

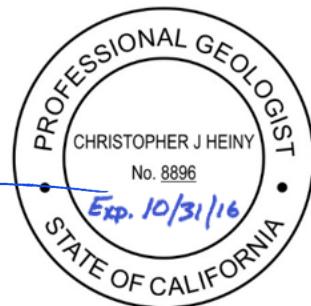
Type of Services	Underground Storage Tank Removal
Location	East Bay Bridge Center 3839 Emery Street Emeryville, California
Client	Federal Realty Investment Trust
Client Address	356 Santana Row, Suite 1005 San Jose, California 95128
Project Number	371-5-3
Date	October 19, 2015



Prepared by    **Randall Bleichner**  
 Staff Geologist



**Christopher J. Heiny, P.G.**  
 Senior Project Geologist



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Type of Services	Underground Storage Tank Removal
Location	East Bay Bridge Center 3839 Emery Street Emeryville, California

## SECTION 1: INTRODUCTION

This report presents the results of underground storage tank (UST) removal activities performed at 3839 Emery Street, in Emeryville, California (Site, Figures 1 and 2). This work was performed for Federal Realty Investment Trust (FRIT) in accordance with our July 22, 2015 Agreement (Agreement).

During excavations conducted as part of the façade and landscape improvements at the Site, an approximately 2,000 gallon UST was discovered at a depth of approximately 6 feet within a trench excavation. Although tank was observed to contain a black oily liquid, the former use of this UST was not known. The UST was observed to be constructed of steel (single-walled).

### 1.1 PURPOSE

The purpose of this work was to observe UST removal activities and collect confirmation soil samples adjacent and beneath the UST for laboratory analyses.

### 1.2 SCOPE OF WORK

As requested, the scope of work for this study was performed as outlined in our Agreement and included the following tasks:

- Observation of UST removal activities performed by the contractor.
- Collection and laboratory analyses of confirmation soil samples from the UST excavation and from the stockpiled soil.
- Preparation of this report.

The limitations for this investigation are presented in Section 4.

### 1.3 PROJECT PERSONNEL

UST removal work was conducted at the Site by Pacific States Environmental Contractors, Inc (PSEC). PSEC is a licensed environmental contractor from Dublin, California (license number A. Haz. C-21). Tank removal activities were observed by Mr. Kevin Hom from Alameda County Department of Environmental Health (ACDEH) and Mr. Scott McMillan, Alameda County Fire Department (ACFD). Cornerstone's observations and sampling were performed by staff geologist Randall Bleichner and senior project geologist Chris Heiny.

## SECTION 2: UNDERGROUND STORAGE TANK REMOVAL

### 2.1 PRE-REMOVAL ACTIVITIES

#### 2.1.1 Permitting

Prior to starting field activities, an Underground Storage Tank System Closure Plan was submitted by PSEC to the ACDEH to obtain a removal permit. In addition, Pacific States obtained a UST removal permit from Alameda County Fire Department Bureau of Fire Prevention, and the City of Emeryville Building Division. Copies of the approved permits are included in Appendix A.

#### 2.1.2 UST Liquid Removal

Prior to the UST removal, Cornerstone collected a sample of the tank content for laboratory analyses on July 13, 2015. The sample was analyzed for total petroleum hydrocarbons in the diesel range (TPHd) and oil range (TPHo) (EPA Test Method 3550/8015M with a silica gel cleanup); total petroleum hydrocarbons as gasoline (TPHg) and volatile organic compounds (VOCs) (EPA Test Method 8260); semi-VOCs (EPA Test Method 8270); 17 California Assessment Manual (CAM 17) Metals (EPA Test Method 6000/7000; and polychlorinated biphenyls (PCBs) (EPA Test Method 8082). The tank contents sample was collected for disposal purposes. The results are included in Tables 1 through 3, and the analytical report is included in Appendix B.

On September 1, 2015, PSEC used vacuum equipment to pump the UST contents, and used a pressure washer to rinse the interior of the tank. The recovered rinsate was vacuumed into a tanker truck by Environmental Logistics. The tank contents and rinse water were transported to Filter Recycling Services in Bloomington, California. Disposal documentation is presented in Appendix A.

After liquid removal and tank cleaning activities, approximately 110 pounds of dry-ice was added to the tank to render any remaining vapors inert. PSEC monitored air inside the UST using a portable meter equipped with oxygen and lower and upper explosive limit readouts. No volatile vapors were reported, and oxygen levels inside the tank were reportedly consistent with ambient air. The monitoring logs and certification of tank closure sampling are presented in Appendix A.

### 2.2 UST REMOVAL

On September 1, 2015, Cornerstone staff observed the removal of the approximately 2,000 gallon UST under the oversight of the ACDEH and Alameda County Fire Department inspectors. The UST was observed to be approximately 7 feet in length and 4 feet in diameter, and the top of the tank was observed at a depth of approximately 6½ feet. Prior to the tank removal, soil was excavated from the top and sides of the tank and was stockpiled for off-Site disposal. The stockpiled soil was placed on an impervious surface (asphalt) and covered with plastic.

Once removed, the UST was observed to have no readily apparent deterioration or holes. No significant odors or staining was observed in the base and sidewalls of the excavation. In the

ACDEH inspection report, the inspector noted that “*no observed holes or leaks when UST was raised out of the excavation*”. The ACDEH inspection report is included in Appendix A.

Following UST removal, no ponded ground water was observed in the excavation.

Photographs of UST and removal activities are provided in Appendix C.

## 2.3 CONFIRMATION AND STOCKPILE SAMPLING

To evaluate soil quality, three samples were collected from the base of the tank pit excavation (Tank-1, Tank-2, and Tank-5), and two were collected from the sidewalls of the excavation (Tanks 3 and Tank-4). The ADCEH inspector concurred with the sample collection locations prior to collection. The base samples were collected at an approximate depth of 12 feet below the surrounding grade, and the sidewall samples were collected at an approximate depth of 8 feet. Confirmation soil sampling locations are shown on Figure 3.

A four-point composite sample (sample ID “Composite-1”) was collected from the stockpiled soil to evaluate disposal and reuse options. One discrete sample (SP-3) was collected from the stockpile in three 5-gram 5-gram Core N’ One® or Encore® samplers for VOC analysis.

Soil samples for laboratory analyses were collected in stainless steel liners using hand sampling equipment. The ends of soil samples for laboratory analyses were covered in a Teflon film, fitted with plastic end caps, and labeled with a unique sample identification number. Samples analyzed for VOCs were collected in three 5-gram Core N’ One® or Encore® samplers. The soil samples were placed in an ice-chilled cooler and transported to a state-certified laboratory with chain of custody documentation.

## 2.4 LABORATORY ANALYSES

The five confirmation soil samples, and one composite stockpile soil sample were analyzed for TPHd and TPHo (EPA Test Method 3550/8015M with a silica gel cleanup); TPHg and VOCs, including 5 oxygenates and 2 lead scavengers (EPA Test Method 8260); semi-VOCs (EPA Test Method 8270); CAM-17 Metals (EPA Test Method 6000/7000; and PCBs (EPA Test Method 8082).

## 2.5 DISCUSSION OF RESULTS

Data summary tables are included in the Tables section of this report. Analytical data sheets and chain of custody documentation are included in Appendix B.

Cornerstone compared detected concentrations to commercial ESLs<sup>1</sup>. Total Lead was compared to commercial CHHSLs<sup>2</sup>; metal concentrations also were compared to natural background/ambient concentrations (Scott, 1991 and Duverge, 2011)<sup>3</sup>.

<sup>1</sup> Environmental Screening Level (ESL), San Francisco Bay, Regional Water Quality Control Board, December 2013.

<sup>2</sup> California Human Health Screening Levels (CHHSLs, 2010) were developed by the California Environmental Protection Agency (Cal/EPA) and are used to screen sites for potential human health concerns where releases of hazardous chemicals have occurred.

<sup>3</sup> Naturally occurring background concentrations of metals, such as arsenic, nickel and chromium, amongst others, in soil may exceed their respective screening levels. Cal/EPA generally does not require cleanup of soil to below background concentrations. Thus, for the metals detected, these data also were compared to regional published background concentrations.

Note that the ESLs for petroleum hydrocarbons are based on odor/nuisance ceiling values. The direct-contact ESLs were also used for comparison since the samples were collected between depths of approximately 8 and 12 feet, the excavation will be filled with clean soil, and the excavation will be capped by an impermeable surface. As such, the direct-contact commercial ESL is likely a more appropriate comparison value to use in this scenario. The direct contact commercial ESLs for all detected parameters are also included in Tables 1 through 3 for comparison.

Detected compounds are presented in Tables 1 through 3. Chain of custody documentation and laboratory analytical reports are presented in Appendix B

A discussion of the results is provided below.

#### Confirmation Soil Samples

- No PCBs were detected in the confirmation sample analyzed.
- The detected concentrations of TPHd exceeded the commercial ESL in the Tank-2 and Tank-4 samples. However, the detected concentration in these samples was below the direct-contact ESL for TPHd. The remaining TPHd concentrations were below its commercial ESL.
- The detected concentrations of TPHo, TPHg, VOCs, and PCBs were below their respective commercial screening criteria.
- No metals were detected above their respective ESLs or published background concentrations.

#### Stockpile Soil Samples

- No PCBs were detected in the confirmation sample analyzed.
- The detected concentrations of TPHd and TPHo exceeded their respective commercial ESLs of 110 mg/kg and 500 mg/kg.
- Laboratory analyses of the stockpile composite soil sample did not detect VOCs, PCBs, or SVOCs above their respective ESLs or laboratory reporting limits.
- No metals were detected above their respective ESLs or published background concentrations.

## 2.6 SOIL AND UST DISPOSAL

Results from the stockpile soil sample indicated the excavated soil was considered a Class II non-hazardous waste. Approximately 12 tons of soil was generated during the UST removal activities. The soil excavated from the UST pit was disposed of along with the soil excavated from the landscaping trenches since both were considered a Class II non-hazardous waste. All excavated soil was disposed of at the Altamont Landfill in Livermore, California. The disposal ticket is included in Appendix D. Note that the total tonnage listed on the disposal ticket is greater than 12 tons since soil excavated from the trench excavation was combined in the load.

The UST was transported by Environmental Logistics to Ecology Control Industries in Richmond, California for recycling. A copy of the hazardous waste manifest is included in Appendix D.

## 2.7 REGULATORY SUBMITTAL

The confirmation sampling results were submitted to the ACDEH on September 3, 2015. The ACDEH gave approval to backfill the excavation on September 8, 2015.

## SECTION 3: CONCLUSIONS AND RECOMMENDATIONS

Based on the September 8, 2015 correspondence, no additional sampling or excavation activities related to this UST are required at the Site. We recommend submitting this report and obtaining case closure documentation from the ACDEH.

## SECTION 4: LIMITATIONS

Cornerstone performed sampling and observation activities to support Federal Realty Investment Trust in performing tank removal and confirmation soil and water sampling activities at the Site. Cornerstone makes no warranty, expressed or implied, except that our services have been performed in accordance with the environmental principles generally accepted at this time and location.

## SECTION 5: REFERENCES

Bradford, et.al. March 1996. *Background Concentrations of Trace and Major Elements in California Soils*. Kearney Foundation Special Report.

Duverge, Dylan Jacques. December 2011. Establishing Background Arsenic in the Soil of the Urbanized San Francisco Bay Region

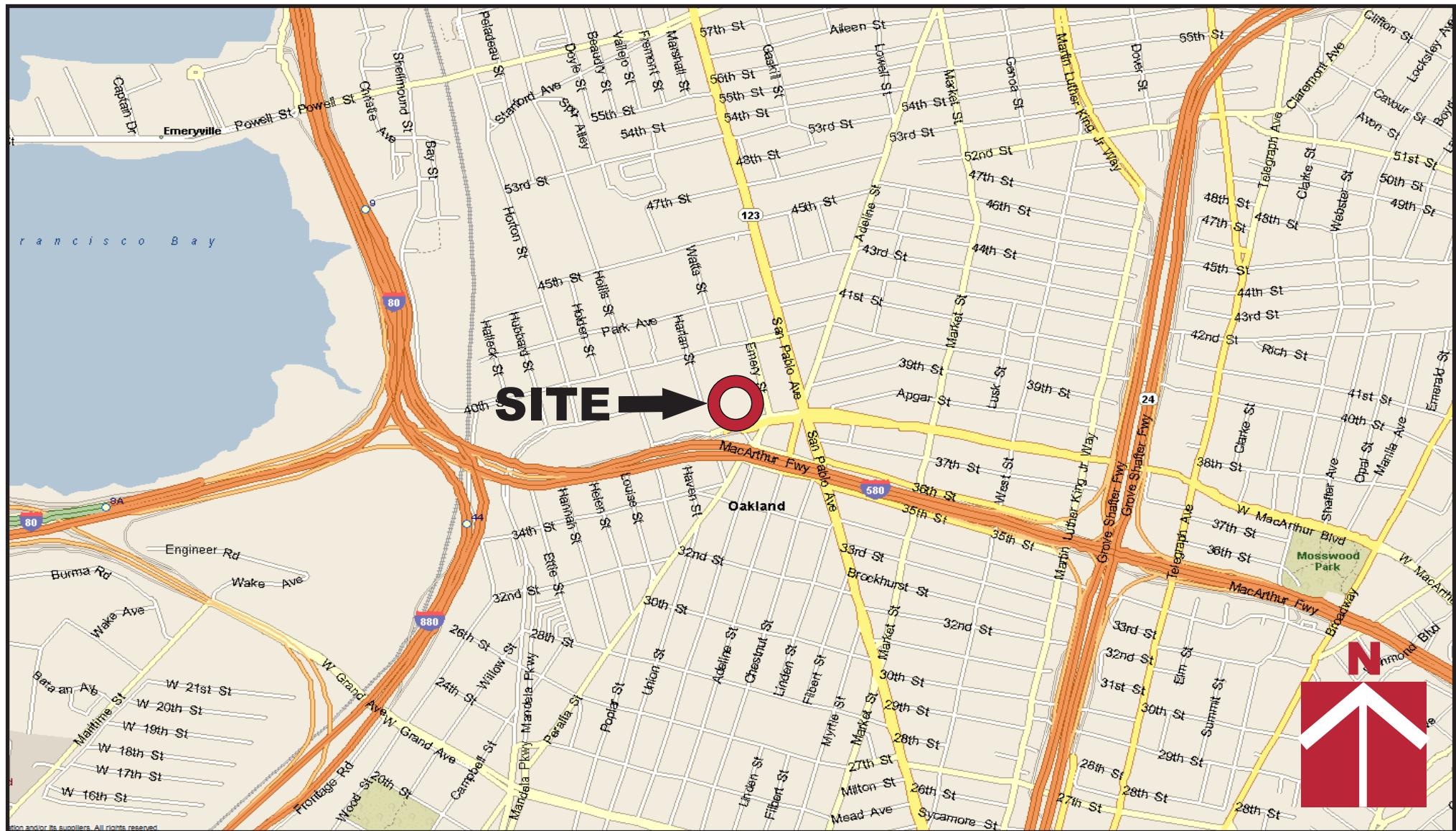
Lawrence Berkeley National Laboratory, 1995. *Protocol for Determining Background Concentrations of Metals in Soil at Lawrence Berkeley National Laboratory (LBNL)*. August 1995.

Levine-Frick, 1994. *Soils Management Plan for Petroleum Hydrocarbon-Affected Soils Yerba Buena/East Baybridge Center, Emeryville and Oakland, California*.

Pacific States Environmental Contractors, 2015. *Underground Storage Tank Closure Plan; East Bay Bridge Retail, LLC*.

Scott, Christina, December 1991. *Background metal concentrations for soil in Northern Santa Clara County*.

Water Board, February 2013. *Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, San Francisco Bay Regional Water Quality Control Board, California EPA*.



**CORNERSTONE  
EARTH GROUP**

#### Vicinity Map

**East Bay Bridge UST Removal  
3839 Emery Street  
Emeryville, CA**

Project Number

371-5-3

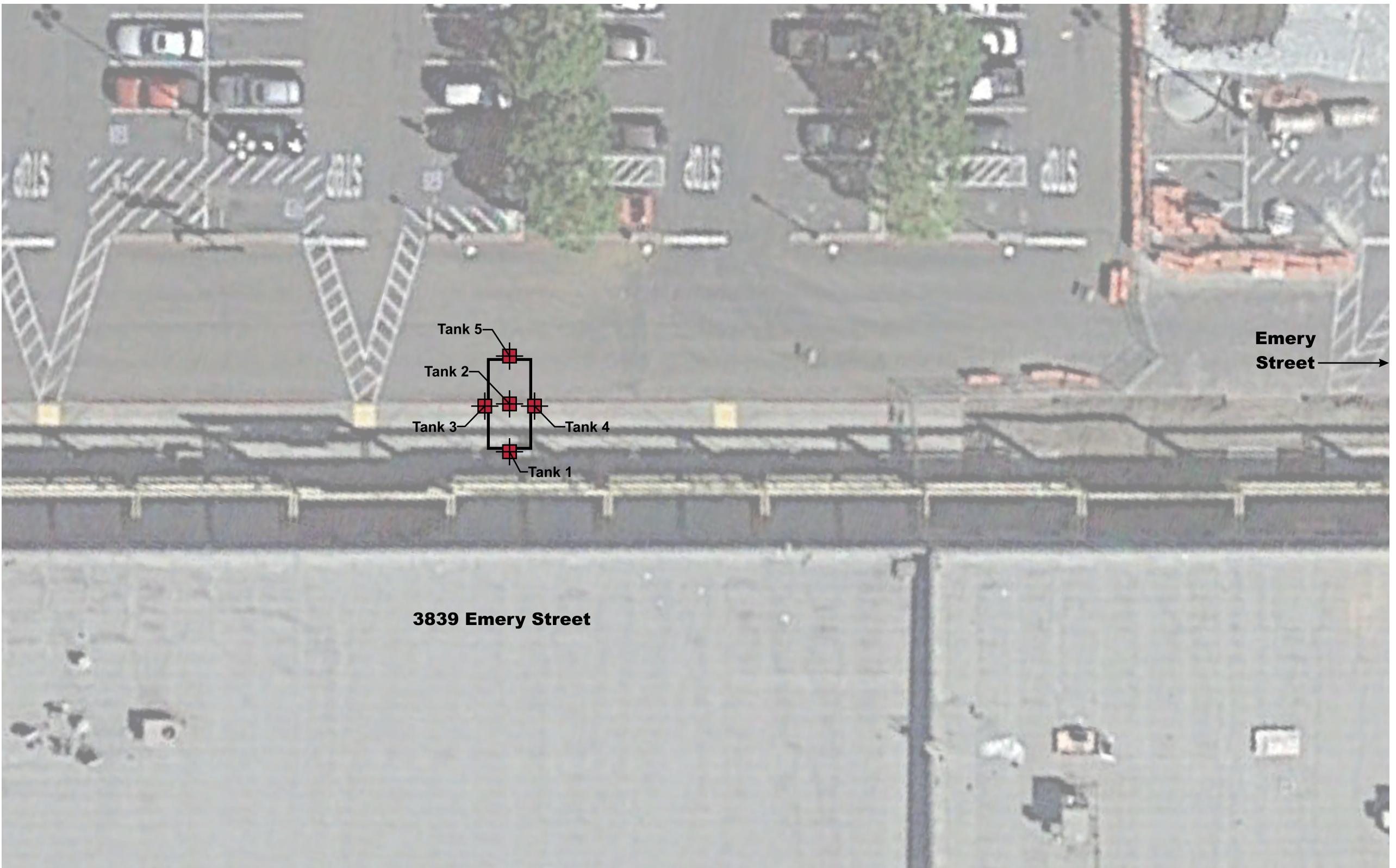
Figure Number

Figure 1

Date

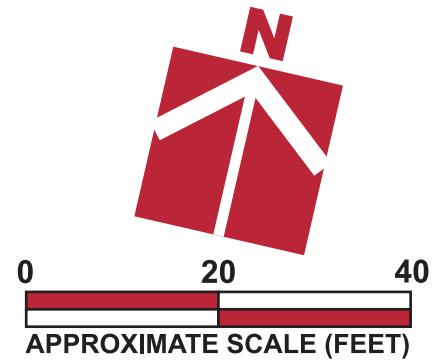
September 2015

Drawn By  
RRN



**Legend**

- Approximate location of UST
- Approximate location of excavation



Base by Google Earth, dated 5/11/2015

**CORNERSTONE**  
EARTH GROUP



East Bay Bridge UST Removal  
3839 Emery Street  
Emeryville, CA

Site Plan

371-5-3

Figure 2

Date September 2015

Drawn By RRN

**Table 1. Analytical Results of Selected Soil Samples**  
 (Concentrations in mg/kg)

Sample ID	Sample Location	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Vanadium	Zinc
TANK-1	Bottom - South	9/1/2015	2.5	1.1	190	0.56	0.92	37	8.3	15	11	0.11	0.27	50	36	54
TANK-2	Bottom - Center	9/1/2015	0.85	3.7	110	0.44	1.0	31	4.6	9.4	8.6	0.081	0.4	25	36	40
TANK-3	Sidewall - West	9/1/2015	1.9	3.2	220	0.81	0.6	39	7.5	12	3.9	0.049	0.5	46	37	45
TANK-4	Sidewall - East	9/1/2015	1.5	2.5	150	0.68	0.49	35	6.6	10	3.4	0.088	0.53	34	31	41
TANK-5	Bottom - North	9/1/2015	1.8	2.4	200	0.61	0.73	42	7.7	15	3.9	0.087	0.51	64	39	56
COMPOSITE-1	Soil Stockpile	9/1/2015	1.9	4.6	230	0.51	0.87	36	10	20	40	0.069	0.67	46	42	63
TS-1*	Tank Contents	7/13/2015	<4.0	<2.0	<2.0	<0.80	<2.0	<2.0	<2.0	<2.0	<2.0	<0.017	<2.0	3.1	9.9	<2.0
Commercial ESL <sup>1</sup>		40	1.6	1,500	8	12	2,500	80	230	320	10	40	150	200	600	
Scott, 1991 <sup>2</sup>	Background Range		0.2 to 5.5	---	0.3 to 1.4	0.05 to 1.7	30.5 to 72	---	23.8 to 47.5	6.8 to 16.1	0.05 to 0.90	---	46.4 to 101	39 to 288	47.7 to 82.8	
	Maximum Background Detection		20	---	3.2	14	170	---	67	54	1.3	---	145	---	120	
Bradford, 1996 <sup>3</sup>	Background Range		0.6 to 11	133 to 1,400	0.25 to 2.7	0.05 to 1.7	23 to 1,579	2.7 to 46.9	9.1 to 96.4	12.4 to 97.1	0.05 to 0.90	0.1 to 9.6	9 to 509	39 to 288	88 to 236	
	Upper Quartile		4.7	625	1.53	0.44	115	18.3	36.6	26.7	0.34	1.4	56	134	170	
LBNL, 2009 <sup>4</sup>	99 <sup>th</sup> Percentile		28	410	1	5.6	120	25	63	43	0.42	4.8	272	90	140	
	95% Upper Tolerance Limit (UTL)		19.1	323.6	1	2.7	99.6	22.2	69.4	16.1	0.4	7.4	119.8	74.3	106.1	
Duverge, 2011 <sup>5</sup>	Mean		4.6	---	---	---	---	---	---	---	---	---	---	---	---	
	99 <sup>th</sup> Percentile		11	---	---	---	---	---	---	---	---	---	---	---	---	
TTLC <sup>6</sup>		500	10000	75	100	2500	8000	2500	1000	20	3500	2000	2400	5000		
STLC <sup>7</sup> (mg/L)		5	100	0.75	1	5	80	25	5	0.2	350	20	24	250		

1 Environmental Screening Level (ESL), RWQCB, San Francisco Bay Region - December 2013

2 Scott, Christina. December 1991. Background Metal Concentrations in Soils in Northern Santa Clara County.

3 Bradford, et. al. March 1996. Background Concentrations of Trace and Major Elements in California Soils.

4 LBNL, 2009. Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory.

5 Duverge, 2011. Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region.

6 Total Threshold Limit Concentration - California Code of Regulations, Title 22, Chapter 11, Article 3.

7 Soluble Threshold Limit Concentration - California Code of Regulations, Title 22, Chapter 11, Article 3.

BOLD Concentration exceeds selected environmental screening criteria and/or background concentration

\* Tank contents sample collected for disposal purposes and is not compared to the screening limits.

**Table 2. Analytical Results of Selected Soil Samples**  
 (Concentrations in mg/kg)

Sample ID	Sample Location	Date	TPHd	TPHo	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	MTBE	EDB	ETBE	TBA	TAME	DIPЕ	1,2-DCA	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	4-Isopropyltoluene	Naphthalene	n-Propylbenzene	sec-Butylbenzene	
TANK-1	Bottom - South	9/1/2015	50	83	3.5	<0.006	<0.006	<0.006	0.011	0.0096	<0.006	<0.006	<0.006	<0.12	<0.006	<0.006	<0.006	0.034	0.0076	<0.006	0.12	<0.006	<0.006	
TANK-2	Bottom - Center	9/1/2015	350	280	1.2	<0.0068	<0.0068	0.0073	0.016	0.021	<0.0068	<0.0068	<0.0068	<0.14	<0.0068	<0.0068	<0.0068	0.11	0.018	0.014	0.26	0.010	<0.0068	
TANK-3	Sidewall - West	9/1/2015	<1	<5	<0.23	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.11	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	
TANK-4	Sidewall - East	9/1/2015	160	110	<0.22	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.11	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	
TANK-5	Bottom - North	9/1/2015	9.6	8.3	<0.26	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.12	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.006	<0.0059	<0.0059
COMPOSITE-1	Soil Stockpile	9/1/2015	<b>3,200</b>	<b>3,400</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SP-3	Soil Stockpile	9/1/2015	---	---	1.7	<0.0069	<0.0069	0.0092	0.012	0.026	<0.0069	<0.0069	<0.0069	<0.14	<0.0069	<0.0069	<0.0069	0.16	0.016	0.02	<b>5.2</b>	0.016	0.008	
TS-1*	Tank Contents	7/13/2015	440,000	200,000	1,400	<25	<25	<25	51	36	<25	<25	<25	<25	<25	<25	<25	220	49	35	830	57	<25	
Commercial ESL <sup>1</sup>			110 1,100 <sup>2</sup>	500	500	0.044	2.9	3.3	NE	NE	0.023	0.00033	NE	0.075	NE	NE	0.0045	NE	NE	NE	1.2	NE	NE	

1 Environmental Screening Level (ESL), RWQCB, San Francisco Bay Region - December 2013

2 Commercial ESL for Direct Exposure

< Not detected at or above laboratory reporting limit

NE Not Established

--- Not Analyzed

BOLD Concentration exceeds selected environmental screening criteria

\* Tank contents sample collected for disposal purposes and is not compared to the screening limits.

**Table 3. Analytical Results of Selected Soil Samples**  
 (Concentrations in mg/kg)

Sample ID	Sample Location	Date	PCBs	Acenaphthene	Acenaphthylenne	Anthracene	Benz(a)anthracene	Benz(g,h,i)perylene	Benz[a]pyrene	Benz[b]fluoranthene	Chrysene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	2-Methylnaphthalene
TANK-1	Bottom - South	9/1/2015	ND	0.022	<0.05	0.029	0.037	0.02	0.029	0.026	0.063	0.036	0.041	0.012	0.062	0.13	0.085	<0.05
TANK-2	Bottom - Center	9/1/2015	ND	0.13	<0.25	0.35	0.21	<0.25	0.10	0.05	0.36	0.1	0.26	<0.25	0.17	0.43	0.47	<0.25
TANK-3	Sidewall - West	9/1/2015	ND	0.0023	<0.005	0.0036	0.0026	<0.005	0.0013	<0.005	0.0047	0.0018	0.005	<0.005	0.002	0.017	0.0057	<0.005
TANK-4	Sidewall - East	9/1/2015	ND	0.064	0.0089	0.083	0.061	0.0065	0.026	0.012	0.092	0.032	0.1	<0.015	0.13	0.32	0.13	<0.015
TANK-5	Bottom - North	9/1/2015	ND	0.0024	<0.005	0.0016	0.0013	<0.005	<0.005	<0.005	0.002	<0.005	0.0017	<0.005	<0.005	0.0055	0.0028	<0.005
Composite-1	Soil Stockpile	9/1/2015	ND	0.91	0.093	0.60	0.42	0.070	<b>0.20</b>	0.13	0.69	0.49	1.1	<0.25	0.97	2.9	0.98	<0.25
TS-1*	Tank Contents	7/13/2015	ND	<5,000	<5,000	220 J	<5,000	<5,000	<5,000	<5,000	<5,000	<5,000	340 J	<5,000	920 J	1,100 J	<5,000	<5,000
Commercial ESL <sup>1</sup>			Variable	16	13	2.8	1.3	27	0.13	1.3	13	40	8.9	1.3	1.2	11	85	85

1 Environmental Screening Level (ESL), RWQCB, San Francisco Bay Region -

< Not detected at or above laboratory reporting limit

ND Not detected at or above reporting limit

NE Not Established

J Concentration detected above the method detection limit but below the reporting limit

BOLD Concentration exceeds selected environmental screening criteria

\* Tank contents sample collected for disposal purposes and is not compared to the screening limits.



## **APPENDIX A – PERMITS, DISPOSAL DOCUMENTATION AND INSPECTION REPORT**

ALAMEDA COUNTY  
DEPARTMENT OF ENVIRONMENTAL HEALTH  
1131 HARBOR BAY PARKWAY  
ALAMEDA, CA 94502-6577  
PHONE (510) 567-6700

**ACCEPTED**

Underground Storage Tank Closure Permit Application  
Alameda County Division of Hazardous Materials  
1131 Harbor Bay Parkway, Suite 200  
Alameda, CA 94502-6577

These closure/removal plans have been received and found to be acceptable and essentially meet the requirements of State and Local Health Laws. Changes to your closure plans indicated by this Department are to ensure compliance with State and local laws. The project proposed herein is released for issuance of any required building permits or construction/destruction.

One copy of the accepted plans must be on file and available to all contractors and craftsmen involved with the removal. Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspections Department to determine if contractors meet the requirements of State and local law. Identify this Department at least 72 hours prior to the following required inspections:

/ Removal of Tank(s) and Piping  
/ Sampling  
/ Final Inspection

Issuance of a) permit to operate, b) permanent closure, is dependent on compliance with accepted plans and all applicable laws and regulations.

**"THERE IS A FINANCIAL PENALTY FOR  
NOT OBTAINING THESE INSPECTIONS"**

*K. Horn Linh Van 8/12/15*  
510-567-6774  
*Certified Operator*

**UNDERGROUND STORAGE TANK CLOSURE PLAN**  
\*\*\* Complete closure plan according to instructions \*\*\*

1. Name of Business East Bay Bridge Retail, LLC
- Business Owner or Contact Person (PRINT) Michael Strahs 408-551-2248
2. Site Address 3839 Emery Street  
City, State Emeryville, CA Zip 94608 Phone 408-551-2248
3. Mailing Address 356 Santana Row, Suite 1005  
City, State San Jose, CA Zip 95128 Phone 408-551-2248
4. Property Owner East Bay Bridge Retail, LLC  
Business Name (if applicable) \_\_\_\_\_  
Address 356 Santana Row, Suite 1005  
City, State San Jose, CA Zip 95128 Phone 408-551-2248
5. Generator name under which tank will be manifested  
East Bay Bridge Retail, LLC  
EPA I.D. No. under which tank(s) will be manifested C A C002821830

6. Contractor Pacific States Environmental Contractors, Inc.  
Address 11555 Dublin Blvd  
City, State Dublin, CA Zip 94568 Phone 925-803-4333  
License Type A, Haz, C-21 ID# 723241
7. Consultant (if applicable) Cornerstone Earth Group  
Address 1270 Springbrook Road, Suite 101  
City, State Walnut Creek, CA Zip 94597 Phone 925-988-9500
8. Main Contact Person for Investigation (if applicable)  
Name Chris Heiny Title Senior Project Geologist  
Company Cornerstone Earth Group  
Phone 925-988-9500
9. Number of underground tanks being closed with this plan 1  
Length of piping being removed under this plan unknown  
Total number underground tanks at this facility (\*\*confirmed with owner or operator) 1
10. State Registered Hazardous Waste Transporters/Facilities (See Instructions).  
a) Product/Residual Sludge/Rinsate Transporter  
Name Environmental Logistics Inc EPA I.D. No. CAL000395776  
Hauler License No. 5508 License Exp. Date 12/31/2015  
Address 13992 Catalina Street  
City, State San Leandro, CA Zip 94577
- b) Product/Residual Sludge/Rinsate Disposal Site  
Name Filter Recycling Services EPA I.D. No. CAD982444481  
Address 180 W Monte Ave.  
City, State Bloomington, CA Zip 92316

c) Tank and Piping Transporter

Name Environmental Logistics Inc EPA I.D. No. CAL000395776

Hauler License No. 5508 License Exp. Date 12/31/2015

d) Tank and Piping Disposal Site

Name Ecology Control Industries, Inc. EPA I.D. No. CAD009466392

Address 255 Parr Drive

City, State Richmond, CA Zip 94801

Sample Collector

Name Chris Heiny

Company Cornerstone Earth Group

Address 1270 Springbrook Road, Suite 101

City, State Walnut Creek, CA Zip 94577 Phone 925-988-9500

11. Laboratory

Name Will Rice

Company Curtis & Tompkins, Ltd

Address 2323 Fifth Street

City, State Berkeley, CA Zip 94710

State Certification No. 2896

12. Have tank(s) or piping leaked in the past? Yes [ ] No [ ] Unknown [x]

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13. Describe method(s) to be used for rendering tank(s) inert:

Rinsing and product removal followed by the addition of dry ice at a rate of 25 lbs per  
1,000 gallons of tank capacity

**Before tank(s) are pumped out and inerted, all associated piping must be flushed back into the tank(s). All accessible piping must then be removed. Inaccessible piping must be permanently plugged using grout.**

The Bay Area Air Quality Management District, (415) 771-6000, along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of a combustible gas indicator to verify tank inertness. **It is the contractor's responsibility to have a functional combustible gas indicator on-site to verify that the tank(s) is inerted.**

**14. Tank History and Sampling Information \*\*\***(See Instructions)**\*\*\***

Tank		Material to be sampled (tank contents, soil, groundwater)	Location and Depth of Sample(s)
Capacity (gallons)	Use History include date last used (estimated)		
2,000	unknown	Soil	2 samples, one below each end of tank
		Tank contents	1
		Soil-sidewalls (if GW present)	4 minimum
		Groundwater	1

**One soil sample must be collected for every 20 linear feet of underground piping that is removed. A groundwater sample must be collected if any groundwater is present in the excavation.**

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (estimated)	Sampling Plan
100 cubic yards	One 4-point sample

**Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.**

Will the excavated soil be returned to the excavation immediately after tank removal?

[ ] yes [ ] no [ x ] unknown

If yes, explain reasoning \_\_\_\_\_

---

If unknown at this point in time, please be aware that **excavated soil may not be returned to the excavation without prior approval from this office.** This means that the contractor, consultant, or responsible party must communicate with the Specialist IN ADVANCE of backfilling activities.

15. Chemical methods and associated detection limits to be used for analyzing sample(s):

**The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits shall be followed.**

See Table 2, Recommended Minimum Verification Analyses for Underground Tank Leaks.

Contaminant Sought	EPA or Other Sample Preparation Method Number	EPA or Other Analysis Method Number	Method Detection Limit (Soil)
TPH Gasoline	None	8015M or 8260B	250 ug/kg
TPH Diesel	EPA 3546	8015M	1.0 mg/kg
TPH Oil	EPA 3546	8015M	50 mg/kg
VOCs	EPA 5035	8260B	5.0-50.0 ug/kg
Semi-VOCs	EPA 3546	8270C	0.067 – 0.33 mg/L
Oil & Grease	None	1664A	5.0 ug/kg
PCBs	EPA 3546	8082	0.5-1.0 mg/kg
CAM-17	EPA 3050B/7471A	6010B/7471A	0.0094-1.4 mg/kg

16. Submit Site Health and Safety Plan (See Instructions)

17. Submit Worker's Compensation Certificate copy

Name of Insurer National Union Fire Insurance Company

18. Submit Plot Plan \*\*\***(See Instructions)**\*\*\*

19. Enclose Deposit (See Instructions)

20. **Report all leaks or contamination to this office within 5 days of discovery.**

The written report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report (URL) form.

21. **Submit a closure report to this office within 60 days of the tank removal. The closure report must contain all information listed in item 22 of the instructions.**

22. Submit State (Underground Storage Tank Permit Application) Forms A and B (one-B form for each UST to be removed) (mark box 8 for "tank removed" in the upper right hand corner).

I declare that to the best of my knowledge and belief that the statements and information provided above are correct and true.

I understand that information, in addition to that provided above, may be needed in order to obtain approval from the Environmental Protection Division and that no work is to begin on this project until this plan has been approved.

I understand that any changes in design, materials, or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

**Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.**

#### CONTRACTOR INFORMATION

Name of Business Pacific States Environmental Contractors, Inc.

Name of Individual Brian Eychner

Signature [Signature] Date 7-29-2015

PROPERTY OWNER OR  MOST RECENT TANK OPERATOR (Check one)

Name of Business East Bay Bridge Retail, LLC

Name of Individual Michael Straus, Director of Development

Signature [Signature] Date 7/21/15

**Subject: Conditions for Approval of Closure Plan**

**The following items are included in the Conditions of Approval by Item #:**

14. No liquid is to be introduced into the tank. The tank will not be rinsed or washed while it is in the tank pit. Please remove the tank, place it on bermed plastic sheeting before introducing liquids. Ensure that all liquids are captured within the bermed area and appropriately disposed.

Hazardous Waste Tank Closure Certification – This form is attached. Please complete in order to transport the tank to a scrap metal facility.

COUNTY OF ALAMEDA  
UNDERGROUND TANK SYSTEM CLOSURE  
INSPECTION REPORT

*For Use By the County of Alameda, Environmental Health*

Facility Name: \_\_\_\_\_ Contractor's name : \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_

Project Contact: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Tank ID No. \_\_\_\_\_

Tank ID No.	
Size	
Construction Material	
Single/Double Wall	
Backfill Type	
Oxygen <10%	
LEL <10%	
Tank Condition	
Soil/Groundwater Condition	
Soil Sample Depth	
Number and Description of Soil/Groundwater Samples (Indicate Sample Locations on Site Plan)	

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Disposition of Tank Content

Tank & Piping Transport:

### **Sampling:** Evidence Ta-

Simplifying

Soil Stored

### Comments/Special Conditions:

Date: Start Time: Stop Time:

4

Signature of Contractor/Authorized Agent:

Date: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

**EMERYVILLE BUILDING PERMIT**

CITY OF EMERYVILLE, 1333 PARK AVENUE, EMERYVILLE, CA 94608 PHONE (510) 596-4310 FAX (510) 450-7812

**Applicant (Contact person):** Greg Garrison

Address: 11555 Dublin Blvd.

City, State, Zip: Dublin, CA, 94568

Phone: (925) 404-4920

Engineer or

Architect:

Address:

City, State, Zip:

Phone: \_\_\_\_\_ Lic. No. \_\_\_\_\_

**Contractor:** Pacific States Environmental Contractors

Address: 11555 Dublin Blvd.

City, State, Zip: Dublin, CA, 94568

Phone: (925) 803-4333 Lic. No. 723241

**LICENSED CONTRACTOR'S DECLARATION:**

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

LICENSE CLASS: A-HAZ / C-21 AS LIC. NO. 723241

DATE: 8/15/15 CONTRACTOR: Environmental Contractors EXPIRATION DATE: 5/31/16

**OWNER-BUILDER DECLARATION:**

I hereby affirm under penalty of perjury that I am exempt from the Contractors' State License Law for the following reason (Sec. 7031.5, Business and Professions Code): Any city or county that requires a permit to construct, alter, improve, demolish, or repair any structure prior to its issuance, also requires the applicant for the permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors' State License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt therefrom and the basis of the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500).:

( I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of property who builds or improves thereon, and who does the work himself or herself or through his or her own employees provided that the improvements are not offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.).

( I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of a property who builds or improves theron, and who contracts for the projects with a contractor(s) licensed pursuant to the Contractors' State License Law.).

( I am exempt under Sec. \_\_\_\_\_ B & P.C. for this reason:

Date: Owner:

**WORKERS' COMPENSATION DECLARATION:**

I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: Arthur J. Gallagher Policy No: WC 6712764

I certify that, in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that, if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

**WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.**

Date: Applicant:

**CONSTRUCTION LENDING AGENCY:**

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name: N/A

Lender's Address: N/A

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this county to enter upon the above mentioned property for inspection purposes.

Haley Garrison

8/6/15

Signature of Applicant or Agent

SITE ADDRESS: 3839 Emery St.

Property Owner (if known): \_\_\_\_\_

Phone: \_\_\_\_\_

Use and Occupancy Group: \_\_\_\_\_

Type of Constructions: \_\_\_\_\_

**Identify Description of Work:** Underground Tank Removal**VALUATION OF PROPOSED WORK:** \$ 28,000

(Include all labor and materials, all lighting, heating, ventilation, plumbing, electrical, fire sprinklers, elevator equipment, wall finishes, and casework.)

**DOCUMENTS SUBMITTED** (Circle all that apply):

DRAWINGS

STRUCTURAL CALCS.

ENERGY CALCS.

PRODUCT INFORMATION

SPECIFICATIONS

OTHER SCOPE

**THIS PERMIT SHALL COVER** (Circle all that apply):

BUILDING

PLUMBING

ELECTRICAL

MECHANICAL

SIGN

DEMO

GRADING

SOLAR

FIRE ALARM

FIRE SPRINKLER

FIRE (OTHER)

OTHER: \_\_\_\_\_

Do not write below this line

**PERMIT NUMBER:** BCG-0174

Assessor's Parcel Number: 146 DEPT 005 00

Application Received By: City of Emeryville Date: 8/6/15

Application Issued By: City of Emeryville Date: 8/25/15

**APPROVALS:**

Building: \_\_\_\_\_

Date: 8/20/15

Fire: \_\_\_\_\_

Date: \_\_\_\_\_

Planning: \_\_\_\_\_

Date: \_\_\_\_\_

Environmental: \_\_\_\_\_

Date: \_\_\_\_\_

Public Works: \_\_\_\_\_

Date: \_\_\_\_\_

Police: \_\_\_\_\_

Date: \_\_\_\_\_

Other: \_\_\_\_\_

Date: \_\_\_\_\_

**LIMITATIONS OR CONDITIONS:****FEES:**

General Plan Maintenance Fee: \$100.00

Building Standards Admin. Fund (SB 1473): \$2.00

Technology: \$20.00

Plan Check: \$65 + \$168.00

Energy Plan Check: \$100.00

Building: \$720.00

Plumbing: \_\_\_\_\_

Electrical: \_\_\_\_\_

Mechanical: \_\_\_\_\_

Strong Motion Instrumentation Program: \$17.00

Microfiche: \$2.24

Fire: \_\_\_\_\_

Sewer Connection: \_\_\_\_\_

Art In Public Places: \_\_\_\_\_

School: \_\_\_\_\_

Other: \_\_\_\_\_

**TOTAL:** \$2663 \$100.00

\$2663 \$100.00

RECEIVED

AUG 04 2015

FP-83.30 (12)



CITY OF EMERYVILLE  
BUILDING DIVISION

PERMIT # F2015-0081

Alameda County Fire Department  
Bureau of Fire Prevention

FIRE CODE REGULATED ACTIVITY/USE  
APPLICATION and PERMIT

[ ] Dublin [X] Emeryville [ ] Newark [ ] San Leandro [ ] Unincorporated Alameda County [ ] Union City

Application Date: 08/03/2015

Type of Permit Requested: Underground Storage Tank Removal Permit Activity Date(s): T.B.D.

Activity Location: 3839 Emery Street City: Emeryville

**ORGANIZATION/INDIVIDUAL MAKING APPLICATION**

Name: Pacific States Environmental Contractors Phone #: (925) 803 - 4333

Address/City/State/Zip: 11555 Dublin Blvd., Dublin, CA 94568

Contact Person: Greg Garrison Phone #: (925) 361-1541 FAX #: (925) 803 - 4334

**CONTRACTOR INFORMATION (if applicable) ATTACH COPY OF WORKER'S COMP AND BUSINESS LICENSE**

Company Name: Pacific States Environmental Contractors License Type/Number: 723241

Address/City/State/Zip: 11555 Dublin Blvd., Dublin, CA 94568

Contact Person: Greg Garrison Phone #: (925) 361-1541 FAX #: (925) 803 - 4334

**DESCRIPTION OF ACTIVITY TO BE PERFORMED:** *Attach copies of required listings, certificates, licenses, property owner approval (if different from applicant), etc. to fully explain activity, project, or authorization.*

Pacific States Environmental Contractors is planning to remove an underground storage tank at 3839 Emery Street, Emeryville, CA 94603.

All permits issued by the Fire Department shall be presumed to contain the proviso that the applicant, his agents and employees, shall carry out the proposed activity in compliance with all the requirements of the fire code and any other laws or regulations applicable thereto, whether specified or not, and in complete accordance with the approved plans, specifications, and conditions of approval.

This permit shall not be construed as authority to cancel, violate or set aside any provisions of the fire code, State and any other laws or regulations applicable thereto; nor, shall this permit take the place of any license or other regulatory permits required by law. Permits are not transferable and any change in the use, occupancy, operation, activity, or ownership shall require a new permit. Permits may be suspended or revoked for cause at any time.

I have read the above and acknowledge and agree to abide by the requirements and conditions of this permit. I also affirm all information that is provided as a part of this permit application is true and correct.

Greg Garrison  
Signature of Applicant

08/03/2015

Date

**- Fire Department Office Use Only -**

**APPROVALS:**

Plan Check: Approved 07/31/15 Rejected Date/By: \_\_\_\_\_ Cont. Notified: \_\_\_\_\_ Rejected Date/By: \_\_\_\_\_ Cont. Notified: \_\_\_\_\_

[ ] APPROVAL CONDITIONS ATTACHED

PERMIT APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ EXPIRATION: \_\_\_\_\_

**PERMIT NOT VALID WITHOUT APPROVAL SIGNATURE**

FEES DUE: \$146.00 Date Paid: 8.4.2015 Comments: \_\_\_\_\_

Plans Received: \_\_\_\_\_ Date Due: \_\_\_\_\_ Plans Received: \_\_\_\_\_ Date Due: \_\_\_\_\_

**ALAMEDA COUNTY DEPARTMENT ENVIRONMENTAL HEALTH**

*Certified Unified Program Agency (CUPA)*

*1131 Harbor Bay Parkway, Alameda, CA 94502-6577*

*Phone (510) 567-6700; Fax (510) 337-9335*

**I N S P E C T I O N   N O T E S**

EMERY BAY UST REMOVAL  
3839 EMERY BAY STREET  
EMERYVILLE, CA 94568

SR0028147

September 1, 2015

ARRIVED ONSITE TO WITNESS THE REMOVAL OF AN ABANDONED UST THAT IS APPROXIMATELY 1,800 GALLONS THAT FORMERLY CONTAINED UNKNOWN OIL/FUEL LIQUID. ABANDONED UST IS LOCATED ON THE PROPERTY OF EAST BAY BRIDGE RETAIL, LLC, EAST OF SPORTS AUTHORITY UNDERNEATH THE FORMER SIDEWALK PAVEMENT AND PARKING LOT. ABANDONED UST WAS DISCOVERED DURING A CONSTRUCTION PROJECT TO INSTALL NEW LANDSCAPING.

CONTENTS WERE PREVIOUSLY REMOVED AND SHIPPED OFF AS HAZARDOUS WASTE PRIOR TO CONTACTING ACDEH.

MET WITH SUPERINTENDENT OF W.L. BUTLER CONSTRUCTION INC., MICK ASHTON AND FOREMAN OF PACIFIC STATES ENVIRONMENTAL, DAVID SULLIVAN. MR. SCOTT MCMILLAN OF ALCO FIRE WAS ALSO PRESENT TO WITNESS THE OXYGEN AND LEL LEVELS AFTER RENDERING THE UST INERT.

UST REMOVAL WENT SMOOTHLY. NO OBSERVED HOLES OR LEAKS WHEN UST WAS RAISED OUT OF EXCAVATION. UST WAS PLACED ON PLASTIC AND EXCESS SOIL WAS REMOVED TO LOOK FOR ANY HOLES. UST WAS PLACED IN LIQUID TIGHT TRANSPORTATION BIN.

SOIL SAMPLES WERE COLLECTED BY CHRIS HEINY OF CORNERSTONE EARTH GROUP BELOW EACH END OF THE TANK (NORTH AND SOUTH) AND FROM THE SIDE WALLS OF THE TANK AND TESTED ACCORDING TO THE TRI-REGIONAL BOARD RECOMMENDED MINIMUM VERIFICATION ANALYSES AND PRACTICAL QUANTITATION REPORTING LIMITS.

EXCAVATED SOIL WAS SET ASIDE SEPARATED FROM TOPSOIL TO BE ANALYZED FOR POTENTIAL REMOVAL AS HAZARDOUS WASTE.

EXCAVATION TEST RESULTS WERE PROVIDED BY CHRIS HEINY ON 9/3/2015.

CLEAN SOIL BACKFILLING WAS APPROVED BY ACDEH ON 9/8/2015. COMMUNICATED TO MICK ASHTON.



KEVIN HOM  
HAZARDOUS MATERIALS SPECIALIST  
ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM

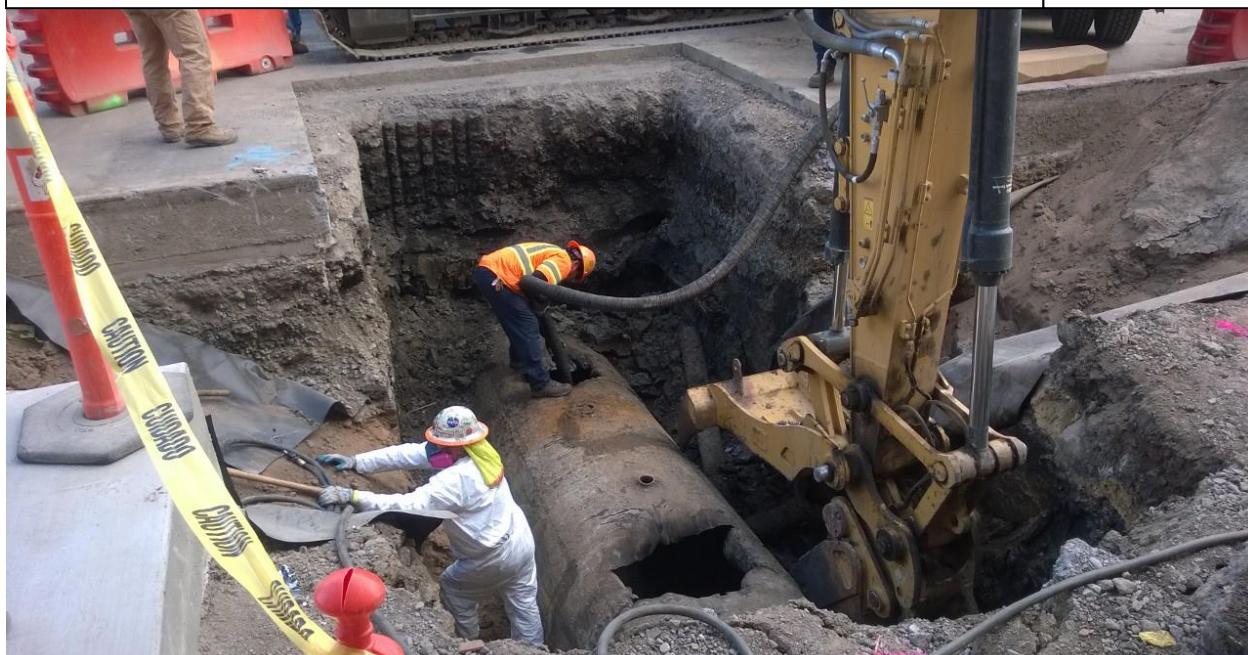


ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: EXCAVATION IS EAST OF SPORTS AUTHORITY

Photo # 1 of 25



DESCRIPTION: EXCAVATION – RESIDUAL LIQUID BEING PUMPED OUT.

Photo # 2 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
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FAX (510) 337-9335



DESCRIPTION: EXCAVATION CONTINUING – LOCATION IN RELATION TO BUILDING AND PILLAR

Photo # 3 of 25



DESCRIPTION: EXCAVATION CONTINUING – DRY ICE PLACED NEAR EXCAVATION

Photo # 4 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
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FAX (510) 337-9335



DESCRIPTION: EXCAVATION CONTINUING

Photo # 5 of 25



DESCRIPTION: LIQUID CONTAINING TRANSPORTATION DUMPSTER AND PLASTIC SET UP READY FOR REMOVAL.

Photo # 6 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
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FAX (510) 337-9335



DESCRIPTION: UST BEING REMOVED

Photo # 7 of 25



DESCRIPTION: UST BEING REMOVED

Photo # 8 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
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1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: UST BEING REMOVED

Photo # 9 of 25



DESCRIPTION: UST BEING REMOVED – NO OBSERVED LEAKING

Photo # 10 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: VIEW OF SOIL CONDITION – DRY WITH MINIMAL CONTAMINATION

Photo # 11 of 25



DESCRIPTION: CHECKING REMOVED UST FOR HOLES OR CRACKS.

Photo # 12 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
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1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: VIEW OF DRY ICE PRESENT IN UST

Photo # 13 of 25



DESCRIPTION: EXCAVATION

Photo # 14 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: TANK PLACED IN BIN.

Photo # 15 of 25



DESCRIPTION: VIEW OF EXCAVATION

Photo # 16 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM

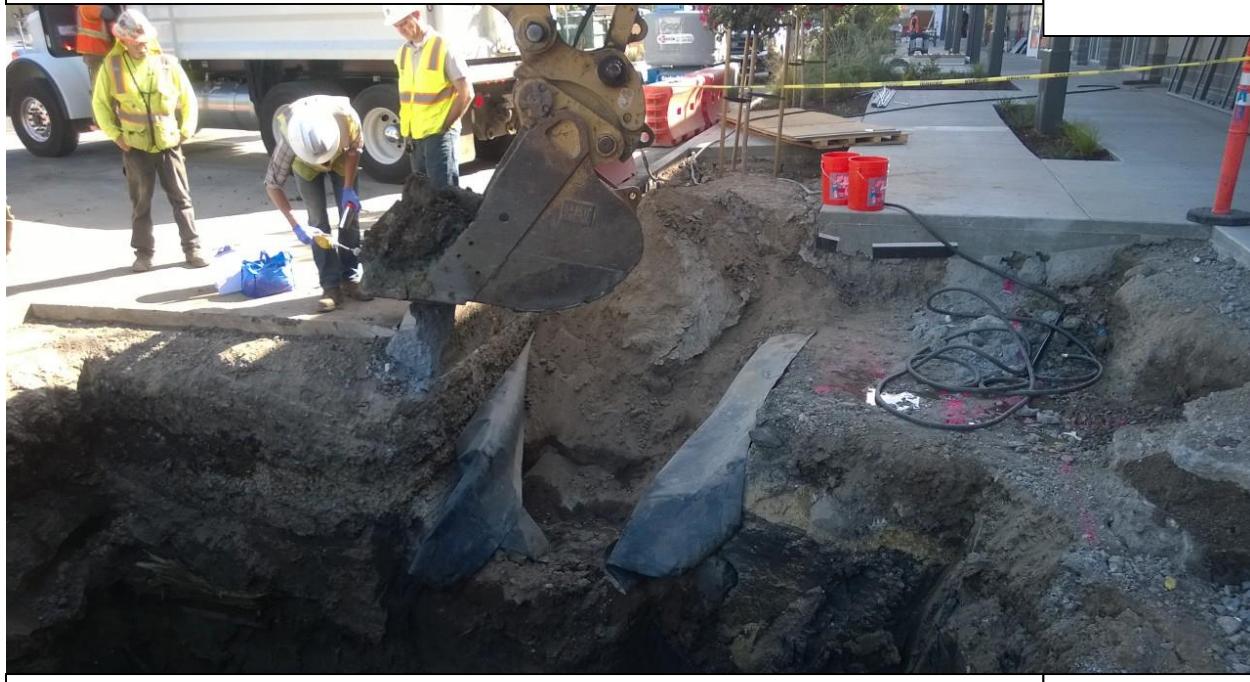


ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: VIEW OF EXCAVATION

Photo # 17 of 25



DESCRIPTION: SOIL SAMPLE COLLECTED FROM SOUTH SIDE OF EXCAVATION UNDER TANK

Photo # 18 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: SOIL SAMPLE COLLECTED FROM SOUTH SIDE OF EXCAVATION UNDER TANK

Photo # 19 of 25



DESCRIPTION: SOIL SAMPLE COLLECTED FROM SOUTH SIDE OF EXCAVATION UNDER TANK

Photo # 20 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: SOIL SAMPLE COLLECTED FROM WEST SIDE OF EXCAVATION AT SIDE WALL OF TANK

Photo # 21 of 25



DESCRIPTION: SOIL SAMPLE COLLECTED FROM EAST SIDE OF EXCAVATION AT SIDE WALL OF TANK

Photo # 22 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: SOIL SAMPLE COLLECTED FROM EAST SIDE OF EXCAVATION AT SIDE WALL OF TANK

Photo # 23 of 25



DESCRIPTION: SOIL SAMPLE COLLECTED FROM NORTH SIDE OF EXCAVATION WHERE END OF TANK WAS PREVIOUSLY LOCATED.

Photo # 24 of 25

Program Photo Log SR0028147  
Name: EMERY BAY UST REMOVAL  
Address: 3839 EMERY BAY STREET  
DUBLIN, CA 94568  
Date: 09/01/2015  
Photo Taken by: KEVIN HOM



ALAMEDA COUNTY  
ENVIRONMENTAL HEALTH DEPARTMENT  
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335



DESCRIPTION: SOIL SAMPLE TANKIN NORTH END OF EXCAVATION WHERE END OF UST WAS PREVIOUSLY LOCATED.

Photo # 25 of 25



## APPENDIX B –ANALYTICAL DATA SHEETS



**Curtis & Tompkins, Ltd.**

Analytical Laboratories, Since 1878



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 268154  
ANALYTICAL REPORT**

Cornerstone Earth Group  
1259 Oakmead Pkwy  
Sunnyvale, CA 94085

Project : 371-5-2  
Location : East Bay Bridge Project  
Level : II

Sample ID  
TS-1

Lab ID  
268154-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: \_\_\_\_\_

Mikelle Chong  
Project Manager  
mikelle.chong@ctberk.com

Date: 07/14/2015

CA ELAP# 2896, NELAP# 4044-001

## CASE NARRATIVE

Laboratory number: **268154**  
Client: **Cornerstone Earth Group**  
Project: **371-5-2**  
Location: **East Bay Bridge Project**  
Request Date: **07/13/15**  
Samples Received: **07/13/15**

This data package contains sample and QC results for one oil sample, requested for the above referenced project on 07/13/15. The sample was received cold and intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B):**

No analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

TS-1 (lab # 268154-001) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

No analytical problems were encountered.

**Semivolatile Organics by GC/MS (EPA 8270C):**

TS-1 (lab # 268154-001) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

**PCBs (EPA 8082):**

All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. No analytical problems were encountered.

**Metals (EPA 6010B and EPA 7471A):**

Low recovery was observed for thallium in the MS for batch 225054; the parent sample was not a project sample, and the associated RPD was within limits. No other analytical problems were encountered.

Cornerstone Earth Group, Inc.	Project Manager: Chris Heiny Tel/Fax: 925-988-9500 ext. 14	Site Sampler: Brent Johnson Lab Contact: Will Rice	Date: 7/13/15	COC No: of COCs
1259 Oakmead Pkwy Sunnyvale, California 94085 (408) 245-4600	Analysis Turnaround Time TAT if different from Below _____			
(408) 245-4620	Phone <input type="checkbox"/> 1 week <input type="checkbox"/> 3 days <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 24-hour	TPHgVOCs (EPA 8260) TPHD/TPHmo (EPA 8015B) SI gel cleanup Total CAMIT (6010 874707471) SVOCs (EPA 8270C)	PCEBs (EPA 8082)	Laboratory's Job No.
Project Name: East Bay Bridge Project Site: Emeryville, CA Project Number: 371-5-2	Sample Identification Sample Date Time Sample Type Matrix # of Cont.			
Special Instructions/QC Requirements & Comments: If additional sample is needed, please use the liner.  Preservation Used: 1= Ice, 2= HCl; 3= H <sub>2</sub> SO <sub>4</sub> ; 4=NaOH; 5=HNO <sub>3</sub> ; 6= Other Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison A <input checked="" type="checkbox"/> Unknown Special Instructions/QC Requirements & Comments: If additional sample is needed, please use the liner.  <i>CC1d at contact -</i>				
		Sample Disposal <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months		
Relinquished by: <i>Brent Johnson</i>	Company: Cornerstone Earth Group	Date/Time: 7/13/15 13:20	Received by: <i>Jay Sisk</i>	Company: CTJ
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

# COOLER RECEIPT CHECKLIST



Login # 268154 Date Received 7/13/15 Number of coolers 1  
 Client cornerstone Project East Bay Bridge Project  
 Date Opened 7/13 By (print) PB (sign) [Signature]  
 Date Logged in 7/13 By (print) BL (sign) [Signature]

1. Did cooler come with a shipping slip (airbill, etc) \_\_\_\_\_ YES  NO   
Shipping info \_\_\_\_\_
- 2A. Were custody seals present? ....  YES (circle) on cooler  on samples  NO  
How many \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_
- 2B. Were custody seals intact upon arrival? \_\_\_\_\_ YES  NO  N/A
3. Were custody papers dry and intact when received? \_\_\_\_\_ YES  NO
4. Were custody papers filled out properly (ink, signed, etc)? \_\_\_\_\_ YES  NO
5. Is the project identifiable from custody papers? (If so fill out top of form) \_\_\_\_\_ YES  NO
6. Indicate the packing in cooler: (if other, describe)  
 Bubble Wrap  Foam blocks  Bags  None  
 Cloth material  Cardboard  Styrofoam  Paper towels
7. Temperature documentation: \* Notify PM if temperature exceeds 6°C  
 Type of ice used:  Wet  Blue/Gel  None Temp(°C) \_\_\_\_\_  
 Samples Received on ice & cold without a temperature blank; temp. taken with IR gun  
 Samples received on ice directly from the field. Cooling process had begun
8. Were Method 5035 sampling containers present? \_\_\_\_\_ YES  NO  
 If YES, what time were they transferred to freezer? \_\_\_\_\_
9. Did all bottles arrive unbroken/unopened? \_\_\_\_\_ YES  NO
10. Are there any missing / extra samples? \_\_\_\_\_ YES  NO
11. Are samples in the appropriate containers for indicated tests? \_\_\_\_\_ YES  NO
12. Are sample labels present, in good condition and complete? \_\_\_\_\_ YES  NO
13. Do the sample labels agree with custody papers? \_\_\_\_\_ YES  NO
14. Was sufficient amount of sample sent for tests requested? \_\_\_\_\_ YES  NO
15. Are the samples appropriately preserved? \_\_\_\_\_ YES  NO  N/A
16. Did you check preservatives for all bottles for each sample? \_\_\_\_\_ YES  NO  N/A
17. Did you document your preservative check? \_\_\_\_\_ YES  NO  N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? \_\_\_\_\_ YES  NO  N/A
19. Did you change the hold time in LIMS for preserved terracores? \_\_\_\_\_ YES  NO  N/A
20. Are bubbles > 6mm absent in VOA samples? \_\_\_\_\_ YES  NO  N/A
21. Was the client contacted concerning this sample delivery? \_\_\_\_\_ YES  NO   
 If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: \_\_\_\_\_

## COMMENTS

15) Could not check pH of -001 due to matrix



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## Detections Summary for 268154

Results for any subcontracted analyses are not included in this summary.

Client : Cornerstone Earth Group  
Project : 371-5-2  
Location : East Bay Bridge Project

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1,400	Y	500		mg/Kg	As Recd	500.0	EPA 8015B	
Diesel C10-C24	440,000		4,000		mg/Kg	As Recd	10.00	EPA 8015B	EPA 3580
Motor Oil C24-C36	200,000		20,000		mg/Kg	As Recd	10.00	EPA 8015B	EPA 3580
m,p-Xylenes	51,000		25,000		ug/Kg	As Recd	5000	EPA 8260B	EPA 5030B
o-Xylene	36,000		25,000		ug/Kg	As Recd	5000	EPA 8260B	EPA 5030B
1,3,5-Trimethylbenzene	49,000		25,000		ug/Kg	As Recd	5000	EPA 8260B	EPA 5030B
1,2,4-Trimethylbenzene	220,000		25,000		ug/Kg	As Recd	5000	EPA 8260B	EPA 5030B
para-Isopropyl Toluene	35,000		25,000		ug/Kg	As Recd	5000	EPA 8260B	EPA 5030B
n-Butylbenzene	57,000		25,000		ug/Kg	As Recd	5000	EPA 8260B	EPA 5030B
Naphthalene	830,000		25,000		ug/Kg	As Recd	5000	EPA 8260B	EPA 5030B
Naphthalene	920,000	J	5,000,000	190,000	ug/Kg	As Recd	50.00	EPA 8270C	EPA 3580
2-Methylnaphthalene	2,700,000	J	5,000,000	160,000	ug/Kg	As Recd	50.00	EPA 8270C	EPA 3580
Fluorene	340,000	J	5,000,000	180,000	ug/Kg	As Recd	50.00	EPA 8270C	EPA 3580
Phenanthrene	1,100,000	J	5,000,000	220,000	ug/Kg	As Recd	50.00	EPA 8270C	EPA 3580
Anthracene	220,000	J	5,000,000	190,000	ug/Kg	As Recd	50.00	EPA 8270C	EPA 3580
Pyrene	220,000	J	5,000,000	180,000	ug/Kg	As Recd	50.00	EPA 8270C	EPA 3580
Nickel	3.1		2.0		mg/Kg	As Recd	10.00	EPA 6010B	EPA 3050B
Vanadium	9.9		2.0		mg/Kg	As Recd	10.00	EPA 6010B	EPA 3050B

T = Estimated value

X = Sample exhibits chromatographic pattern which does not resemble standard.

### Total Volatile Hydrocarbons

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Analysis:	EPA 8015B
Project#:	371-5-2		
Field ID:	TS-1	Sampled:	07/13/15
Units:	mg/Kg	Received:	07/13/15
Batch#:	225035	Analyzed:	07/13/15

Type: SAMPLE Matrix: Oil  
 Lab ID: 268154-001 Diln Fac: 500.0

Analyte	Result	RL
Gasoline C7-C12	1,400 Y	500

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	111	78-138

Type: BLANK Matrix: Soil  
 Lab ID: QC795325 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	78-138

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Total Volatile Hydrocarbons**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Analysis:	EPA 8015B
Project#:	371-5-2		
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC795326	Batch#:	225035
Matrix:	Soil	Analyzed:	07/13/15
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	0.9736	97	80-121

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	78-138



Curtis & Tompkins, Ltd.

## Batch QC Report

## Total Volatile Hydrocarbons

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Analysis:	EPA 8015B
Project#:	371-5-2		
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	268084-005	Batch#:	225035
Matrix:	Soil	Sampled:	07/09/15
Units:	mg/Kg	Received:	07/09/15
Basis:	as received	Analyzed:	07/13/15

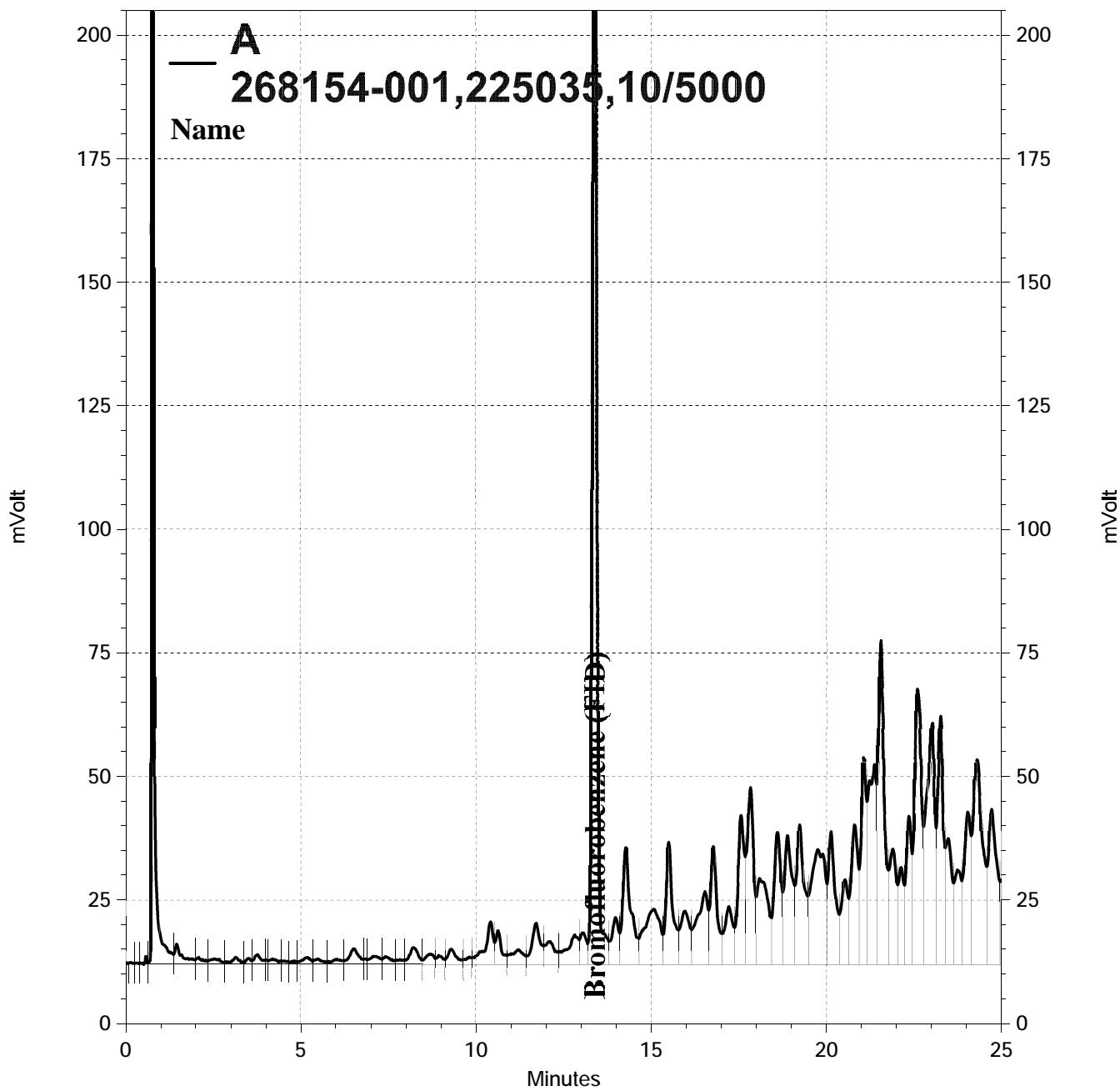
Type: MS Lab ID: QC795327

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1295	9.709	7.478	76	50-120
Surrogate	%REC	Limits			
Bromofluorobenzene (FID)	108	78-138			

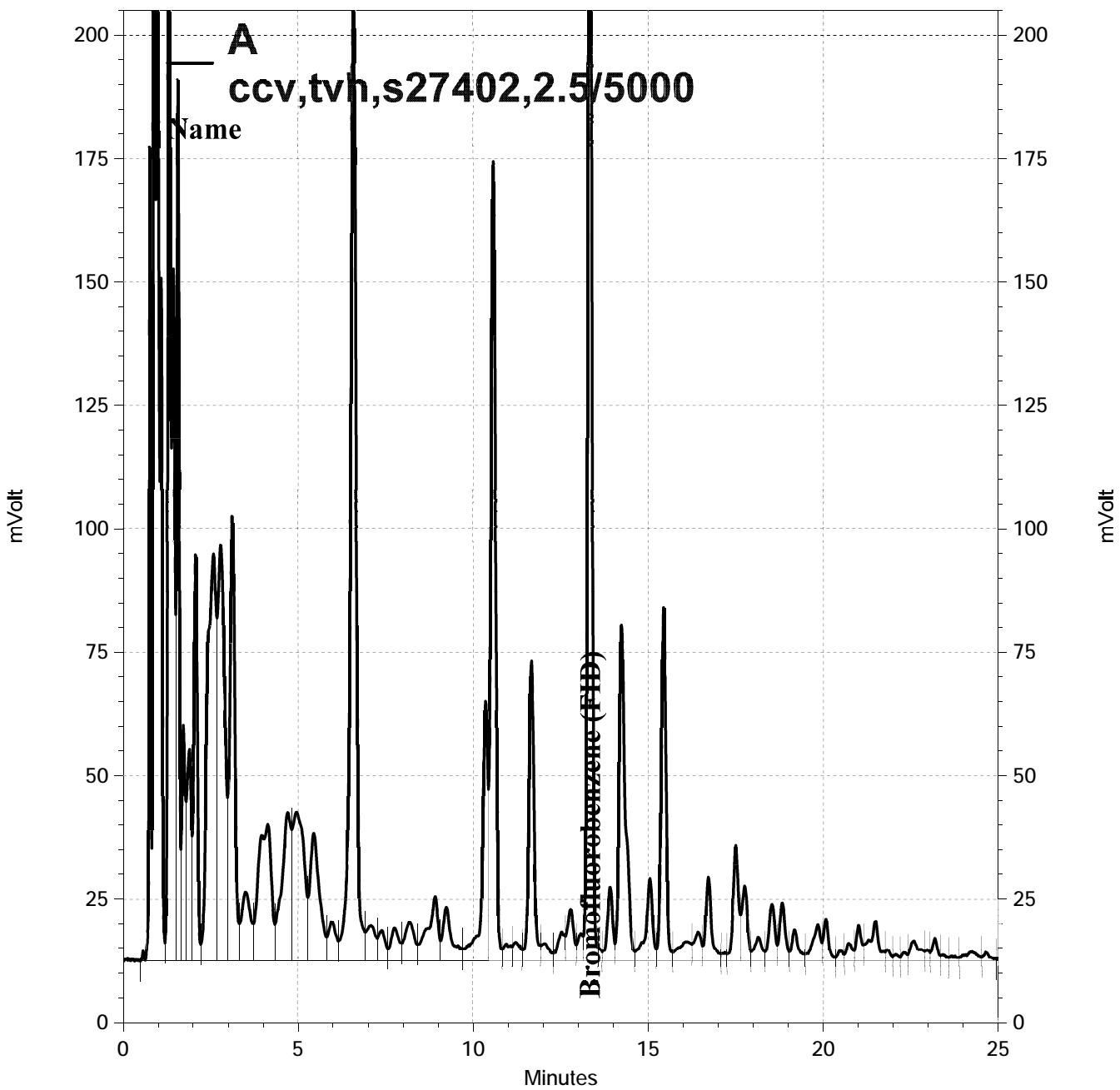
Type: MSD Lab ID: QC795328

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.00	7.707	76	50-120	0	31
Surrogate	%REC	Limits				
Bromofluorobenzene (FID)	113	78-138				

RPD= Relative Percent Difference



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### Total Extractable Hydrocarbons

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3580
Project#:	371-5-2	Analysis:	EPA 8015B
Field ID:	TS-1	Sampled:	07/13/15
Matrix:	Oil	Received:	07/13/15
Units:	mg/Kg	Prepared:	07/13/15
Batch#:	225045	Analyzed:	07/14/15

Type: SAMPLE Diln Fac: 10.00  
 Lab ID: 268154-001

Analyte	Result	RL
Diesel C10-C24	440,000	4,000
Motor Oil C24-C36	200,000	20,000

Surrogate	%REC	Limits
o-Terphenyl	DO	59-140

Type: BLANK Diln Fac: 1.000  
 Lab ID: QC795365

Analyte	Result	RL
Diesel C10-C24	ND	400
Motor Oil C24-C36	ND	2,000

Surrogate	%REC	Limits
o-Terphenyl	109	59-140

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3580
Project#:	371-5-2	Analysis:	EPA 8015B
Matrix:	Oil	Batch#:	225045
Units:	mg/Kg	Prepared:	07/13/15
Diln Fac:	1.000	Analyzed:	07/14/15

Type: BS Lab ID: QC795366

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	19,200	20,410	106	58-137

Surrogate	%REC	Limits
o-Terphenyl	106	59-140

Type: BSD Lab ID: QC795367

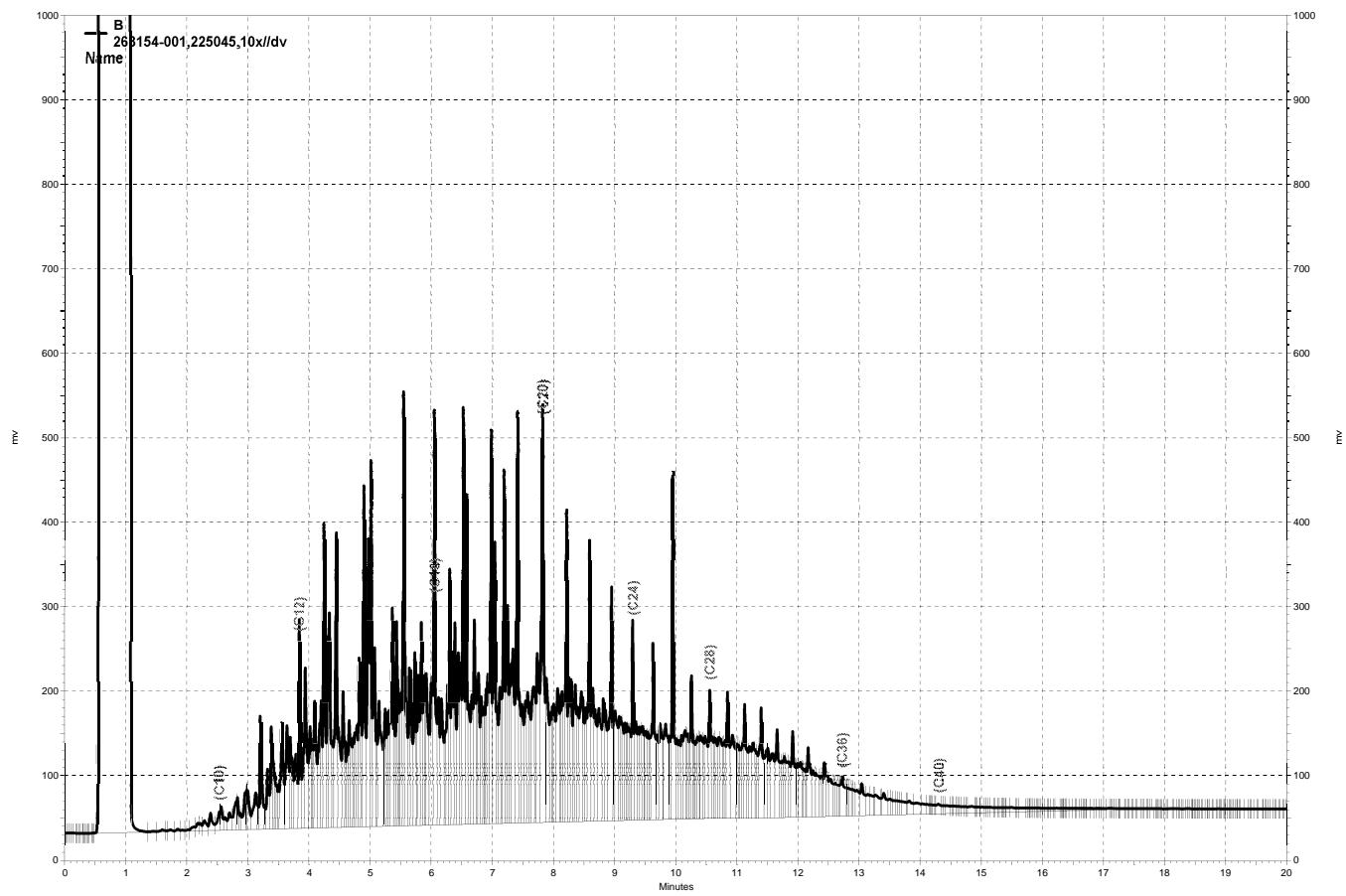
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	19,200	21,560	112	58-137	5	20

Surrogate	%REC	Limits
o-Terphenyl	108	59-140

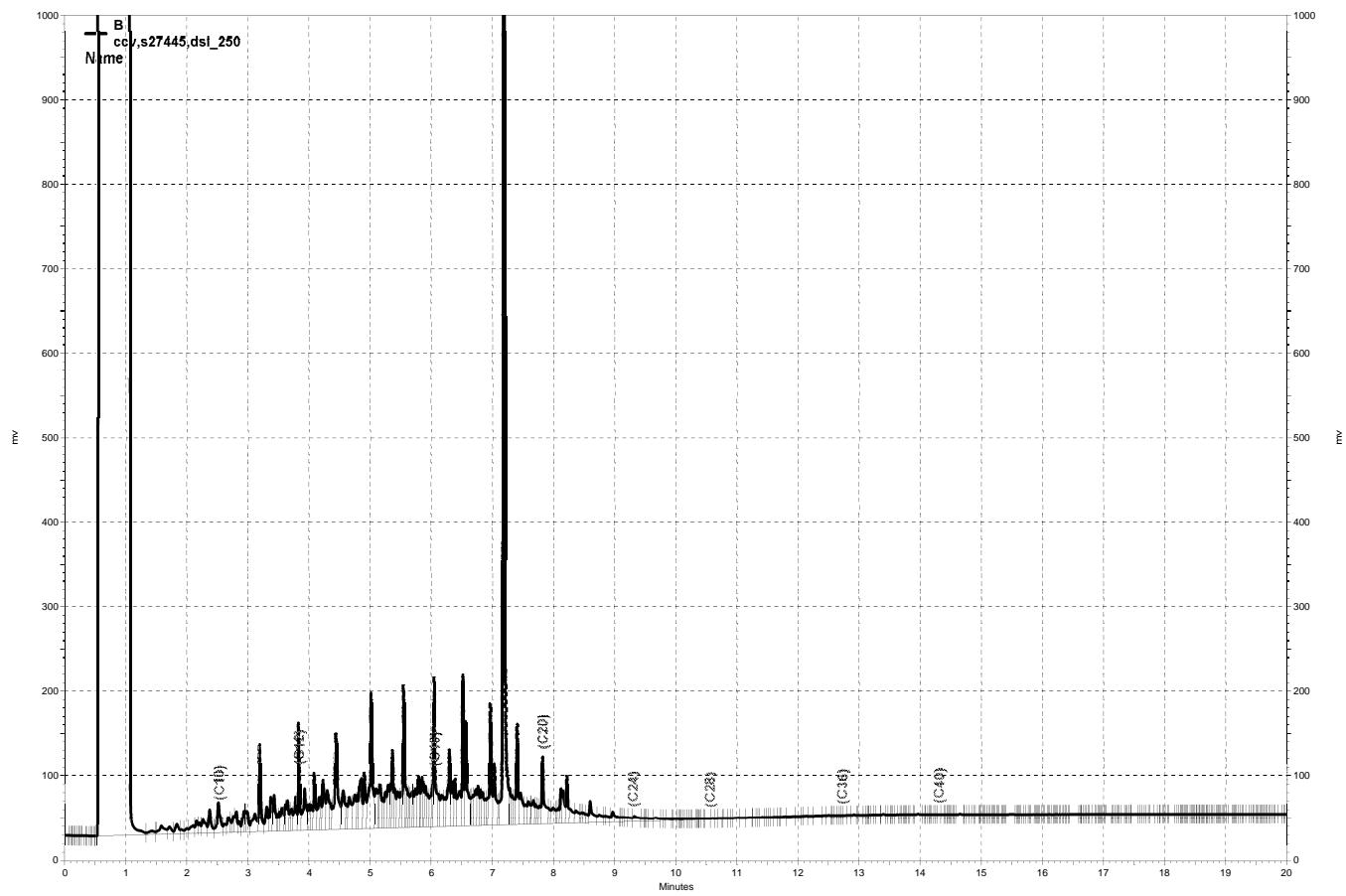
RPD= Relative Percent Difference

Page 1 of 1

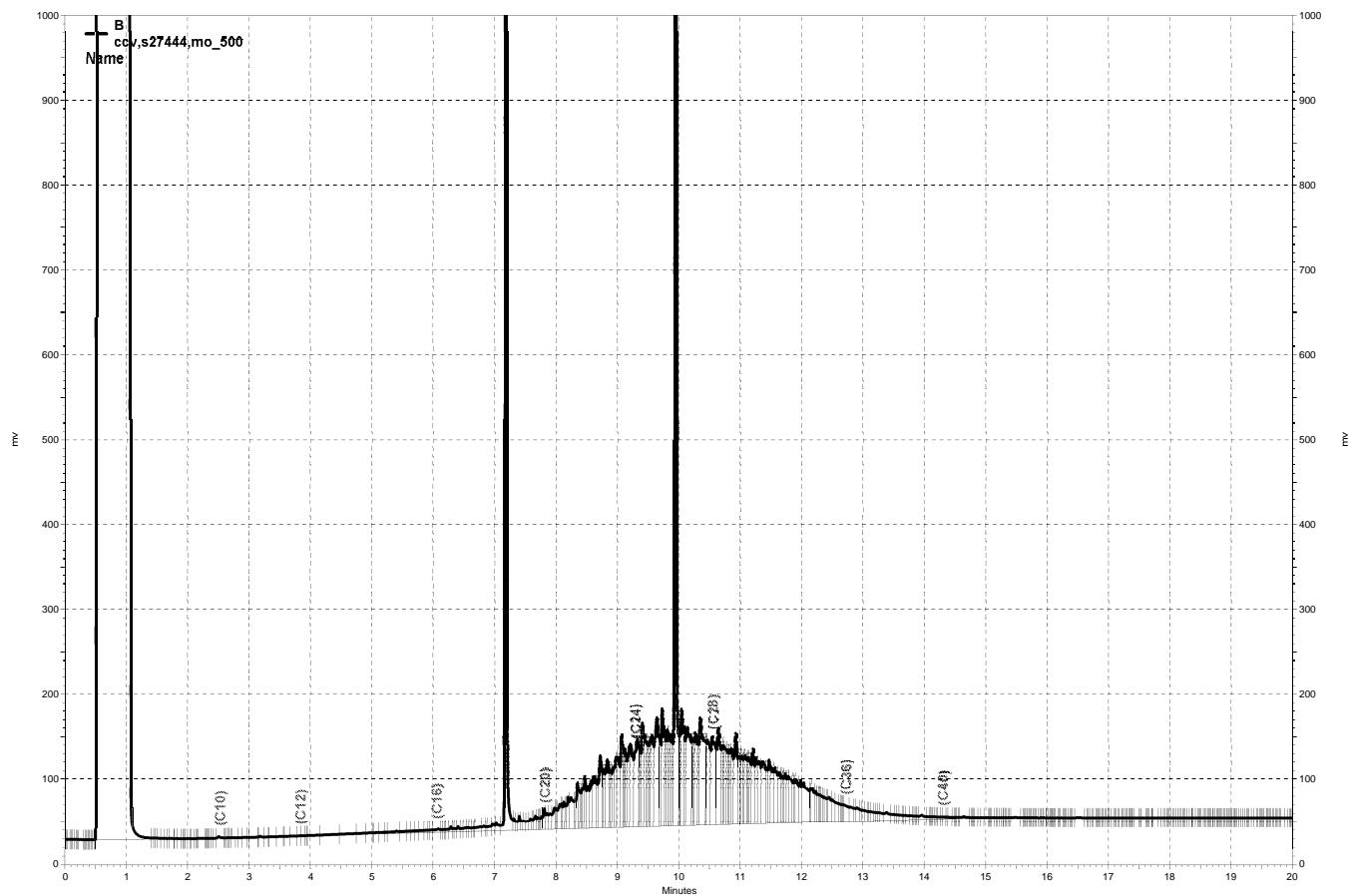
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### Purgeable Organics by GC/MS

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 5030B
Project#:	371-5-2	Analysis:	EPA 8260B
Field ID:	TS-1	Batch#:	225012
Lab ID:	268154-001	Sampled:	07/13/15
Matrix:	Oil	Received:	07/13/15
Units:	ug/Kg	Analyzed:	07/14/15
Diln Fac:	5,000		

Analyte	Result	RL
Freon 12	ND	50,000
Chloromethane	ND	50,000
Vinyl Chloride	ND	50,000
Bromomethane	ND	50,000
Chloroethane	ND	50,000
Trichlorofluoromethane	ND	25,000
Acetone	ND	100,000
Freon 113	ND	25,000
1,1-Dichloroethene	ND	25,000
Methylene Chloride	ND	100,000
Carbon Disulfide	ND	25,000
trans-1,2-Dichloroethene	ND	25,000
Vinyl Acetate	ND	250,000
1,1-Dichloroethane	ND	25,000
2-Butanone	ND	50,000
cis-1,2-Dichloroethene	ND	25,000
2,2-Dichloropropane	ND	25,000
Chloroform	ND	25,000
Bromochloromethane	ND	25,000
1,1,1-Trichloroethane	ND	25,000
1,1-Dichloropropene	ND	25,000
Carbon Tetrachloride	ND	25,000
1,2-Dichloroethane	ND	25,000
Benzene	ND	25,000
Trichloroethene	ND	25,000
1,2-Dichloropropane	ND	25,000
Bromodichloromethane	ND	25,000
Dibromomethane	ND	25,000
4-Methyl-2-Pentanone	ND	50,000
cis-1,3-Dichloropropene	ND	25,000
Toluene	ND	25,000
trans-1,3-Dichloropropene	ND	25,000
1,1,2-Trichloroethane	ND	25,000
2-Hexanone	ND	50,000
1,3-Dichloropropane	ND	25,000
Tetrachloroethene	ND	25,000
Dibromochloromethane	ND	25,000

ND= Not Detected

RL= Reporting Limit

**Purgeable Organics by GC/MS**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 5030B
Project#:	371-5-2	Analysis:	EPA 8260B
Field ID:	TS-1	Batch#:	225012
Lab ID:	268154-001	Sampled:	07/13/15
Matrix:	Oil	Received:	07/13/15
Units:	ug/Kg	Analyzed:	07/14/15
Diln Fac:	5,000		

Analyte	Result	RL
1,2-Dibromoethane	ND	25,000
Chlorobenzene	ND	25,000
1,1,1,2-Tetrachloroethane	ND	25,000
Ethylbenzene	ND	25,000
m,p-Xylenes	51,000	25,000
o-Xylene	36,000	25,000
Styrene	ND	25,000
Bromoform	ND	25,000
Isopropylbenzene	ND	25,000
1,1,2,2-Tetrachloroethane	ND	25,000
1,2,3-Trichloropropane	ND	25,000
Propylbenzene	ND	25,000
Bromobenzene	ND	25,000
1,3,5-Trimethylbenzene	49,000	25,000
2-Chlorotoluene	ND	25,000
4-Chlorotoluene	ND	25,000
tert-Butylbenzene	ND	25,000
1,2,4-Trimethylbenzene	220,000	25,000
sec-Butylbenzene	ND	25,000
para-Isopropyl Toluene	35,000	25,000
1,3-Dichlorobenzene	ND	25,000
1,4-Dichlorobenzene	ND	25,000
n-Butylbenzene	57,000	25,000
1,2-Dichlorobenzene	ND	25,000
1,2-Dibromo-3-Chloropropane	ND	25,000
1,2,4-Trichlorobenzene	ND	25,000
Hexachlorobutadiene	ND	25,000
Naphthalene	830,000	25,000
1,2,3-Trichlorobenzene	ND	25,000

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-134
1,2-Dichloroethane-d4	111	80-138
Toluene-d8	100	80-120
Bromofluorobenzene	93	78-123
Trifluorotoluene (MeOH)	79	52-147

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 5030B
Project#:	371-5-2	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	225012
Units:	ug/Kg	Analyzed:	07/13/15
Diln Fac:	1.000		

Type: BS Lab ID: QC795243

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	25.79	103	70-134
Benzene	25.00	26.11	104	80-123
Trichloroethene	25.00	23.84	95	80-128
Toluene	25.00	27.54	110	80-120
Chlorobenzene	25.00	27.05	108	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-134
1,2-Dichloroethane-d4	99	80-138
Toluene-d8	106	80-120
Bromofluorobenzene	99	78-123

Type: BSD Lab ID: QC795244

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.75	99	70-134	4	22
Benzene	25.00	26.27	105	80-123	1	21
Trichloroethene	25.00	23.98	96	80-128	1	23
Toluene	25.00	26.56	106	80-120	4	20
Chlorobenzene	25.00	26.70	107	80-123	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-134
1,2-Dichloroethane-d4	103	80-138
Toluene-d8	104	80-120
Bromofluorobenzene	98	78-123

RPD= Relative Percent Difference

**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 5030B
Project#:	371-5-2	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC795247	Batch#:	225012
Matrix:	Soil	Analyzed:	07/13/15
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 5030B
Project#:	371-5-2	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC795247	Batch#:	225012
Matrix:	Soil	Analyzed:	07/13/15
Units:	ug/Kg		

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	97	78-134
1,2-Dichloroethane-d4	103	80-138
Toluene-d8	105	80-120
Bromofluorobenzene	109	78-123

ND= Not Detected

RL= Reporting Limit

**Semivolatile Organics by GC/MS**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3580
Project#:	371-5-2	Analysis:	EPA 8270C
Field ID:	TS-1	Batch#:	225046
Lab ID:	268154-001	Sampled:	07/13/15
Matrix:	Oil	Received:	07/13/15
Units:	ug/Kg	Prepared:	07/13/15
Diln Fac:	50.00	Analyzed:	07/13/15

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	5,000,000	1,100,000
Phenol	ND	5,000,000	700,000
bis(2-Chloroethyl)ether	ND	5,000,000	810,000
2-Chlorophenol	ND	5,000,000	820,000
1,3-Dichlorobenzene	ND	5,000,000	560,000
1,4-Dichlorobenzene	ND	5,000,000	220,000
Benzyl alcohol	ND	5,000,000	760,000
1,2-Dichlorobenzene	ND	5,000,000	500,000
2-Methylphenol	ND	5,000,000	930,000
bis(2-Chloroisopropyl) ether	ND	5,000,000	1,200,000
4-Methylphenol	ND	5,000,000	770,000
N-Nitroso-di-n-propylamine	ND	5,000,000	740,000
Hexachloroethane	ND	5,000,000	390,000
Nitrobenzene	ND	5,000,000	220,000
Isophorone	ND	5,000,000	150,000
2-Nitrophenol	ND	25,000,000	150,000
2,4-Dimethylphenol	ND	5,000,000	210,000
Benzoic acid	ND	25,000,000	3,700,000
bis(2-Chloroethoxy)methane	ND	5,000,000	170,000
2,4-Dichlorophenol	ND	5,000,000	190,000
1,2,4-Trichlorobenzene	ND	5,000,000	190,000
Naphthalene	920,000 J	5,000,000	190,000
4-Chloroaniline	ND	5,000,000	250,000
Hexachlorobutadiene	ND	5,000,000	200,000
4-Chloro-3-methylphenol	ND	5,000,000	210,000
2-Methylnaphthalene	2,700,000 J	5,000,000	160,000
Hexachlorocyclopentadiene	ND	25,000,000	180,000
2,4,6-Trichlorophenol	ND	5,000,000	210,000
2,4,5-Trichlorophenol	ND	5,000,000	200,000
2-Chloronaphthalene	ND	5,000,000	150,000
2-Nitroaniline	ND	25,000,000	160,000
Dimethylphthalate	ND	5,000,000	190,000
Acenaphthylene	ND	5,000,000	190,000
2,6-Dinitrotoluene	ND	5,000,000	190,000
3-Nitroaniline	ND	25,000,000	120,000

J= Estimated value

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

**Semivolatile Organics by GC/MS**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3580
Project#:	371-5-2	Analysis:	EPA 8270C
Field ID:	TS-1	Batch#:	225046
Lab ID:	268154-001	Sampled:	07/13/15
Matrix:	Oil	Received:	07/13/15
Units:	ug/Kg	Prepared:	07/13/15
Diln Fac:	50.00	Analyzed:	07/13/15

Analyte	Result	RL	MDL
Acenaphthene	ND	5,000,000	170,000
2,4-Dinitrophenol	ND	25,000,000	1,400,000
4-Nitrophenol	ND	25,000,000	780,000
Dibenzofuran	ND	5,000,000	220,000
2,4-Dinitrotoluene	ND	5,000,000	150,000
Diethylphthalate	ND	5,000,000	200,000
Fluorene	340,000 J	5,000,000	180,000
4-Chlorophenyl-phenylether	ND	5,000,000	190,000
4-Nitroaniline	ND	25,000,000	140,000
4,6-Dinitro-2-methylphenol	ND	25,000,000	1,000,000
N-Nitrosodiphenylamine	ND	5,000,000	200,000
Azobenzene	ND	5,000,000	210,000
4-Bromophenyl-phenylether	ND	5,000,000	190,000
Hexachlorobenzene	ND	5,000,000	210,000
Pentachlorophenol	ND	10,000,000	930,000
Phenanthren	1,100,000 J	5,000,000	220,000
Anthracene	220,000 J	5,000,000	190,000
Di-n-butylphthalate	ND	5,000,000	220,000
Fluoranthene	ND	5,000,000	190,000
Pyrene	220,000 J	5,000,000	180,000
Butylbenzylphthalate	ND	5,000,000	160,000
3,3'-Dichlorobenzidine	ND	25,000,000	170,000
Benzo(a)anthracene	ND	5,000,000	180,000
Chrysene	ND	5,000,000	220,000
bis(2-Ethylhexyl)phthalate	ND	5,000,000	220,000
Di-n-octylphthalate	ND	5,000,000	260,000
Benzo(b)fluoranthene	ND	5,000,000	210,000
Benzo(k)fluoranthene	ND	5,000,000	270,000
Benzo(a)pyrene	ND	5,000,000	230,000
Indeno(1,2,3-cd)pyrene	ND	5,000,000	220,000
Dibenz(a,h)anthracene	ND	5,000,000	220,000
Benzo(g,h,i)perylene	ND	5,000,000	190,000

J= Estimated value

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

**Batch QC Report**
**Semivolatile Organics by GC/MS**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3580
Project#:	371-5-2	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC795368	Batch#:	225046
Matrix:	Oil	Prepared:	07/13/15
Units:	ug/Kg	Analyzed:	07/13/15

Analyte	Result	RL	MDL
N-Nitrosodimethylamine	ND	100,000	21,000
Phenol	ND	100,000	14,000
bis(2-Chloroethyl)ether	ND	100,000	16,000
2-Chlorophenol	ND	100,000	17,000
1,3-Dichlorobenzene	ND	100,000	11,000
1,4-Dichlorobenzene	ND	100,000	4,400
Benzyl alcohol	ND	100,000	15,000
1,2-Dichlorobenzene	ND	100,000	10,000
2-Methylphenol	ND	100,000	19,000
bis(2-Chloroisopropyl) ether	ND	100,000	25,000
4-Methylphenol	ND	100,000	15,000
N-Nitroso-di-n-propylamine	ND	100,000	15,000
Hexachloroethane	ND	100,000	7,700
Nitrobenzene	ND	100,000	4,400
Isophorone	ND	100,000	2,900
2-Nitrophenol	ND	500,000	3,100
2,4-Dimethylphenol	ND	100,000	4,200
Benzoic acid	ND	500,000	75,000
bis(2-Chloroethoxy)methane	ND	100,000	3,400
2,4-Dichlorophenol	ND	100,000	3,800
1,2,4-Trichlorobenzene	ND	100,000	3,900
Naphthalene	ND	100,000	3,800
4-Chloroaniline	ND	100,000	4,900
Hexachlorobutadiene	ND	100,000	4,100
4-Chloro-3-methylphenol	ND	100,000	4,200
2-Methylnaphthalene	ND	100,000	3,200
Hexachlorocyclopentadiene	ND	500,000	3,700
2,4,6-Trichlorophenol	ND	100,000	4,200
2,4,5-Trichlorophenol	ND	100,000	4,000
2-Chloronaphthalene	ND	100,000	3,100
2-Nitroaniline	ND	500,000	3,200
Dimethylphthalate	ND	100,000	3,700
Acenaphthylene	ND	100,000	3,800
2,6-Dinitrotoluene	ND	100,000	3,700
3-Nitroaniline	ND	500,000	2,400
Acenaphthene	ND	100,000	3,400

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

## Batch QC Report

## Semivolatile Organics by GC/MS

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3580
Project#:	371-5-2	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC795368	Batch#:	225046
Matrix:	Oil	Prepared:	07/13/15
Units:	ug/Kg	Analyzed:	07/13/15

Analyte	Result	RL	MDL
2,4-Dinitrophenol	ND	500,000	28,000
4-Nitrophenol	ND	500,000	16,000
Dibenzofuran	ND	100,000	4,300
2,4-Dinitrotoluene	ND	100,000	2,900
Diethylphthalate	ND	100,000	4,100
Fluorene	ND	100,000	3,500
4-Chlorophenyl-phenylether	ND	100,000	3,700
4-Nitroaniline	ND	500,000	2,900
4,6-Dinitro-2-methylphenol	ND	500,000	21,000
N-Nitrosodiphenylamine	ND	100,000	4,000
Azobenzene	ND	100,000	4,200
4-Bromophenyl-phenylether	ND	100,000	3,800
Hexachlorobenzene	ND	100,000	4,100
Pentachlorophenol	ND	200,000	19,000
Phenanthrene	ND	100,000	4,500
Anthracene	ND	100,000	3,700
Di-n-butylphthalate	ND	100,000	4,400
Fluoranthene	ND	100,000	3,900
Pyrene	ND	100,000	3,500
Butylbenzylphthalate	ND	100,000	3,200
3,3'-Dichlorobenzidine	ND	500,000	3,300
Benzo(a)anthracene	ND	100,000	3,500
Chrysene	ND	100,000	4,300
bis(2-Ethylhexyl)phthalate	ND	100,000	4,400
Di-n-octylphthalate	ND	100,000	5,100
Benzo(b)fluoranthene	ND	100,000	4,200
Benzo(k)fluoranthene	ND	100,000	5,300
Benzo(a)pyrene	ND	100,000	4,600
Indeno(1,2,3-cd)pyrene	ND	100,000	4,500
Dibenz(a,h)anthracene	ND	100,000	4,400
Benzo(g,h,i)perylene	ND	100,000	3,900

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

### Polychlorinated Biphenyls (PCBs)

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3580
Project#:	371-5-2	Analysis:	EPA 8082
Field ID:	TS-1	Sampled:	07/13/15
Matrix:	Oil	Received:	07/13/15
Units:	ug/Kg	Prepared:	07/13/15
Diln Fac:	1.000	Analyzed:	07/13/15
Batch#:	225047		

Type: SAMPLE Lab ID: 268154-001

Analyte	Result	RL
Aroclor-1016	ND	500
Aroclor-1221	ND	1,000
Aroclor-1232	ND	500
Aroclor-1242	ND	500
Aroclor-1248	ND	500
Aroclor-1254	ND	500
Aroclor-1260	ND	500

Surrogate	%REC	Limits
TCMX	76	46-141
Decachlorobiphenyl	37	25-135

Type: BLANK Lab ID: QC795369

Analyte	Result	RL
Aroclor-1016	ND	500
Aroclor-1221	ND	1,000
Aroclor-1232	ND	500
Aroclor-1242	ND	500
Aroclor-1248	ND	500
Aroclor-1254	ND	500
Aroclor-1260	ND	500

Surrogate	%REC	Limits
TCMX	114	46-141
Decachlorobiphenyl	69	25-135

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Polychlorinated Biphenyls (PCBs)**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3580
Project#:	371-5-2	Analysis:	EPA 8082
Matrix:	Oil	Batch#:	225047
Units:	ug/Kg	Prepared:	07/13/15
Diln Fac:	1.000	Analyzed:	07/13/15

Type: BS Lab ID: QC795370

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	10,000	11,340	113	64-140
Aroclor-1260	10,000	9,972	100	65-146

Surrogate	%REC	Limits
TCMX	114	46-141
Decachlorobiphenyl	72	25-135

Type: BSD Lab ID: QC795371

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	10,000	11,690	117	64-140	3	35
Aroclor-1260	10,000	10,580	106	65-146	6	36

Surrogate	%REC	Limits
TCMX	122	46-141
Decachlorobiphenyl	79	25-135

RPD= Relative Percent Difference

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**California Title 22 Metals**

Lab #:	268154	Project#:	371-5-2
Client:	Cornerstone Earth Group	Location:	East Bay Bridge Project
Field ID:	TS-1	Units:	mg/Kg
Lab ID:	268154-001	Sampled:	07/13/15
Matrix:	Oil	Received:	07/13/15

Analyte	Result	RL	Diln	Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	4.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Arsenic	ND	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Barium	ND	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Beryllium	ND	0.80	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Cadmium	ND	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Chromium	ND	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Cobalt	ND	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Copper	ND	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Lead	ND	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Mercury	ND	0.017	1.000	225062	07/14/15	07/14/15	METHOD		EPA 7471A
Molybdenum	ND		2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B
Nickel	3.1	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Selenium	ND	4.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Silver	ND	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Thallium	ND	4.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Vanadium	9.9	2.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B
Zinc	ND	8.0	10.00	225054	07/13/15	07/13/15	EPA	3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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### **Mercury by Cold Vapor AA**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	METHOD
Project#:	371-5-2	Analysis:	EPA 7471A
Analyte:	Mercury	Sampled:	07/13/15
Field ID:	TS-1	Received:	07/13/15
Units:	mg/Kg	Prepared:	07/14/15
Diln Fac:	1.000	Analyzed:	07/14/15
Batch#:	225062		

Type	Lab ID	Matrix	Result	RL
SAMPLE	268154-001	Oil	ND	0.017
BLANK	QC795432	Soil	ND	0.017

ND= Not Detected

RL= Reporting Limit

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**Batch QC Report**
**California Title 22 Metals**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3050B
Project#:	371-5-2	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC795402	Batch#:	225054
Matrix:	Soil	Prepared:	07/13/15
Units:	mg/Kg	Analyzed:	07/13/15

Analyte	Result	RL
Antimony	ND	0.50
Arsenic	ND	0.25
Barium	ND	0.25
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.25
Lead	ND	0.25
Molybdenum	ND	0.25
Nickel	ND	0.25
Selenium	ND	0.50
Silver	ND	0.25
Thallium	ND	0.50
Vanadium	ND	0.25
Zinc	ND	1.0

ND= Not Detected

RL= Reporting Limit

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**Batch QC Report**
**California Title 22 Metals**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3050B
Project#:	371-5-2	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	225054
Units:	mg/Kg	Prepared:	07/13/15
Diln Fac:	5.000	Analyzed:	07/13/15

Type: BS Lab ID: QC795403

Analyte	Spiked	Result	%REC	Limits
Antimony	50.00	48.03	96	80-120
Arsenic	50.00	48.57	97	80-120
Barium	50.00	46.93	94	80-120
Beryllium	50.00	50.48	101	80-120
Cadmium	50.00	53.03	106	80-120
Chromium	50.00	49.49	99	80-120
Cobalt	50.00	45.89	92	80-120
Copper	50.00	49.36	99	80-120
Lead	50.00	49.25	98	80-120
Molybdenum	50.00	50.55	101	80-120
Nickel	50.00	46.05	92	80-120
Selenium	50.00	49.37	99	80-120
Silver	50.00	47.28	95	80-120
Thallium	50.00	50.28	101	80-120
Vanadium	50.00	51.87	104	80-120
Zinc	50.00	50.63	101	80-120

Type: BSD Lab ID: QC795404

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	50.00	46.97	94	80-120	2	20
Arsenic	50.00	47.65	95	80-120	2	20
Barium	50.00	45.54	91	80-120	3	20
Beryllium	50.00	48.62	97	80-120	4	20
Cadmium	50.00	50.93	102	80-120	4	20
Chromium	50.00	47.60	95	80-120	4	20
Cobalt	50.00	44.59	89	80-120	3	20
Copper	50.00	47.65	95	80-120	4	20
Lead	50.00	47.56	95	80-120	3	20
Molybdenum	50.00	48.94	98	80-120	3	20
Nickel	50.00	44.67	89	80-120	3	20
Selenium	50.00	47.33	95	80-120	4	20
Silver	50.00	45.96	92	80-120	3	20
Thallium	50.00	48.92	98	80-120	3	20
Vanadium	50.00	49.71	99	80-120	4	20
Zinc	50.00	49.06	98	80-120	3	20

RPD= Relative Percent Difference

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## Batch QC Report

## California Title 22 Metals

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	EPA 3050B
Project#:	371-5-2	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	225054
MSS Lab ID:	267961-001	Sampled:	07/06/15
Matrix:	Miscell.	Received:	07/06/15
Units:	mg/Kg	Prepared:	07/13/15
Basis:	as received	Analyzed:	07/13/15
Diln Fac:	5.000		

Type: MS Lab ID: QC795405

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<0.1397	46.73	18.58	40	15-120
Arsenic	<0.06789	46.73	47.25	101	69-120
Barium	2.228	46.73	48.14	98	35-154
Beryllium	0.02964	46.73	46.57	100	75-120
Cadmium	<0.02383	46.73	48.06	103	71-120
Chromium	1.724	46.73	47.05	97	57-133
Cobalt	1.837	46.73	45.83	94	56-125
Copper	0.1510	46.73	42.16	90	54-144
Lead	0.2122	46.73	45.47	97	53-125
Molybdenum	7.867	46.73	49.28	89	66-120
Nickel	315.9	46.73	350.3	74 NM	44-141
Selenium	1.209	46.73	47.87	100	61-120
Silver	<0.03726	46.73	42.01	90	69-120
Thallium	<0.1312	46.73	26.30	56 *	59-120
Vanadium	774.0	46.73	896.4	262 NM	52-144
Zinc	15.71	46.73	63.60	102	45-145

Type: MSD Lab ID: QC795406

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	48.54	21.44	44	15-120	10	41
Arsenic	48.54	47.81	98	69-120	3	35
Barium	48.54	47.90	94	35-154	4	36
Beryllium	48.54	47.91	99	75-120	1	20
Cadmium	48.54	48.10	99	71-120	4	25
Chromium	48.54	46.96	93	57-133	4	33
Cobalt	48.54	45.88	91	56-125	4	36
Copper	48.54	42.31	87	54-144	3	38
Lead	48.54	45.98	94	53-125	3	42
Molybdenum	48.54	50.02	87	66-120	2	20
Nickel	48.54	321.0	11 NM	44-141	9	39
Selenium	48.54	47.40	95	61-120	5	33
Silver	48.54	42.43	87	69-120	3	22
Thallium	48.54	29.22	60	59-120	7	27
Vanadium	48.54	835.1	126 NM	52-144	7	29
Zinc	48.54	64.01	99	45-145	2	39

\* = Value outside of QC limits; see narrative

NM= Not Meaningful: Sample concentration &gt; 4X spike concentration

RPD= Relative Percent Difference

## Batch QC Report

**California Title 22 Metals**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	METHOD
Project#:	371-5-2	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	225062
Lab ID:	QC795432	Prepared:	07/14/15
Matrix:	Soil	Analyzed:	07/14/15
Units:	mg/Kg		

Result	RL
ND	0.017

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## California Title 22 Metals

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	METHOD
Project#:	371-5-2	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	225062
Matrix:	Soil	Prepared:	07/14/15
Units:	mg/Kg	Analyzed:	07/14/15
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC795433	0.2083	0.2037	98	80-120		
BSD	QC795434	0.2083	0.2089	100	80-120	3	20

RPD= Relative Percent Difference

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**Batch QC Report**
**Mercury by Cold Vapor AA**

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	METHOD
Project#:	371-5-2	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	225062
MSS Lab ID:	268076-029	Sampled:	07/08/15
Matrix:	Soil	Received:	07/09/15
Units:	mg/Kg	Prepared:	07/14/15
Basis:	as received	Analyzed:	07/14/15

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC795433		0.2083	0.2037	98	80-120		
BSD	QC795434		0.2083	0.2089	100	80-120	3	20
MS	QC795435	0.04842	0.1894	0.2363	99	69-142		
MSD	QC795436		0.2049	0.2618	104	69-142	4	36

RPD= Relative Percent Difference

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## Batch QC Report

## California Title 22 Metals

Lab #:	268154	Location:	East Bay Bridge Project
Client:	Cornerstone Earth Group	Prep:	METHOD
Project#:	371-5-2	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	225062
MSS Lab ID:	268076-029	Sampled:	07/08/15
Matrix:	Soil	Received:	07/09/15
Units:	mg/Kg	Prepared:	07/14/15
Basis:	as received	Analyzed:	07/14/15

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC795435	0.04842	0.1894	0.2363	99	69-142		
MSD	QC795436		0.2049	0.2618	104	69-142	4	36

RPD= Relative Percent Difference

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 269477  
ANALYTICAL REPORT**

Cornerstone Earth Group  
1259 Oakmead Pkwy  
Sunnyvale, CA 94085

Project : 371-5-3  
Location : EBB UST Removal  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
TANK-1	269477-001
TANK-2	269477-002
TANK-3	269477-003
TANK-4	269477-004
TANK-5	269477-005
SP-1	269477-006
SP-2	269477-007
SP-3	269477-008
SP-4	269477-009
COMPOSITE-1	269477-010

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

  
Signature: \_\_\_\_\_ Date: 09/02/2015  
Will Rice  
Project Manager  
will.rice@ctberk.com

CA ELAP# 2896, NELAP# 4044-001

## CASE NARRATIVE

Laboratory number: **269477**  
Client: **Cornerstone Earth Group**  
Project: **371-5-3**  
Location: **EBB UST Removal**  
Request Date: **09/01/15**  
Samples Received: **09/01/15**

This data package contains sample and QC results for six soil samples and one four-point soil composite, requested for the above referenced project on 09/01/15. The samples were received cold and intact.

### **TPH-Purgeables and/or BTXE by GC (EPA 8015B):**

No analytical problems were encountered.

### **TPH-Extractables by GC (EPA 8015B):**

COMPOSITE-1 (lab # 269477-010) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

### **Volatile Organics by GC/MS (EPA 8260B):**

Low response was observed for 1,1-dichloroethene in the CCV analyzed 09/01/15 11:05; this analyte met minimum response criteria, and affected data was qualified with "b". High recoveries were observed for trichloroethene in the MS/MSD for batch 226723; the parent sample was not a project sample, the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. High surrogate recovery was observed for bromofluorobenzene in the method blank for batch 226723; no target analytes were detected in the sample. Low surrogate recovery was observed for dibromofluoromethane in the MSD for batch 226723; the parent sample was not a project sample. No other analytical problems were encountered.

### **Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):**

A number of samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

### **PCBs (EPA 8082):**

All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. Matrix spikes QC801764, QC801765 (batch 226694) were not reported because the parent sample required a dilution that would have diluted out the spikes. No other analytical problems were encountered.

### **Metals (EPA 6010B and EPA 7471A):**

High recovery was observed for nickel in the MS for batch 226747; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPD was within limits. Zinc was detected above the RL in the method blank for batch 226747; this analyte was detected in samples at a level at least 10 times that of the blank. No other analytical problems were

**CASE NARRATIVE**

Laboratory number: **269477**  
Client: **Cornerstone Earth Group**  
Project: **371-5-3**  
Location: **EBB UST Removal**  
Request Date: **09/01/15**  
Samples Received: **09/01/15**

**Metals (EPA 6010B and EPA 7471A):**

encountered.



269477  
Chain of Custody Record

## Chain of Custody Record

Cornerstone Earth Group, Inc.		Project Manager: Chris Heinly	Site Sampler: Randall Bleichner	Date:	
1259 Oakmead Pkwy Sunnyvale, California 94085	Tel/Fax:	Laboratory's Job No. _____		COC No: _____ of _____ COCs	
Analysis Turnaround Time					
(408) 245-4600	Phone	TAT if different from Below			
(408) 245-4620	FAX	<input type="checkbox"/> 1 week			
Project Name: EBB UST Removal		<input type="checkbox"/> 3 days			
Site: Emeryville		<input type="checkbox"/> 2 days			
Project Number: 371-5-3		<input checked="" type="checkbox"/> 1 day			
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.
TANK-1	9/1/15	9:55 AM	Soil	4	
TANK-2		10:00			
TANK-3		10:05			
TANK-4		10:08			
TANK-5		10:10			
SP-1	9/1/15	10:25	Soil	1	
SP-2		10:27	Soil	1	
SP-3		10:30	Soil	4	
SP-4		10:33	Soil	1	
COMPOSITE -1					
Preservation Used: 1=Ice, 2=HCl; 3=H <sub>2</sub> SO <sub>4</sub> ; 4=HNO <sub>3</sub> ; 5=NaOH; 6=Other					
Possible Hazard Identification					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					
Special Instructions/QC Requirements & Comments: <del>Specimen</del>					
Relinquished by: <i>John</i>		Company: Cornerstone Earth Group	Date/Time: 10/8/15	Received by: <i>John</i>	Company: CT
Relinquished by:		Company:	Date/Time:	Received by:	Company:
Relinquished by:		Company:	Date/Time:	Received by:	Company:
Relinquished by:		Company:	Date/Time:	Archive For _____ Months	
COMPOSITE AS FOLLOWS: SP-1, 2, 3, 4 INTO COMPOSITE -1					
Sample Disposal					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Disposal To Client <input type="checkbox"/> Archive For _____ Months					
Date/Time: 6/1/15 11:08					
Date/Time: _____					

**Preservation Liquid:** 1-Los 2-HCl; 2-H<sub>2</sub>SO<sub>4</sub>; 4-MgO<sub>2</sub>; 5-NaOH; 6-Dt.

## Possible Hazard Identification

**Sample Disposal**  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

## **Special Instructions/QC Requirements & Comments:** ~~Specs/Comments~~

COMPOSITE AS FOLLOWS: SP. 1, 2, 3, 4 AND COMPOSITE-4

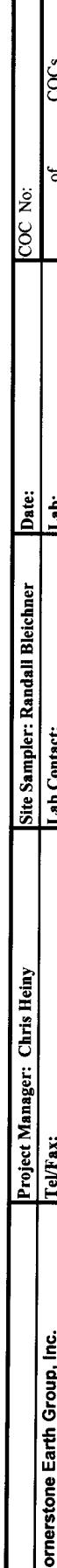
Requisitioned by:

Date: Received by: Company: Date/Time:

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# CORNERSTONE EARTH GROUP

# 269417 Chain of Custody Record

Cornerstone Earth Group, Inc.	Project Manager: Chris Heiny	Site Sampler: Randall Bleichner	Date:	COC No: _____ of _____ COCs	
1259 Oakmead Pkwy Sunnyvale, California 94085	Tel/Fax: Analysis Turnaround Time	Lab Contact:		Laboratory's Job No. _____	
(408) 245-4600 (408) 245-4620 Project Name: EBB Site: Emeryville Project Number: 371-5-1	Phone: TAT if different from Below <input type="checkbox"/> 1 week <input type="checkbox"/> 3 days <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day	TPH/TPHO with Silica Reliefed Sample			
VS-6 (6½ - 7½)	Sample Date: 2/1/95	Sample Time: 1045	Sample Type: Litho	Matrix: Soil	# of Cont: 1
X					
Preservation Used: 1=Ice; 2=HCl; 3=H <sub>2</sub> SO <sub>4</sub> ; 4=HNO <sub>3</sub> ; 5=NaOH; 6=Other					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					
<b>Special Instructions/QC Requirements &amp; Comments: Please report</b>  					
Relinquished by: 	Company: Cornerstone Earth Group	Date/Time: 2/1/95	Received by: 	Company: A1	Date/Time: 02/01/95 1108
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
<input type="checkbox"/> Sample Disposal <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Disposal For _____ Months					

## **COOLER RECEIPT CHECKLIST**



Login # 269471 Date Received 9/11/15 Number of coolers 1  
Client Cornerstone Project FBB UST Removal

Date Opened 9/1 By (print) SL (sign) [Signature]  
Date Logged in 1 By (print) ✓ (sign) L

- |  |   |  |  |
|--|---|--|--|
| 1. Did cooler come with a shipping slip (airbill, etc) _____                           | YES <input checked="" type="checkbox"/> | NO <input type="checkbox"/>            |  |
| Shipping info _____  |   |  |  |
| 2A. Were custody seals present? .... <input type="checkbox"/> YES (circle)             | on cooler                               | on samples                             | <input checked="" type="checkbox"/> NO |
| How many _____   | Name _____                              | Date _____                             |  |
| 2B. Were custody seals intact upon arrival? _____                                      | YES <input type="checkbox"/>            | NO <input checked="" type="checkbox"/> |  |
| 3. Were custody papers dry and intact when received? _____                             | <input checked="" type="checkbox"/>     | NO <input type="checkbox"/>            |  |
| 4. Were custody papers filled out properly (ink, signed, etc)? _____                   | <input checked="" type="checkbox"/>     | NO <input type="checkbox"/>            |  |
| 5. Is the project identifiable from custody papers? (If so fill out top of form) _____ | <input checked="" type="checkbox"/>     | NO <input type="checkbox"/>            |  |
| 6. Indicate the packing in cooler: (if other, describe)                                |   |  |  |

<input type="checkbox"/> Bubble Wrap	<input type="checkbox"/> Foam blocks	<input checked="" type="checkbox"/> Bags	<input type="checkbox"/> None
<input type="checkbox"/> Cloth material	<input type="checkbox"/> Cardboard	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C

Type of ice used:  Wet  Blue/Gel  None Temp(°C)

Samples Received on ice & cold without a temperature blank; temp. taken w/

8. Were Method 5035 sampling containers present?  YES  NO  
 If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened?  YES  NO

10. Are there any missing / extra samples?  YES  NO

11. Are samples in the appropriate containers for indicated tests?  YES  NO

12. Are sample labels present, in good condition and complete?  YES  NO

13. Do the sample labels agree with custody papers?  YES  NO

14. Was sufficient amount of sample sent for tests requested?  YES  NO

15. Are the samples appropriately preserved?  YES  NO  N/A

16. Did you check preservatives for all bottles for each sample?  YES  NO  N/A

17. Did you document your preservative check?  YES  NO  N/A

18. Did you change the hold time in LIMS for unpreserved VOAs?  YES  NO  N/A

19. Did you change the hold time in LIMS for preserved terracores?  YES  NO  N/A

20. Are bubbles > 6mm absent in VOA samples?  YES  NO  N/A

21. Was the client contacted concerning this sample delivery?  YES  NO

If YES, Who was called? \_\_\_\_\_ Date: \_\_\_\_\_

## COMMENTS

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## Detections Summary for 269477

Results for any subcontracted analyses are not included in this summary.

Client : Cornerstone Earth Group  
 Project : 371-5-3  
 Location : EBB UST Removal

Client Sample ID : TANK-1

Laboratory Sample ID :

269477-001

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	3.5	Y	0.22		mg/Kg	As Recd	1.000	EPA 8015B	EPA 5035
Diesel C10-C24	50		1.0		mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	83		5.0		mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
m,p-Xylenes	11		6.0		ug/Kg	As Recd	1.190	EPA 8260B	EPA 5035
o-Xylene	9.6		6.0		ug/Kg	As Recd	1.190	EPA 8260B	EPA 5035
1,3,5-Trimethylbenzene	7.6		6.0		ug/Kg	As Recd	1.190	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	34		6.0		ug/Kg	As Recd	1.190	EPA 8260B	EPA 5035
Naphthalene	120		6.0		ug/Kg	As Recd	1.190	EPA 8260B	EPA 5035
Naphthalene	62		50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Acenaphthene	22	J	50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Fluorene	41	J	50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Phenanthrene	130		50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Anthracene	29	J	50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Fluoranthene	36	J	50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Pyrene	85		50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Benzo(a)anthracene	37	J	50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Chrysene	63		50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Benzo(b)fluoranthene	26	J	50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Benzo(a)pyrene	29	J	50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Indeno(1,2,3-cd)pyrene	12	J	50	10	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Benzo(g,h,i)perylene	20	J	50	12	ug/Kg	As Recd	10.00	EPA 8270C-SIM	EPA 3550B
Antimony	2.5		0.50		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Arsenic	1.1		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	190		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.56		0.099		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	0.92		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	37		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	8.3		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	15		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	11		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.11		0.017		mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.27		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	50		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	36		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	54		0.99		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : TANK-2

Laboratory Sample ID :

269477-002

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1.2	Y	0.21		mg/Kg	As Recd	1.000	EPA 8015B	EPA 5035
Diesel C10-C24	350		1.0		mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	280		5.0		mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Ethylbenzene	7.3		6.8		ug/Kg	As Recd	1.366	EPA 8260B	EPA 5035
m,p-Xylenes	16		6.8		ug/Kg	As Recd	1.366	EPA 8260B	EPA 5035
o-Xylene	21		6.8		ug/Kg	As Recd	1.366	EPA 8260B	EPA 5035
Propylbenzene	10		6.8		ug/Kg	As Recd	1.366	EPA 8260B	EPA 5035
1,3,5-Trimethylbenzene	18		6.8		ug/Kg	As Recd	1.366	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	110		6.8		ug/Kg	As Recd	1.366	EPA 8260B	EPA 5035
para-Isopropyl Toluene	14		6.8		ug/Kg	As Recd	1.366	EPA 8260B	EPA 5035
Naphthalene	260		6.8		ug/Kg	As Recd	1.366	EPA 8260B	EPA 5035
Naphthalene	170	J	250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Acenaphthene	130	J	250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Fluorene	260		250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Phenanthrene	430		250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Anthracene	350		250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Fluoranthene	100	J	250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Pyrene	470		250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Benzo(a)anthracene	210	J	250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Chrysene	360		250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Benzo(b)fluoranthene	50	J	250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Benzo(a)pyrene	100	J	250	50	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Antimony	0.85		0.49		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Arsenic	3.7		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	110		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.44		0.098		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	1.0		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	31		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	4.6		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	9.4		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	8.6		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.081		0.018		mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.40		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	25		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	36		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	40		0.98		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : TANK-3

Laboratory Sample ID :

269477-003

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Naphthalene	2.0	J	5.0	1.2	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Acenaphthene	2.3	J	5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Fluorene	5.0	J	5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Phenanthrene	17		5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Anthracene	3.6	J	5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Fluoranthene	1.8	J	5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Pyrene	5.7		5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Benzo(a)anthracene	2.6	J	5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Chrysene	4.7	J	5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Benzo(a)pyrene	1.3	J	5.0	1.0	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Antimony	1.9		0.51		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Arsenic	3.2		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	220		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.81		0.10		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	0.60		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	39		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	7.5		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	12		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	3.9		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.049		0.016		mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.50		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	46		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	37		0.25		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	45		1.0		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : TANK-4

Laboratory Sample ID :

269477-004

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	160		0.99		mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	110		5.0		mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Naphthalene	130		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Acenaphthylene	8.9	J	15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Acenaphthene	64		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Fluorene	100		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Phenanthrene	320		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Anthracene	83		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Fluoranthene	32		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Pyrene	130		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Benzo(a)anthracene	61		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Chrysene	92		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Benzo(b)fluoranthene	12	J	15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Benzo(a)pyrene	26		15	3.0	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Benzo(g,h,i)perylene	6.5	J	15	3.7	ug/Kg	As Recd	3.000	EPA 8270C-SIM	EPA 3550B
Antimony	1.5		0.47		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Arsenic	2.5		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	150		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.68		0.094		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	0.49		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	35		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	6.6		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	10		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	3.4		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.088		0.015		mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.53		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	34		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	31		0.24		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	41		0.94		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : TANK-5

Laboratory Sample ID :

269477-005

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	9.6	Y	0.99		mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	8.3		5.0		mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
Acenaphthene	2.4	J	5.0	0.99	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Fluorene	1.7	J	5.0	0.99	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Phenanthrene	5.5		5.0	0.99	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Anthracene	1.6	J	5.0	0.99	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Pyrene	2.8	J	5.0	0.99	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Benzo(a)anthracene	1.3	J	5.0	0.99	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Chrysene	2.0	J	5.0	0.99	ug/Kg	As Recd	1.000	EPA 8270C-SIM	EPA 3550B
Antimony	1.8		0.46		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Arsenic	2.4		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	200		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.61		0.093		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	0.73		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	42		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	7.7		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	15		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	3.9		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.087		0.018		mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.51		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	64		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	39		0.23		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	56		0.93		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : SP-3

Laboratory Sample ID :

269477-008

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1.7	Y	0.19		mg/Kg	As Recd	1.000	EPA 8015B	EPA 5035
Ethylbenzene	9.2		6.9		ug/Kg	As Recd	1.381	EPA 8260B	EPA 5035
m,p-Xylenes	12		6.9		ug/Kg	As Recd	1.381	EPA 8260B	EPA 5035
o-Xylene	26		6.9		ug/Kg	As Recd	1.381	EPA 8260B	EPA 5035
Propylbenzene	16		6.9		ug/Kg	As Recd	1.381	EPA 8260B	EPA 5035
1,3,5-Trimethylbenzene	16		6.9		ug/Kg	As Recd	1.381	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	160		6.9		ug/Kg	As Recd	1.381	EPA 8260B	EPA 5035
sec-Butylbenzene	8.0		6.9		ug/Kg	As Recd	1.381	EPA 8260B	EPA 5035
para-Isopropyl Toluene	20		6.9		ug/Kg	As Recd	1.381	EPA 8260B	EPA 5035
Naphthalene	5,200		250		ug/Kg	As Recd	50.43	EPA 8260B	EPA 5035

Client Sample ID : COMPOSITE-1

Laboratory Sample ID :

269477-010

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	3,200		50		mg/Kg	As Recd	50.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	3,400		50		mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Naphthalene	970		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Acenaphthylene	93	J	250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Acenaphthene	910		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Fluorene	1,100		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Phenanthrene	2,900		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Anthracene	600		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Fluoranthene	490		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Pyrene	980		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Benzo(a)anthracene	420		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Chrysene	690		250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Benzo(b)fluoranthene	130	J	250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Benzo(a)pyrene	200	J	250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Benzo(g,h,i)perylene	70	J	250	51	ug/Kg	As Recd	50.00	EPA 8270C-SIM	EPA 3550B
Antimony	1.9		0.54		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Arsenic	4.6		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	230		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.51		0.11		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	0.87		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	36		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	10		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	20		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	40		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.069		0.016		mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.67		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	46		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	42		0.27		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	63		1.1		mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

J = Estimated value

Y = Sample exhibits chromatographic pattern which does not resemble standard

**Gasoline by GC/FID (5035 Prep)**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	226726
Units:	mg/Kg	Sampled:	09/01/15
Basis:	as received	Received:	09/01/15
Diln Fac:	1.000	Analyzed:	09/01/15

Field ID: TANK-1                          Lab ID: 269477-001  
 Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	3.5 Y	0.22
<b>Surrogate</b>		
Bromofluorobenzene (FID)	131	78-138

Field ID: TANK-2                          Lab ID: 269477-002  
 Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	1.2 Y	0.21
<b>Surrogate</b>		
Bromofluorobenzene (FID)	124	78-138

Field ID: TANK-3                          Lab ID: 269477-003  
 Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	0.23
<b>Surrogate</b>		
Bromofluorobenzene (FID)	123	78-138

Field ID: TANK-4                          Lab ID: 269477-004  
 Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	0.22
<b>Surrogate</b>		
Bromofluorobenzene (FID)	113	78-138

Field ID: TANK-5                          Lab ID: 269477-005  
 Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	0.26
<b>Surrogate</b>		
Bromofluorobenzene (FID)	118	78-138

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/FID (5035 Prep)**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	226726
Units:	mg/Kg	Sampled:	09/01/15
Basis:	as received	Received:	09/01/15
Diln Fac:	1.000	Analyzed:	09/01/15

Field ID: SP-3 Lab ID: 269477-008  
 Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	1.7 Y	0.19

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	119	78-138

Type: BLANK Lab ID: QC801884

Analyte	Result	RL
Gasoline C7-C12	ND	0.20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	78-138

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

**Gasoline by GC/FID (5035 Prep)**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC801881	Batch#:	226726
Matrix:	Soil	Analyzed:	09/01/15
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.012	101	80-121
<b>Surrogate</b>				
Bromofluorobenzene (FID)	121	78-138		



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## Batch QC Report

## Gasoline by GC/FID (5035 Prep)

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5030B
Project#:	371-5-3	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	269444-005	Batch#:	226726
Matrix:	Soil	Sampled:	08/30/15
Units:	mg/Kg	Received:	08/31/15
Basis:	as received	Analyzed:	09/01/15

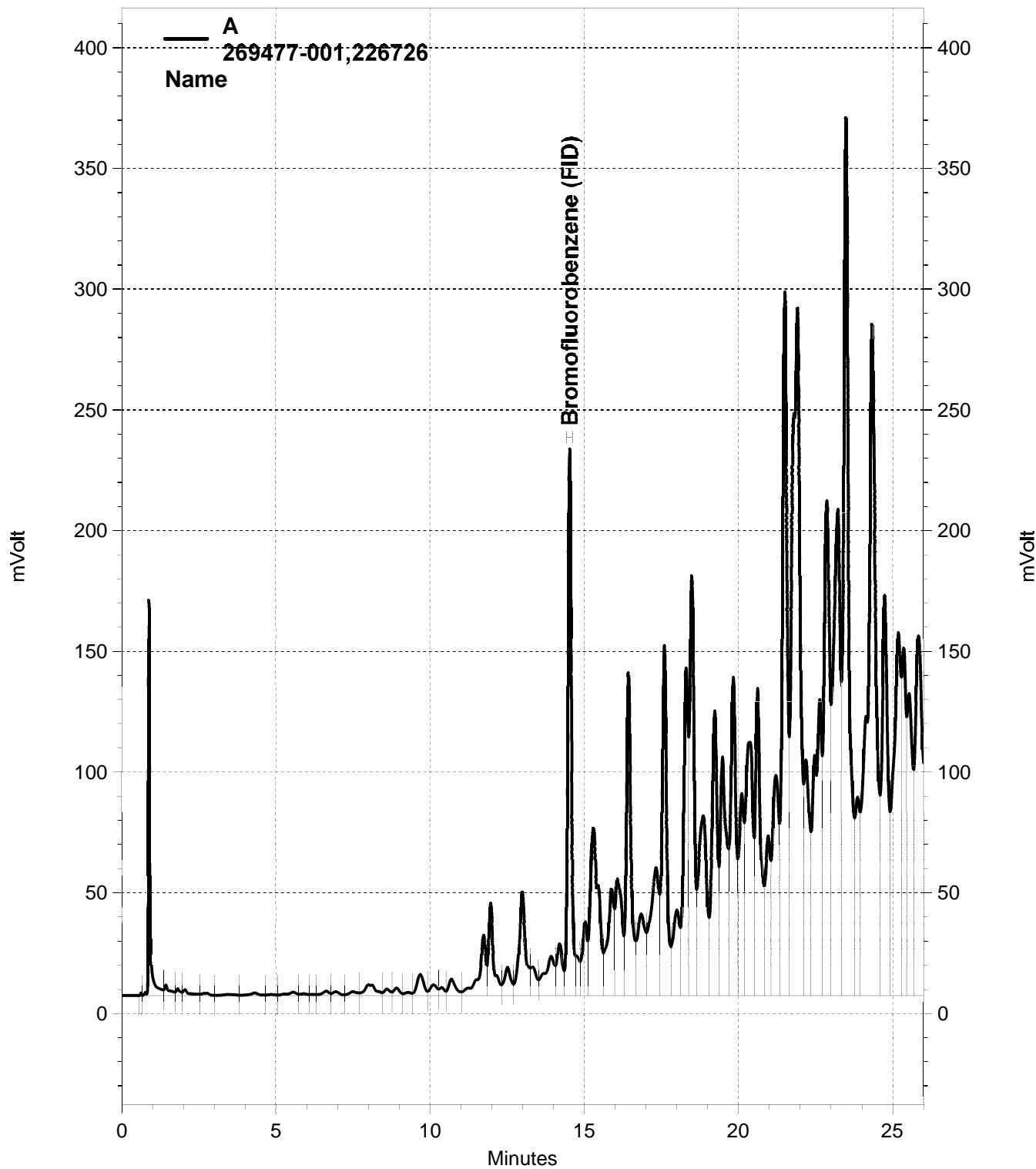
Type: MS Lab ID: QC801882

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.09673	9.901	8.267	83	50-120
Surrogate	%REC	Limits			
Bromofluorobenzene (FID)	122	78-138			

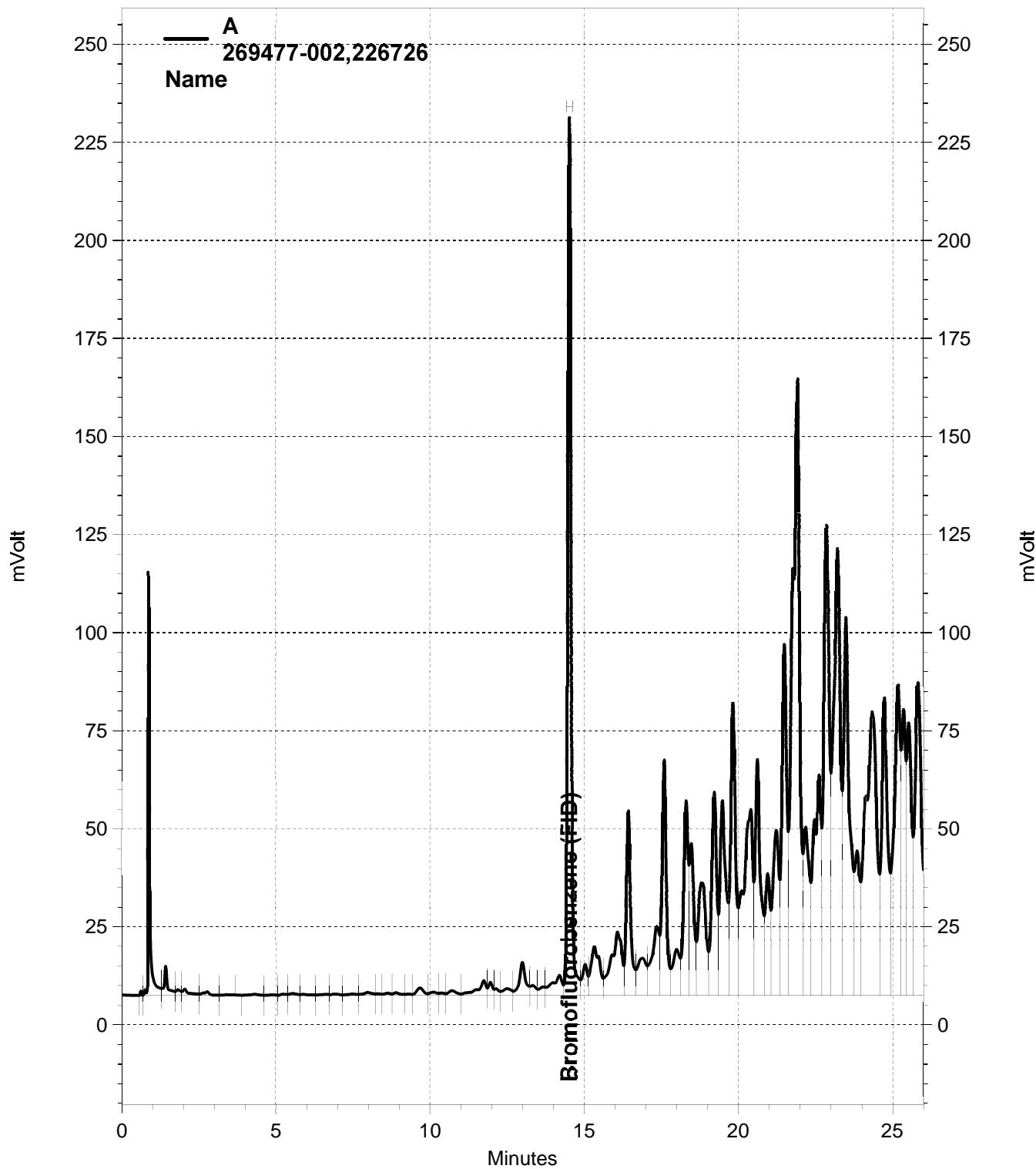
Type: MSD Lab ID: QC801883

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.64	9.073	84	50-120	2	31
Surrogate	%REC	Limits				
Bromofluorobenzene (FID)	124	78-138				

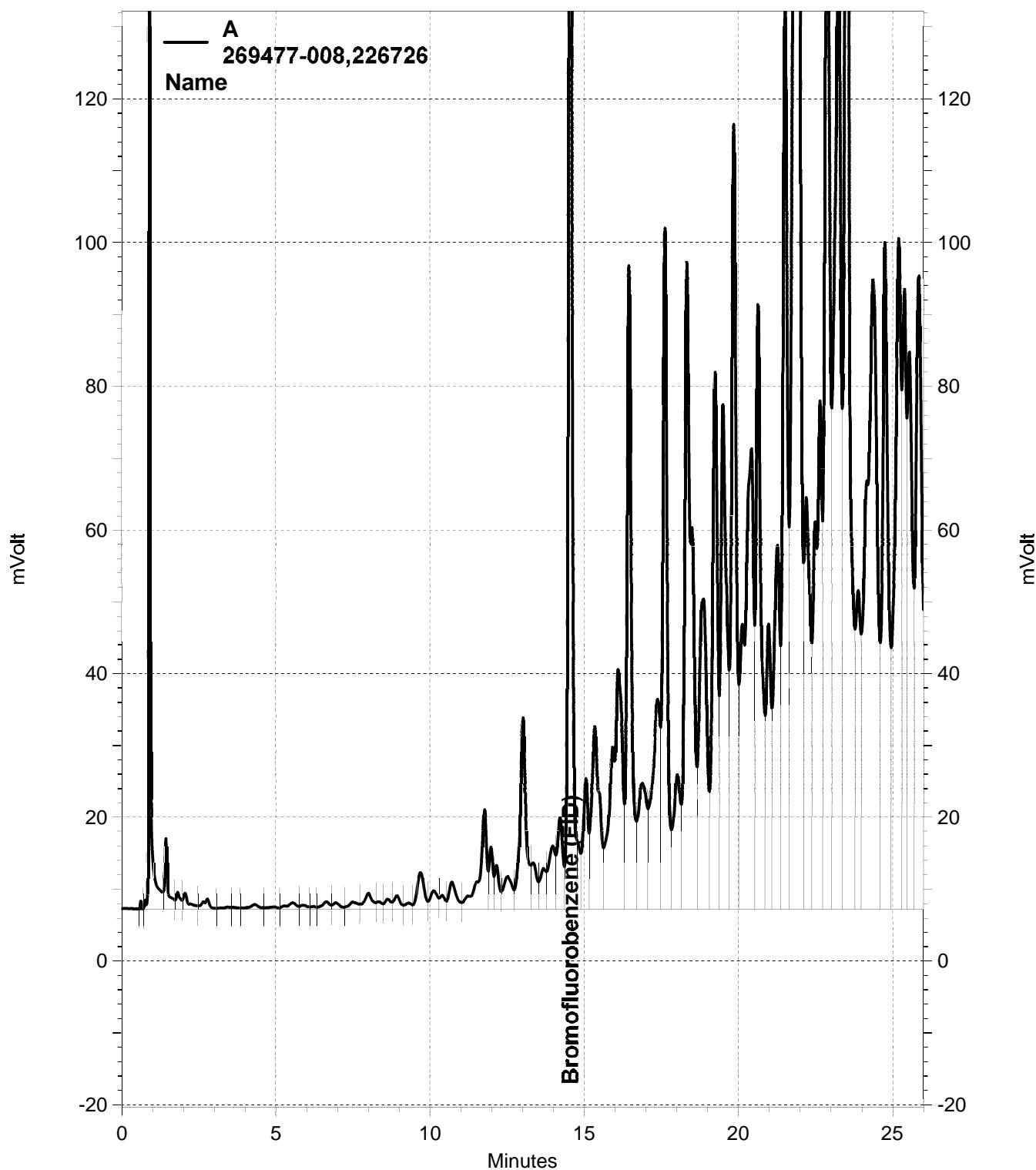
RPD= Relative Percent Difference



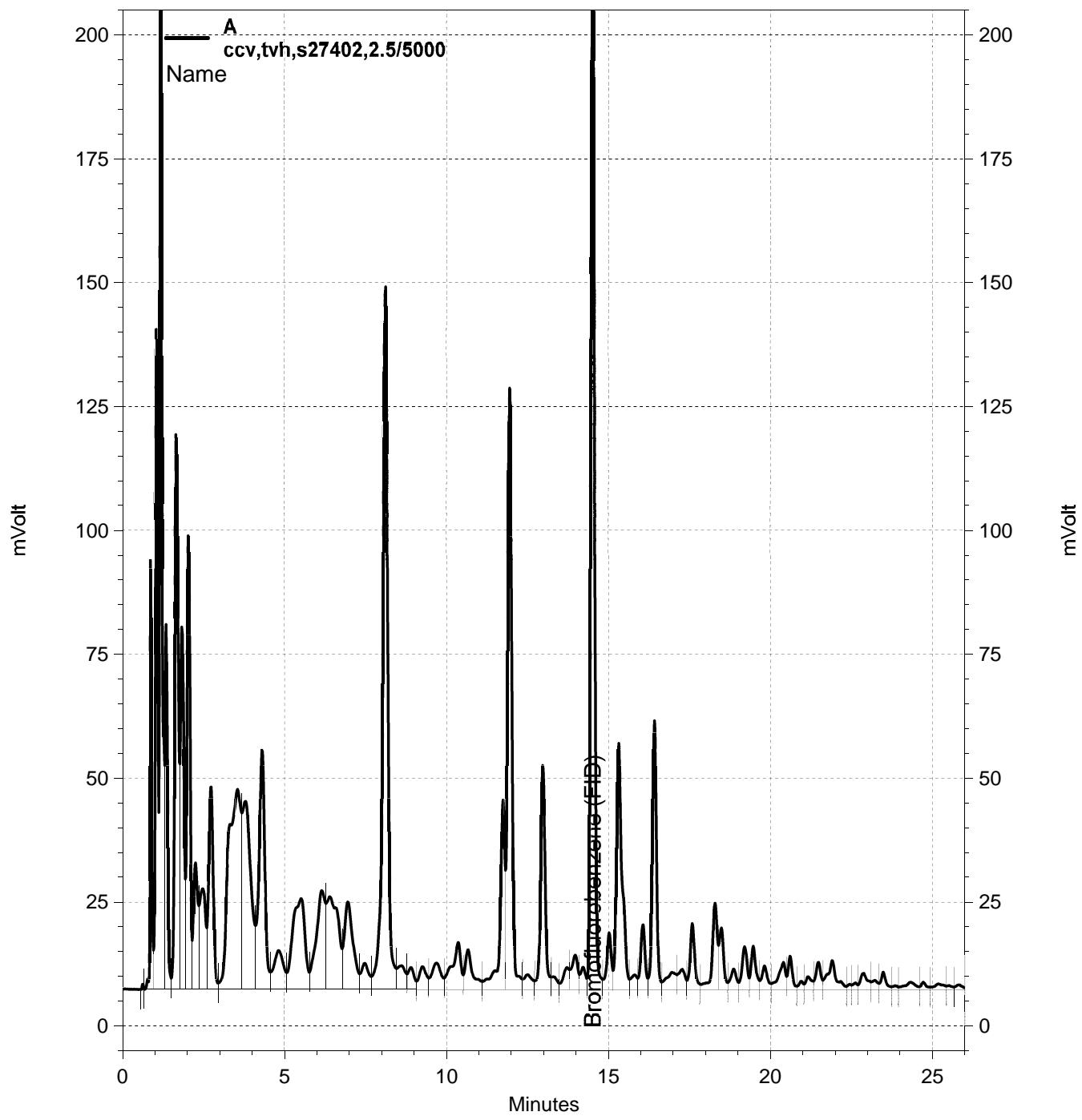
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**Total Extractable Hydrocarbons**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	09/01/15
Units:	mg/Kg	Received:	09/01/15
Basis:	as received	Prepared:	09/01/15
Batch#:	226762	Analyzed:	09/02/15

Field ID: TANK-1 Diln Fac: 1.000  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 269477-001

Analyte	Result	RL
Diesel C10-C24	50	1.0
Motor Oil C24-C36	83	5.0

Surrogate	%REC	Limits
o-Terphenyl	80	59-140

Field ID: TANK-2 Diln Fac: 1.000  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 269477-002

Analyte	Result	RL
Diesel C10-C24	350	1.0
Motor Oil C24-C36	280	5.0

Surrogate	%REC	Limits
o-Terphenyl	82	59-140

Field ID: TANK-3 Diln Fac: 1.000  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 269477-003

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	72	59-140

Field ID: TANK-4 Diln Fac: 1.000  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 269477-004

Analyte	Result	RL
Diesel C10-C24	160	0.99
Motor Oil C24-C36	110	5.0

Surrogate	%REC	Limits
o-Terphenyl	70	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 DO= Diluted Out  
 ND= Not Detected  
 RL= Reporting Limit

**Total Extractable Hydrocarbons**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	09/01/15
Units:	mg/Kg	Received:	09/01/15
Basis:	as received	Prepared:	09/01/15
Batch#:	226762	Analyzed:	09/02/15

Field ID: TANK-5 Diln Fac: 1.000  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 269477-005

Analyte	Result	RL
Diesel C10-C24	9.6 Y	0.99
Motor Oil C24-C36	8.3	5.0

Surrogate	%REC	Limits
o-Terphenyl	70	59-140

Field ID: COMPOSITE-1 Lab ID: 269477-010  
 Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL	Diln Fac
Diesel C10-C24	3,200	50	50.00
Motor Oil C24-C36	3,400	50	10.00

Surrogate	%REC	Limits	Diln Fac
o-Terphenyl	DO	59-140	50.00

Type: BLANK Diln Fac: 1.000  
 Lab ID: QC802035 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	95	59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC802036	Batch#:	226762
Matrix:	Soil	Prepared:	09/01/15
Units:	mg/Kg	Analyzed:	09/02/15

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.24	49.90	99	58-137

Surrogate	%REC	Limits
o-Terphenyl	101	59-140

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	226762
MSS Lab ID:	269209-005	Sampled:	08/18/15
Matrix:	Soil	Received:	08/21/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/02/15
Diln Fac:	1.000		

Type: MS Lab ID: QC802037

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	12.84	49.86	61.12	97	46-154

Surrogate	%REC	Limits
o-Terphenyl	113	59-140

Type: MSD Lab ID: QC802038

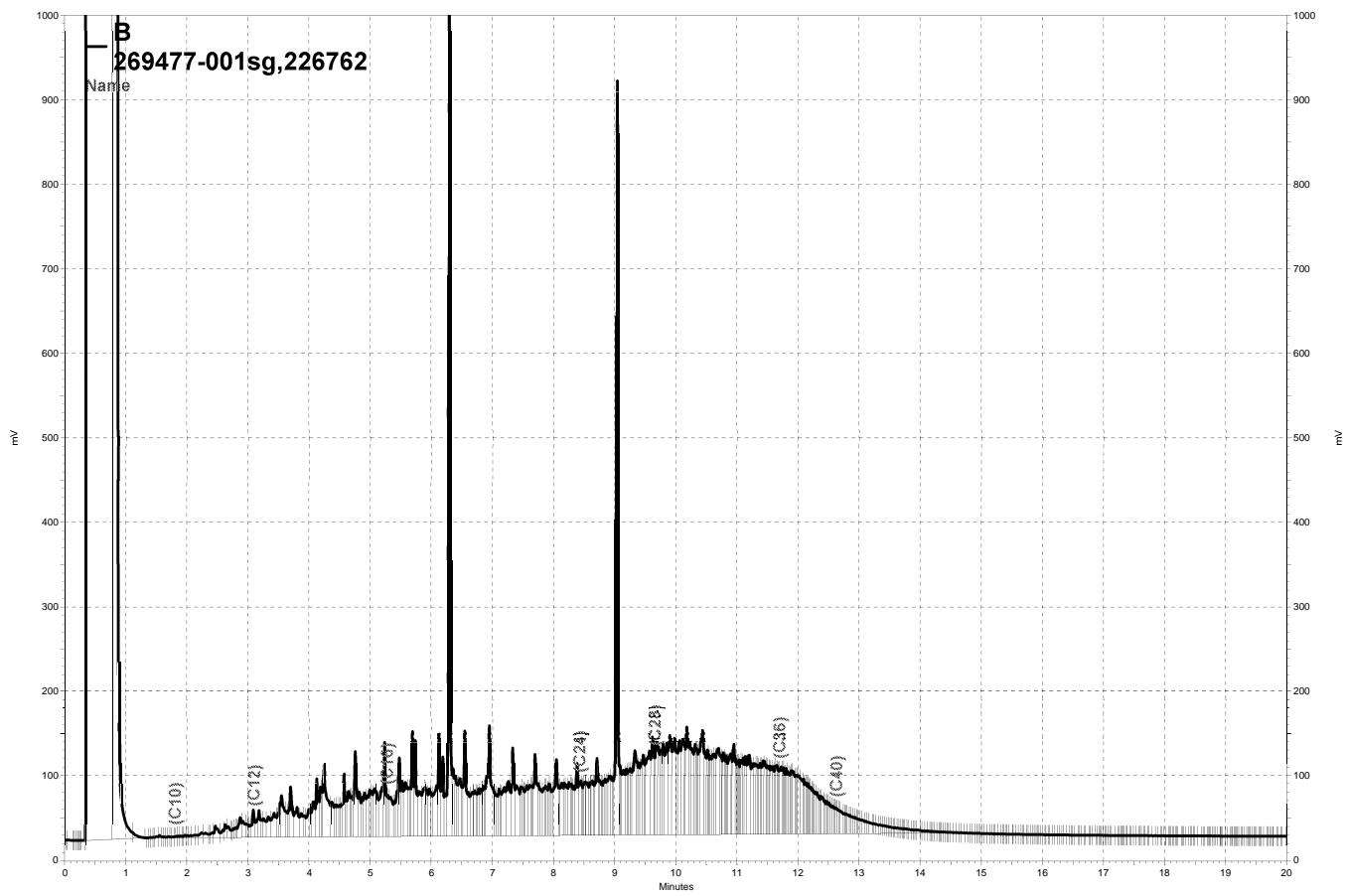
Analyte	Spiked	Result	%REC	Limits	RPD Lim
Diesel C10-C24	49.88	45.13	65	46-154	30 50

Surrogate	%REC	Limits
o-Terphenyl	98	59-140

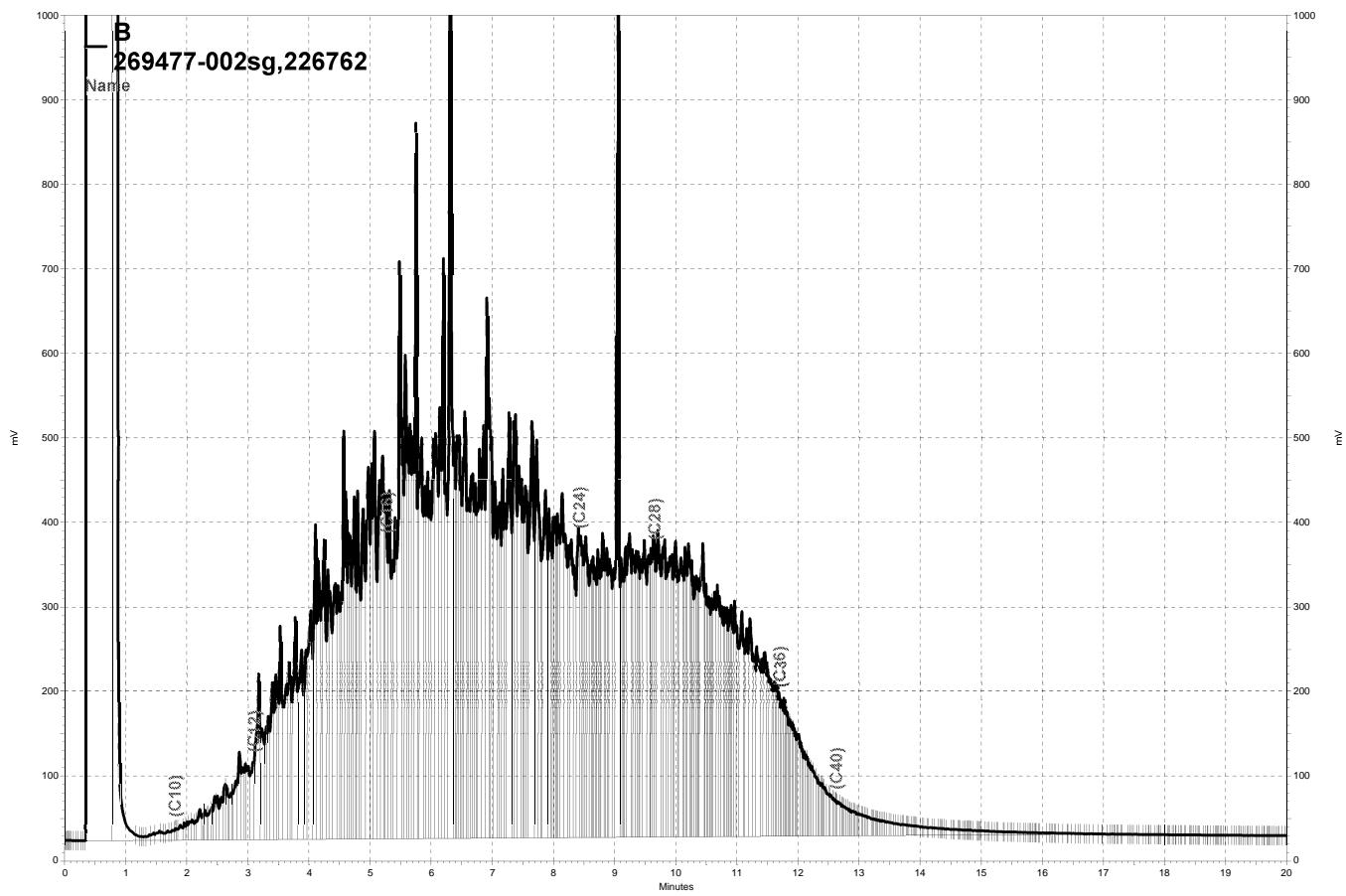
RPD= Relative Percent Difference

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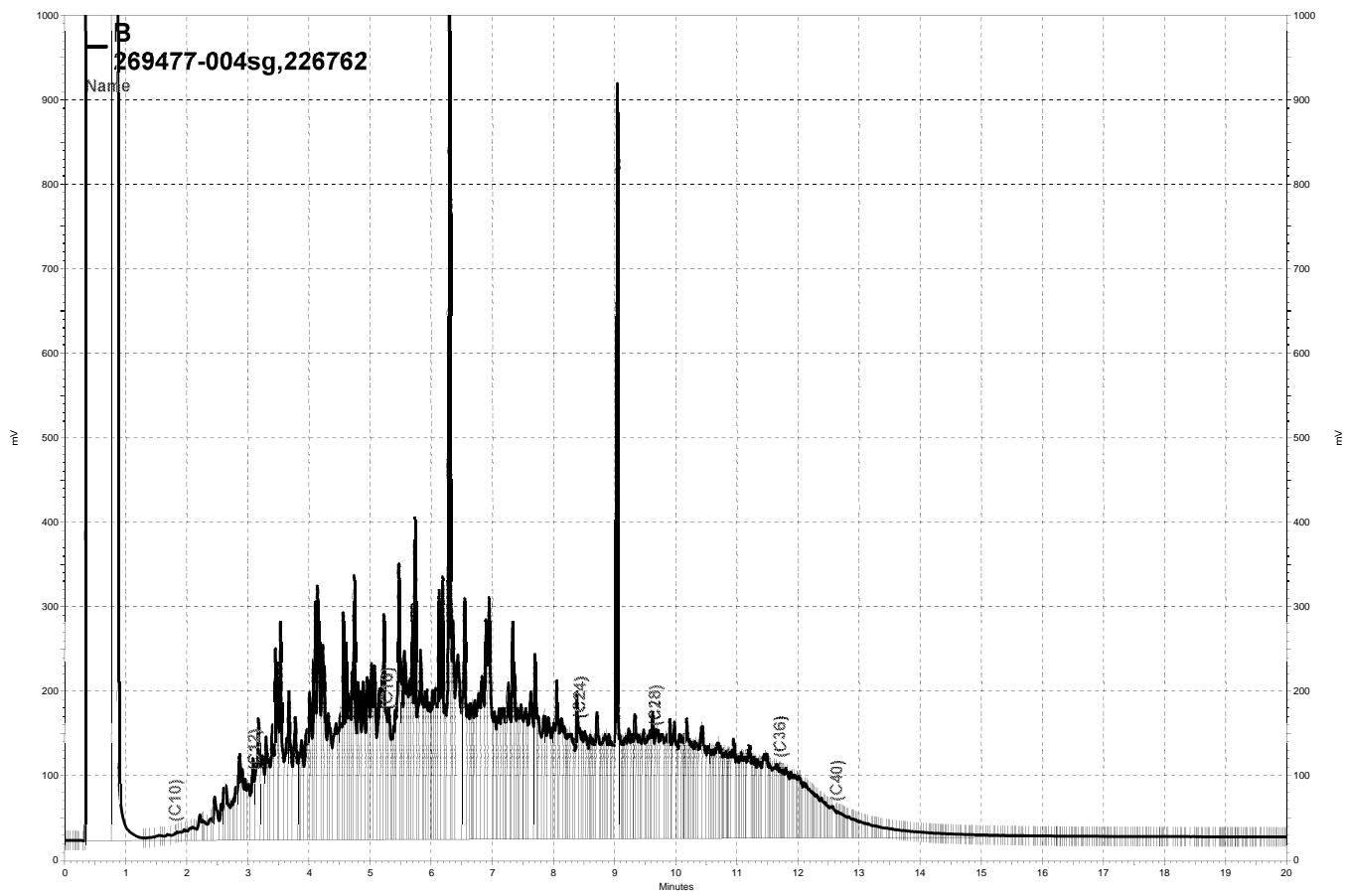
35.0

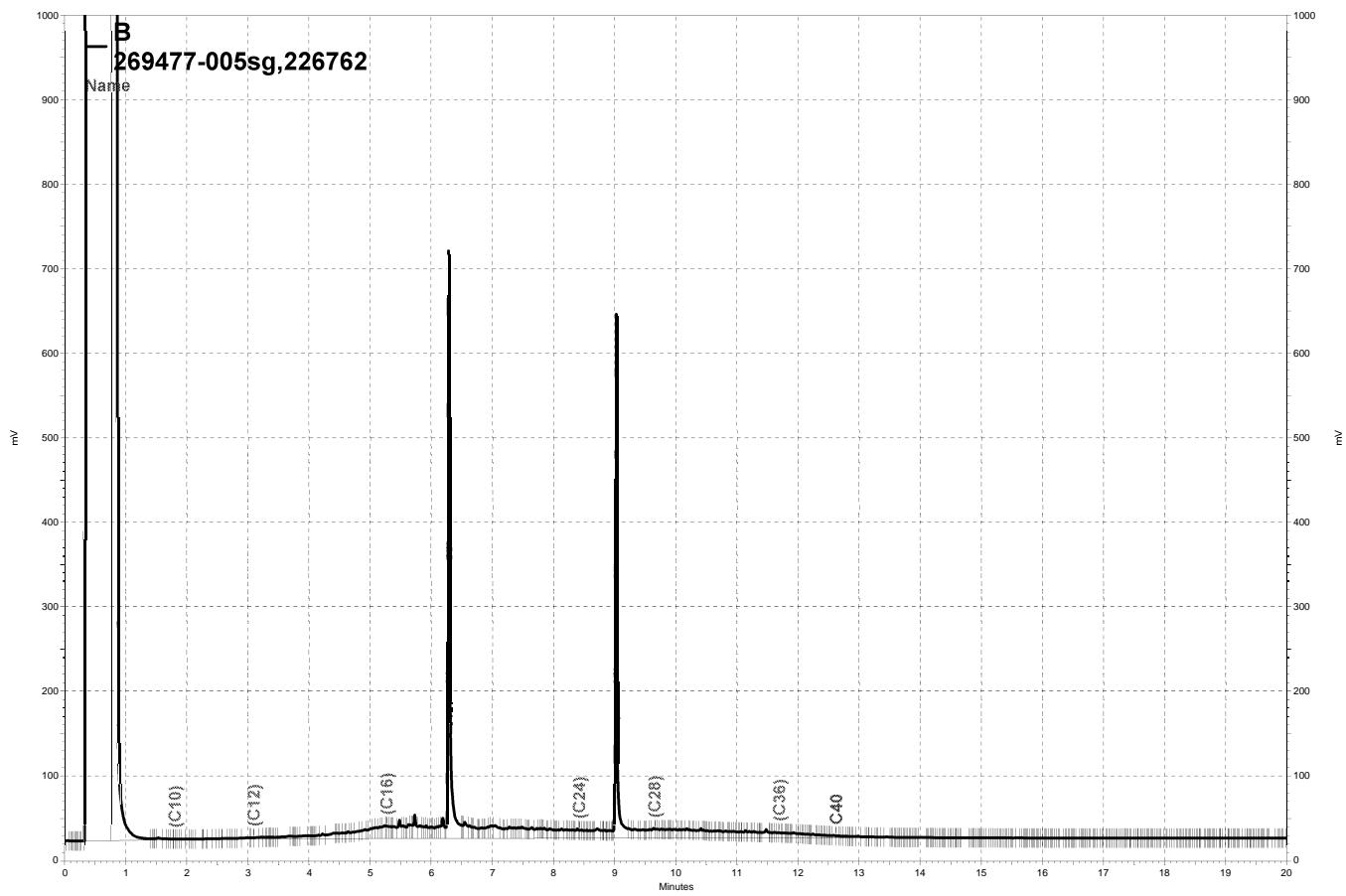


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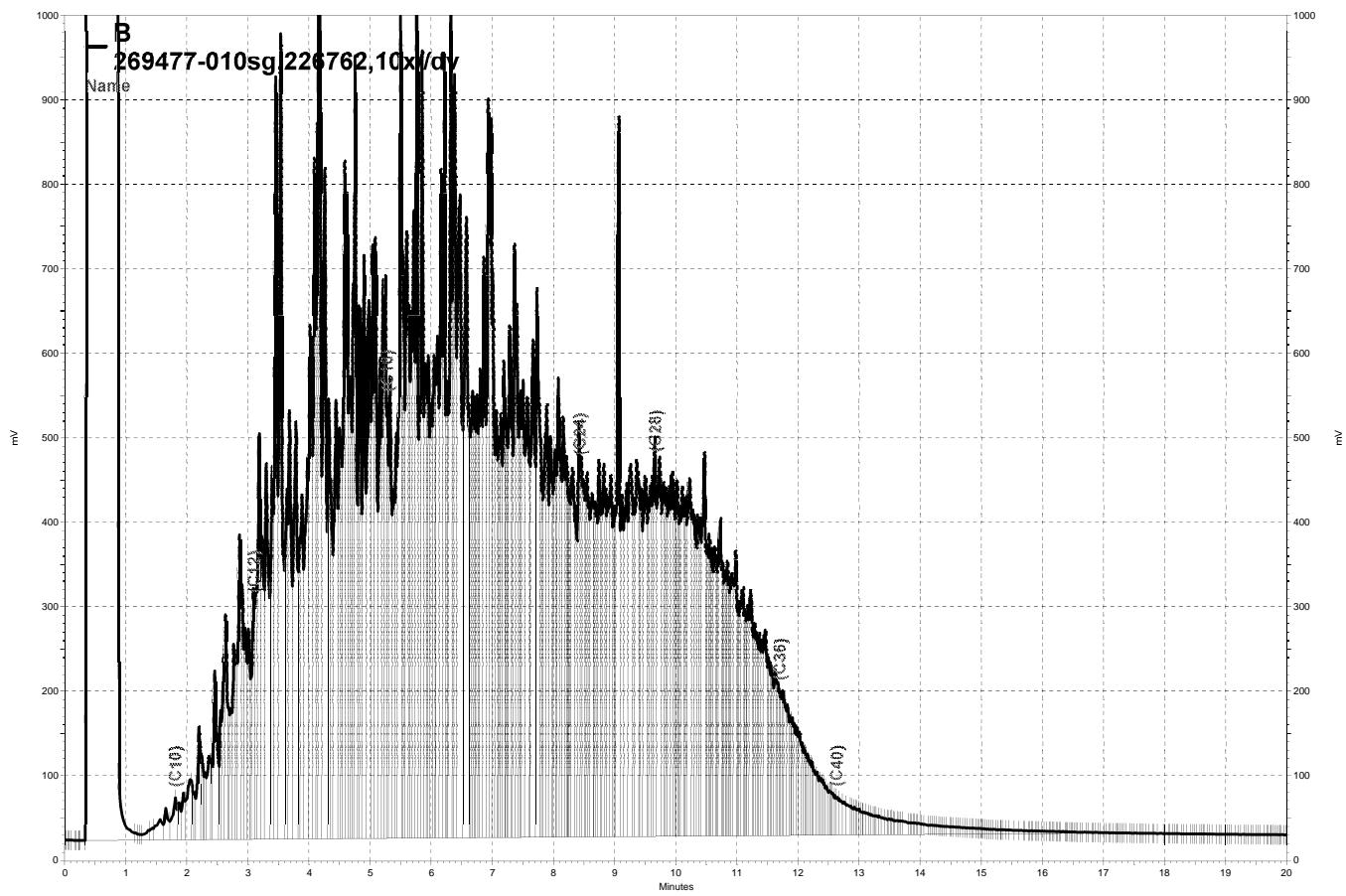


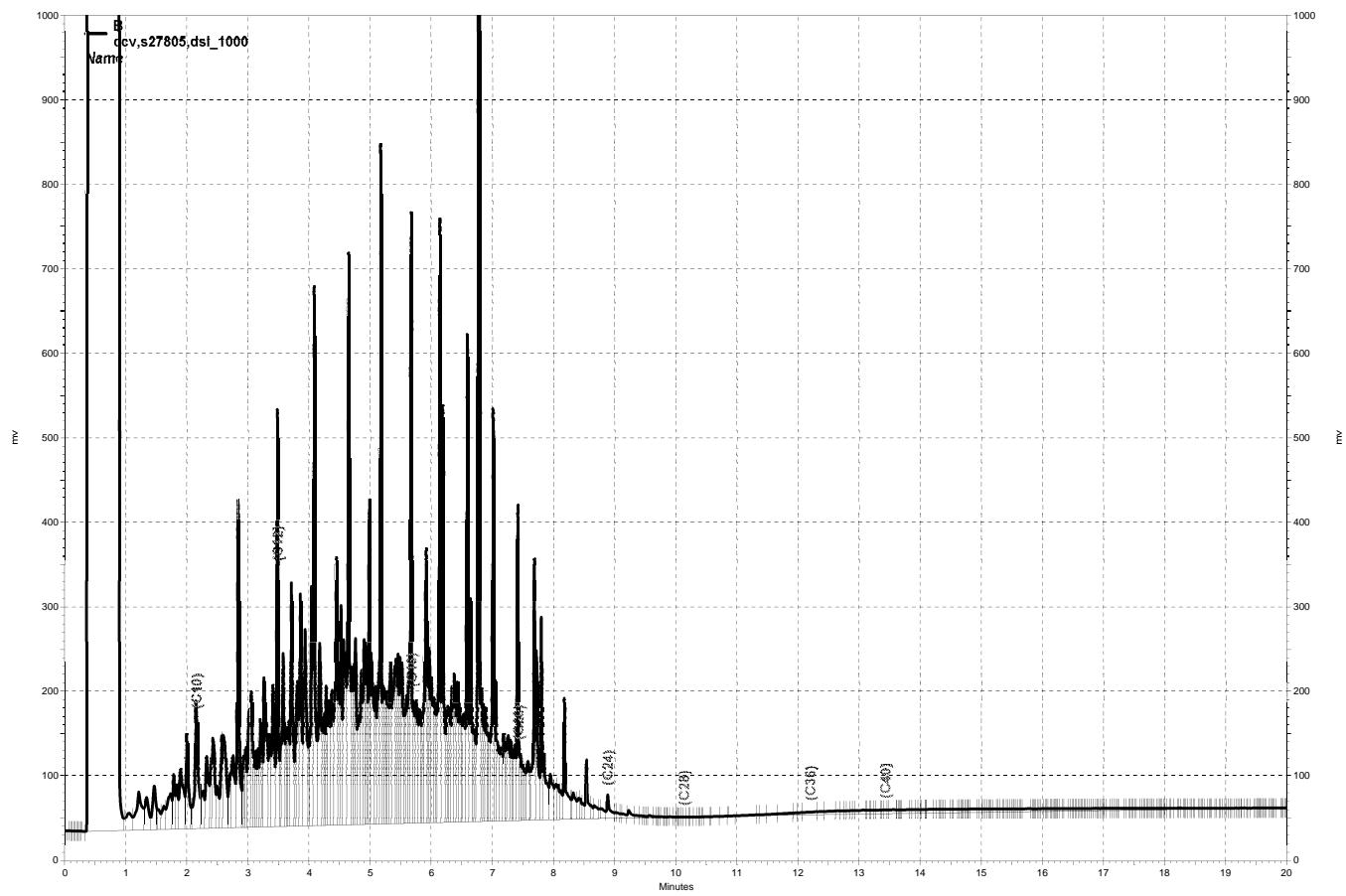
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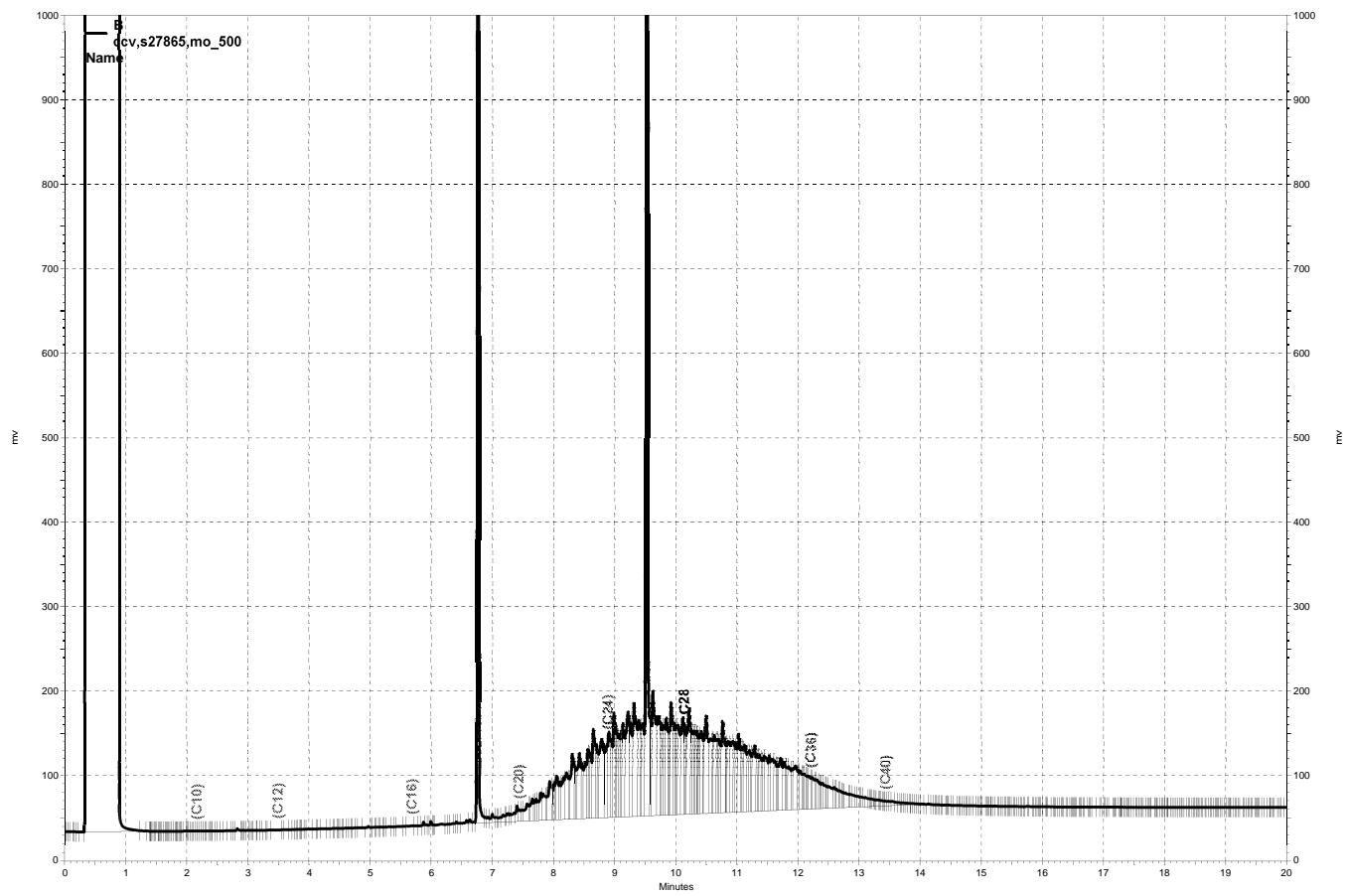


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— \\Lims\\gdrive\\ezchrom\\Projects\\GC15B\\Data\\245b004, B



— \\Lims\\gdrive\\ezchrom\\Projects\\GC15B\\Data\\245b003, B

**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-1	Diln Fac:	1.190
Lab ID:	269477-001	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Freon 12	ND	12
tert-Butyl Alcohol (TBA)	ND	120
Chloromethane	ND	12
Isopropyl Ether (DIPE)	ND	6.0
Vinyl Chloride	ND	12
Bromomethane	ND	12
Ethyl tert-Butyl Ether (ETBE)	ND	6.0
Chloroethane	ND	12
Methyl tert-Amyl Ether (TAME)	ND	6.0
Trichlorofluoromethane	ND	6.0
Acetone	ND	36
Freon 113	ND	6.0
1,1-Dichloroethene	ND	6.0
Methylene Chloride	ND	24
Carbon Disulfide	ND	6.0
MTBE	ND	6.0
trans-1,2-Dichloroethene	ND	6.0
Vinyl Acetate	ND	60
1,1-Dichloroethane	ND	6.0
2-Butanone	ND	12
cis-1,2-Dichloroethene	ND	6.0
2,2-Dichloropropane	ND	6.0
Chloroform	ND	6.0
Bromoform	ND	6.0
Bromochloromethane	ND	6.0
1,1,1-Trichloroethane	ND	6.0
1,1-Dichloropropene	ND	6.0
Carbon Tetrachloride	ND	6.0
1,2-Dichloroethane	ND	6.0
Benzene	ND	6.0
Trichloroethene	ND	6.0
1,2-Dichloropropane	ND	6.0
Bromodichloromethane	ND	6.0
Dibromomethane	ND	6.0
4-Methyl-2-Pentanone	ND	12
cis-1,3-Dichloropropene	ND	6.0
Toluene	ND	6.0
trans-1,3-Dichloropropene	ND	6.0
1,1,2-Trichloroethane	ND	6.0
2-Hexanone	ND	12
1,3-Dichloropropane	ND	6.0
Tetrachloroethene	ND	6.0
Dibromochloromethane	ND	6.0
1,2-Dibromoethane	ND	6.0
Chlorobenzene	ND	6.0
1,1,1,2-Tetrachloroethane	ND	6.0
Ethylbenzene	ND	6.0
m,p-Xylenes	11	6.0
o-Xylene	9.6	6.0
Styrene	ND	6.0
Bromoform	ND	6.0
Isopropylbenzene	ND	6.0
1,1,2,2-Tetrachloroethane	ND	6.0
1,2,3-Trichloropropane	ND	6.0
Propylbenzene	ND	6.0

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-1	Diln Fac:	1.190
Lab ID:	269477-001	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Bromobenzene	ND	6.0
1,3,5-Trimethylbenzene	7.6	6.0
2-Chlorotoluene	ND	6.0
4-Chlorotoluene	ND	6.0
tert-Butylbenzene	ND	6.0
1,2,4-Trimethylbenzene	34	6.0
sec-Butylbenzene	ND	6.0
para-Isopropyl Toluene	ND	6.0
1,3-Dichlorobenzene	ND	6.0
1,4-Dichlorobenzene	ND	6.0
n-Butylbenzene	ND	36
1,2-Dichlorobenzene	ND	6.0
1,2-Dibromo-3-Chloropropane	ND	6.0
1,2,4-Trichlorobenzene	ND	6.0
Hexachlorobutadiene	ND	6.0
Naphthalene	120	6.0
1,2,3-Trichlorobenzene	ND	6.0

Surrogate	%REC	Limits
Dibromofluoromethane	118	78-134
1,2-Dichloroethane-d4	127	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	99	78-123

ND= Not Detected  
 RL= Reporting Limit  
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**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-2	Diln Fac:	1.366
Lab ID:	269477-002	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Freon 12	ND	14
tert-Butyl Alcohol (TBA)	ND	140
Chloromethane	ND	14
Isopropyl Ether (DIPE)	ND	6.8
Vinyl Chloride	ND	14
Bromomethane	ND	14
Ethyl tert-Butyl Ether (ETBE)	ND	6.8
Chloroethane	ND	14
Methyl tert-Amyl Ether (TAME)	ND	6.8
Trichlorofluoromethane	ND	6.8
Acetone	ND	41
Freon 113	ND	6.8
1,1-Dichloroethene	ND	6.8
Methylene Chloride	ND	27
Carbon Disulfide	ND	6.8
MTBE	ND	6.8
trans-1,2-Dichloroethene	ND	6.8
Vinyl Acetate	ND	68
1,1-Dichloroethane	ND	6.8
2-Butanone	ND	14
cis-1,2-Dichloroethene	ND	6.8
2,2-Dichloropropane	ND	6.8
Chloroform	ND	6.8
Bromochloromethane	ND	6.8
1,1,1-Trichloroethane	ND	6.8
1,1-Dichloropropene	ND	6.8
Carbon Tetrachloride	ND	6.8
1,2-Dichloroethane	ND	6.8
Benzene	ND	6.8
Trichloroethene	ND	6.8
1,2-Dichloropropane	ND	6.8
Bromodichloromethane	ND	6.8
Dibromomethane	ND	6.8
4-Methyl-2-Pentanone	ND	14
cis-1,3-Dichloropropene	ND	6.8
Toluene	ND	6.8
trans-1,3-Dichloropropene	ND	6.8
1,1,2-Trichloroethane	ND	6.8
2-Hexanone	ND	14
1,3-Dichloropropane	ND	6.8
Tetrachloroethene	ND	6.8
Dibromochloromethane	ND	6.8
1,2-Dibromoethane	ND	6.8
Chlorobenzene	ND	6.8
1,1,1,2-Tetrachloroethane	ND	6.8
Ethylbenzene	7.3	6.8
m,p-Xylenes	16	6.8
o-Xylene	21	6.8
Styrene	ND	6.8
Bromoform	ND	6.8
Isopropylbenzene	ND	6.8
1,1,2,2-Tetrachloroethane	ND	6.8
1,2,3-Trichloropropane	ND	6.8
Propylbenzene	10	6.8

ND= Not Detected

RL= Reporting Limit

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**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-2	Diln Fac:	1.366
Lab ID:	269477-002	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Bromobenzene	ND	6.8
1,3,5-Trimethylbenzene	18	6.8
2-Chlorotoluene	ND	6.8
4-Chlorotoluene	ND	6.8
tert-Butylbenzene	ND	6.8
1,2,4-Trimethylbenzene	110	6.8
sec-Butylbenzene	ND	6.8
para-Isopropyl Toluene	14	6.8
1,3-Dichlorobenzene	ND	6.8
1,4-Dichlorobenzene	ND	6.8
n-Butylbenzene	ND	41
1,2-Dichlorobenzene	ND	6.8
1,2-Dibromo-3-Chloropropane	ND	6.8
1,2,4-Trichlorobenzene	ND	6.8
Hexachlorobutadiene	ND	6.8
Naphthalene	260	6.8
1,2,3-Trichlorobenzene	ND	6.8

Surrogate	%REC	Limits
Dibromofluoromethane	110	78-134
1,2-Dichloroethane-d4	106	80-138
Toluene-d8	97	80-120
Bromofluorobenzene	110	78-123

ND= Not Detected  
 RL= Reporting Limit  
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**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-3	Diln Fac:	1.139
Lab ID:	269477-003	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Freon 12	ND	11
tert-Butyl Alcohol (TBA)	ND	110
Chloromethane	ND	11
Isopropyl Ether (DIPE)	ND	5.7
Vinyl Chloride	ND	11
Bromomethane	ND	11
Ethyl tert-Butyl Ether (ETBE)	ND	5.7
Chloroethane	ND	11
Methyl tert-Amyl Ether (TAME)	ND	5.7
Trichlorofluoromethane	ND	5.7
Acetone	ND	34
Freon 113	ND	5.7
1,1-Dichloroethene	ND	5.7
Methylene Chloride	ND	23
Carbon Disulfide	ND	5.7
MTBE	ND	5.7
trans-1,2-Dichloroethene	ND	5.7
Vinyl Acetate	ND	57
1,1-Dichloroethane	ND	5.7
2-Butanone	ND	11
cis-1,2-Dichloroethene	ND	5.7
2,2-Dichloropropane	ND	5.7
Chloroform	ND	5.7
Bromoform	ND	5.7
Bromochloromethane	ND	5.7
1,1,1-Trichloroethane	ND	5.7
1,1-Dichloropropene	ND	5.7
Carbon Tetrachloride	ND	5.7
1,2-Dichloroethane	ND	5.7
Benzene	ND	5.7
Trichloroethene	ND	5.7
1,2-Dichloropropane	ND	5.7
Bromodichloromethane	ND	5.7
Dibromomethane	ND	5.7
4-Methyl-2-Pentanone	ND	11
cis-1,3-Dichloropropene	ND	5.7
Toluene	ND	5.7
trans-1,3-Dichloropropene	ND	5.7
1,1,2-Trichloroethane	ND	5.7
2-Hexanone	ND	11
1,3-Dichloropropane	ND	5.7
Tetrachloroethene	ND	5.7
Dibromochloromethane	ND	5.7
1,2-Dibromoethane	ND	5.7
Chlorobenzene	ND	5.7
1,1,1,2-Tetrachloroethane	ND	5.7
Ethylbenzene	ND	5.7
m,p-Xylenes	ND	5.7
o-Xylene	ND	5.7
Styrene	ND	5.7
Bromoform	ND	5.7
Isopropylbenzene	ND	5.7
1,1,2,2-Tetrachloroethane	ND	5.7
1,2,3-Trichloropropene	ND	5.7
Propylbenzene	ND	5.7

ND= Not Detected

RL= Reporting Limit

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**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-3	Diln Fac:	1.139
Lab ID:	269477-003	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Bromobenzene	ND	5.7
1,3,5-Trimethylbenzene	ND	5.7
2-Chlorotoluene	ND	5.7
4-Chlorotoluene	ND	5.7
tert-Butylbenzene	ND	5.7
1,2,4-Trimethylbenzene	ND	5.7
sec-Butylbenzene	ND	5.7
para-Isopropyl Toluene	ND	5.7
1,3-Dichlorobenzene	ND	5.7
1,4-Dichlorobenzene	ND	5.7
n-Butylbenzene	ND	34
1,2-Dichlorobenzene	ND	5.7
1,2-Dibromo-3-Chloropropane	ND	5.7
1,2,4-Trichlorobenzene	ND	5.7
Hexachlorobutadiene	ND	5.7
Naphthalene	ND	5.7
1,2,3-Trichlorobenzene	ND	5.7

Surrogate	%REC	Limits
Dibromofluoromethane	118	78-134
1,2-Dichloroethane-d4	138	80-138
Toluene-d8	107	80-120
Bromofluorobenzene	117	78-123

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-4	Diln Fac:	1.082
Lab ID:	269477-004	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Freon 12	ND	11
tert-Butyl Alcohol (TBA)	ND	110
Chloromethane	ND	11
Isopropyl Ether (DIPE)	ND	5.4
Vinyl Chloride	ND	11
Bromomethane	ND	11
Ethyl tert-Butyl Ether (ETBE)	ND	5.4
Chloroethane	ND	11
Methyl tert-Amyl Ether (TAME)	ND	5.4
Trichlorofluoromethane	ND	5.4
Acetone	ND	32
Freon 113	ND	5.4
1,1-Dichloroethene	ND	5.4
Methylene Chloride	ND	22
Carbon Disulfide	ND	5.4
MTBE	ND	5.4
trans-1,2-Dichloroethene	ND	5.4
Vinyl Acetate	ND	54
1,1-Dichloroethane	ND	5.4
2-Butanone	ND	11
cis-1,2-Dichloroethene	ND	5.4
2,2-Dichloropropane	ND	5.4
Chloroform	ND	5.4
Bromochloromethane	ND	5.4
1,1,1-Trichloroethane	ND	5.4
1,1-Dichloropropene	ND	5.4
Carbon Tetrachloride	ND	5.4
1,2-Dichloroethane	ND	5.4
Benzene	ND	5.4
Trichloroethene	ND	5.4
1,2-Dichloropropane	ND	5.4
Bromodichloromethane	ND	5.4
Dibromomethane	ND	5.4
4-Methyl-2-Pentanone	ND	11
cis-1,3-Dichloropropene	ND	5.4
Toluene	ND	5.4
trans-1,3-Dichloropropene	ND	5.4
1,1,2-Trichloroethane	ND	5.4
2-Hexanone	ND	11
1,3-Dichloropropane	ND	5.4
Tetrachloroethene	ND	5.4
Dibromochloromethane	ND	5.4
1,2-Dibromoethane	ND	5.4
Chlorobenzene	ND	5.4
1,1,1,2-Tetrachloroethane	ND	5.4
Ethylbenzene	ND	5.4
m,p-Xylenes	ND	5.4
o-Xylene	ND	5.4
Styrene	ND	5.4
Bromoform	ND	5.4
Isopropylbenzene	ND	5.4
1,1,2,2-Tetrachloroethane	ND	5.4
1,2,3-Trichloropropene	ND	5.4
Propylbenzene	ND	5.4

ND= Not Detected

RL= Reporting Limit

Page 1 of 2

**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-4	Diln Fac:	1.082
Lab ID:	269477-004	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Bromobenzene	ND	5.4
1,3,5-Trimethylbenzene	ND	5.4
2-Chlorotoluene	ND	5.4
4-Chlorotoluene	ND	5.4
tert-Butylbenzene	ND	5.4
1,2,4-Trimethylbenzene	ND	5.4
sec-Butylbenzene	ND	5.4
para-Isopropyl Toluene	ND	5.4
1,3-Dichlorobenzene	ND	5.4
1,4-Dichlorobenzene	ND	5.4
n-Butylbenzene	ND	32
1,2-Dichlorobenzene	ND	5.4
1,2-Dibromo-3-Chloropropane	ND	5.4
1,2,4-Trichlorobenzene	ND	5.4
Hexachlorobutadiene	ND	5.4
Naphthalene	ND	5.4
1,2,3-Trichlorobenzene	ND	5.4

Surrogate	%REC	Limits
Dibromofluoromethane	110	78-134
1,2-Dichloroethane-d4	121	80-138
Toluene-d8	105	80-120
Bromofluorobenzene	102	78-123

ND= Not Detected  
 RL= Reporting Limit  
 Page 2 of 2

**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-5	Diln Fac:	1.182
Lab ID:	269477-005	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Freon 12	ND	12
tert-Butyl Alcohol (TBA)	ND	120
Chloromethane	ND	12
Isopropyl Ether (DIPE)	ND	5.9
Vinyl Chloride	ND	12
Bromomethane	ND	12
Ethyl tert-Butyl Ether (ETBE)	ND	5.9
Chloroethane	ND	12
Methyl tert-Amyl Ether (TAME)	ND	5.9
Trichlorofluoromethane	ND	5.9
Acetone	ND	35
Freon 113	ND	5.9
1,1-Dichloroethene	ND	5.9
Methylene Chloride	ND	24
Carbon Disulfide	ND	5.9
MTBE	ND	5.9
trans-1,2-Dichloroethene	ND	5.9
Vinyl Acetate	ND	59
1,1-Dichloroethane	ND	5.9
2-Butanone	ND	12
cis-1,2-Dichloroethene	ND	5.9
2,2-Dichloropropane	ND	5.9
Chloroform	ND	5.9
Bromochloromethane	ND	5.9
1,1,1-Trichloroethane	ND	5.9
1,1-Dichloropropene	ND	5.9
Carbon Tetrachloride	ND	5.9
1,2-Dichloroethane	ND	5.9
Benzene	ND	5.9
Trichloroethene	ND	5.9
1,2-Dichloropropane	ND	5.9
Bromodichloromethane	ND	5.9
Dibromomethane	ND	5.9
4-Methyl-2-Pentanone	ND	12
cis-1,3-Dichloropropene	ND	5.9
Toluene	ND	5.9
trans-1,3-Dichloropropene	ND	5.9
1,1,2-Trichloroethane	ND	5.9
2-Hexanone	ND	12
1,3-Dichloropropane	ND	5.9
Tetrachloroethene	ND	5.9
Dibromochloromethane	ND	5.9
1,2-Dibromoethane	ND	5.9
Chlorobenzene	ND	5.9
1,1,1,2-Tetrachloroethane	ND	5.9
Ethylbenzene	ND	5.9
m,p-Xylenes	ND	5.9
o-Xylene	ND	5.9
Styrene	ND	5.9
Bromoform	ND	5.9
Isopropylbenzene	ND	5.9
1,1,2,2-Tetrachloroethane	ND	5.9
1,2,3-Trichloropropene	ND	5.9
Propylbenzene	ND	5.9

ND= Not Detected

RL= Reporting Limit

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**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	TANK-5	Diln Fac:	1.182
Lab ID:	269477-005	Batch#:	226723
Matrix:	Soil	Sampled:	09/01/15
Units:	ug/Kg	Received:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Analyte	Result	RL
Bromobenzene	ND	5.9
1,3,5-Trimethylbenzene	ND	5.9
2-Chlorotoluene	ND	5.9
4-Chlorotoluene	ND	5.9
tert-Butylbenzene	ND	5.9
1,2,4-Trimethylbenzene	ND	5.9
sec-Butylbenzene	ND	5.9
para-Isopropyl Toluene	ND	5.9
1,3-Dichlorobenzene	ND	5.9
1,4-Dichlorobenzene	ND	5.9
n-Butylbenzene	ND	35
1,2-Dichlorobenzene	ND	5.9
1,2-Dibromo-3-Chloropropane	ND	5.9
1,2,4-Trichlorobenzene	ND	5.9
Hexachlorobutadiene	ND	5.9
Naphthalene	ND	5.9
1,2,3-Trichlorobenzene	ND	5.9

Surrogate	%REC	Limits
Dibromofluoromethane	115	78-134
1,2-Dichloroethane-d4	128	80-138
Toluene-d8	97	80-120
Bromofluorobenzene	105	78-123

ND= Not Detected  
 RL= Reporting Limit  
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**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	SP-3	Basis:	as received
Lab ID:	269477-008	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	ug/Kg	Analyzed:	09/01/15

Analyte	Result	RL	Diln Fac	Batch#
Freon 12	ND	14	1.381	226723
tert-Butyl Alcohol (TBA)	ND	140	1.381	226723
Chloromethane	ND	14	1.381	226723
Isopropyl Ether (DIPE)	ND	6.9	1.381	226723
Vinyl Chloride	ND	14	1.381	226723
Bromomethane	ND	14	1.381	226723
Ethyl tert-Butyl Ether (ETBE)	ND	6.9	1.381	226723
Chloroethane	ND	14	1.381	226723
Methyl tert-Amyl Ether (TAME)	ND	6.9	1.381	226723
Trichlorofluoromethane	ND	6.9	1.381	226723
Acetone	ND	41	1.381	226723
Freon 113	ND	6.9	1.381	226723
1,1-Dichloroethene	ND	6.9	1.381	226723
Methylene Chloride	ND	28	1.381	226723
Carbon Disulfide	ND	6.9	1.381	226723
MTBE	ND	6.9	1.381	226723
trans-1,2-Dichloroethene	ND	6.9	1.381	226723
Vinyl Acetate	ND	69	1.381	226723
1,1-Dichloroethane	ND	6.9	1.381	226723
2-Butanone	ND	14	1.381	226723
cis-1,2-Dichloroethene	ND	6.9	1.381	226723
2,2-Dichloropropane	ND	6.9	1.381	226723
Chloroform	ND	6.9	1.381	226723
Bromoform	ND	6.9	1.381	226723
Bromochloromethane	ND	6.9	1.381	226723
1,1,1-Trichloroethane	ND	6.9	1.381	226723
1,1-Dichloropropene	ND	6.9	1.381	226723
Carbon Tetrachloride	ND	6.9	1.381	226723
1,2-Dichloroethane	ND	6.9	1.381	226723
Benzene	ND	6.9	1.381	226723
Trichloroethene	ND	6.9	1.381	226723
1,2-Dichloropropane	ND	6.9	1.381	226723
Bromodichloromethane	ND	6.9	1.381	226723
Dibromomethane	ND	6.9	1.381	226723
4-Methyl-2-Pentanone	ND	14	1.381	226723
cis-1,3-Dichloropropene	ND	6.9	1.381	226723
Toluene	ND	6.9	1.381	226723
trans-1,3-Dichloropropene	ND	6.9	1.381	226723
1,1,2-Trichloroethane	ND	6.9	1.381	226723
2-Hexanone	ND	14	1.381	226723
1,3-Dichloropropane	ND	6.9	1.381	226723
Tetrachloroethene	ND	6.9	1.381	226723
Dibromochloromethane	ND	6.9	1.381	226723
1,2-Dibromoethane	ND	6.9	1.381	226723
Chlorobenzene	ND	6.9	1.381	226723
1,1,1,2-Tetrachloroethane	ND	6.9	1.381	226723
Ethylbenzene	9.2	6.9	1.381	226723
m,p-Xylenes	12	6.9	1.381	226723
o-Xylene	26	6.9	1.381	226723
Styrene	ND	6.9	1.381	226723
Bromoform	ND	6.9	1.381	226723
Isopropylbenzene	ND	6.9	1.381	226723
1,1,2,2-Tetrachloroethane	ND	6.9	1.381	226723
1,2,3-Trichloropropane	ND	6.9	1.381	226723
Propylbenzene	16	6.9	1.381	226723
Bromobenzene	ND	6.9	1.381	226723

ND= Not Detected

RL= Reporting Limit

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**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	SP-3	Basis:	as received
Lab ID:	269477-008	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	ug/Kg	Analyzed:	09/01/15

Analyte	Result	RL	Diln Fac	Batch#
1,3,5-Trimethylbenzene	16	6.9	1.381	226723
2-Chlorotoluene	ND	6.9	1.381	226723
4-Chlorotoluene	ND	6.9	1.381	226723
tert-Butylbenzene	ND	6.9	1.381	226723
1,2,4-Trimethylbenzene	160	6.9	1.381	226723
sec-Butylbenzene	8.0	6.9	1.381	226723
para-Isopropyl Toluene	20	6.9	1.381	226723
1,3-Dichlorobenzene	ND	6.9	1.381	226723
1,4-Dichlorobenzene	ND	6.9	1.381	226723
n-Butylbenzene	ND	41	1.381	226723
1,2-Dichlorobenzene	ND	6.9	1.381	226723
1,2-Dibromo-3-Chloropropane	ND	6.9	1.381	226723
1,2,4-Trichlorobenzene	ND	6.9	1.381	226723
Hexachlorobutadiene	ND	6.9	1.381	226723
Naphthalene	5,200	250	50.43	226718
1,2,3-Trichlorobenzene	ND	6.9	1.381	226723

Surrogate	%REC	Limits	Diln Fac	Batch#
Dibromofluoromethane	110	78-134	1.381	226723
1,2-Dichloroethane-d4	109	80-138	1.381	226723
Toluene-d8	101	80-120	1.381	226723
Bromofluorobenzene	105	78-123	1.381	226723
Trifluorotoluene (MeOH)	102	52-147	50.43	226718

ND= Not Detected  
 RL= Reporting Limit  
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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC801856	Batch#:	226718
Matrix:	Soil	Analyzed:	09/01/15
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	105.3	84	49-131
Isopropyl Ether (DIPE)	25.00	23.26	93	54-129
Ethyl tert-Butyl Ether (ETBE)	25.00	24.17	97	60-120
Methyl tert-Amyl Ether (TAME)	25.00	25.72	103	70-120
1,1-Dichloroethene	25.00	19.04 b	76	70-134
Benzene	25.00	24.15	97	80-123
Trichloroethene	25.00	24.28	97	80-128
Toluene	25.00	26.18	105	80-120
Chlorobenzene	25.00	27.46	110	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	90	78-134
1,2-Dichloroethane-d4	95	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	94	78-123

b= See narrative

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC801857	Batch#:	226718
Matrix:	Soil	Analyzed:	09/01/15
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	30
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromoform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropene	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC801857	Batch#:	226718
Matrix:	Soil	Analyzed:	09/01/15
Units:	ug/Kg		

Analyte	Result	RL
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	30
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	93	78-134
1,2-Dichloroethane-d4	96	80-138
Toluene-d8	102	80-120
Bromofluorobenzene	92	78-123

ND= Not Detected  
 RL= Reporting Limit  
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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC801873	Batch#:	226723
Matrix:	Soil	Analyzed:	09/01/15
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	30
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromoform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Purgeable Organics by GC/MS**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC801873	Batch#:	226723
Matrix:	Soil	Analyzed:	09/01/15
Units:	ug/Kg		

Analyte	Result	RL
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	30
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-134
1,2-Dichloroethane-d4	131	80-138
Toluene-d8	108	80-120
Bromofluorobenzene	124 *	78-123

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5035
Project#:	371-5-3	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC801939	Batch#:	226723
Matrix:	Soil	Analyzed:	09/01/15
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	138.5	111	49-131
Isopropyl Ether (DIPE)	25.00	30.83	123	54-129
Ethyl tert-Butyl Ether (ETBE)	25.00	27.38	110	60-120
Methyl tert-Amyl Ether (TAME)	25.00	22.71	91	70-120
1,1-Dichloroethene	25.00	22.06	88	70-134
Benzene	25.00	25.63	103	80-123
Trichloroethene	25.00	26.12	104	80-128
Toluene	25.00	25.52	102	80-120
Chlorobenzene	25.00	24.43	98	80-123

Surrogate	%REC	Limits
Dibromofluoromethane	108	78-134
1,2-Dichloroethane-d4	112	80-138
Toluene-d8	100	80-120
Bromofluorobenzene	103	78-123

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 5030B
Project#:	371-5-3	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	226723
MSS Lab ID:	269439-001	Sampled:	08/28/15
Matrix:	Soil	Received:	08/28/15
Units:	ug/Kg	Analyzed:	09/01/15
Basis:	as received		

Type: MS Diln Fac: 0.9579  
 Lab ID: QC802069

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<17.49	239.5	201.3	84	44-120
Isopropyl Ether (DIPE)	<1.418	47.89	35.30	74	46-120
Ethyl tert-Butyl Ether (ETBE)	<0.5632	47.89	37.48	78	48-120
Methyl tert-Amyl Ether (TAME)	<0.5650	47.89	32.16	67	52-120
1,1-Dichloroethene	<1.243	47.89	49.42	103	56-133
Benzene	<0.6739	47.89	39.78	83	57-120
Trichloroethene	<0.7276	47.89	71.77	150 *	49-145
Toluene	<0.4536	47.89	41.50	87	51-120
Chlorobenzene	<0.3428	47.89	38.64	81	47-120

Surrogate	%REC	Limits
Dibromofluoromethane	79	78-134
1,2-Dichloroethane-d4	84	80-138
Toluene-d8	101	80-120
Bromofluorobenzene	99	78-123

Type: MSD Diln Fac: 0.9416  
 Lab ID: QC802070

Analyte	Spiked	Result	%REC	Limits	RPD Lim
tert-Butyl Alcohol (TBA)	235.4	250.3	106	44-120	23 46
Isopropyl Ether (DIPE)	47.08	36.25	77	46-120	4 41
Ethyl tert-Butyl Ether (ETBE)	47.08	41.17	87	48-120	11 40
Methyl tert-Amyl Ether (TAME)	47.08	35.58	76	52-120	12 36
1,1-Dichloroethene	47.08	48.45	103	56-133	0 46
Benzene	47.08	40.25	85	57-120	3 44
Trichloroethene	47.08	76.09	162 *	49-145	8 46
Toluene	47.08	41.47	88	51-120	2 47
Chlorobenzene	47.08	37.97	81	47-120	0 50

Surrogate	%REC	Limits
Dibromofluoromethane	63 *	78-134
1,2-Dichloroethane-d4	87	80-138
Toluene-d8	104	80-120
Bromofluorobenzene	106	78-123

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

**Semivolatile Organics by GC/MS SIM**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8270C-SIM
Field ID:	TANK-1	Batch#:	226758
Lab ID:	269477-001	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	ug/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/02/15
Diln Fac:	10.00		

Analyte	Result	RL	MDL
Naphthalene	62	50	10
Acenaphthylene	ND	50	10
Acenaphthene	22 J	50	10
Fluorene	41 J	50	10
Phenanthrene	130	50	10
Anthracene	29 J	50	10
Fluoranthene	36 J	50	10
Pyrene	85	50	10
Benzo(a)anthracene	37 J	50	10
Chrysene	63	50	10
Benzo(b)fluoranthene	26 J	50	10
Benzo(k)fluoranthene	ND	50	10
Benzo(a)pyrene	29 J	50	10
Indeno(1,2,3-cd)pyrene	12 J	50	10
Dibenz(a,h)anthracene	ND	50	10
Benzo(g,h,i)perylene	20 J	50	12

Surrogate	%REC	Limits
Nitrobenzene-d5	DO	40-120
2-Fluorobiphenyl	DO	46-120
Terphenyl-d14	DO	43-120

J= Estimated value

DO= Diluted Out

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8270C-SIM
Field ID:	TANK-2	Batch#:	226758
Lab ID:	269477-002	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	ug/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/02/15
Diln Fac:	50.00		

Analyte	Result	RL	MDL
Naphthalene	170 J	250	50
Acenaphthylene	ND	250	50
Acenaphthene	130 J	250	50
Fluorene	260	250	50
Phenanthrene	430	250	50
Anthracene	350	250	50
Fluoranthene	100 J	250	50
Pyrene	470	250	50
Benzo(a)anthracene	210 J	250	50
Chrysene	360	250	50
Benzo(b)fluoranthene	50 J	250	50
Benzo(k)fluoranthene	ND	250	50
Benzo(a)pyrene	100 J	250	50
Indeno(1,2,3-cd)pyrene	ND	250	50
Dibenz(a,h)anthracene	ND	250	50
Benzo(g,h,i)perylene	ND	250	61

Surrogate	%REC	Limits
Nitrobenzene-d5	DO	40-120
2-Fluorobiphenyl	DO	46-120
Terphenyl-d14	DO	43-120

J= Estimated value

DO= Diluted Out

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8270C-SIM
Field ID:	TANK-3	Batch#:	226758
Lab ID:	269477-003	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	ug/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/02/15
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Naphthalene	2.0 J	5.0	1.2
Acenaphthylene	ND	5.0	1.0
Acenaphthene	2.3 J	5.0	1.0
Fluorene	5.0 J	5.0	1.0
Phenanthrene	17	5.0	1.0
Anthracene	3.6 J	5.0	1.0
Fluoranthene	1.8 J	5.0	1.0
Pyrene	5.7	5.0	1.0
Benzo(a)anthracene	2.6 J	5.0	1.0
Chrysene	4.7 J	5.0	1.0
Benzo(b)fluoranthene	ND	5.0	1.0
Benzo(k)fluoranthene	ND	5.0	1.0
Benzo(a)pyrene	1.3 J	5.0	1.0
Indeno(1,2,3-cd)pyrene	ND	5.0	1.0
Dibenz(a,h)anthracene	ND	5.0	1.0
Benzo(g,h,i)perylene	ND	5.0	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	49	40-120
2-Fluorobiphenyl	52	46-120
Terphenyl-d14	64	43-120

J= Estimated value

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8270C-SIM
Field ID:	TANK-4	Batch#:	226758
Lab ID:	269477-004	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	ug/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/02/15
Diln Fac:	3.000		

Analyte	Result	RL	MDL
Naphthalene	130	15	3.0
Acenaphthylene	8.9 J	15	3.0
Acenaphthene	64	15	3.0
Fluorene	100	15	3.0
Phenanthrene	320	15	3.0
Anthracene	83	15	3.0
Fluoranthene	32	15	3.0
Pyrene	130	15	3.0
Benzo(a)anthracene	61	15	3.0
Chrysene	92	15	3.0
Benzo(b)fluoranthene	12 J	15	3.0
Benzo(k)fluoranthene	ND	15	3.0
Benzo(a)pyrene	26	15	3.0
Indeno(1,2,3-cd)pyrene	ND	15	3.1
Dibenz(a,h)anthracene	ND	15	3.1
Benzo(g,h,i)perylene	6.5 J	15	3.7

Surrogate	%REC	Limits
Nitrobenzene-d5	89	40-120
2-Fluorobiphenyl	59	46-120
Terphenyl-d14	98	43-120

J= Estimated value

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8270C-SIM
Field ID:	TANK-5	Batch#:	226758
Lab ID:	269477-005	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	ug/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/02/15
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	0.99
Acenaphthylene	ND	5.0	0.99
Acenaphthene	2.4 J	5.0	0.99
Fluorene	1.7 J	5.0	0.99
Phenanthrene	5.5	5.0	0.99
Anthracene	1.6 J	5.0	0.99
Fluoranthene	ND	5.0	0.99
Pyrene	2.8 J	5.0	0.99
Benzo(a)anthracene	1.3 J	5.0	0.99
Chrysene	2.0 J	5.0	0.99
Benzo(b)fluoranthene	ND	5.0	0.99
Benzo(k)fluoranthene	ND	5.0	0.99
Benzo(a)pyrene	ND	5.0	0.99
Indeno(1,2,3-cd)pyrene	ND	5.0	1.0
Dibenz(a,h)anthracene	ND	5.0	1.0
Benzo(g,h,i)perylene	ND	5.0	1.2

Surrogate	%REC	Limits
Nitrobenzene-d5	56	40-120
2-Fluorobiphenyl	49	46-120
Terphenyl-d14	71	43-120

J= Estimated value

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8270C-SIM
Field ID:	COMPOSITE-1	Batch#:	226758
Lab ID:	269477-010	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	ug/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/02/15
Diln Fac:	50.00		

Analyte	Result	RL	MDL
Naphthalene	970	250	51
Acenaphthylene	93 J	250	51
Acenaphthene	910	250	51
Fluorene	1,100	250	51
Phenanthrene	2,900	250	51
Anthracene	600	250	51
Fluoranthene	490	250	51
Pyrene	980	250	51
Benzo(a)anthracene	420	250	51
Chrysene	690	250	51
Benzo(b)fluoranthene	130 J	250	51
Benzo(k)fluoranthene	ND	250	51
Benzo(a)pyrene	200 J	250	51
Indeno(1,2,3-cd)pyrene	ND	250	51
Dibenz(a,h)anthracene	ND	250	51
Benzo(g,h,i)perylene	70 J	250	51

Surrogate	%REC	Limits
Nitrobenzene-d5	DO	40-120
2-Fluorobiphenyl	DO	46-120
Terphenyl-d14	DO	43-120

J= Estimated value

DO= Diluted Out

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

## Batch QC Report

## Semivolatile Organics by GC/MS SIM

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC802015	Batch#:	226758
Matrix:	Soil	Prepared:	09/01/15
Units:	ug/Kg	Analyzed:	09/02/15

Analyte	Result	RL	MDL
Naphthalene	ND	5.0	1.0
Acenaphthylene	ND	5.0	1.0
Acenaphthene	ND	5.0	1.0
Fluorene	ND	5.0	1.0
Phenanthrene	ND	5.0	1.0
Anthracene	ND	5.0	1.0
Fluoranthene	ND	5.0	1.0
Pyrene	ND	5.0	1.0
Benzo(a)anthracene	ND	5.0	1.0
Chrysene	ND	5.0	1.0
Benzo(b)fluoranthene	ND	5.0	1.0
Benzo(k)fluoranthene	ND	5.0	1.0
Benzo(a)pyrene	ND	5.0	1.0
Indeno(1,2,3-cd)pyrene	ND	5.0	1.0
Dibenz(a,h)anthracene	ND	5.0	1.0
Benzo(g,h,i)perylene	ND	5.0	1.0

Surrogate	%REC	Limits
Nitrobenzene-d5	62	40-120
2-Fluorobiphenyl	54	46-120
Terphenyl-d14	56	43-120

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

## Batch QC Report

**Semivolatile Organics by GC/MS SIM**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC802016	Batch#:	226758
Matrix:	Soil	Prepared:	09/01/15
Units:	ug/Kg	Analyzed:	09/02/15

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	33.00	26.09	79	49-120
Pyrene	33.00	27.98	85	48-120

Surrogate	%REC	Limits
Nitrobenzene-d5	94	40-120
2-Fluorobiphenyl	74	46-120
Terphenyl-d14	84	43-120

**Polychlorinated Biphenyls (PCBs)**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	226694
Units:	ug/Kg	Sampled:	09/01/15
Basis:	as received	Received:	09/01/15
Diln Fac:	1.000	Analyzed:	09/01/15

Field ID: TANK-1                          Lab ID: 269477-001  
 Type: SAMPLE                              Prepared: 09/01/15

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	88	46-141
Decachlorobiphenyl	97	25-135

Field ID: TANK-2                                  Lab ID: 269477-002  
 Type: SAMPLE                                      Prepared: 09/01/15

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	103	46-141
Decachlorobiphenyl	108	25-135

Field ID: TANK-3    Lab ID: 269477-003  
 Type: SAMPLE                                      Prepared: 09/01/15

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	115	46-141
Decachlorobiphenyl	110	25-135

ND= Not Detected

RL= Reporting Limit

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**Polychlorinated Biphenyls (PCBs)**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	226694
Units:	ug/Kg	Sampled:	09/01/15
Basis:	as received	Received:	09/01/15
Diln Fac:	1.000	Analyzed:	09/01/15

Field ID: TANK-4      Lab ID: 269477-004  
Type: SAMPLE      Prepared: 09/01/15

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	86	46-141
Decachlorobiphenyl	97	25-135

Field ID: TANK-5      Lab ID: 269477-005  
Type: SAMPLE      Prepared: 09/01/15

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	118	46-141
Decachlorobiphenyl	111	25-135

Field ID: COMPOSITE-1      Lab ID: 269477-010  
Type: SAMPLE      Prepared: 09/01/15

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	81	46-141
Decachlorobiphenyl	85	25-135

ND= Not Detected

RL= Reporting Limit

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### Polychlorinated Biphenyls (PCBs)

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	226694
Units:	ug/Kg	Sampled:	09/01/15
Basis:	as received	Received:	09/01/15
Diln Fac:	1.000	Analyzed:	09/01/15

Type: BLANK Prepared: 08/31/15  
 Lab ID: QC801762

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	103	46-141
Decachlorobiphenyl	99	25-135

ND= Not Detected  
 RL= Reporting Limit  
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## Batch QC Report

**Polychlorinated Biphenyls (PCBs)**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3550B
Project#:	371-5-3	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC801763	Batch#:	226694
Matrix:	Soil	Prepared:	08/31/15
Units:	ug/Kg	Analyzed:	09/01/15

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	168.3	186.5	111	64-140
Aroclor-1260	168.3	193.8	115	65-146

Surrogate	%REC	Limits
TCMX	110	46-141
Decachlorobiphenyl	109	25-135

**California Title 22 Metals**

Lab #:	269477	Project#:	371-5-3
Client:	Cornerstone Earth Group	Location:	EBB UST Removal
Field ID:	TANK-1	Diln Fac:	1.000
Lab ID:	269477-001	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received		

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	2.5	0.50	226747 09/02/15	EPA 3050B	EPA 6010B
Arsenic	1.1	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Barium	190	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Beryllium	0.56	0.099	226747 09/02/15	EPA 3050B	EPA 6010B
Cadmium	0.92	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Chromium	37	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Cobalt	8.3	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Copper	15	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Lead	11	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Mercury	0.11	0.017	226735 09/01/15	METHOD	EPA 7471A
Molybdenum	0.27	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Nickel	50	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Selenium	ND	0.50	226747 09/02/15	EPA 3050B	EPA 6010B
Silver	ND	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Thallium	ND	0.50	226747 09/02/15	EPA 3050B	EPA 6010B
Vanadium	36	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Zinc	54	0.99	226747 09/02/15	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

**California Title 22 Metals**

Lab #:	269477	Project#:	371-5-3
Client:	Cornerstone Earth Group	Location:	EBB UST Removal
Field ID:	TANK-2	Diln Fac:	1.000
Lab ID:	269477-002	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received		

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	0.85	0.49	226747 09/02/15	EPA 3050B	EPA 6010B
Arsenic	3.7	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Barium	110	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Beryllium	0.44	0.098	226747 09/02/15	EPA 3050B	EPA 6010B
Cadmium	1.0	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Chromium	31	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Cobalt	4.6	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Copper	9.4	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Lead	8.6	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Mercury	0.081	0.018	226735 09/01/15	METHOD	EPA 7471A
Molybdenum	0.40	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Nickel	25	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Selenium	ND	0.49	226747 09/02/15	EPA 3050B	EPA 6010B
Silver	ND	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Thallium	ND	0.49	226747 09/02/15	EPA 3050B	EPA 6010B
Vanadium	36	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Zinc	40	0.98	226747 09/02/15	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

**California Title 22 Metals**

Lab #:	269477	Project#:	371-5-3
Client:	Cornerstone Earth Group	Location:	EBB UST Removal
Field ID:	TANK-3	Diln Fac:	1.000
Lab ID:	269477-003	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received		

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	1.9	0.51	226747 09/02/15	EPA 3050B	EPA 6010B
Arsenic	3.2	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Barium	220	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Beryllium	0.81	0.10	226747 09/02/15	EPA 3050B	EPA 6010B
Cadmium	0.60	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Chromium	39	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Cobalt	7.5	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Copper	12	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Lead	3.9	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Mercury	0.049	0.016	226735 09/01/15	METHOD	EPA 7471A
Molybdenum	0.50	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Nickel	46	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Selenium	ND	0.51	226747 09/02/15	EPA 3050B	EPA 6010B
Silver	ND	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Thallium	ND	0.51	226747 09/02/15	EPA 3050B	EPA 6010B
Vanadium	37	0.25	226747 09/02/15	EPA 3050B	EPA 6010B
Zinc	45	1.0	226747 09/02/15	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

**California Title 22 Metals**

Lab #:	269477	Project#:	371-5-3
Client:	Cornerstone Earth Group	Location:	EBB UST Removal
Field ID:	TANK-4	Diln Fac:	1.000
Lab ID:	269477-004	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received		

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	1.5	0.47	226747 09/02/15	EPA 3050B	EPA 6010B
Arsenic	2.5	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Barium	150	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Beryllium	0.68	0.094	226747 09/02/15	EPA 3050B	EPA 6010B
Cadmium	0.49	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Chromium	35	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Cobalt	6.6	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Copper	10	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Lead	3.4	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Mercury	0.088	0.015	226735 09/01/15	METHOD	EPA 7471A
Molybdenum	0.53	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Nickel	34	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Selenium	ND	0.47	226747 09/02/15	EPA 3050B	EPA 6010B
Silver	ND	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Thallium	ND	0.47	226747 09/02/15	EPA 3050B	EPA 6010B
Vanadium	31	0.24	226747 09/02/15	EPA 3050B	EPA 6010B
Zinc	41	0.94	226747 09/02/15	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

### California Title 22 Metals

Lab #:	269477	Project#:	371-5-3
Client:	Cornerstone Earth Group	Location:	EBB UST Removal
Field ID:	TANK-5	Diln Fac:	1.000
Lab ID:	269477-005	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received		

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	1.8	0.46	226747 09/02/15	EPA 3050B	EPA 6010B
Arsenic	2.4	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Barium	200	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Beryllium	0.61	0.093	226747 09/02/15	EPA 3050B	EPA 6010B
Cadmium	0.73	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Chromium	42	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Cobalt	7.7	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Copper	15	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Lead	3.9	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Mercury	0.087	0.018	226735 09/01/15	METHOD	EPA 7471A
Molybdenum	0.51	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Nickel	64	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Selenium	ND	0.46	226747 09/02/15	EPA 3050B	EPA 6010B
Silver	ND	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Thallium	ND	0.46	226747 09/02/15	EPA 3050B	EPA 6010B
Vanadium	39	0.23	226747 09/02/15	EPA 3050B	EPA 6010B
Zinc	56	0.93	226747 09/02/15	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

**California Title 22 Metals**

Lab #:	269477	Project#:	371-5-3
Client:	Cornerstone Earth Group	Location:	EBB UST Removal
Field ID:	COMPOSITE-1	Diln Fac:	1.000
Lab ID:	269477-010	Sampled:	09/01/15
Matrix:	Soil	Received:	09/01/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received		

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	1.9	0.54	226747 09/02/15	EPA 3050B	EPA 6010B
Arsenic	4.6	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Barium	230	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Beryllium	0.51	0.11	226747 09/02/15	EPA 3050B	EPA 6010B
Cadmium	0.87	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Chromium	36	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Cobalt	10	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Copper	20	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Lead	40	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Mercury	0.069	0.016	226735 09/01/15	METHOD	EPA 7471A
Molybdenum	0.67	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Nickel	46	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Selenium	ND	0.54	226747 09/02/15	EPA 3050B	EPA 6010B
Silver	ND	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Thallium	ND	0.54	226747 09/02/15	EPA 3050B	EPA 6010B
Vanadium	42	0.27	226747 09/02/15	EPA 3050B	EPA 6010B
Zinc	63	1.1	226747 09/02/15	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**California Title 22 Metals**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	METHOD
Project#:	371-5-3	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	226735
Lab ID:	QC801919	Prepared:	09/01/15
Matrix:	Soil	Analyzed:	09/01/15
Units:	mg/Kg		

Result	RL
ND	0.017

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## California Title 22 Metals

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	METHOD
Project#:	371-5-3	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	226735
Matrix:	Soil	Prepared:	09/01/15
Units:	mg/Kg	Analyzed:	09/01/15
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC801920	0.2083	0.2085	100	80-120		
BSD	QC801921	0.2083	0.2227	107	80-120	7	20

RPD= Relative Percent Difference

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## Batch QC Report

## California Title 22 Metals

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	METHOD
Project#:	371-5-3	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	226735
MSS Lab ID:	269467-005	Sampled:	08/31/15
Matrix:	Soil	Received:	08/31/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/01/15

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC801922	0.01049	0.2049	0.2320	108	69-142		
MSD	QC801923		0.2049	0.2404	112	69-142	4	36

RPD= Relative Percent Difference

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**Batch QC Report**
**California Title 22 Metals**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3050B
Project#:	371-5-3	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC801974	Batch#:	226747
Matrix:	Soil	Prepared:	09/01/15
Units:	mg/Kg	Analyzed:	09/02/15

Analyte	Result	RL
Antimony	ND	0.50
Arsenic	ND	0.25
Barium	ND	0.25
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.25
Lead	ND	0.25
Molybdenum	ND	0.25
Nickel	ND	0.25
Selenium	ND	0.50
Silver	ND	0.25
Thallium	ND	0.50
Vanadium	ND	0.25
Zinc	1.1 b	1.0

b= See narrative

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**California Title 22 Metals**

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3050B
Project#:	371-5-3	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	226747
Units:	mg/Kg	Prepared:	09/01/15
Diln Fac:	5.000	Analyzed:	09/02/15

Type: BS Lab ID: QC801975

Analyte	Spiked	Result	%REC	Limits
Antimony	50.00	46.87	94	80-120
Arsenic	50.00	48.26	97	80-120
Barium	50.00	50.33	101	80-120
Beryllium	50.00	52.21	104	80-120
Cadmium	50.00	51.38	103	80-120
Chromium	50.00	51.00	102	80-120
Cobalt	50.00	48.49	97	80-120
Copper	50.00	47.78	96	80-120
Lead	50.00	47.50	95	80-120
Molybdenum	50.00	49.93	100	80-120
Nickel	50.00	49.42	99	80-120
Selenium	50.00	47.94	96	80-120
Silver	50.00	49.38	99	80-120
Thallium	50.00	48.01	96	80-120
Vanadium	50.00	53.40	107	80-120
Zinc	50.00	50.74	101	80-120

Type: BSD Lab ID: QC801976

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	50.00	45.93	92	80-120	2	20
Arsenic	50.00	46.96	94	80-120	3	20
Barium	50.00	48.68	97	80-120	3	20
Beryllium	50.00	50.67	101	80-120	3	20
Cadmium	50.00	49.71	99	80-120	3	20
Chromium	50.00	49.57	99	80-120	3	20
Cobalt	50.00	47.03	94	80-120	3	20
Copper	50.00	46.41	93	80-120	3	20
Lead	50.00	46.24	92	80-120	3	20
Molybdenum	50.00	48.49	97	80-120	3	20
Nickel	50.00	48.02	96	80-120	3	20
Selenium	50.00	47.07	94	80-120	2	20
Silver	50.00	47.68	95	80-120	3	20
Thallium	50.00	47.31	95	80-120	1	20
Vanadium	50.00	51.80	104	80-120	3	20
Zinc	50.00	48.97	98	80-120	4	20

RPD= Relative Percent Difference

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## Batch QC Report

## California Title 22 Metals

Lab #:	269477	Location:	EBB UST Removal
Client:	Cornerstone Earth Group	Prep:	EPA 3050B
Project#:	371-5-3	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	226747
MSS Lab ID:	269393-001	Sampled:	08/26/15
Matrix:	Soil	Received:	08/27/15
Units:	mg/Kg	Prepared:	09/01/15
Basis:	as received	Analyzed:	09/02/15
Diln Fac:	5.000		

Type: MS Lab ID: QC801977

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	3.004	50.00	13.89	22	15-120
Arsenic	3.267	50.00	44.88	83	69-120
Barium	172.2	50.00	220.3	96	35-154
Beryllium	0.7455	50.00	54.36	107	75-120
Cadmium	0.8564	50.00	52.39	103	71-120
Chromium	92.24	50.00	148.9	113	57-133
Cobalt	20.80	50.00	71.33	101	56-125
Copper	25.43	50.00	77.12	103	54-144
Lead	4.079	50.00	51.85	96	53-125
Molybdenum	<0.04565	50.00	39.02	78	66-120
Nickel	169.5	50.00	242.9	147 *	44-141
Selenium	<0.1493	50.00	37.81	76	61-120
Silver	<0.03726	50.00	50.11	100	69-120
Thallium	<0.1312	50.00	47.32	95	59-120
Vanadium	83.39	50.00	144.1	121	52-144
Zinc	48.56	50.00	105.6	114	45-145

Type: MSD Lab ID: QC801978

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Antimony	51.02	13.19	20	15-120	7 41
Arsenic	51.02	43.98	80	69-120	4 35
Barium	51.02	223.9	101	35-154	1 36
Beryllium	51.02	53.88	104	75-120	3 20
Cadmium	51.02	52.54	101	71-120	2 25
Chromium	51.02	153.9	121	57-133	3 33
Cobalt	51.02	67.52	92	56-125	7 36
Copper	51.02	75.91	99	54-144	3 38
Lead	51.02	50.50	91	53-125	5 42
Molybdenum	51.02	38.05	75	66-120	5 20
Nickel	51.02	233.1	125	44-141	5 39
Selenium	51.02	36.96	72	61-120	4 33
Silver	51.02	49.83	98	69-120	3 22
Thallium	51.02	46.33	91	59-120	4 27
Vanadium	51.02	146.4	124	52-144	1 29
Zinc	51.02	103.2	107	45-145	3 39

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

**APPENDIX C – SITE PHOTOGRAPHS**



Photograph 1. Excavation of soil adjacent to the diesel UST.



Photograph 2. Pumping of residual fluid from UST.



Photograph 3. Removal of UST from excavation.



Photograph 4. Placement of UST into bin for off-Site disposal.



Photograph 5. Excavation post UST removal.



## **APPENDIX D – UST HAZARDOUS WASTE DISPOSAL MANIFEST AND SOIL DISPOSAL TICKET**

GENERATOR	UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number C A C 0 0 2 8 2 1 8 3 0	2. Page 1 of 1	3. Emergency Response Phone 1-800-424-9300	4. Manifest Tracking Number <b>014447655 JJK</b>	
	5. Generator's Name and Mailing Address East Bay Bridge Retail, LLC 356 Santana Row #1005 San Jose CA 95128 Generator's Phone: 408 551-2248	Att: Pete Timmerman	Generator's Site Address (if different than mailing address) East Bay Bridge Retail, LLC 3839 Emery Street Emeryville CA 94608			
6. Transporter 1 Company Name Environmental Logistics, Inc.				U.S. EPA ID Number <b>C A R 0 0 0 2 1 7 5 1 3</b>		
7. Transporter 2 Company Name				U.S. EPA ID Number		
8. Designated Facility Name and Site Address Ecology Control Industries 255 Parr Blvd. Richmond CA 94801 Facility's Phone: 310 354-9999				U.S. EPA ID Number <b>C A D 0 0 9 4 6 6 3 9 2</b>		
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))  <b>1 Non-RCRA Hazardous Waste Solid (Empty Tank)</b>	10. Containers No.      Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		1 CM	1500	P	512	
2.						
3.						
4.						
14. Special Handling Instructions and Additional Information <i>ECI took 5274/957</i>	1) Empty Tank -	WO#44773-N <i>Tank #34674</i>				
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator/Offeror's Printed/Typed Name <i>David Sullivan</i>	Signature <i>D. Sullivan</i>	Month   Day   Year 19 11 15				
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit:					
Transporter signature (for exports only):	Date leaving U.S.:					
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <i>JERRY MINGUS</i>	Signature <i>Jerry Mingus</i>	Month   Day   Year 19 11 15				
Transporter 2 Printed/Typed Name	Signature	Month   Day   Year				
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number:						
18b. Alternate Facility (or Generator)						U.S. EPA ID Number
Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)						Month   Day   Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. <i>H129</i>	2.	3.	4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a						
Printed/Typed Name <i>Shon Spence</i>	Signature <i>Shon Spence</i>	Month   Day   Year 19 11 15				



WEIGHMASTER-Altamont Landfill & RRF  
10840 Altamont Pass Road  
Livermore, CA, 94551  
Ph: (925) 455-7300

Original  
Ticket# 1092559

Customer Name ABERLECONCRETEEXCAVATING ABER Carrier GEN Altamont Generic  
Ticket Date 09/04/2015 Vehicle# 7m49669  
Payment Type Credit Account Container  
Manual Ticket# B&B TRKNG 10  
Billing # 0388777 License#

Manifest wam  
PO  
Profile 621452CA (HYDRONCARBON IMPACTED SOIL)  
Generator 164-EASTBAYBRIDGECENTER EAST BAY BRIDGE CENTER (3839 EMERY ST)

Time	Scale	Deputy Weighmaster	Inbound	Gross	lb
In 09/04/2015 13:45:50	Scale 3	J Schaeuffler		Tare	32400 lb
Out 09/04/2015 13:45:50		J Schaeuffler		Net	33960 lb
				Tons	16.98

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 O2 Cover RBC-Tons- 100		16.98	Tons				Emeryville
2 RCR-P-Regulatory C 100			%				Emeryville
3 FUEL-Fuel Surcharg 100			%				Emeryville
4 EVF-L-Standard Env 100		1	Load				Emeryville

DRIVER:

Total Tax

Total Ticket

### WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

