L	34	MON
860 42ND AVE	Oakland	2S/3W 8L	31	MON
860 42ND AVE	Oakland	2S/3W 8L	34	MON
860 42ND AVE	Oakland	2S/3W 8L	32	MON
4301 SAN LEANDRO ST	Oakland	2S/3W 8L	12	MON
4301 SAN LEANDRO ST	Oakland	2S/3W 8L	12	MON
4301 SAN LEANDRO ST	Oakland	2S/3W 8L	12	MON
4301 SAN LEANDRO ST	Oakland	2S/3W 8L	12	MON
850-42ND AVE	Oakland	2S/3W 8L	55	MON

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

850-42ND AVE	Oakland	2S/3W 8L	29	MON
850-42ND AVE	Oakland	2S/3W 8L	28	MON
850-42ND AVE	Oakland	2S/3W 8L	25	MON
850-42ND AVE	Oakland	2S/3W 8L	27	MON
850-42ND AVE	Oakland	2S/3W 8L	25	MON
850-42ND AVE	Oakland	2S/3W 8L	30	MON
720 HIGH STREET	Oakland	2S/3W 8L	35	MON
720 High Street	Oakland	2S/3W 8L	36	DES
720 HIGH STREET	Oakland	2S/3W 8L	35	MON
720 High Street	Oakland	2S/3W 8L	36	DES
720 HIGH STREET	Oakland	2S/3W 8L	35	MON
720 HIGH STREET	Oakland	2S/3W 8L	33	MON
720 HIGH STREET	Oakland	2S/3W 8L	35	MON
720 High Street	Oakland	2S/3W 8L	36	DES
720 HIGH STREET	Oakland	2S/3W 8L	35	MON
720 HIGH STREET	Oakland	2S/3W 8L	35	MON
720 HIGH ST	Oakland	2S/3W 8L	29	MON
720 HIGH ST	Oakland	2S/3W 8L	33	MON
720 HIGH ST	Oakland	2S/3W 8L	33	MON
720 High St.	Oakland	2S/3W 8L	7	MON
720 High St.	Oakland	2S/3W 8L	10	MON
720 High St.	Oakland	2S/3W 8L	8	MON
900 High St	Oakland	2S/3W 8L	24	MON
900 High St	Oakland	2S/3W 8L	23	MON
900 High St	Oakland	2S/3W 8L	24	MON
3801 EAST 8TH AVE	Oakland	2S/3W 8M	30	BOR
3801 East 8th Street	Oakland	2S/3W 8M	0	BOR*
3801 East 8th Street	Oakland	2S/3W 8M	7	BOR*
3801 E. 8th St.	Oakland	2S/3W 8M	24	GEO
EAST 8TH ST	Oakland	2S/3W 8M	22	MON
3801 East 8th Street	Oakland	2S/3W 8M	24	MON

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

3801 East 8th Street	Oakland	2S/3W 8M	25	ON
3801 East 8th Street	Oakland	2S/3W 8M	20	MON
3801 East 8th Street	Oakland	2S/3W 8M	22	MON
3801 East 8th Street	Oakland	2S/3W 8M	18	MON
3801 East 8th Street	Oakland	2S/3W 8M	180	IRR
3801 East 8th Street	Oakland	2S/3W 8M	25	MON
3801 East 8th Street	Oakland	2S/3W 8M	20	MON
3801 East 8th Street	Oakland	2S/3W 8M	20	MON
3801 East 8th Street	Oakland	2S/3W 8M	19	MON
3801 East 8th Street	Oakland	2S/3W 8M	19	MON
3801 East 8th Street	Oakland	2S/3W 8M	19	MON
3801 East 8th Street	Oakland	2S/3W 8M	22	MON
3801 East 8th Street	Oakland	2S/3W 8M	18	MON
3801 East 8th Street	Oakland	2S/3W 8M	18	MON
3801 East 8th Street	Oakland	2S/3W 8M	23	MON
3801 East 8th Street	Oakland	2S/3W 8M	18	MON
3801 East 8th Street	Oakland	2S/3W 8M	19	MON
3801 E 8th ST	Oakland	2S/3W 8M	15	MON
3801 E 8th ST	Oakland	2S/3W 8M	19	MON
3801 E 8th ST	Oakland	2S/3W 8M	20	MON
3801 E 8th ST	Oakland	2S/3W 8M	19	MON
3801 E 8th ST	Oakland	2S/3W 8M	19	MON
3801 East 8th St	Oakland	2S/3W 8M	23	TES
3801 East 8th St	Oakland	2S/3W 8M	19	MON
3801 East 8th St	Oakland	2S/3W 8M	21	MON
3801 East 8th St	Oakland	2S/3W 8M	19	MON
3801 E 8th St	Oakland	2S/3W 8M	19	MON
3801 E 8th St	Oakland	2S/3W 8M	19	MON
3801 E. 8th St	Oakland	2S/3W 8M	23	MON
3801 E. 8th St	Oakland	2S/3W 8M	25	MON
3801 E. 8th St	Oakland	2S/3W 8M	20	MON



**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

3801 E. 8th St	Oakland	2S/3W 8M	22	MON
3801 E. 8th St	Oakland	2S/3W 8M	25	MON
3801 E. 8th St	Oakland	2S/3W 8M	25	MON
3801 E. 8th St	Oakland	2S/3W 8M	25	MON
3801 E. 8th St	Oakland	2S/3W 8M	24	MON
301 - 411 High Street	Oakland	2S/3W 8N	6	BOR
630 HIGH ST	Oakland	2S/3W 8N	10	BOR*
630 High Street	Oakland	2S/3W 8N	10	BOR
630 High Street	Oakland	2S/3W 8N	9	BOR
401 HIGH STREET	Oakland	2S/3W 8N	18	BOR
410 High Street	Oakland	2S/3W 8N	25	MON
410 High Street	Oakland	2S/3W 8N	0	BOR*
401 HIGH ST	Oakland	2S/3W 8N	10	MON
401 HIGH ST	Oakland	2S/3W 8N	30	MON
411 High Street	Oakland	2S/3W 8N	10	DES
411 High Street	Oakland		7	EXT
411 High Street	Oakland		10	EXT
411 High Street	Oakland		13	EXT
411 High Street	Oakland		13	EXT
411 High Street	Oakland	2S/3W 8N	14	EXT
411 High Street	Oakland	2S/3W 8N	14	EXT
411 High Street	Oakland	2S/3W 8N	15	EXT
411 High Street	Oakland	2S/3W 8N	14	EXT
411 High Street	Oakland	2S/3W 8N	15	EXT
411 High Street	Oakland	2S/3W 8N	15	EXT
411 High Street	Oakland	2S/3W 8N	14	EXT
411 High Street	Oakland	2S/3W 8N	14	EXT
411 High Street	Oakland	2S/3W 8N	13	EXT
411 High Street	Oakland	2S/3W 8N	12	EXT
411 High Street	Oakland	2S/3W 8N	12	EXT
411 High Street	Oakland	2S/3W 8N	12	EXT

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

411 High Street	Oakland	2S/3W 8N	16	EXT
411 High Street	Oakland	2S/3W 8N	16	EXT
411 High Street	Oakland	2S/3W 8N	15	EXT
411 High Street	Oakland	2S/3W 8N	15	EXT
411 High Street	Oakland	2S/3W 8N	18	EXT
411 High Street	Oakland	2S/3W 8N	13	EXT
411 High Street	Oakland	2S/3W 8N	13	EXT
411 High Street	Oakland	2S/3W 8N	23	INJ
411 High Street	Oakland	2S/3W 8N	22	INJ
411 High Street	Oakland	2S/3W 8N	20.5	INJ
411 High Street	Oakland	2S/3W 8N	21	INJ
411 High Street	Oakland	2S/3W 8N	20.5	INJ
411 High Street	Oakland	2S/3W 8N	20	INJ
411 High Street	Oakland	2S/3W 8N	21	INJ
411 High Street	Oakland	2S/3W 8N	22	INJ
411 High Street	Oakland	2S/3W 8N	23	INJ
411 High Street	Oakland	2S/3W 8N	21	INJ
411 High Street	Oakland	2S/3W 8N	21	INJ
411 High Street	Oakland	2S/3W 8N	22	INJ
411 High Street	Oakland	2S/3W 8N	22	INJ
411 High Street	Oakland	2S/3W 8N	23	INJ
411 High Street	Oakland	2S/3W 8N	23	INJ
411 High Street	Oakland	2S/3W 8N	21	INJ
411 High Street	Oakland	2S/3W 8N	18	INJ
411 High Street	Oakland	2S/3W 8N	23	INJ
411 High Street	Oakland	2S/3W 8N	17.5	INJ
411 High Street	Oakland	2S/3W 8N	23	INJ
411 High Street	Oakland	2S/3W 8N	24	INJ
411 High Street	Oakland	2S/3W 8N	24	INJ
411 High Street	Oakland	2S/3W 8N	24	INJ
411 High Street	Oakland	2S/3W 8N	24	INJ

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

411 High Street	Oakland	2S/3W 8N	24	INJ
411 High Street	Oakland	2S/3W 8N	23	INJ
ALAMEDA AVE	Oakland	2S/3W 8N	31	DES
ALAMEDA AVE	Oakland	2S/3W 8N	31	DES
ALAMEDA AVE	Oakland	2S/3W 8N	31	DES
ALAMEDA AVE	Oakland	2S/3W 8N	31	DES
630 HIGH ST	Oakland	2S/3W 8N	14	MON
630 HIGH ST	Oakland	2S/3W 8N	20	MON
630 HIGH ST	Oakland	2S/3W 8N	17	MON
630 HIGH ST	Oakland	2S/3W 8N	17	MON
630 High Street	Oakland	2S/3W 8N	18	MON
630 High Street	Oakland	2S/3W 8N	20	MON
630 High Street	Oakland	2S/3W 8N	20	MON
630 High Street	Oakland	2S/3W 8N	21	MON
630 High Street	Oakland	2S/3W 8N	12	MON
630 High Street	Oakland	2S/3W 8N	13	MON
410 High Street	Oakland	2S/3W 8N	98	MON
410 High Street	Oakland	2S/3W 8N	0	BOR*
410 High Street	Oakland	2S/3W 8N	25	MON
410 High Street	Oakland	2S/3W 8N	25	MON
410 High Street	Oakland	2S/3W 8N	27	MON
410 High Street	Oakland	2S/3W 8N	30	MON
410 High Street	Oakland	2S/3W 8N	26	MON
410 High Street	Oakland	2S/3W 8N	23	MON
410 High Street	Oakland	2S/3W 8N	26	MON
410 High Street	Oakland	2S/3W 8N	26	MON
410 High Street	Oakland	2S/3W 8N	24	MON
410 High Street	Oakland	2S/3W 8N	26	MON
410 High Street	Oakland	2S/3W 8N	25	MON
410 High Street	Oakland	2S/3W 8N	22	MON
410 High Street	Oakland	2S/3W 8N	24	MON

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

410 High Street	Oakland	2S/3W 8N	22	MON
410 High Street	Oakland	2S/3W 8N	24	MON
410 High Street	Oakland	2S/3W 8N	29	MON
410 High Street	Oakland	2S/3W 8N	27	MON
301 - 411 High Street	Oakland	2S/3W 8N	14	MON
301 - 411 High Street	Oakland	2S/3W 8N	0	BOR*
301 - 411 High Street	Oakland	2S/3W 8N	23	MON
301 - 411 High Street	Oakland	2S/3W 8N	23	MON
301 - 411 High Street	Oakland	2S/3W 8N	23	MON
301 - 411 High Street	Oakland	2S/3W 8N	23	MON
301 - 411 High Street	Oakland	2S/3W 8N	23	MON
301 - 411 High Street	Oakland	2S/3W 8N	25	MON
301 - 411 High Street	Oakland	2S/3W 8N	8	MON
301 - 411 High Street	Oakland	2S/3W 8N	8	MON
301 - 411 High Street	Oakland	2S/3W 8N	8	MON
301 - 411 High Street	Oakland	2S/3W 8N	7	MON
411 High Street	Oakland	2S/3W 8N	15	MON
411 High Street	Oakland	2S/3W 8N	16	BOR*
411 High Street	Oakland	2S/3W 8N	8	MON
411 High Street	Oakland	2S/3W 8N	29	MON
411 High Street	Oakland	2S/3W 8N	9	MON
411 High Street	Oakland	2S/3W 8N	29	MON
500 High St	Oakland	2S/3W 8N	18	MON
500 High St	Oakland	2S/3W 8N	127	DOM
500 High St	Oakland	2S/3W 8N	24	MON
500 High St	Oakland	2S/3W 8N	25	MON
401 High St	Oakland	2S/3W 8N	50	MON
401 High St	Oakland	2S/3W 8N	50	MON
401 High St	Oakland	2S/3W 8N	50	MON
411 High St	Oakland	2S/3W 8N	24	MON
411 High St	Oakland	2S/3W 8N	27	MON

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

411 High St	Oakland	2S/3W 8N	24	MON
411 High St	Oakland	2S/3W 8N	24	MON
411 High St	Oakland	2S/3W 8N	32	MON
500 High St	Oakland	2S/3W 8N	25	MON
401 High St	Oakland	2S/3W 8N	47	MON
401 High St	Oakland	2S/3W 8N	45	MON
500 High St	Oakland	2S/3W 8N	20	DES
500 High St	Oakland	2S/3W 8N	22	MON
301 - 411 High St	Oakland	2S/3W 8N	5	MON
301 - 411 High St	Oakland	2S/3W 8N	8	MON
301 - 411 High St	Oakland	2S/3W 8N	24	MON
301 - 411 High St	Oakland	2S/3W 8N	32	OTH
401 High St.	Oakland	2S/3W 8N	31	EXT
401 High St.	Oakland	2S/3W 8N	29	EXT
401 High St.	Oakland	2S/3W 8N	31	EXT
401 High St.	Oakland	2S/3W 8N	29	EXT
401 High St.	Oakland	2S/3W 8N	29	EXT
401 High St.	Oakland	2S/3W 8N	31	EXT
401 High St.	Oakland	2S/3W 8N	30	EXT
401 High St.	Oakland	2S/3W 8N	33	EXT
401 High St.	Oakland	2S/3W 8N	31	EXT
4341 Howard St	Oakland	2S/3W 8N	20	MON
500 High St	Oakland	2S/3W 8N	17	MON
720 High Street	Oakland	2S/3W 8P	35	MON
720 High St.	Oakland	2S/3W 8P	45	MON
720 High St.	Oakland	2S/3W 8P	17	TES
720 High Street	Oakland	2S/3W 8P	17	DES
720 High St.	Oakland	2S/3W 8P	22	DES
720 High Street	Oakland	2S/3W 8P	29	MON
720 High Street	Oakland	2S/3W 8P	35	MON
720 High Street	Oakland	2S/3W 8P	35	MON

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

720 High Street	Oakland	2S/3W 8P	33	MON
720 High Street	Oakland	2S/3W 8P	35	MON
720 High Street	Oakland	2S/3W 8P	30	MON
720 High Street	Oakland	2S/3W 8P	35	MON
720 High Street	Oakland	2S/3W 8P	32	MON
720 High Street	Oakland	2S/3W 8P	25	MON
720 High Street	Oakland	2S/3W 8P	15	MON
720 High Street	Oakland	2S/3W 8P	15	MON
720 High Street	Oakland	2S/3W 8P	35	MON
720 High Street	Oakland	2S/3W 8P	13	BOR*
720 High Street	Oakland	2S/3W 8P	12.5	MON
720 High Street	Oakland	2S/3W 8P	24	MON
720 High Street	Oakland	2S/3W 8P	13	MON
720 High Street	Oakland	2S/3W 8P	26	MON
720 High Street	Oakland	2S/3W 8P	14	MON
720 High Street	Oakland	2S/3W 8P	31	MON
720 High Street	Oakland	2S/3W 8P	14	MON
720 High Street	Oakland	2S/3W 8P	24	MON
720 High Street	Oakland	2S/3W 8P	13.5	MON
720 High Street	Oakland	2S/3W 8P	13	MON
720 High Street	Oakland	2S/3W 8P	Unknown	REM
720 High Street	Oakland	2S/3W 8P	Unknown	REM
720 High Street	Oakland	2S/3W 8P	Unknown	REM
720 High Street	Oakland	2S/3W 8P	Unknown	REM
720 High Street	Oakland	2S/3W 8P	Unknown	SPAR
720 High Street	Oakland	2S/3W 8P	Unknown	SPAR
720 High Street	Oakland	2S/3W 8P	Unknown	SPAR
720 High Street	Oakland	2S/3W 8P	Unknown	SPAR
720 High Street	Oakland	2S/3W 8P	Unknown	SPAR
720 High Street	Oakland	2S/3W 8P	Unknown	SPAR
720 High Street	Oakland	2S/3W 8P	Unknown	SPAR
768 46th Ave	Oakland	2S/3W 8P	14	TES

**WELL SURVEY**  
**Alameda County Public Works**  
**729 45th Avenue, Oakland**

768 46th Ave	Oakland	2S/3W 8P	15	TES
768 46th Ave	Oakland	2S/3W 8P	13	TES
715 46th Av	Oakland	2S/3W 8P	20	MON
Coliseum Wy & 45th Ave	Oakland	2S/3W 8P	120	CAT
744 High Street	Oakland	2S/3W 8P	25	MON
744 High Street	Oakland	2S/3W 8P	19	MON
744 High Street	Oakland	2S/3W 8P	24	MON
744 High Street	Oakland	2S/3W 8P	7	BOR*
4800 Coliseum Way	Oakland	2S/3W 8P	19	MON
720 High St	Oakland	2S/3W 8P	13	MON
720 High St	Oakland	2S/3W 8P	13	MON
5115 EAST 8TH ST	Oakland	2S/3W 8Q	11.3	DES
5115 EAST 8TH ST	Oakland	2S/3W 8Q	19.6	DES
5115 EAST 8TH ST	Oakland	2S/3W 8Q	18.4	DES
5115 EAST 8TH ST	Oakland	2S/3W 8Q	19.75	DES
5115 EAST 8TH ST	Oakland	2S/3W 8Q	20	DES
<b>4701 SAN LEANDRO BLVD</b>	<b>Oakland</b>	<b>2S/3W 8Q</b>	<b>756</b>	<b>IND</b>
4930 Coliseum Way	Oakland	2S/3W 8Q	19	MON
4930 Coliseum Way	Oakland	2S/3W 8Q	18	MON
4930 COLISEUM WAY	Oakland	2S/3W 8Q	18	MON
4930 COLISEUM WAY	Oakland	2S/3W 8Q	19	MON
4930 COLISEUM WAY	Oakland	2S/3W 8Q	19	MON
4930 COLISEUM WAY	Oakland	2S/3W 8Q	27	MON
4930 COLISEUM WAY	Oakland	2S/3W 8Q	12	BOR
744 HIGH ST.	Oakland	2S/3W 8Q	15	BOR
717 50th Ave.(4930 Coliseum Way) Oakland General Construction Yard	Oakland	2S/3W 8Q5	16.5	DES
717 50th Ave.(4930 Coliseum Way) Oakland General Construction Yard	Oakland	2S/3W 8Q8	18	DES
717 50th Ave.(4930 Coliseum Way) Oakland General Construction Yard	Oakland	2S/3W 8Q9	18	DES

**WELL SURVEY**  
**CALIFORNIA DEPARTMENT OF WATER RESOURCES**  
**729 45th Avenue Oakland**

Township	Section	Tract	Log Number	Well_Address	Community	WorkType	WaterUse	Depth
02S03W	8		01-429A		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429A-L		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429B		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429C		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429D		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429E		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429F		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429G		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429H		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429I		OAKLAND	New Well	Monitoring	12
02S03W	8		01-429J		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	8		01-429K		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	8		01-429L		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	8		01-1298					
02S03W	8		01-1299					
02S03W	8		281006		OAKLAND	New Well	Monitoring	18
02S03W	8		281007		OAKLAND	New Well	Monitoring	19
02S03W	8		329017		OAKLAND	New Well	Monitoring	25
02S03W	8		01-1302					
02S03W	8		NN					
02S03W	8		281008		OAKLAND	New Well	Monitoring	18
02S03W	8		281009A		OAKLAND	New Well	Monitoring	22
02S03W	8		281009B		OAKLAND	New Well	Monitoring	22
02S03W	8		281009C		OAKLAND	New Well	Monitoring	22
02S03W	8		281009		OAKLAND	New Well	Monitoring	22
02S03W	8		281009D		OAKLAND	New Well	Monitoring	22
02S03W	8		281009E		OAKLAND	New Well	Monitoring	22
02S03W	8		281009F		OAKLAND	New Well	Monitoring	22
02S03W	8		281009G		OAKLAND	New Well	Monitoring	22
02S03W	8		281009H		OAKLAND	New Well	Monitoring	22
02S03W	8		281009I		OAKLAND	New Well	Monitoring	22
02S03W	8		281009J		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	15
02S03W	8		281009K		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	15
02S03W	8		281009L		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	4
02S03W	8		281009M		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	22
02S03W	8		281009N		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	16
02S03W	8		281009O		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	17
02S03W	8		281009P		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	17
02S03W	8		281009Q		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	17
02S03W	8		428875		OAKLAND	New Well	Monitoring	19
02S03W	8		428876		OAKLAND	New Well	Monitoring	18



**WELL SURVEY**  
**CALIFORNIA DEPARTMENT OF WATER RESOURCES**  
**729 45th Avenue Oakland**

02S03W		7 A	01-460T		OAKLAND	New Well	Monitoring	30
02S03W	07A-J		01-460U		OAKLAND	New Well	Monitoring	30
02S03W	07A-J		33107					
02S03W	07A-J		340360		OAKLAND	New Well	Monitoring	31
02S03W	07A-J		340361		OAKLAND	New Well	Monitoring	30
02S03W	07A-J		340362		OAKLAND	New Well	Monitoring	27
02S03W	07A-J		340363		OAKLAND	New Well	Monitoring	33
02S03W	07A-J		340364		OAKLAND	New Well	Monitoring	34
02S03W	07A-J		140350					
02S03W	07A-J		254045		ALAMEDA	New Well	Monitoring	15
02S03W	07A-J		254047		ALAMEDA	New Well	Monitoring	13
02S03W	07A-J		254046		ALAMEDA	New Well	Monitoring	13
02S03W	07A-J		254050		ALAMEDA	New Well	Monitoring	13
02S03W	07A-J		254049		ALAMEDA	New Well	Monitoring	13
02S03W	07A-J		254038		ALAMEDA	New Well		15
02S03W		7 F	01-088A		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-088B		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-088C		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-088D		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-088E		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-088F		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-097A		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-097B		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-097C		OAKLAND	New Well	Monitoring	24
02S03W		7 F	01-097D		OAKLAND	New Well	Monitoring	24
02S03W		7	01_272					
02S03W	07A-J		01-272A		OAKLAND	New Well	Monitoring	22
02S03W	07A-J		01-272B		OAKLAND	New Well	Monitoring	22
02S03W	07A-J		01-272C		OAKLAND	New Well	Monitoring	22
02S03W	07A-J		01-405Z		OAKLAND	New Well	Extraction	27
02S03W	07A-J		01-510N		OAKLAND	New Well	Monitoring	20
02S03W		7	01_5100					
02S03W	07A-J		01-510P		OAKLAND	New Well	Monitoring	19
02S03W	07A-J		483819		OAKLAND	New Well	Monitoring	16
02S03W	07A-J		483821		OAKLAND	New Well	Monitoring	17
02S03W		7	01_1420					
02S03W	07A-J		01-485K		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	11
02S03W	07A-J		01-485L		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	7
02S03W	07A-J		01-485M		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07A-J		01-485N		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	9
02S03W		7	01_4850					
02S03W	07A-J		01-485P		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	9

**WELL SURVEY  
CALIFORNIA DEPARTMENT OF WATER RESOURCES  
729 45th Avenue Oakland**

02S03W		7 H	01_1401				
02S03W	07A-J		346012		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		346013		OAKLAND	New Well	Monitoring 31
02S03W	07A-J		346014I		OAKLAND	New Well	Monitoring 31
02S03W	07A-J		346014J				
02S03W	07A-J		346014K				
02S03W	07A-J		346014L				
02S03W	07A-J		346014M				
02S03W	07A-J		346014N				
02S03W	07A-J		346014Q				
02S03W		7	01_4820				
02S03W		7	01-222				
02S03W		7	01-222A		OAKLAND	New Well	Monitoring 30
02S03W		7	01-222B		OAKLAND	New Well	Monitoring 30
02S03W		7	01-222L		OAKLAND	Abandonment or destruction	
02S03W		7	01-222C		OAKLAND	New Well	Monitoring 30
02S03W		7	01-222D		OAKLAND	New Well	Monitoring 30
02S03W		7	01-222E		OAKLAND	New Well	Monitoring 30
02S03W		7	01-222F		OAKLAND	New Well	Monitoring 30
02S03W		7	01-222G		OAKLAND	New Well	Monitoring 30
02S03W		7	01-222H		OAKLAND	New Well	Monitoring 30
02S03W		7	01-222I		OAKLAND	New Well	Monitoring 30
02S03W		7	01_273				
02S03W	07A-J		01-273C		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		01-273B		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		01-273D		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		01-273E		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		01-273F		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		01-273G		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		01-273H		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		01-273I		OAKLAND	New Well	Monitoring 30
02S03W	07A-J		01-273J		OAKLAND	New Well	Monitoring 25
02S03W	07A-J		01-273K		OAKLAND	New Well	Monitoring 32
02S03W	07A-J		01-273L		OAKLAND	New Well	Monitoring 27
02S03W	07A-J		01-273M		OAKLAND	New Well	Monitoring 27
02S03W	07A-J		01-273N		OAKLAND	New Well	Monitoring 27
02S03W		7	01_2730				
02S03W	07A-J		01-273P		OAKLAND	New Well	Monitoring 25
02S03W	07A-J		01-273Q		OAKLAND	New Well	Monitoring 25
02S03W	07A-J		01-273R		OAKLAND	New Well	Extraction 25
02S03W	07A-J		405236A		OAKLAND	New Well	Monitoring 10
02S03W	07A-J		405236B		OAKLAND	New Well	Monitoring 10

**WELL SURVEY  
CALIFORNIA DEPARTMENT OF WATER RESOURCES  
729 45th Avenue Oakland**

02S03W	07A-J		405236				
02S03W	07A-J		405236C		OAKLAND	New Well	Monitoring 10
02S03W	07A-J		405236D		OAKLAND	New Well	Monitoring 10
02S03W	07A-J		405236E		OAKLAND	New Well	Monitoring 10
02S03W	07A-J		405236F		OAKLAND	New Well	Monitoring 10
02S03W	07A-J		405236G		OAKLAND	New Well	Monitoring 10
02S03W		7 J	01_1421				
02S03W		7 J	01_1422				
02S03W	08N-08P		01-446R		OAKLAND	New Well	Monitoring 24
02S03W	08N-08P		01-446S		OAKLAND	New Well	Monitoring 24
02S03W	08N-08P		01-452H		OAKLAND	New Well	Monitoring 16
02S03W	08N-08P		01-452I		OAKLAND	New Well	Monitoring 16
02S03W	08N-08P		01-486A				
02S03W	08N-08P		01-486B				
02S03W	08N-08P		01-486C				
02S03W	08N-08P		01-486D				
02S03W	08N-08P		01-486E				
02S03W	08N-08P		01-486F				
02S03W	08N-08P		01-486G				
02S03W	08N-08P		01-486H				
02S03W	08N-08P		01-486I				
02S03W	08N-08P		01-486J				
02S03W	08N-08P		01-486K				
02S03W	08N-08P		01-486L				
02S03W	08N-08P		01-486M				
02S03W	08N-08P		01-486O				
02S03W	08N-08P		01-486N				
02S03W	08N-08P		01-486P				
02S03W	08N-08P		01-486Q				
02S03W	08N-08P		01-486A-Q				
02S03W	08N-08P		01-496A		OAKLAND	New Well	Monitoring 8
02S03W	08N-08P		01-496B		OAKLAND	New Well	Monitoring 8
02S03W	08N-08P		01-496C		OAKLAND	New Well	Monitoring 8
02S03W	08N-08P		01-496D		OAKLAND	New Well	Monitoring 8
02S03W	08N-08P		01-496E		OAKLAND	New Well	Monitoring 8
02S03W	08N-08P		01-496F		OAKLAND	New Well	Monitoring 8
02S03W	08N-08P		316524		OAKLAND	New Well	Monitoring 24
02S03W	08N-08P		316526		OAKLAND	New Well	Monitoring 25
02S03W	08N-08P		316525		OAKLAND	New Well	Monitoring 25
02S03W	08N-08P		316529		OAKLAND	New Well	Monitoring 25
02S03W	08N-08P		362183		OAKLAND	New Well	Monitoring 50
02S03W	08N-08P		362181		OAKLAND	New Well	Monitoring 50

**WELL SURVEY  
CALIFORNIA DEPARTMENT OF WATER RESOURCES  
729 45th Avenue Oakland**

02S03W	08N-08P		362182	OAKLAND	New Well	Monitoring	50
02S03W	08N-08P		01-506I	OAKLAND	New Well	Monitoring	24
02S03W	08N-08P		01-506J	OAKLAND	New Well	Monitoring	27
02S03W	08N-08P		01-506K	OAKLAND	New Well	Monitoring	24
02S03W	08N-08P		01-506L	OAKLAND	New Well	Monitoring	24
02S03W	08N-08P		01-506M	OAKLAND	New Well	Monitoring	32
02S03W	08N-08P		316548	OAKLAND	New Well	Monitoring	25
02S03W	08N-08P		405238A	OAKLAND	New Well	Monitoring	47
02S03W	08N-08P		405238B	OAKLAND	New Well	Monitoring	47
02S03W	08N-08P		01-536M	OAKLAND	New Well	Extraction	31
02S03W	08N-08P		01-536N	OAKLAND	New Well	Extraction	29
02S03W	08N-08P		01-536O	OAKLAND	New Well	Extraction	31
02S03W	08N-08P		01-536P	OAKLAND	New Well	Extraction	29
02S03W	08N-08P		01-536Q	OAKLAND	New Well	Extraction	29
02S03W	08N-08P		01-536R	OAKLAND	New Well	Extraction	31
02S03W	08N-08P		01-536S	OAKLAND	New Well	Extraction	30
02S03W	08N-08P		01-536T	OAKLAND	New Well	Extraction	33
02S03W	08N-08P		01-536U	OAKLAND	New Well	Extraction	31
02S03W	08N-08P		316574	OAKLAND	Abandonment or destruction	Unused	20
02S03W	08N-08P		316543	OAKLAND	New Well	Monitoring	22
02S03W	08N-08P		391242	OAKLAND	New Well	Cathodic protection	120
02S03W	08N-08P		01-535V	OAKLAND	New Well	Monitoring	19
02S03W	08N-08P		01-453D	OAKLAND	New Well		26
02S03W	08N-08P		01-453E	OAKLAND	New Well		26
02S03W	08N-08P		01-453F	OAKLAND	New Well		26
02S03W	08N-08P		01-453G	OAKLAND	New Well		26
02S03W	08N-08P	N	01-436J	OAKLAND	New Well	Monitoring	20
02S03W	08N-08P	N	01-436K	OAKLAND	New Well	Monitoring	25
02S03W	08N-08P		01-436L	OAKLAND	New Well	Monitoring	20
02S03W	08N-08P		01-436M	OAKLAND	New Well	Monitoring	22
02S03W	08N-08P		01-436R	OAKLAND	New Well	Monitoring	25
02S03W	08N-08P		01-436P	OAKLAND	New Well	Monitoring	12
02S03W	08N-08P		01-436Q	OAKLAND	New Well	Monitoring	27
02S03W	08N-08P		318035A	OAKLAND	New Well		15
02S03W	08N-08P		318035B	OAKLAND	New Well		15
02S03W	08N-08P		318035C	OAKLAND	New Well		15
02S03W	08N-08P		318035D	OAKLAND	New Well		15
02S03W	08N-08P		318035E	OAKLAND	New Well		15
02S03W	08N-08P		318035F	OAKLAND	New Well		15
02S03W	08N-08P		318035G	OAKLAND	New Well		15
02S03W	08N-08P		01-436S	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	08N-08P		01-436T	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12

**WELL SURVEY  
CALIFORNIA DEPARTMENT OF WATER RESOURCES  
729 45th Avenue Oakland**

02S03W	08N-08P		01-436U		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	08N-08P		01-436V		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	11
02S03W	08N-08P		01-436W		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	08N-08P		01-436X		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	08N-08P		01-436Y		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	08N-08P		01-436Z		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W		8 P	01_4361					
02S03W	08N-08P		318051		OAKLAND	New Well		29
02S03W	08N-08P		318052		OAKLAND	New Well		36
02S03W	08N-08P		318053		OAKLAND	New Well		36
02S03W	08N-08P		318054		OAKLAND	New Well		36
02S03W	08N-08P		318055		OAKLAND	New Well		36
02S03W	08N-08P		318056		OAKLAND	New Well		36
02S03W	08N-08P		318058		OAKLAND	New Well		36
02S03W	08N-08P		318057		OAKLAND	New Well		36
02S03W	08N-08P		318031		OAKLAND	New Well	Monitoring	33
02S03W	08N-08P		318032		OAKLAND	New Well		25
02S03W	08N-08P		318034		OAKLAND	New Well		15
02S03W	08N-08P		318033		OAKLAND	New Well		30
02S03W	08N-08P		318035		OAKLAND	New Well		15
02S03W	08N-08P		01-453A		OAKLAND	New Well		26
02S03W	08N-08P		01-453B		OAKLAND	New Well		26
02S03W	08N-08P		01-453C		OAKLAND	New Well		26
02S03W	08N-08P		346810		OAKLAND	New Well	Monitoring	19
02S03W	08N-08P		346811		OAKLAND	New Well	Monitoring	18
02S03W	08N-08P		01-470M		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	08N-08P		01-470N		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	08N-08P		01-470P		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	08N-08P		01-470Q		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	08N-08P		01-470R		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	08N-08P		01-470S		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W		8	01-470T		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	08N-08P		01-470U		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	08N-08P		01-470V		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	08N-08P		01-470W		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W		8	01-142B		OAKLAND	Backfilled dry hole	Geophysical exploration	32
02S03W		8	107006					
02S03W		8	115705					
02S03W		8	01-459Z		OAKLAND	New Well	Monitoring	35
02S03W		8	01-468U		OAKLAND	New Well	Monitoring	35
02S03W		8	01-485U		OAKLAND	New Well	Monitoring	27
02S03W		8	01-488O		OAKLAND	New Well	Monitoring	27

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02S03W	8	284601		OAKLAND	New Well	Monitoring	30
02S03W	8	111692					
02S03W	8	403146A		OAKLAND	New Well	Monitoring	21
02S03W	8	403146A-B		OAKLAND	New Well	Monitoring	21
02S03W	8	403146B		OAKLAND	New Well	Monitoring	21
02S03W	8	325107A		OAKLAND	New Well	Monitoring	31
02S03W	8	325107B		OAKLAND	New Well	Monitoring	31
02S03W	8	325107A-C		OAKLAND	New Well	Monitoring	31
02S03W	8	325107					
02S03W	8	325107C		OAKLAND	New Well	Monitoring	31
02S03W	8	421866		OAKLAND	New Well	Monitoring	27
02S03W	8	400970		OAKLAND	Abandonment or destruction	Unused	15
02S03W	8	237649	499 HIGH ST	OAKLAND	New Well	Industrial	610
02S03W	8	299116		OAKLAND	Abandonment or destruction	Unused	300
02S03W	8	01-274A		OAKLAND	New Well	Monitoring	41
02S03W	8	01-274B		OAKLAND	New Well	Monitoring	41
02S03W	8	01-274C		OAKLAND	New Well	Monitoring	41
02S03W	8	01-274D		OAKLAND	New Well	Monitoring	41
02S03W	8	01-274E		OAKLAND	New Well	Monitoring	41
02S03W	8	NN					
02S03W	8	305419		OAKLAND	New Well	Monitoring	32
02S03W	8	305421		OAKLAND	New Well		32
02S03W	8	260461		OAKLAND	New Well	Monitoring	34
02S03W	8	260462		OAKLAND	New Well	Monitoring	30
02S03W	8	325515A		OAKLAND	New Well	Monitoring	47
02S03W	8	325515B		OAKLAND	New Well	Monitoring	47
02S03W	8	325515C		OAKLAND	New Well	Monitoring	47
02S03W	8	362283		OAKLAND	New Well	Monitoring	60
02S03W	8	364602A		OAKLAND	New Well	Monitoring	51
02S03W	8	364602B		OAKLAND	New Well	Monitoring	51
02S03W	8	364602C		OAKLAND	New Well	Monitoring	51
02S03W	8	413689		OAKLAND	New Well	Monitoring	50
02S03W	8	412874		OAKLAND	New Well	Monitoring	46
02S03W	8	412873		OAKLAND	New Well	Monitoring	45
02S03W	8	412872		OAKLAND	New Well	Monitoring	47
02S03W	8	412871		OAKLAND	New Well	Monitoring	46
02S03W	8	495626		OAKLAND	New Well	Monitoring	22
02S03W	8	495628		OAKLAND	New Well	Monitoring	20
02S03W	8	412875		OAKLAND	New Well	Monitoring	47
02S03W	8	495477A		OAKLAND	New Well	Monitoring	13
02S03W	8	495477B		OAKLAND	New Well	Monitoring	13
02S03W	8	495477C		OAKLAND	New Well	Monitoring	13

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02S03W	8		579426	OAKLAND	New Well	Monitoring	26
02S03W	8		413648A	OAKLAND	New Well	Monitoring	50
02S03W	8		413648B	OAKLAND	New Well	Monitoring	50
02S03W	8		413648A-B	OAKLAND	New Well	Monitoring	50
02S03W	8		01-542Y	OAKLAND	New Well	Monitoring	47
02S03W	8		01-544Y-Z				
02S03W	8		01-544Z	OAKLAND	New Well	Monitoring	15
02S03W	8		01-544Y	OAKLAND	New Well		8
02S03W	8		01-422L	OAKLAND	New Well	Monitoring	27
02S03W	8		257413	OAKLAND	New Well	Monitoring	25
02S03W	8		257414	OAKLAND	New Well	Monitoring	27
02S03W	8		257415	OAKLAND	New Well	Monitoring	25
02S03W	8		275741				
02S03W	8		107435	OAKLAND	New Well	Monitoring	236
02S03W	8		209080	OAKLAND	New Well	Monitoring	20
02S03W	8		209082	OAKLAND	New Well	Monitoring	25
02S03W	8		209083	OAKLAND	New Well	Monitoring	21
02S03W	8		209084	OAKLAND	New Well	Monitoring	21
02S03W	8		209097	OAKLAND	New Well	Monitoring	21
02S03W	8		209078	OAKLAND	New Well	Monitoring	86
02S03W	8		209079	OAKLAND	New Well	Monitoring	86
02S03W	8		107436	OAKLAND	New Well	Monitoring	244
02S03W	8		209081	OAKLAND	New Well	Monitoring	76
02S03W	8		209099	OAKLAND	New Well		40
02S03W	8		209098	OAKLAND	New Well	Monitoring	76
02S03W	8		210098A	OAKLAND	Abandonment or destruction	Unused	76
02S03W	8		209100	OAKLAND	New Well	Monitoring	86
02S03W	8		01-002A	OAKLAND	New Well	Monitoring	31
02S03W	8		01-002B	OAKLAND	New Well	Monitoring	31
02S03W	8		01-002C	OAKLAND	New Well	Monitoring	31
02S03W	8		01-002D	OAKLAND	New Well	Monitoring	31
02S03W	8		01-002E	OAKLAND	New Well	Monitoring	31
02S03W	8		01-002F	OAKLAND	New Well	Monitoring	31
02S03W	8		01-002G	OAKLAND	New Well	Monitoring	31
02S03W	8		01-224A-N	OAKLAND	Abandonment or destruction		
02S03W	8		01-226A-D	OAKLAND	New Well	Monitoring	12
02S03W	8		01-226A	OAKLAND	New Well	Monitoring	12
02S03W	8		01-226B	OAKLAND	New Well	Monitoring	12
02S03W	8		01-226C	OAKLAND	New Well	Monitoring	12
02S03W	8		01-226D	OAKLAND	New Well	Monitoring	12
02S03W	8		01237A-G				
02S03W	8		01-237A-G	OAKLAND	New Well	Monitoring	55

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02S03W	8		01-237A		OAKLAND	New Well	Monitoring	55
02S03W	8		01-237B		OAKLAND	New Well	Monitoring	55
02S03W	8		01-237C		OAKLAND	New Well	Monitoring	55
02S03W	8		01-237D		OAKLAND	New Well	Monitoring	55
02S03W	8		01-237G		OAKLAND	New Well	Monitoring	55
02S03W	8		01-237F		OAKLAND	New Well	Monitoring	55
02S03W	8		256936		OAKLAND	New Well	Monitoring	36
02S03W	8		256937		OAKLAND	New Well	Monitoring	36
02S03W	8		01-406P-Q					
02S03W	8		01-406P		OAKLAND	New Well	Monitoring	29
02S03W	8		01-406Q					
02S03W	8		256930		OAKLAND	New Well	Monitoring	36
02S03W	8		256930-32					
02S03W	8		256931		OAKLAND	New Well	Monitoring	36
02S03W	8		256932		OAKLAND	New Well	Monitoring	36
02S03W	8		256934		OAKLAND	New Well	Monitoring	36
02S03W	8		256935		OAKLAND	New Well	Monitoring	36
02S03W	8		818004					
02S03W	8		01-346A-L		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346A		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346B		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346C		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346D		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346E		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346F		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346G		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346H		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346I		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	17
02S03W	8		01-346J		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	12
02S03W	8		01-346K		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	12
02S03W	8		01-346L		OAKLAND	Test hole: soil sampling or exploration hole	Geophysical exploration	12
02S03W	8		01-223		OAKLAND	Test hole: soil sampling or exploration hole		37
02S03W	7		01-4070U					
02S03W	7		01_4010					
02S03W	07K-Q		88131					
02S03W	07K-Q		01-401P		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		01-401					
02S03W	07K-Q		01-401Q		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		01-401R		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	7 K		01-401S-1		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	16
02S03W	07K-Q		01-401T		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	7		01_4017					



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02S03W	07K-Q		01-401U		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W		7	01-473W		OAKLAND	New Well	Monitoring	17
02S03W	07K-Q		01-473W		OAKLAND	New Well	Monitoring	17
02S03W	07K-Q		01-473X		OAKLAND	New Well	Monitoring	17
02S03W	07K-Q		01-473Y		OAKLAND	New Well	Monitoring	19
02S03W		7	01_1402					
02S03W	07K-Q		259951					
02S03W	07K-Q		259951A-D		ALAMEDA			75
02S03W	07K-Q		259951A		ALAMEDA			75
02S03W	07K-Q		259951B		ALAMEDA			75
02S03W	07K-Q		259951C		ALAMEDA			75
02S03W	07K-Q		259951D		ALAMEDA			75
02S03W	07K-Q		01-065					
02S03W	07K-Q		01-065A		ALAMEDA	New Well	Monitoring	19
02S03W	07K-Q		01-065B		ALAMEDA	New Well	Monitoring	19
02S03W	07K-Q		01-065C		ALAMEDA	New Well	Monitoring	19
02S03W	07K-Q		01-065D		ALAMEDA	New Well	Monitoring	19
02S03W	07K-Q		01-065E		ALAMEDA	New Well	Monitoring	19
02S03W		7	01_1419					
02S03W	07K-Q		259811		ALAMEDA	New Well	Monitoring	16
02S03W	07K-Q		259813		ALAMEDA	New Well	Monitoring	16
02S03W	07K-Q		259822		ALAMEDA	New Well	Monitoring	22
02S03W	07K-Q		291963		ALAMEDA	New Well	Monitoring	21
02S03W	07K-Q		291964		ALAMEDA	New Well	Monitoring	21
02S03W	07K-Q		291965		ALAMEDA	New Well	Monitoring	21
02S03W	07K-Q		309726		OAKLAND	New Well	Monitoring	40
02S03W	07K-Q		254039		ALAMEDA	New Well	Monitoring	14
02S03W	07K-Q		309620		ALAMEDA	New Well	Extraction	40
02S03W	07K-Q		254040		ALAMEDA	New Well	Monitoring	13
02S03W	07K-Q		309619		ALAMEDA	New Well	Extraction	40
02S03W	07K-Q		309621		ALAMEDA	New Well	Extraction	41
02S03W	07K-Q		309622		ALAMEDA	New Well	Extraction	41
02S03W	07K-Q		309623		ALAMEDA	New Well	Extraction	41
02S03W	07K-Q		374319		ALAMEDA	New Well	Monitoring	20
02S03W	07K-Q		32163					
02S03W	07K-Q		32164					
02S03W	07K-Q		01-424R		ALAMEDA	New Well	Monitoring	22
02S03W	07K-Q		01-424T		ALAMEDA	New Well	Monitoring	22
02S03W	07K-Q		01-424S		ALAMEDA	New Well	Monitoring	17
02S03W	07K-Q		01-532S		OAKLAND	New Well	Monitoring	15
02S03W	07K-Q		01-144A		ALAMEDA	New Well	Monitoring	23
02S03W	07K-Q		01-144C		ALAMEDA	New Well	Monitoring	23

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02S03W	07K-Q		01-144B		ALAMEDA	New Well	Monitoring	23
02S03W	07K-Q		01-345A		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		01-345B		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		01-345C		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		280337A		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		280337B		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		280337C		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		280342A		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		280342B		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		280342C		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		01-460W		ALAMEDA	New Well	Monitoring	15
02S03W	07K-Q		01-460X		ALAMEDA	New Well	Monitoring	15
02S03W	07K-Q		01-460Y		ALAMEDA	New Well	Monitoring	15
02S03W		7	01-460W		ALAMEDA	New Well	Monitoring	15
02S03W	07K-Q		01-460Z		ALAMEDA	New Well	Monitoring	15
02S03W	07K-Q		01-495A		ALAMEDA	New Well	Monitoring	22
02S03W	07K-Q		01-495B		ALAMEDA	New Well	Monitoring	22
02S03W	07K-Q		01-495C		ALAMEDA	New Well	Monitoring	22
02S03W	07K-Q		1/1/4950					
02S03W	07K-Q		429649A-B		ALAMEDA	New Well	Monitoring	21
02S03W	07K-Q		429642		ALAMEDA	New Well	Monitoring	20
02S03W	07K-Q		01-510Q		ALAMEDA	New Well	Monitoring	20
02S03W	07K-Q		01-510R		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-510S		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		491955A		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		491955B		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		491955					
02S03W	07K-Q		491955C		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		491955A-C		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		429649B		ALAMEDA	New Well	Monitoring	21
02S03W	07K-Q		429649A		ALAMEDA	New Well	Monitoring	21
02S03W	07K-Q		433079		ALAMEDA	New Well	Extraction	30
02S03W	07K-Q		491969D		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		44-1767					
02S03W	07K-Q		491969A-D		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		491969A		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		491969B		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		491969C		ALAMEDA	New Well	Monitoring	25
02S03W	07K-Q		01-511		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511A		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511C		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511D		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10

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02S03W	07K-Q		01-511E		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511F		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511I		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511K		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	20
02S03W	07K-Q		01-511L		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	20
02S03W	07K-Q		01-510T		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-510U		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-510V		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-510W		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-510X		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-510Y		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-510Z		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-461A		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	42
02S03W	7		01-461A		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	42
02S03W	07K-Q		01-461B		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	42
02S03W	07K-Q		01-461C		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	42
02S03W	07K-Q		01-461D		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	42
02S03W	07K-Q		01-461E		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	42
02S03W	07K-Q		01-511B		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511G		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511H		ALAMEDA	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	07K-Q		01-511J		ALAMEDA	New Well	Monitoring	20
02S03W	07K-Q		140349					
02S03W	07K-Q		107191					
02S03W	07K-Q		32158					
02S03W	07K-Q		96474		ALAMEDA	New Well	Cathodic protection	76
02S03W	07K-Q		01-036		ALAMEDA			
02S03W	07K-Q		01-069		ALAMEDA	New Well	Monitoring	35
02S03W	07K-Q		01-035		ALAMEDA			
02S03W	07K-Q		01-034		ALAMEDA			
02S03W	07K-Q		01-037AB		ALAMEDA			
02S03W	07K-Q		01-401V		ALAMEDA	New Well	Irrigation	60
02S03W	7		01_1408					
02S03W	7		01_1416					
02S03W	17		01-423G		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	25
02S03W	17		01-423H		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	25
02S03W	17		01-423I		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	25
02S03W	17		01-423J		OAKLAND	New Well	Monitoring	8
02S03W	17		197036		OAKLAND	New Well	Cathodic protection	65
02S03W	17		01-479A		OAKLAND	New Well	Monitoring	28
02S03W	17		01-479B		OAKLAND	New Well	Monitoring	28
02S03W	17		01-479C		OAKLAND	New Well	Monitoring	28

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02S03W	17		01-479D		OAKLAND	New Well	Monitoring	28
02S03W	17		01-479E		OAKLAND	New Well	Monitoring	28
02S03W	17		01-479F		OAKLAND	New Well	Monitoring	28
02S03W	17		01-479G		OAKLAND	New Well	Monitoring	28
02S03W	17		01-479H		OAKLAND	New Well	Monitoring	28
02S03W	17		362884					
02S03W	17		315345		OAKLAND	New Well	Monitoring	17
02S03W	17		362184		OAKLAND	New Well	Monitoring	21
02S03W	17		362185		OAKLAND	New Well	Monitoring	16
02S03W	17		362186		OAKLAND	New Well	Monitoring	16
02S03W	17		362189		OAKLAND	New Well	Monitoring	21
02S03W	17		362190		OAKLAND	New Well	Monitoring	24
02S03W	17		107248		OAKLAND	New Well	Monitoring	21
02S03W	17		107249		OAKLAND	New Well	Monitoring	25
02S03W	17		01-541Z		OAKLAND	Abandonment or destruction	Unused	19
02S03W	17		428879		OAKLAND	New Well	Monitoring	18
02S03W	17		01-531					
02S03W	17		01-531Q		OAKLAND	New Well	Monitoring	27
02S03W	17		01-531R		OAKLAND	New Well	Monitoring	22
02S03W	17		01-531S		OAKLAND	New Well	Monitoring	22
02S03W	17		01-531T		OAKLAND	New Well	Monitoring	22
02S03W	17		01-279B		OAKLAND	New Well	Monitoring	8
02S03W	17		01-279A		OAKLAND	New Well	Monitoring	8
02S03W	17		01-279C		OAKLAND	New Well	Monitoring	8
02S03W	17		281048		OAKLAND	New Well	Monitoring	11
02S03W	17		281049		OAKLAND	New Well	Monitoring	15
02S03W	17		281050		OAKLAND	New Well	Monitoring	15
02S03W	17		585399		OAKLAND	New Well	Monitoring	21
02S03W	17		01-204A					
02S03W	17		01-204B					
02S03W	17		303276		UNION CITY	New Well	Monitoring	9
02S03W	17		303286		UNION CITY	Abandonment or destruction	Unused	6
02S03W	17		303279		UNION CITY	New Well	Monitoring	12
02S03W	17		303287		UNION CITY	Abandonment or destruction	Unused	10
02S03W	17		303280		UNION CITY	New Well	Monitoring	8
02S03W	17		303288		UNION CITY	Abandonment or destruction	Unused	6
02S03W	17		303281		UNION CITY	New Well	Monitoring	8
02S03W	17		303289		UNION CITY	Abandonment or destruction	Unused	7
02S03W	17		303282		UNION CITY	New Well	Monitoring	5
02S03W	17		303290		UNION CITY	Abandonment or destruction	Unused	5
02S03W	17		303278		UNION CITY	New Well	Monitoring	6
02S03W	17		303291		UNION CITY	Abandonment or destruction	Unused	5

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02S03W	17		316537		OAKLAND	New Well	Monitoring	29
02S03W	17		396088		OAKLAND	New Well	Monitoring	13
02S03W	17		01-1351					
02S03W	17		01-480A		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480B		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480C		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480D		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480E		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480F		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480G		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480H		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480I		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	17		01-480J		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	17		01-480K		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	7
02S03W	17		346011A		OAKLAND	New Well	Monitoring	27
02S03W	17		346011B		OAKLAND	New Well	Monitoring	27
02S03W	17		346011C		OAKLAND	New Well	Monitoring	27
02S03W	17		346011D		OAKLAND	New Well	Monitoring	27
02S03W	17		366031		OAKLAND	New Well	Monitoring	37
02S03W	17		3663031-33					
02S03W	17		366032		OAKLAND	New Well	Monitoring	30
02S03W	17		366033		OAKLAND	New Well	Monitoring	37
02S03W	17		346009		OAKLAND	New Well	Monitoring	24
02S03W	17		NN					
02S03W	17		346010		OAKLAND	New Well	Monitoring	24
02S03W	17		346011		OAKLAND	New Well	Monitoring	27
02S03W	17		346024		OAKLAND	New Well	Monitoring	20
02S03W	17		346022		OAKLAND	New Well	Monitoring	20
02S03W	17		364022-25					
02S03W	17	H	364024					
02S03W	17		346025		OAKLAND	New Well	Monitoring	20
02S03W	17		483502		OAKLAND	New Well	Monitoring	20
02S03W	17		483549		OAKLAND	New Well	Monitoring	25
02S03W	17		374331		OAKLAND	New Well	Monitoring	15
02S03W	17		374332		OAKLAND	New Well	Monitoring	15
02S03W	17		374333		OAKLAND	New Well	Monitoring	15
02S03W	17		366043A		OAKLAND	New Well	Monitoring	37
02S03W	17		366043B		OAKLAND	New Well	Monitoring	37
02S03W	17		168016		OAKLAND	New Well	Monitoring	30
02S03W	17		87248					
02S03W	17		257421		OAKLAND	New Well	Monitoring	25
02S03W	17		01-418M		OAKLAND	New Well	Monitoring	22

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02S03W	17		01-418N		OAKLAND	New Well	Monitoring	21
02S03W	17		01-418O		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	17
02S03W	17		01-418P		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	17
02S03W	17		01-418Q		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	17		01-418R		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	17		257418		OAKLAND	New Well	Monitoring	20
02S03W	17		01-443I		OAKLAND	New Well	Monitoring	17
02S03W	17		01-1353					
02S03W	17		01-1352					
02S03W	17		01-1354					
02S03W	17		01-1355					
02S03W	18		261762		ALAMEDA	New Well	Extraction	100
02S03W	18		01-179A		ALAMEDA	New Well	Monitoring	23
02S03W	18		01-179					
02S03W	18		01-179B		ALAMEDA	New Well	Monitoring	23
02S03W	18		01-179C		ALAMEDA	New Well	Monitoring	23
02S03W	18		01-526A		ALAMEDA	New Well	Monitoring	17
02S03W	18		01-526D		ALAMEDA	New Well	Monitoring	17
02S03W	18		01-526B		ALAMEDA	New Well	Monitoring	17
02S03W	18		01-526C		ALAMEDA	New Well	Monitoring	17
02S03W	18		01-526F		ALAMEDA	New Well	Monitoring	17
02S03W	18		32894A	2978 NORTHWOOD DR	ALAMEDA	New Well	Irrigation	55
02S03W	18		106040	2936 GIBBONS DR		New Well	Irrigation	40
02S03W	18		01-428Z		ALAMEDA	Reconstruction or reconditioning		49
02S03W	18		32592	2518 CHESTER ST	ALAMEDA	New Well	Irrigation	20
02S03W	18		01-145		ALAMEDA	New Well	Monitoring	23
02S03W	18		429463		ALAMEDA	New Well	Monitoring	13
02S03W	18		429464		ALAMEDA	New Well	Monitoring	12
02S03W	18		429470		ALAMEDA	New Well	Monitoring	13
02S03W	18		429465		ALAMEDA	New Well	Monitoring	30
02S03W	18		429466		ALAMEDA	New Well	Monitoring	30
02S03W	18		429468		ALAMEDA	New Well	Monitoring	30
02S03W	18		429467		ALAMEDA	New Well	Monitoring	30
02S03W	18		429469		ALAMEDA	New Well	Monitoring	30
02S03W	18		423782		ALAMEDA	New Well	Monitoring	13
02S03W	18		423783		ALAMEDA	New Well	Monitoring	13
02S03W	18		423784		ALAMEDA	New Well	Monitoring	13
02S03W	18		423785		ALAMEDA	New Well	Monitoring	13
02S03W	18		579405		ALAMEDA	New Well	Monitoring	35
02S03W	18		579406		ALAMEDA	New Well	Monitoring	30
02S03W	18		01-532T		ALAMEDA	New Well	Monitoring	25
02S03W	18		01-545M		ALAMEDA	New Well	Monitoring	25

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02S03W	18	01-545N		ALAMEDA	New Well	Monitoring	25
02S03W	18	01-545O		ALAMEDA	New Well	Monitoring	25
02S03W	18	106210	2806 VAN BUREN ST	ALAMEDA	New Well	Unknown	20
02S03W	18	156842	3252 GARFIELD	ALAMEDA	New Well	Cathodic protection	120
02S03W	18	32800	1522 EASTSHORE DR	ALAMEDA	New Well	Unknown	17
02S03W	18	01-443J		OAKLAND	New Well	Monitoring	17
02S03W	18	01-443K		OAKLAND	New Well	Monitoring	17
02S03W	18	01-443L		OAKLAND	New Well	Monitoring	16
02S03W	18	01-401Z		ALAMEDA	New Well		
02S03W	18	316204		SAN LEANDRO	New Well		26
02S03W	18	316201		SAN LEANDRO	New Well	Monitoring	26
02S03W	18	316202		SAN LEANDRO	New Well	Monitoring	26
02S03W	18	316203		SAN LEANDRO	New Well	Monitoring	26
02S03W	18	260214		SAN LEANDRO	New Well	Monitoring	26
02S03W	18	106649		ALAMEDA	Abandonment or destruction		
02S03W	18	32072	2812 OTIS DR		New Well	Irrigation	40
02S03W	18	32083	1033 POST ST	ALAMEDA	New Well	Irrigation	50
02S03W	8	01-178		OAKLAND	New Well	Monitoring	25
02S03W	8	01-136A		OAKLAND	Backfilled dry hole	Geophysical exploration	30
02S03W	8	01-136B		OAKLAND	Backfilled dry hole	Geophysical exploration	30
02S03W	8	256937A-D		OAKLAND	New Well	Monitoring	36
02S03W	8	256937A		OAKLAND	New Well	Monitoring	36
02S03W	8	256937B		OAKLAND	New Well	Monitoring	36
02S03W	8	256937C		OAKLAND	New Well	Monitoring	36
02S03W	8	256937D		OAKLAND	New Well	Monitoring	36
02S03W	8	01-450L		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	16
02S03W	8	01-450M		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	18
02S03W	8	01-450N		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	7
02S03W	8	01-450L-O					
02S03W	8	01-450O		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	7
02S03W	8	01-450G		OAKLAND	New Well	Monitoring	26
02S03W	8	01-450H		OAKLAND	New Well	Monitoring	26
02S03W	8	01-450I		OAKLAND	New Well	Monitoring	26
02S03W	8	01-450J		OAKLAND	New Well	Monitoring	21
02S03W	8	01-450K		OAKLAND	New Well	Monitoring	18
02S03W	8	01-495D		ALAMEDA	New Well	Monitoring	22
02S03W	8	01-495D-Z		ALAMEDA	New Well	Monitoring	22
02S03W	8	01-495E		ALAMEDA	New Well	Monitoring	22
02S03W	8	01-495F		ALAMEDA	New Well	Monitoring	22
02S03W	8	01-495G		ALAMEDA	New Well	Monitoring	22
02S03W	8	01-495H		ALAMEDA	New Well	Monitoring	22
02S03W	8	01-495I		ALAMEDA	New Well	Monitoring	22

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02S03W	8	01-495J	OAKLAND	New Well	Monitoring	19
02S03W	8	01-495K	OAKLAND	New Well	Monitoring	19
02S03W	8	01-495L	OAKLAND	New Well	Monitoring	24
02S03W	8	01-495M	OAKLAND	New Well	Monitoring	18
02S03W	8	01-495N	OAKLAND	New Well	Monitoring	19
02S03W	8	01-495O	OAKLAND	New Well	Monitoring	18
02S03W	8	01-495P	OAKLAND	New Well	Monitoring	19
02S03W	8	01-495Q	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	19
02S03W	8	01-495R	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	1
02S03W	8	01-495S	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	4
02S03W	8	01-495T	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	8	01-495U	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	9
02S03W	8	01-495V	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	6
02S03W	8	01-495W	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	8	01-495X	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	14
02S03W	8	01-495Y	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	13
02S03W	8	01-495Z	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	8	01-511M	OAKLAND	New Well	Monitoring	15
02S03W	8	01-511M-R				
02S03W	8	01-511N	OAKLAND	New Well	Monitoring	19
02S03W	8	01-511O	OAKLAND	New Well	Monitoring	18
02S03W	8	01-511P	OAKLAND	New Well	Monitoring	18
02S03W	8	01-511Q	OAKLAND	New Well	Monitoring	18
02S03W	8	01-511R	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	8	01-531D	OAKLAND	New Well	Monitoring	23
02S03W	8	01-531D-L	OAKLAND	New Well	Monitoring	23
02S03W	8	05-531E				
02S03W	8	01-531F	OAKLAND	New Well	Monitoring	23
02S03W	8	01-531G	OAKLAND	New Well	Monitoring	23
02S03W	8	01-531H	OAKLAND	New Well	Monitoring	23
02S03W	8	01-531I	OAKLAND	New Well	Monitoring	23
02S03W	8	01-531J	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	8	01-531K	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	8	01-531L	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	8	01-452J	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	9
02S03W	8	01-422M	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	22
02S03W	8	01-422M-Z				
02S03W	8	01-423A-B	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	25
02S03W	8	01-422N	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	21
02S03W	8	01-422O	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	12
02S03W	8	01-422P	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	19
02S03W	8	01-422Q	OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	22



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02S03W	8		01-422R		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	21
02S03W	8		01-422S		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	22
02S03W	8		01-422T		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	20
02S03W	8		01-422U		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	15
02S03W	8	N	01-422V-1		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	15
02S03W	8		01-422W		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	19
02S03W	8		01-422X		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	5
02S03W	8		01-422Y		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	20
02S03W	8		01-422Z		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	17
02S03W	8		01-423A		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	25
02S03W	8		01-423B		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	25
02S03W	8		01-446O		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	8		01-486N					
02S03W	8		01-436O		OAKLAND	Test hole: soil sampling or exploration hole	Monitoring	10
02S03W	8		01-119E-H		OAKLAND	New Well	Monitoring	31
02S03W	8		NN					
02S03W	8		01-119A		OAKLAND	New Well	Monitoring	31
02S03W	8		01-119B		OAKLAND	New Well	Monitoring	31
02S03W	8		NN					
02S03W	8		01-119C		OAKLAND	New Well	Monitoring	31
02S03W	8		NN					
02S03W	8		01-119D		OAKLAND	New Well	Monitoring	31
02S03W	8		NN					
02S03W	8		01-119E		OAKLAND	New Well	Monitoring	31
02S03W	8		NN					
02S03W	8		01-119F		OAKLAND	New Well	Monitoring	31
02S03W	8		NN					
02S03W	8		01-119G		OAKLAND	New Well	Monitoring	31
02S03W	8		NN					
02S03W	8		01-119H		OAKLAND	New Well	Monitoring	31
02S03W	8		NN					
02S03W	7		921288					
02S03W	7		921289					
02S03W	7		921290					
02S03W	7		954038					
02S03W	7		954039					
02S03W	7		954040					
02S03W	7		954041					
02S03W	7		E0089038	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Monitoring	34
02S03W	7		E0089039	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Monitoring	34
02S03W	7		E0089040	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Monitoring	34
02S03W	7		E0089041	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Monitoring	34

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02S03W	7	E0089042	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Monitoring	34
02S03W	7	E0089043	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Vapor extraction	5
02S03W	7	E0089044	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Vapor extraction	5
02S03W	7	E0089045	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Vapor extraction	5
02S03W	7	E0089046	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Vapor extraction	5
02S03W	7	E0089047	2301-2307 LINCOLN AVE.	ALAMEDA	New Well	Vapor extraction	5
02S03W	7	E0091692	2908 CHAPMAN ST	OAKLAND	New Well	Monitoring	20
02S03W	7	E0091695	2904 CHAPMAN ST	OAKLAND	New Well	Monitoring	20
02S03W	7	E0091703	2904 CHAPMAN ST	OAKLAND	New Well	Monitoring	20
02S03W	7	E0091704	2904 CHAPMAN ST	OAKLAND	New Well	Monitoring	20
02S03W	7	E0097863	2301-2311 BLANDING AVE.	ALAMEDA	New Well	Vapor extraction	3
02S03W	7	E0097864	2301-2311 BLANDING AVE.	ALAMEDA	New Well	Vapor extraction	3
02S03W	7	E0097865	2301-2311 BLANDING AVE.	ALAMEDA	New Well	Vapor extraction	3
02S03W	7	E0097866	2301-2311 BLANDING AVE.	ALAMEDA	New Well	Vapor extraction	3
02S03W	7	E0097867	2301-2311 BLANDING AVE.	ALAMEDA	New Well	Vapor extraction	3
02S03W	7	E0097868	2301-2311 BLANDING AVE.	ALAMEDA	New Well	Vapor extraction	3
02S03W	7	E0097869	2301-2311 BLANDING AVE.	ALAMEDA	New Well	Vapor extraction	3
02S03W	7	E0112599	2744 EAST 11TH ST	OAKLAND	New Well	Monitoring	18
02S03W	7	E0112604	2744 EAST 11TH ST	OAKLAND	New Well	Monitoring	26
02S03W	7	E0112605	2744 EAST 11TH ST	OAKLAND	New Well	Monitoring	25
02S03W	7	E0112606	2744 EAST 11TH ST	OAKLAND	New Well	Monitoring	18
02S03W	7	E0112607	2744 EAST 11TH ST	OAKLAND	New Well	Monitoring	15
02S03W	7	E0116460A-D	1899 DENNISON ST.	OAKLAND	Abandonment or destruction	Unused	
02S03W	7	E0132636	2301 2307 LINCOLN AVE.	ALAMEDA	Abandonment or destruction	Unused	
02S03W	8	E0089394	4280 FOOTHILL BLVD.	OAKLAND	New Well	Monitoring	30
02S03W	8	E0089397	4280 FOOTHILL BLVD.	OAKLAND	New Well	Monitoring	30
02S03W	8	E0089400	4280 FOOTHILL BLVD.	OAKLAND	New Well	Monitoring	30
02S03W	8	E0090612	833 47TH AVE.	OAKLAND	New Well	Monitoring	30
02S03W	8	E0090613	833 47TH AVE.	OAKLAND	New Well	Monitoring	30
02S03W	8	E0090614	833 47TH AVE.	OAKLAND	New Well	Other use	35
02S03W	8	E0090616	833 47TH AVE.	OAKLAND	New Well	Other use	32
02S03W	8	E0090617	833 47TH AVE.	OAKLAND	New Well	Vapor extraction	8
02S03W	8	E0090618	833 47TH AVE.	OAKLAND	New Well	Test well	30
02S03W	8	E0090619	833 47TH AVE.	OAKLAND	New Well	Test well	8
02S03W	8	E0090620	833 47TH AVE.	OAKLAND	New Well	Test well	30
02S03W	8	E0090621	833 47TH AVE.	OAKLAND	New Well	Test well	8
02S03W	8	E0090622	833 47TH AVE.	OAKLAND	New Well	Test well	30
02S03W	8	E0090623	833 47TH AVE.	OAKLAND	New Well	Test well	8
02S03W	8	E0090624	833 47TH AVE.	OAKLAND	New Well	Test well	35
02S03W	8	E0090625	833 47TH AVE.	OAKLAND	New Well	Test well	8
02S03W	8	E0090626	833 47TH AVE.	OAKLAND	New Well	Test well	35
02S03W	8	E0090627	833 47TH AVE.	OAKLAND	New Well	Test well	8

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02S03W	8	E0090628	833 47TH AVE.	OAKLAND	New Well	Test well	35
02S03W	8	E0090629	833 47TH AVE.	OAKLAND	New Well	Test well	8
02S03W	8	E0090630	833 ATKINSON ST., SUITE 100	OAKLAND	Abandonment or destruction	Unused	
02S03W	8	E0090631	833 ATKINSON ST., SUITE 100	OAKLAND	Abandonment or destruction	Unused	
02S03W	8	E0090656	833 47TH AVE.	OAKLAND	New Well	Vapor extraction	9
02S03W	8	E0091174	4411 FOOTHILL BLVD	OAKLAND	New Well	Extraction	10
02S03W	8	E0091176	4411 FOOTHILL BLVD	OAKLAND	New Well	Extraction	12
02S03W	8	E0099605	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	23
02S03W	8	E0099606	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	30
02S03W	8	E0099607	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	30
02S03W	8	E0099608	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	23
02S03W	8	E0099609	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	30
02S03W	8	E0099610	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	23
02S03W	8	E0099525	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	23
02S03W	8	E0099557	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	23
02S03W	8	E0099558	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	23
02S03W	8	E0099559	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	23
02S03W	8	E0099560	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	23
02S03W	8	E0099561	4301 SAN LEANDRO ST	OAKLAND	New Well	Vapor extraction	30
02S03W	8	E0107280	833 47TH AVE.	OAKLAND	New Well	Monitoring	36
02S03W	8	E0107281	833 47TH AVE.	OAKLAND	New Well	Monitoring	40
02S03W	8	E0107282	833 47TH AVE.	OAKLAND	New Well	Monitoring	37
02S03W	8	E0107283	833 47TH AVE.	OAKLAND	New Well	Monitoring	60
02S03W	8	E0107284	833 47TH AVE.	OAKLAND	New Well	Monitoring	70
02S03W	8	E0107285	833 47TH AVE.	OAKLAND	New Well	Monitoring	36
02S03W	8	E0107286	833 47TH AVE.	OAKLAND	New Well	Monitoring	60
02S03W	8	E0107287	833 47TH AVE.	OAKLAND	New Well	Monitoring	35
02S03W	8	E0107288	833 47TH AVE.	OAKLAND	New Well	Monitoring	63
02S03W	8	E0107289	833 47TH AVE.	OAKLAND	New Well	Monitoring	35
02S03W	8	E0107290	833 47TH AVE.	OAKLAND	New Well	Monitoring	65
02S03W	8	E0121603	768 46TH AVE.	OAKLAND	New Well	Monitoring	40
02S03W	8	E0121604	768 46TH AVE.	OAKLAND	New Well	Monitoring	75
02S03W	8	E0121614	768 46TH AVE.	OAKLAND	New Well	Monitoring	40

## **Well Legend**

DOM=Domestic well

IRR=Irrigation well

MUN= Municipal well

IND=Industrial well

CAT=Cathodic well

DES=well destroyed (through permit)

ABN=Abandoned and not being used (but has not been destroyed through permit process)

TES=Test well

BOR= Geotechnical investigation

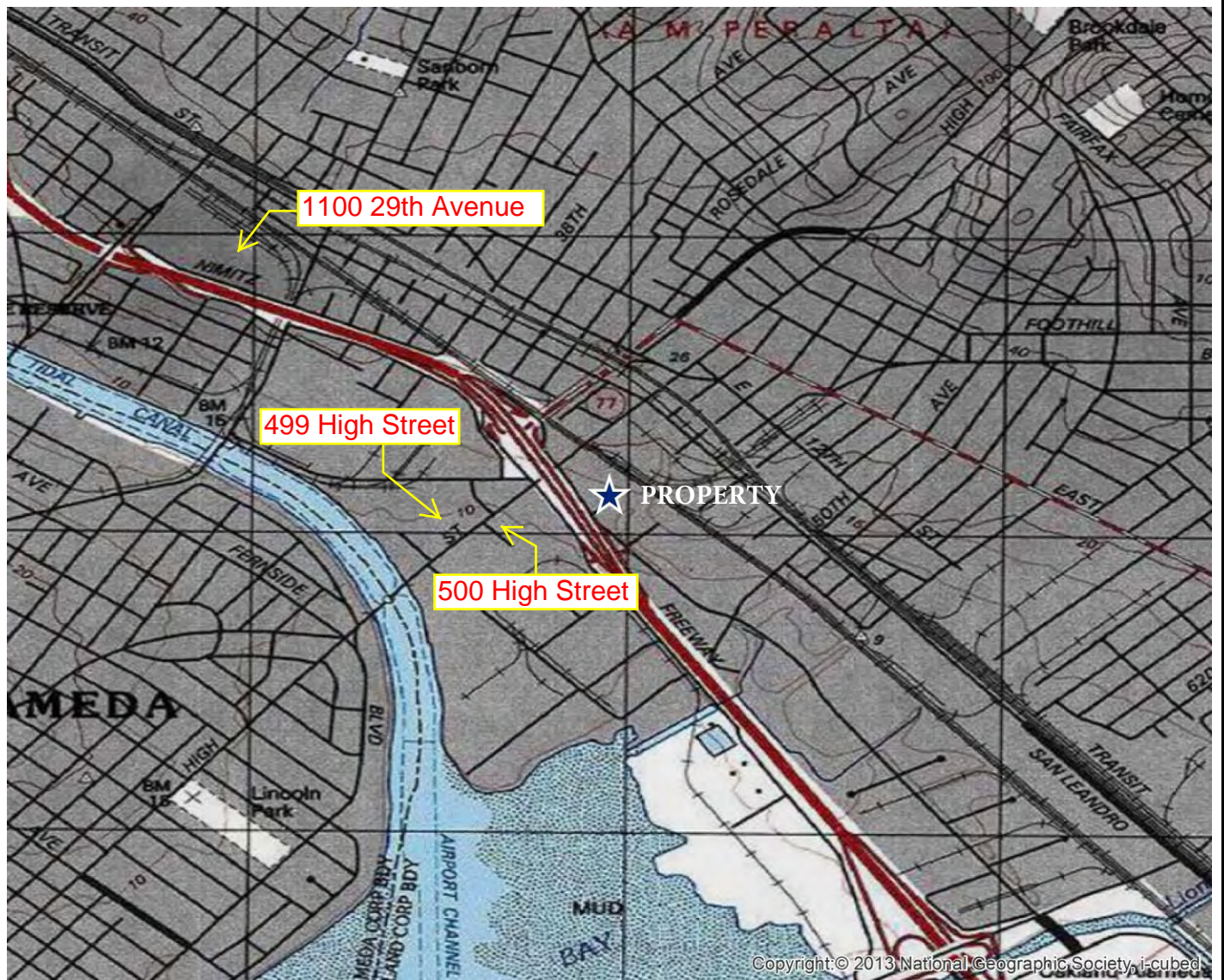
MON= Monitoring well

EXT=Extraction/ Vapor wells

PIE=Piezometers

REC=Recovery well (extraction/ vapor)

? = Unknown or no information found or given



**WELL SURVEY LOCATION TOPOGRAPHIC MAP**



U.S. Geological Survey, Oakland East Quadrangle, 7.5 Minute Series

729 45Th Ave,  
Oakland, CA

FIGURE: 1